

Appendix A

Air Quality/Health Risk Assessment (HRA)

This page intentionally left blank.

Appendix A-1

Air Emissions Estimated for the Port of Long Beach Middle
Harbor Redevelopment Project

This page intentionally left blank.

Appendix A-1

Air Emissions Estimated for the Port of Long Beach Middle Harbor Redevelopment Project

1.0 INTRODUCTION

This appendix describes the methods and assumptions used to estimate air pollutant emissions generated from construction and operation of the Port of Long Beach (Port or POLB) Middle Harbor Redevelopment Project.

This appendix includes descriptions of the assumptions used in the emission calculations; descriptions of the construction and operations emission scenarios analyzed; the methodologies used to develop the emission calculations for construction and operations of the Project; and the detailed emission calculation tables that are included in the attachments at the end of this appendix. The emissions data are separated into construction and operational activities, and further divided into criteria pollutants and greenhouse gases (GHG). The following attachments to Appendix A-1 include the emission calculations data for each Project scenario and activity:

1. Attachment A.1.1 – Construction Emission Calculation Tables.
2. Attachment A.1.2 - Operations Emission Calculation Tables.
3. Attachment A.1.3 - Operations GHG Emission Calculation Tables.

Each subsection in the above attachments includes a table of contents that lists the title of each table presented in the document.

Summary of Revisions to the DEIS/DEIR Air Quality Analyses

Subsequent to the release of the Project Draft EIS/EIR in May 2008, several new assumptions became available that were used to prepare an updated air quality analysis for the FEIS/REIR. The following summarizes these new revisions and the affects they had on the results of the air quality analyses presented in the DEIS/DEIR.

Construction Impacts

Construction Tug Boats

1. **Mitigation measure AQ-3** requires all tug boats used in construction to meet the EPA Tier 2 marine engine standards, and if

feasible use construction tugs that meet the EPA Tier 3 marine engine standards. The DEIS/DEIR air quality analysis did not take credit for the emission reductions associated with this measure. Rather, for the unmitigated scenario, it simulated the turnover of the South Coast Air Basin (SCAB) tugboat fleet due to the implementation of the ARB Commercial Harbor Craft Regulation. This regulation assumes that with time, the POLB harbor craft fleet would turn over to engines that meet EPA Tiers 2 through 4 standards. The composite emission factors developed by the ARB for use in the regulation show that emissions from the average SCAB harbor craft fleet would decrease during each year of Project construction. The air quality analyses in this FEIS/FEIR did not change from this approach. However, the Project conformity determination presented in Appendix A-4 (see below) did simulate **Mitigation Measure AQ-3** by implementing Tier 2 standards on construction tug boats at the inception of construction until the SCAB average composite fleet factors dropped to below these emission levels. This would occur by year 2013 (See the tug boat emission factors in Appendix A-4 Table A.1.4-Alt 1-135).

Operational Impacts

Ocean-going Vessels (OGVs)

1. Project OGVs would comply with the ARB Fuel Sulfur Regulation for OGVs under the following scenarios:
 - Unmitigated Project scenarios – All OGV sources would use 1.5 percent sulfur fuel in year 2010 and 0.1 percent sulfur starting in year 2012 and thereafter. The unmitigated scenarios in the Draft EIS/EIR assumed the use of 0.2 percent sulfur fuel in all Project years.
 - Mitigated Project scenarios - All OGV sources would use 0.1 percent sulfur fuel in year 2012 and thereafter. Prior to 2012, OGVs would comply with **Mitigation Measure AQ-6**, which requires use of 0.2 percent sulfur diesel.

2. Updated ARB emission factors for diesel fuel used in the technical analyses were adopted that support the above regulation (ARB 2008). This revision produced nominal changes to the OGV emission estimations.
3. Effects on analyses – Revisions to the annual average and peak daily unmitigated and mitigated emissions and the unmitigated and mitigated health risk assessment (HRA). The criteria pollutant modeling analysis was not revised, as these changes would have almost no effect on the mitigated 2010 peak emissions scenario evaluated under Impact AQ-4 and therefore the impact findings in the FEIS/FEIR.

Locomotives

1. EPA Locomotive Emission Standards – Based upon EPA's assumptions for remanufacturing locomotives, line haul and switch locomotives that would serve the Project rail yard, the FEIS/EIS assumed that transport locomotives would achieve the equivalent of Tier 3 standards beginning in 2025. Effects on analyses – Revisions to the annual average and peak daily unmitigated and mitigated emissions and unmitigated and mitigated HRA. The criteria pollutant modeling analysis was not revised, as these changes would not take effect until 2025, which is after the year 2010 (peak year) scenarios evaluated under Impact AQ-4.

On-Road Vehicles – Criteria Pollutants

1. Criteria pollutant emissions from off-terminal operational truck and auto activity emissions – Erroneous vehicle miles traveled (VMT) data for the DEIS/EIR analysis was used in the emission calculations for off-terminal operational truck and auto activity emissions in the Draft EIS/EIR. These errors have been corrected in the FEIS/FEIR.
2. Effects on analyses - Revisions to the annual average and peak daily emissions for each Project scenario. The corrected analyses show that the daily vehicle emissions for the CEQA Baseline decreased slightly and the future Project scenarios increased by approximately 100

percent in 2010 and by substantially lower amounts in post-2010 compared to those presented in the DEIS/DEIR. These revisions in VMT did not affect the Project criteria dispersion modeling analyses or HRA, as those analyses used separate and correct hourly and annual vehicular data sets.

On-Road Vehicles – Greenhouse Gases (GHGs)

1. Due to a lack of specific information, the DEIS/DEIR assumed that each truck trip generated by the Project terminal would travel a distance equal to the average of a local trip length and the trip distance between the POLB and the California/Arizona border (POLA and USACE 2007). Subsequent to the DEIS/DEIR, new traffic analyses have more accurately identified the amount of POLB-generated truck trips that enter/leave the SCAB and their associated origins/destinations.
2. Effects on analyses – Revisions to annual GHG emissions for all future Project scenarios. The revisions resulted in substantial reductions in truck VMT for future Project scenarios within the California analysis region. The corrected analyses show that the annual GHG emissions from trucks decreased substantially for all future Project scenarios compared to those presented in the DEIS/DEIR. For the reasons mentioned above under criteria pollutants, use of revised VMT data for commuter vehicles resulted in a reduction in GHG emissions for these sources for the CEQA Baseline compared to those presented in the DEIS/DEIR.

Evaluation of New Mitigation Measures

1. The FEIS/FEIR includes 16 new mitigation measures in addition to those proposed in the DEIS/DEIR (see Section 3.2.4).
2. Effects on analyses – The emission reductions due to implementation of **Mitigation Measure AQ-7a**, High Efficiency Rail Mounted Gantry (RMG) Cranes, in year 2020, were quantified for mitigated annual average and peak daily emissions, annual mitigated GHG emissions, and the mitigated HRA analyses.

New Analyses not Included in DEIS/DEIR

1. Peak Day Emissions of Combined Operational and Construction Activities – At the request of the SCAQMD, the FEIS/FEIR includes an analysis of the peak daily emissions associated with overlapping operational and mitigated construction activities that would occur from each Project Alternative between years 2009 and 2019. This analysis also verified that 2010 is the year that the Project would produce the highest operational emissions and therefore ambient impacts evaluated in Impact AQ-4. The results of these analyses are presented in the response to comment SCAQMD-2 in Chapter 10.
2. New Peak Day Emission Scenarios for CEQA and NEPA Baselines – In support of the peak day emissions analyses, the annual average daily scenarios for the CEQA and NEPA Baselines used in the Draft EIS/EIR to evaluate proposed peak daily emissions were replaced with peak day emissions scenarios. This new approach was taken, as it was deemed as a more representative evaluation to compare peak baseline to peak future conditions.
3. World-wide GHG Emission Calculations – At the request of the California Department of Justice (DOJ), the Final EIS/EIR estimates annual GHG emissions from each Project scenario that would occur from the transport of cargo between the Middle Harbor terminal and its first point of rest, regardless of whether this point is within or outside California. Assumptions used in the analysis and a summary of these emission estimates are included in the response to comment DOJ-4 in Chapter 10.
4. Black Carbon – Section 3.2.1.2 describes the potential effects of climate change from black carbon. The analysis of Impact AQ-8 also evaluates the effects of Project emissions of black carbon and DPM on climate change.
5. Draft Conformity Determination – FEIS/FEIR Appendix A-4 contains the conformity applicability analysis and conformity determination for the in-water construction activities that fall under the

USACE jurisdiction in Alternatives 1 and 2. These analyses show that proposed emissions would conform to the most recent federally-approved State Implementation Plan (SIP), as required under EPA's General Conformity Regulation (40 CFR Part 93 Subpart B) and SCAQMD Rule 1901.

Table 3.2-60 at the end of Section 3.2 provides a comparison between the mitigated annual average daily and peak daily emissions proposed in the DEIS/DEIR and FEIS/FEIR and the differences in significance determinations that were identified between the DEIS/DEIR and FEIS/FEIR analyses. These revisions did not result in any new significant impacts that were not already identified in the DEIS/DEIR, and in a few cases, they resulted in elimination of significant impacts for peak daily emissions compared to the NEPA Baseline.

1.1 EMISSION CALCULATION METHODOLOGIES

Air pollutant emissions from proposed construction and operational activities were calculated using the most current emission factors and methods, then compared to the thresholds identified in EIS/EIR Section 3.2.2.1 to determine their significance. For impacts that exceed a significance criterion, mitigation measures were applied to Project activities to determine their ability to reduce impacts to less than significant.

1.1.1 Criteria Pollutants

Construction Emissions

Project construction activities would require the use of diesel-powered off-road construction equipment, on-road trucks, tugboats, and dredge/barge equipment that would produce combustible emissions in the form of volatile organic compounds (VOC), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur oxides (SO_x), and particulate matter (PM). Main engines on dredging equipment would be electrified (minor auxiliary equipment on dredging barges would be diesel-powered). Equipment and vehicles traveling over unpaved surfaces and performing grading or earthmoving also would generate fugitive dust emissions in the form of PM.

Equipment usage and scheduling data needed to calculate emissions for proposed construction activities were obtained from the Port (POLB 2007). Emission factors used to estimate existing operational emissions were obtained from (1) the

ARB OFFROAD2007 Emissions Model (ARB 2006a) for off-road equipment; (2) the ARB EMFAC2007 model for on-road trucks (ARB 2006b); and (3) special studies conducted by the EPA for fugitive dust (EPA 1995). Attachment A.1.1 includes data and assumptions used to estimate emissions from construction activities for the Project alternative scenarios.

Operational Emissions

Future operation of the Middle Harbor container terminal would include the same types of emission sources as current operations, except that it would exclude break-bulk operations and it would include the expanded Pier F intermodal rail yard. Information on future operational emission sources was obtained from the POLB, the proposed Project traffic study conducted as part of this EIS/EIR (Section 3.5), the *Port of Long Beach Air Emissions Inventory – 2005 (AEI)* (Starcrest Consulting Group, LLC 2007a), and documents on the environmental review of proposed terminal development projects in the ports (POLA and USACE 2007). Emission factors used to estimate future operational emissions were obtained from: (1) the ARB for OGV operations (ARB 2008), (2) the ARB OFFROAD2007 Emissions Model (ARB 2006a) for terminal and railyard equipment; (3) the *AEI* for vessel sources; (4) special studies for locomotives (EPA 1997 and 2008); and (5) the ARB EMFAC2007 mobile source emissions model for on-road trucks (ARB 2006b).

Emissions were estimated for future milestones that coincide with proposed activities in years 2010, 2015, 2020, and 2030. For each Project alternative, the analysis made the following comparisons to assess operational air quality impacts for CEQA and NEPA assessments:

- Project Alternatives emissions for each development year minus existing terminal emissions in year 2005 were compared to the SCAQMD emission thresholds to determine significance under CEQA; and
- Project Alternatives emissions for each development year minus the NEPA Baseline emissions for the same year were compared to SCAQMD emission thresholds to determine significance under NEPA.

1.1.2 Greenhouse Gases

Gases that trap heat in the atmosphere are known as GHG. GHG are emitted by natural processes and human activities. Examples of GHG that are produced both by natural processes and industry

include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).

The GHG Protocol Initiative of the World Resources Institute (WRI) identifies six GHG generated by human activity that are believed to be contributors to global warming (WRI and WBCSD 2007). These same GHG are identified in Assembly Bill (AB) 32 and by the EPA: (1) CO₂; (2) CH₄; (3) N₂O; (4) hydrofluorocarbons (HFCs); (5) Perfluorocarbons (PFC); and (6) sulfur hexafluoride (SF₆).

As shown in Table A-1-1, GHG have varying amounts of global warming potential (GWP). The GWP is the ability of a gas or aerosol to trap heat in the atmosphere. By convention, CO₂ is assigned a GWP of one. In comparison, CH₄ has a GWP of 21, which means that it has a global warming effect 21 times greater than CO₂ on an equal-mass basis. To account for their GWP, GHG emissions are often reported as a CO₂ equivalent (CO₂e). The CO₂e for a source is calculated by multiplying each GHG emission by its GWP, and adding the results together to produce a single, combined emission rate representing all GHG.

Greenhouse Gas	GWP (SAR, 1996)
CO ₂	1
CH ₄	21
N ₂ O	310
HFC-123	11,700
HFC-125	2,800
HFC-134a	1,300
HFC-143a	3,800
HFC-152a	140
HFC-227ea	2,900
HFC-236fa	6,300
HFC-43-10mee	1,300
CF ₄	6,500
C ₂ F ₆	9,200
C ₃ F ₈	7,000
C ₄ F ₁₀	7,000
C ₅ F ₁₂	7,500
C ₆ F ₁₄	7,400
SF ₆	23,900

Source: U.S. Environmental Protection Agency, U.S. Greenhouse Gas Emissions and Sinks: 1990-2000 (April 2002).

The air quality analysis includes an estimate of direct and indirect GHG emissions that would result from proposed construction and operational activities. Sources that may directly contribute to GHG releases considered in the analysis are identical to those included in the subsection for criteria pollutant impacts. Indirect emissions included in the analysis were from the offsite generation of electricity needed for terminal operations and OGV cold ironing.

GHG emissions associated with the proposed Project and alternatives were calculated based on methodologies provided in the California Climate Action Registry's *General Reporting Protocol*, version 2.2 (CCAR 2007).

The General Reporting Protocol is the guidance document that CCAR members use to prepare annual port-wide GHG inventories for the Registry. Under CCAR's General Reporting Protocol, emissions are divided into three categories:

- Scope 1: Direct emissions from sources - 1 owned or operated by a member;
- Scope 2: Indirect emissions from purchased and consumed electricity; and
- Scope 3: Indirect emissions from sources not owned or operated by a member.

CCAR requires the reporting of Scope 1 and Scope 2 emissions but not Scope 3 emissions because they are considered to belong to another reporting (i.e., whomever owns, leases, or operates the sources), and that entity would report these emissions as Scope 1 emissions in its own inventory. However, for the Project NEPA/CEQA analyses, a modification to the Protocol's operational and geographical boundaries was necessary. For example, the operational and geographical were determined differently from the General Reporting Protocol to make the GHG analysis more consistent with CEQA and to avoid the omission of a significant number of mobile sources.

This NEPA/CEQA analysis calculated GHG emissions for all Project-related sources (Scopes 1, 2, and 3). Since CCAR does not require reporting of Scope 3 emissions, they have not developed assumptions for operational or geographical boundaries of some Scope 3 emissions sources, such as ships. Therefore, for Project sources that travel outside of California (ships, line haul locomotives, and some trucks), GHG emissions were based on the following route lengths:

1. For on-road trucks, average distances traveled (a) within the SCAB and (b) between the SCAB and the California border. A recent traffic study determined that the average distance for truck trips that originate/are destined to POLB container terminals between the SCAB and the California border is 111 miles. Additionally, approximately seven percent of the total truck trips generated by POLB container terminals leave California (Starcrest Consulting Group 2009).

2. For line haul trains, transit is between the Project terminal railyard and the eastern border of California; and
3. For OGVs, ocean transit along a shipping route between the Port and the State Water's three-mile jurisdictional boundary west of Point Conception, or 157 nautical miles (nm). The analysis assumed that all Project ships would follow this "northern route." The northern route represents the longest distance that container ships would travel to and from the Port while in State Waters.

For the consumption of electricity generated offsite, all GHG emissions were included in the analysis independent of whether they were generated within or outside of California, since in part, it was not possible to determine the exact source and location of power generation.

This approach is consistent with the goal of CCAR to report all GHG emissions within the State of California (CCAR 2007). Additionally, use of the California boundary to delineate the domain for the estimation of Project GHG emissions is adequate to provide an indicator of the magnitude of proposed GHG emissions.

In their review of the Draft EIS/EIR, the California Department of Justice (DOJ) provided public comments stating that the Draft EIS/EIR did not disclose the full extent of proposed GHG emissions because it did not include certain mobile source emissions that would occur outside of California, such as ship emissions in waters outside of the United States. While the Port and USACE disagree with this comment, this Final EIS/EIR provides an additional analysis that includes a best estimate of GHG emissions that would occur from the global transport of proposed cargo. Assumptions used in this analysis include the following:

1. OGV route length = 7,224/3,926 nm for arrivals/departures, or an average of 5,575 nm. These data are based on container ship calls to the POLB Middle Harbor terminal in year 2007. Distance within California = 10.5nm (Precautionary Area) + 157.5nm (Precautionary Area to 3nm beyond Point Conception) = 168 nm, so the out of California distance = 5,407 nm.
2. Train route length = year 2007 weighted average distances of UP and BNSF trains to/from POLB, or 1,687 miles (Starcrest

Consulting Group 2009). Distance from POLB to Arizona = 252 miles, so the out of California distance = 1,435 miles.

- Truck route length beyond the SCAB = 222/224 in/outbound miles, or an average of 223 miles per trip (Starcrest Consulting Group 2009). Truck route length within the SCAB ranged from 27 to 33 miles depending on the Project year and scenario.

Black Carbon has recently been implicated as a contributor to global warming, because it absorbs heat while airborne in the atmosphere (House of Representatives, 2007). Black carbon is emitted from a range of naturally occurring events and human activities, including wildfires, diesel engines, and domestic biofuel burning. Emission studies suggest that approximately one-third of black carbon emissions come from biomass burning sources such as waste combustion and wood-fired stoves, and the remainder come from fossil fuel burning sources such as diesel engines (House of Representatives 2007).

Black carbon is a component of DPM, and therefore is released into the atmosphere as a component of diesel engines emissions. Although black carbon emissions are not addressed directly in this Final EIS/EIR, they are addressed indirectly through the detailed analysis of DPM emissions, which are the focus of the Project criteria pollutant emission calculations described in this appendix.

Construction

The Project construction sources for which GHG emissions were calculated are the same as those analyzed for criteria pollutants, and include: (1) off-road diesel construction equipment; (2) on-road trucks; (3) tug boats and barge equipment used in dredge/fill and wharf construction activities; and (4) worker commute vehicles. The following data and assumptions were used to estimate GHG emissions for proposed construction activities.

For (1) off-road diesel construction equipment and (3) tug boats and barge equipment used in dredge/fill and wharf construction activities, emission factors for CO₂ were provided directly by the OFFROAD2007 emission factor program in units of grams per horsepower-hour (g/hp-hr). Emission factors from the California Climate Action Registry's *General Reporting Protocol* (GRP) were used for CH₄ and N₂O. Originally in units of kilograms of GHG per gallon of fuel

(kg/gal), the CH₄ and N₂O emission factors were converted to units of g/hp-hr to simplify the emission calculations. This conversion used default values of brake-specific fuel consumption (BSFC) by equipment horsepower category from OFFROAD2007 and a fuel density value from the GRP. The emission factor conversion from kg/gal to g/hp-hr is provided in Attachment A.1.2.

For (2) on-road trucks, CO₂ emission factors in units of grams per mile (g/mi) were obtained directly from the EMFAC2007 emission factor program. Emission factors from the GRP (g/mi) were used for CH₄ and N₂O.

For (4) worker commute vehicles, emission factors from the GRP were used for all GHG. The CO₂ emission factor, originally in units of kg/gal, was converted to units of g/mi by using average fuel economy data by model year category from the U.S. Department of Transportation, *Summary of Fuel Economy Performance* (October 2006). The CH₄ and N₂O emission factors were originally in units of g/mi. Finally, the CO₂, CH₄, and N₂O emission factors (g/mi), which vary according to model year category, were combined into single fleet-average emission factors using EMFAC2007 default fleet mix data for the South Coast Air Basin (SCAB).

Construction GHG emissions are provided in Attachment A.1.1 of Appendix A-1 in the following locations:

- Alternative 1 - Tables A-1.1-Alt1-159 to -241.
- Alternative 2 - Tables A-1.1-Alt2-143 to -278.
- Alternative 3 (NEPA Baseline) - Tables A-1.1.3-Alt3-42 to -79.

Operations

The Project operational emission sources for which GHG emissions were calculated are the same as those analyzed for criteria pollutants and include (1) OGV; (2) tugboats; (3) terminal equipment; (4) railyard equipment; (5) on-road trucks; (6) trains; (7) fugitive refrigerant emissions from refrigerated containers; (8) electricity consumption from cold-ironing; (9) on-terminal electricity consumption; and (10) worker commute vehicles. The following data and assumptions were used to estimate GHG emissions for proposed operational activities.

For (1) OGV, (2) tugboats, (3) terminal equipment, and (4) railyard equipment, emission factors for CO₂ were obtained from the OFFROAD2007 emission factor program in units of g/hp-hr. Emission factors from the GRP were used for CH₄ and N₂O. Originally, in units of kg/gal, the CH₄ and N₂O emission factors were converted to units of g/hp-hr to simplify the emission calculations. This conversion used default values of BSFC by equipment horsepower category, from OFFROAD2007, and a fuel density value from the GRP. The emission factor conversion from kg/gal to g/hp-hr is provided in Attachment A-1.1.1.

For (5) on-road trucks, the analysis used the same emission factors as those used in the calculation for construction activities.

For (6) trains, emission factors from the GRP (kg/gal) were used for all GHG. Originally in units of kg/gal, these emission factors were converted to units of g/hp-hr to simplify the emission calculations. This conversion used a manufacturer-provided BSFC value and a fuel density value from the GRP.

For (7) fugitive refrigerant emissions from refrigerated containers, losses were calculated using a mass balance approach. The GRP (Table 3.9) recommends using an upper bound annual loss rate of 35 percent for commercial air conditioning systems. The 35 percent annual loss rate is a conservative assumption intended for use in *de minimis* determinations. Actual loss rates are expected to be much lower (roughly two percent per year), as presented in Table 3.9 of the *Guidance to the California Climate Action Registry: General Reporting Protocol* (California Energy Commission June 2002). An average reefer dwell time inside California boundaries was assumed to be three days per one-way trip. This estimate assumes an on-terminal reefer dwell time of two days, and one additional day for transport in and out of the terminal.

For (8) electricity consumption from cold ironing and (9) on-terminal electricity consumptions, emission factors were obtained from the GRP.

For (10) worker commute vehicles the methodology for calculations follows that listed above for construction activities.

Attachment A.1.3.1 presents the calculations of GHG emissions that would occur from the operation of proposed sources within the California domain for each Project scenario. These

calculations are the source of the GHG emissions presented in Section 3.2 of this Final EIS/EIR.

Attachment A.1.3.2 presents the calculations of GHG emissions that would occur from the operation of proposed sources within the Global domain for each Project scenario. These calculations are the source of the GHG emissions presented in the response to comment DOJ-4 in Section 10 of this Final EIS/EIR.

CEQA and NEPA Baselines

For purposes of this EIS/EIR, the same methodologies discussed above were used to calculate GHG emissions that would occur from the operation of the CEQA and NEPA Baselines within the California and Global domains.

1.2 PROPOSED ENVIRONMENTAL CONTROLS FOR CONSTRUCTION AND OPERATIONS

This analysis assumes that each Project scenario operates in compliance with approved and applicable regulations, as identified in Section 3.2.1.3.

Construction

Table A.1-2 identifies the regulations and control measures assumed for the unmitigated Project construction scenarios. Summaries of these emission control measures that were assumed in the analysis include the following:

- **Tug Boats** – The analysis assumes that tug boats used in the unmitigated and mitigated construction scenarios would turn over to EPA Tiers 2 through 4 standards, based upon the composite SCAB harbor craft fleet developed by the ARB for the implementation of the ARB Commercial Harbor Craft Regulation (Starcrest 2008). Therefore, as construction progresses, the average emission factors for tug boats would improve each year. For example, by year 2013/2015, the composite fleet emission factors would reach Tiers 2/3 emission levels (See Appendix A-1 Table A.1.1-Alt 1-42).
- **Construction Equipment** – Construction contractors would use construction equipment that achieve EPA Tier 3 nonroad equivalent standards.

- **Electrification of Dredge Equipment** – With the exception of auxiliary barge equipment, dredge equipment would use shore-side electricity to power dredge equipment during construction.
- **Ultra-Low Sulfur Diesel** – All construction equipment would use diesel fuel with a sulfur content of 15 ppm.

Operations

The unmitigated Project scenarios include CAAP measures that are Port-wide and would occur regardless of terminal lease agreements. In addition, as part of the Port's commitment to promote the POLB Green Port Policy and implement the CAAP, the mitigated operational activities associated with Alternative 1 (345-Acre Alternative), Alternative 2 (315-Acre Alternative), Alternative 3 (Landside Improvements Alternative), and the NEPA Baseline, include all applicable CAAP control measures and additional clean air technologies. Due to this high level of emission control, few feasible mitigation measures are available to further reduce proposed emissions and air quality impacts.

Table A-1-3 identifies the regulations/CAAP measures assumed for each Project operational scenario.

Summaries of the emission control measures that the analysis considered as part of the Project unmitigated operational scenarios include the following:

- **Expanded Vessel Speed Reduction Program (VSRP)** – All OGV that call at the Middle Harbor container terminal would comply with the expanded VSRP of 12 knots from 40 nautical miles (nm), that is from Point Fermin to the Precautionary Area (equal to CAAP measure OGV1). Vessels that called at the Project terminal during the 2005 baseline year achieved a 99 percent compliance rate with the original VSRP that extends out 20 nm from Point Fermin.
- **ARB Fuel Sulfur Regulation for OGV** – OGV would use 1.5 percent sulfur diesel fuel in main engines, auxiliary generators and boilers prior to 2012. Beginning in 2012, these sources would use 0.1 percent sulfur diesel fuel.
- **ARB At-Berth OGV Regulation for Auxiliary Engines** – OGV would control at-

berth emissions from auxiliary generators by 10 percent by 2010, 70 percent by 2017, and 80 percent by 2020.

- **Locomotives** – Consistent with completed CAAP measure RL-1, all switch locomotives that operate within the Project rail yard would have engines that meet EPA Tier 2 standards. Beginning in 2025, both line haul and switch locomotives would achieve EPA Tier 3 equivalent standards, based on EPA-estimated remanufacturing rates and new purchases assumed in this rule development.
- **Heavy-Duty Trucks** – Trucks that call at the Middle Harbor container terminal would comply with the ARB Port Truck Regulation Fleet. This assumption was used to show the benefit of implementing the POLB Clean Truck Program in the mitigated scenarios.

Summaries of the emission control measures that the analysis considered as part of the mitigated scenario for Alternatives 1, 2, and 3 include the following:

Shore-to-Ship Power (“Cold Ironing”) - OGV that call at the Middle Harbor container terminal would utilize shore-to-ship power while at berth (equal to CAAP measure OGV2). The air quality analysis assumed that three new berths with the capacity to cold-iron OGV would become available according to the following Project construction schedule: (1) December 2009, (1) March 2012, and (3) December 2014. As each of these berths become available, they would cold-iron one-third of the total annual ship visits, so by 2015, all Project ship visits would cold-iron. Since lease stipulations would allow for alternative technologies to achieve 90 percent of the emission reductions of cold-ironing, the air quality analysis only assumed this level of control for OGV that cold-iron.

- **Low-sulfur Fuels in OGV** – All OGV would use 0.2 percent or lower sulfur diesel fuel in vessel auxiliary and main engines at berth and out to a distance of 40 nm from Point Fermin, or equivalent reduction (equal to CAAP measures OGV3 and OGV4); Beginning in 2012, all sources would use 0.1 percent sulfur diesel fuel, consistent with the requirements of the ARB Fuel Sulfur Regulation for OGVs.
- **Container Handling Equipment (CHE)** - All CHE would meet the performance standards (equal to CAAP measure CHE1)

as implemented through the adoption of **Mitigation Measure AQ-7** (Container Handling Equipment) as follows:

- By the end of 2010, all yard tractors operating at the Port would meet, at a minimum, the EPA non-road Tier 4 engine standards;
- By the end of 2012, all pre-2007 on-road or pre Tier 4 off-road top picks, forklifts, reach stackers, rubber-tired gantry cranes (RTGs), and straddle carriers less than 750 Hp would meet, at a minimum, the EPA non-road Tier 4 engine standards; and
- By the end of 2014, all CHE with engines greater than 750 Hp would meet, at a minimum, the EPA Tier 4 non-road standards. Starting in 2009 (until equipment is replaced with Tier 4), all CHE with engines greater than 750 Hp would install the cleanest available verified diesel emission control (VDEC), as established by the ARB.
- **Heavy-Duty Trucks** – Trucks that call at the Middle Harbor container terminal would comply with the POLB Clean Truck Program (CTP) (similar to CAAP measure HDV1), which would replace all Port trucks that do not meet the EPA 2007 Heavy-Duty Highway Rule emission standards by 2012.

2.0 DEVELOPMENT OF CONSTRUCTION EMISSION SCENARIOS

Project construction emissions would occur from:

- Off-road construction equipment;
- On-road trucks;
- Derrick barge equipment;
- Tugboats;
- Fugitive dust due to grading and earthmoving activities; and
- Worker commuter vehicles.

Moffatt and Nichol (M&N) provided data on Project construction equipment usage and scheduling and construction employment estimates (M&N 2006 and 2007). The following are assumptions used to calculate Project construction emissions.

Off-Road Construction Equipment

The analysis used emission factors equal to the cleanest of EPA Tier 2 or Tier 3 non-road emission standards to estimate combustive emissions from diesel-powered construction equipment (EPA 2004). For example, since there are no Tier 3 standards for PM, the analysis used Tier 2 standards to estimate emissions. Additionally, since there are no Tier 2 or Tier 3 standards for CO, data obtained from nonroad certification data were used to calculate emissions (EPA 2004). Emission factors for SO_x were based on the use of ultra-low sulfur diesel fuel with a sulfur content of 15 ppm. The analysis used these factors to estimate emissions for all years of Project construction (2009 through 2019).

Mitigation Measure AQ-2 requires that construction equipment shall meet the EPA Tier 4 non-road engine standards, where feasible. The Tier 4 standards become available starting in year 2012. It is possible that for the later years of Project construction the analysis is somewhat conservative and overestimates emissions, since equipment with ultra-clean Tier 4 standards would begin to infiltrate into the regional construction fleet beginning in 2012, as they become available. However, the analysis conservatively did not include any additional emission reductions beyond Tier 3 standards.

On-Road Trucks

The analysis calculated emissions from heavy-duty diesel trucks using the same methods as off-road equipment. This is because the activity data provided for these sources are defined in units of horsepower-hours (Hp-Hrs) and not vehicle miles. The analysis assumed that all Project truck usages during construction would occur onsite.

Tugboats

The analysis calculated emissions from construction-related tug boat assuming that tug boats main and auxiliary engines would turn over to EPA Tiers 2 through 4 standards, based upon the composite SCAB harbor craft fleet emission factors developed by ARB for the implementation of the ARB Commercial Harbor Craft Regulation (Starcrest 2008).. Therefore, as construction progresses, the average emission factors for tug boats would improve each year.

Construction tug boats that home port in the SPBP generally shut down their engines when they return home, as any nominal lighting/ instrumentation requirements are already provided by electrical

shore power. Nevertheless, the Final EIS/EIR has been revised to include new **Mitigation Measure AQ-3a** as suggested in comment SCAQMD-15. **Mitigation Measure AQ-3a** (Construction Tugboat Home Fleeting) will require the construction contractor that uses construction tug boats that home fleet in the San Pedro Bay Ports to (a) shut down their main engines and (b) refrain from using auxiliary engines at dock or to use electrical shore power, if need be.

Dredge/Barge Equipment

The analysis assumed that dredge main engines were electric-powered (i.e., use shore power) and, therefore, would not produce any emissions. Emissions from auxiliary derrick barge equipment were calculated using the same methods as those used for off-road equipment.

Fugitive Dust

Emissions of fugitive dust (PM₁₀ and PM_{2.5}) from earth-moving activities would occur during landfill and backland development activities for the Project. The analysis used emission factors developed in special studies conducted by the EPA to estimate fugitive dust emissions (EPA 1995). This analysis reduced fugitive dust emissions by 75 percent from uncontrolled levels to simulate rigorous watering of the site and the use of other measures needed to comply with SCAQMD Rule 403 (Fugitive Dust).

Fugitive dust emissions from earth-moving activities are proportional to the surface area of disturbed land. To estimate emissions, the analysis assumed that from 50 to 100 percent of the total area of a proposed ground-disturbing activity would be disturbed during a day of construction.

Worker Commuter Vehicles

Commuter Vehicle emissions were calculated using the ARB URBEMIS (version 8.7) emissions model (2002) and were based on peak daily trips of 173 automobiles per day. Total daily emission rates for commuter vehicles were calculated for the various Project years to properly assess improving emission standards and fleet vehicle age mixtures over time.

Construction Mitigation Measures

The calculation of unmitigated fugitive dust emissions from Project earth-moving activities assumes a 75 percent reduction from uncontrolled levels to simulate rigorous watering of the site and

use of other measures (listed below) to ensure Project compliance with SCAQMD Rule 403. To provide a 90 percent reduction of fugitive dust emissions from uncontrolled levels, the Project construction contractor shall develop and implement dust control methods that shall achieve this control level in a SCAQMD Rule 403 dust control plan; and designate personnel to monitor the dust control program and order increased watering, as necessary, to ensure a 90 percent control level (**Mitigation Measure AQ-1**). Their duties shall include holiday and weekend periods when work may not be in progress.

Final EIS/EIR **Mitigation Measure AQ-1** (Section 3.2.2.3) has been revised to include the requested fugitive dust control measures in Comment SCAQMD-13. Additional control measures to reduce fugitive dust would include, but are not limited to, the following:

- Apply approved non-toxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas or replace groundcover in disturbed areas;
- Provide temporary wind fencing around sites being graded or cleared;
- Cover truck loads that haul dirt, sand, or gravel or maintain at least two feet of freeboard in accordance with Section 23114 of the California Vehicle Code;
- Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off tires of vehicles and any equipment leaving the construction site; and
- Suspend all soil disturbance activities when winds exceed 25 mph as instantaneous gusts or when visible dust plumes emanate from the site and stabilize all disturbed areas.
- Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM10 generation;
- Sweep all streets at least once a day using SCAQMD Rule 1186, 1186.1 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water);
- Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces;

- Pave road and road shoulders; and
- Apply water three times daily or as needed to areas where soil is disturbed.

Mitigation Measure AQ-1 only would affect fugitive dust sources and, therefore, reduce emissions of PM₁₀ and PM_{2.5} from construction.

The Final EIS/EIR also includes new **Mitigation Measure AQ-2a** (Best Management Practices (BMPs) for Construction Equipment) that will require the BMPs requested in Comment SCAQMD-14 (Chapter 10). The construction contractor would be required to implement the following BMPs on construction equipment, where feasible, to further reduce emissions from these sources:

- Use of diesel oxidation catalysts and/or catalyzed diesel particulate traps.
- Maintain equipment according to manufacturer specifications.
- Restrict idling of equipment and trucks to a maximum of 5 minutes (per ARB regulation).
- Use of high-pressure fuel injectors on diesel-powered equipment.
- Use of electricity from power poles rather than temporary diesel- or gasoline-powered generators.

Additionally, The Final EIS/EIR includes new **Mitigation Measure AQ-2b** (Construction Traffic Emission Reduction) which requires trucks used for construction prior to 2015 to use engines with the lowest certified NO_x emissions levels, but no greater than the 2007 NO_x emission standards; and in 2015 and beyond to meet USEPA 2010 emission standards. This would reduce air quality impacts from Project construction traffic, with the qualifier that they shall be implemented where feasible. **Mitigation Measure AQ-2b** would require the construction contractor to implement the following measures to further reduce emissions from construction traffic:

- Trucks used for construction (a) prior to 2015 shall use engines certified to no less than 2007 NO_x emissions standards and (b) in 2015 and beyond shall meet USEPA 2010 emission standards.
- Provide temporary traffic control such as flag person, during all phases of construction to maintain smooth traffic flow.

- Schedule construction activities that affect traffic flow on arterial systems to off-peak hour where possible.
- Re-route construction trucks away from congested streets or sensitive receptor areas.
- Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.
- Configure construction parking to minimize traffic interference.
- Improve traffic flow by signal synchronization.
- All vehicle and equipment will be properly tuned and maintained according to manufacturer specification.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

Peak Daily Emissions

The analysis compared peak daily emissions from proposed construction activities to the SCAQMD daily emission thresholds as a conservative approach to determine the significance of proposed construction emissions. The analysis estimated daily emissions from each proposed construction activity for the duration of their proposed calendar schedule. Peak daily construction emissions then were determined by identifying the maximum daily emissions from overlapping construction activities that would occur during the entire 10-year construction calendar schedule. Appendix A-1 Table series Attachment A.1.1.1- summarize the calculation of peak daily construction emissions for each Project scenario.

3.0 DEVELOPMENT OF OPERATIONAL EMISSION SCENARIOS

Existing and Project operational emissions would occur from the following activities:

- 1) **Ships transiting** to and from berth. Ship transit within SCAQMD waters through segments of the fairway transit, precautionary area transit, harbor transit, turning, and docking. Ship emission sources include main propulsion engines, auxiliary engines, and boilers. Appendix A-1 Attachment A.1.2 Tables A.1.2-Alt1U-1 through -7a identify activity data for these sources.

- 2) **Ships hoteling** at berth. Sources of hoteling emissions include ship auxiliary engines and boilers, since the main propulsion engine would not be in operation. When a ship uses cold-ironing while hoteling, only boilers sources are in use. Tables A.1.2-Alt1U-8 and -9b identify activity data for these sources.
- 3) **Tugboats** used to assist container ships between the POLB breakwater and berth (two tugboats assist inbound and one assists during outbound per ship visit). Tugboat emission sources include main propulsion and auxiliary engines. Tables A.1.2-Alt1U-10 and -10a identify activity data for these sources.
- 4) **Terminal and Railyard Equipment**, including yard tractors, RTGs, top picks, side picks, forklifts, and yard sweepers. Tables A.1.2-Alt1U-32 and -41a identify activity data for these sources.
- 5) **Locomotives** switching and idling at the existing/expanded Pier F intermodal railyard and hauling cargo between the railyard and the eastern boundary of the SCAB. Tables A.1.2-Alt1U-30, -30a, and -30c identify activity data for these sources.
- 6) **Truck** emissions from: (a) on-terminal driving and idling; and (b) off-terminal driving between the terminal and the first point of rest within the boundary of the SCAB, as identified in the Project traffic analysis.

The Port, M&N, and Starcrest provided data on sources associated with operations at existing Piers D, E, and F terminals and the proposed Middle Harbor container terminal (M&N 2006 and 2007). Activity levels for years beyond 2025 were held constant at 2025 levels, as estimates of Project throughput projections do not extend beyond this date and it is assumed that after 2025 the terminal would remain at design capacity.

The emission calculations performed in this analysis included currently adopted regulations and agreements and applicable CAAP control measures, as identified in Table A-1-3. The CAAP is designed to substantially reduce DPM emissions and health risks from the operation of Port-related ships, trains, trucks, terminal equipment, and harbor craft. The CAAP proposes to cut DPM emissions from port-related sources by at least 47 percent within the next five years.

Operational Mitigation Measures

The Final EIS/EIR include a new **Mitigation Measure AQ-7a** which proposes the replacement of all Project diesel-powered RTGs with electric-powered RMGs by 2020, or sooner, if feasible. This measure also requires each RMG to include regenerative drive systems. The Final EIS/EIR also includes new **Mitigation Measure AQ-25** (Periodic Technology Review) that requires the terminal tenant in 2015 and every 5 years afterwards, to review new air quality technological advancements for the purpose of implementing new feasible mitigations. Additionally, the Final EIS/EIR includes new **Mitigation Measure AQ-26** (Cargo Throughput Monitoring) that requires the Port to compare actual cargo throughput that occurred at the terminal to the cargo assumptions used to develop the Final EIS/EIR for the years used in this analysis which include 2015, 2020, 2025, and 2030. The Port will also calculate annual air emissions associated with these throughput levels (for OGVs, assist tugs, locomotives, cargo handling equipment, and trucks) and compare them to the annual air emissions presented in the Final EIS/EIR. If actual emissions exceed those presented in the Final EIS/EIR, then new/additional mitigations would be applied through **Mitigation Measure AQ-25**.

Although not quantified in this analysis, **Mitigation Measures AQ-7a, AQ-9 through AQ-11, AQ-25, and AQ-26** would further reduce combustive emissions and their ambient impacts from proposed operations.

Emission Scenarios

Appendix A-1 Attachment A.1.2- table series presents calculations of annual average daily operational emissions for each future Project scenario. These data were compared to the SCAQMD daily emission thresholds to determine their significance.

Appendix A-1 Attachment A.1.2PD- table series presents calculations of peak daily operational emissions for each future Project scenario. The analysis compared peak daily operational emissions to the SCAQMD daily emission thresholds as a conservative approach to determine the significance of Project operational emissions. These data are provided for SCAQMD reporting requirements. The analysis identified the maximum daily emissions that would occur during a hypothetical day of peak shipping and cargo handling activities for each milestone year.

Example assumptions used to estimate peak daily emissions are presented in the following tables.

1. **Ships transiting** to and from berth. Appendix A-1 Attachment A.1.2 Tables A.1.2PD-Alt1U-1 through -8 identify activity data for these sources.
2. **Ships hoteling** at berth. Tables A.1.2PD-Alt1U-9 and -10 identify activity data for these sources.
3. **Tugboats** used to assist container ships between the POLB breakwater and berth (two tugboats assist inbound and one assists during outbound per ship visit). Tables A.1.2PD-Alt1U-11 and -12 identify activity data for these sources.
4. **Terminal and Railyard Equipment**, including yard tractors, RTGs, top picks, side picks, forklifts, and yard sweepers. Tables A.1.2PD-Alt1U-34 and -44 identify activity data for these sources. Table A.1.2PD-Alt1U-45 identifies the peak daily backlands TEU throughput that are used to estimate terminal equipment usage activity data.
5. **Locomotives** switching and idling at the existing/expanded Pier F intermodal railyard and hauling cargo between the railyard and the eastern boundary of the SCAB. Table A.1.2PD-Alt1U-32 identifies activity data for these sources.
6. **Truck** emissions from: (a) on-terminal driving and idling; and (b) off-terminal driving between the terminal and the first point of rest within the boundary of the SCAB. Tables A.1.2PD-Alt1U-43 identifies activity data for these sources.

3.1 CEQA BASELINE

The CEQA Baseline year for air quality is 2005, the year in which the Notice of Preparation (NOP) for the Project was published. As stated in EIS/EIR Section 1.2.2, the CEQA Baseline analysis considers impacts from all changes that would occur by 2025 compared to conditions in December 2005 for both in-water (dredging, filling, wharf construction) and upland Project components (Pier E electrical substation, expanded Pier F intermodal railyard, track realignments and additions, and terminal maintenance and administration facilities). For the CEQA Baseline, activity levels and emissions were held constant at their 2005 values for all years.

The following operational information were collected from various sources to establish the emissions for the CEQA Baseline used in this analysis.

Vessels

The Port provided ship visit data associated with year 2005 operations of existing Piers D, E, and F terminals. These data included: (1) terminal location; (2) trip type (direct visit or harbor shift); (3) OGV type and size; (4) main engine power rating (assumed to be maximum rating); (5) auxiliary engine power rating; (6) auxiliary engine hoteling load factor; (7) hoteling duration; and (8) maneuvering time (assumed to be one-way duration within harbor only).

Methods used to estimate emissions from Project OGV relied heavily on those used in the *Port of Long Beach Air Emissions Inventory – 2005 (AEI)* (Starcrest Consulting Group LLC 2007a). Methods and assumptions regarding OGV activities included the following.

1. The analysis estimated round trip emissions for OGV that occurred between the Project terminal and the boundary of the SCAQMD waters, or a round trip distance of about 108 nm. This approach is used to identify all emissions associated with OGV visits that would occur within the Project region of influence and which are attributed directly to the terminal. However, emissions for vessels that shifted from within the Port to the terminal were based on a one-way maneuvering time identified for the shift. Since a shifted OGV visited another marine terminal within the ports, this approach was used to simulate that the Project terminal would be responsible for half of the round trip emissions of a shifted OGV visit.
2. Data used to define OGV main power plant, auxiliary engine, and boiler usages within the fairway and precautionary area were obtained from the Port's 2005 *AEI* and matched to the applicable OGV type/size.
3. OGV transit within the fairway did not include the use of boilers (Starcrest 2007b).
4. Auxiliary engines burned residual fuel at 2.7 percent sulfur within the fairway (Starcrest 2007b). In all other areas and at berth, it was assumed that auxiliary engines burned residual/diesel fuel with 2.7/0.5 percent sulfur for an average of 71/29 percent of the time (2005 AEI page 72).

5. The AEI identifies two modes of operation for OGV harbor transit: (a) transit or maneuvering; and (b) docking. It is important to simulate both modes since, due to low main engine loads of operation, docking is associated with inefficient combustion of fuel and higher emission factors (2005 AEI page 66). Additionally, since docking occurs adjacent to the berths and close to the community, its emissions are important to simulate in the operational dispersion modeling analysis. The Port OGV data identified maneuvering, but not docking durations. Therefore, the analysis assumed that docking durations would amount to 25 percent of the harbor transit duration for each ship visit. This is consistent with assumptions identified in the 2005 AEI (page 68).
6. Three tugs assisted each OGV round trip (two for inbound travel and one for outbound travel). The duration of each tug trip was equal to the OGV maneuvering duration times 1.3, to account for additional time associated with tug travel to and from the berth and standby or idle mode. Tug usage for shifted OGV was assumed equal to 50 percent of the round trip tug usage.

CHE and Railyard Equipment

Year 2005 CHE emissions for the California United Terminals (CUT) and the Long Beach Container Terminal (LBCT) were obtained from the 2005 AEI (Starcrest 2007a). The analysis assumed that data for the LBCT also included emission estimates for railyard equipment that operated in the existing Pier F railyard, even though the emission estimates did not include any CHE activity data. It is important to identify these emissions for purposes of the operational dispersion modeling analysis. Therefore, the analysis estimated emissions from railyard equipment using the following approach:

- Based on the 2005 annual Hp-Hrs estimated for CHE in the LBCT (M&N 2006), the analysis determined the percentage of annual Hp-Hrs attributable to RTGs and yard tractors in the existing Pier F railyard. The analysis then applied this percentage to the total CHE emissions in the LBCT to estimate 2005 railyard equipment emissions.

Trucks

On-terminal truck emission factors in terms of fleet average emissions per million truck trips for year

2005 and all future Project years were obtained from Starcrest (Starcrest 2007a). The analysis multiplied the year 2005 truck trips for the Piers D, E, and F terminals identified in the Project traffic study (Meyer, Mohaddes Associates [MMA] 2007) by the 2005 factors to estimate 2005 on-terminal truck emissions. Starcrest also estimated year 2005 on-terminal truck emissions for the Piers D, E, and F terminals with the use of terminal-specific activity data (Starcrest 2007a). However, since the Project air quality analysis relied on fleet average emission factors per million truck trips to estimate future Project on-terminal truck emissions, this method was chosen to estimate year 2005 emissions, to maintain a consistent approach for future Project years.

Starcrest provided year 2005 off-terminal truck emissions generated by the Piers D, E, and F terminals (Starcrest 2007a). The Project traffic study estimated the vehicle miles traveled and associated speeds for use in the analysis (MMA 2007).

As indicated in Section 1.0 of this Appendix, the Draft EIR/EIS calculations of truck emissions have been revised with corrected VMT data. The corrected analyses show that the daily vehicle emissions for the CEQA Baseline decreased slightly compared to those presented in the Draft EIS/EIR.

Trains

The Port provided the number of train trips generated by the existing Pier F railyard in 2005 (POLB 2007). Modes of operations include: (1) line haul locomotives that transport containers between the Pier F railyard and the eastern boundary of the SCAB; (2) line haul locomotives that perform switching activities within the railyard; and (3) yard locomotives that perform switching activities within the railyard. Starcrest provided engine load factors and durations in mode for these operations (Starcrest 2007a). Locomotive Hp ratings were obtained from 2005 AEI Tables 5.2 and 5.12.

The analysis used line haul and switching locomotives emission factors that the EPA developed for the nationwide locomotive fleet as part of the 1998 locomotive emission standard rule implementation schedule (EPA 1997). The analysis used year 2005 average fleet factors for line haul locomotives. Further, the analysis used 1999 values for switch engines, or the earliest year of available factors, as the 2005 Pacific Harbor Line (PHL) fleet was pre-1973 vintage in 2005 (pre-Tier

0). The analysis assumed that switch locomotive used diesel fuel with a 0.033 percent sulfur content (2005 AEI page 174), although PM emission factors for switch locomotives were not subsequently reduced, due to the antiquated age of the PHL engines. Line-haul locomotives were assumed to use diesel fuel with an average sulfur content of 2,200 ppm in 2005.

Emission Scenarios

Appendix A-1 Attachment A.1.2 Tables A.1.2-CB-1 through -15 and A.1.2-Alt1U-30 through -43 present calculations of annual average daily operational emissions for the CEQA Baseline. These data were compared to annual average daily emissions for future Project scenarios to determine their significance under CEQA.

Appendix A-1 Attachment A.1.2 Tables A.1.2PD-CB-1 through -32 presents calculations of peak daily operational emissions for the CEQA Baseline. These data were compared to peak daily emissions for future Project scenarios to determine their significance under CEQA. The CEQA Baseline annual average daily emissions used in the Draft EIS/EIR to evaluate proposed peak daily emissions were replaced with a peak day emissions scenarios. This new approach is taken, as it is deemed a more representative evaluation to compare peak baseline to peak future conditions.

3.2 NEPA BASELINE

For purposes of this EIS/EIR, the evaluation of significance under NEPA is defined by comparing impacts from the Project and its alternatives to the NEPA Baseline. The NEPA Baseline would include construction of site improvements and operational activities that could occur without issuance of federal permits. Therefore, the NEPA Baseline would not include any in-water activities (e.g., dredging, filling, and/or new wharf construction). Existing wharf infrastructure would not be improved and channel and berth deepening would not occur. However, due to the local and regional demand for higher levels of containerized shipping, the Middle Harbor container terminal would experience market-driven increases in throughput.

The NEPA Baseline includes construction of the Pier E Substation, shore-to-ship infrastructure to cold-iron vessels while at berth, the mainline track realignment at Ocean Boulevard/Harbor Scenic Drive, and the Pier F storage yard and tracks, but the baseline would not include construction of the

Pier F tail track. Due to the limited onsite container terminal acreage, this baseline would include expanding the existing Pier F intermodal railyard to six tracks. EIS/EIR Section 3.2 (Table 3.2-12) provides summaries of estimates of the daily emissions associated with each construction stage/phase under the NEPA Baseline.

Emission Scenarios

Appendix A-1 Attachment A.1.2 Tables A.1.2-Alt3-1 through -33 present calculations of annual average daily operational emissions for the NEPA Baseline. These data were compared to annual average daily emissions for future Project scenarios to determine their significance under NEPA.

Appendix A-1 Attachment A.1.2 Tables A.1.2PD-Alt3-1 through -32 presents calculations of peak daily operational emissions for the NEPA Baseline. These data were compared to peak daily emissions for future Project scenarios to determine their significance under NEPA. The NEPA Baseline annual average daily emissions used in the Draft EIS/EIR to evaluate proposed peak daily emissions were replaced with a peak day emissions scenarios. This new approach is taken, as it is deemed a more representative evaluation to compare peak baseline to peak future conditions.

3.3 COMBINED CONSTRUCTION AND OPERATIONAL EMISSION SCENARIOS

In their review of the Draft EIS/EIR, the SCAQMD provided a public comment (SCAQMD-2) requesting that the Port provide an analysis and identification of overlapping emissions from proposed construction and operational activities. In response to this request, Tables A.1.2.1-1 through -14 provide summaries of peak daily emissions associated with overlapping operational and mitigated construction activities that would occur from each Project Alternative between years 2009 and 2019. SCAQMD has not adopted significance thresholds that apply to the combined construction and operation activities. The Port and the USACOE determined that it was most appropriate to determine the significance of these emissions by comparing them to the SCAQMD daily construction emission thresholds.

Peak daily emissions for each year of construction were obtained from the A.1.1.1- table series, which identify maximum daily emissions from overlapping construction activities that would

occur during the entire 10-year construction calendar schedule. Peak daily emissions for each year of operation were obtained by interpolating between the peak daily emissions for each Project milestone year of 2005, 2010, 2015, and 2020, as found in the A.1.2PD- table series.

4.0 EVALUATION OF ALTERNATIVES

The following provides brief descriptions of each alternative, lists applicable mitigation measures, and identifies the calculation tables corresponding to each alternative in the Attachments section. EIS/EIR Chapter 1 (Table 1.6-1) summarizes the different operational levels associated with each alternative.

4.1 ALTERNATIVE 1- 345-ACRE ALTERNATIVE (THE PROJECT)

Future operation of the Middle Harbor container terminal would include the same types of emission sources as current operations (Section 3.1 of this appendix – CEQA Baseline), except that it would exclude break-bulk operations and would include an expanded (i.e., Pier F) intermodal railyard.

The Project would develop the existing 294-acre terminal site into a modern marine container terminal facility. Project construction would include: (1) dredge and fill operations; (2) creation of 54.6 acres of new land; (3) terminal consolidation, redevelopment, and expansion on areas of existing and newly created land; (4) wharf construction to create three deep water berths with -55 feet Mean Lower Low Water (MLLW) depths; and (5) rail infrastructure improvements/expansion of the existing Pier F intermodal railyard.

The Port would implement environmental controls, including the Port's Green Port Policy and CAAP, to mitigate the future increase in cargo volumes and vessel traffic that would transport these goods to and from the Port.

4.1.1 Criteria Pollutants

Construction

Unmitigated

The activity data, emission factors, and estimates of the unmitigated construction emissions for Alternative 1 are provided in Tables A.1.1-Alt1-1 to A.1.1-Alt1-158. Tables A.1.1.1-Alt1-1 and -2 provide the estimation of peak daily emissions from Alternative 1.

The main source of combustive emissions would be tugboats; which are use to assist in wharf construction, dredging, and dike construction activities. With regard to PM₁₀ and PM_{2.5} emissions, the overwhelming majority of the emissions would occur in the form of fugitive dust.

Mitigated

Implementation of **Mitigation Measure AQ-1**, would substantially reduce fugitive dust emissions from Project earth-moving activities by 90 percent from uncontrolled levels, as discussed in Section 3.2, **Impact AQ-1**. Calculations of mitigated construction emissions are provided in Tables A.1.1-Alt1-84, -99, -116, -119, -122, -137, -150, -155, and -158.

Since the analysis assumes as part of the Project description that all construction off-road equipment would meet Tier 3 standards, no feasible mitigation measures are available to further reduce combustive emissions from proposed sources. Although not evaluated, implementation of **Mitigation Measures AQ-2, AQ-2a, AQ-2b, AQ-3, and AQ-3a** would further reduce emissions of VOC, CO, NO_x, PM₁₀, and PM_{2.5} from proposed construction.

Operations

Unmitigated

The activity data, emission factors, and estimates of the unmitigated annual average daily emissions from the operation of Alternative 1 are provided in Tables A.1.2-Alt1U-1 through -44. CEQA impacts for annual average daily emissions were calculated by subtracting the CEQA Baseline emissions (Section 3.2, Table 3.2-5) from the unmitigated Project operational emissions for each analysis year (Section 3.2, Table 3.2-18).

The main contributors to Project operational emissions in year 2010 (peak year) would include: (1) on-road trucks; (2) terminal equipment; (3) container ships in cruise mode outside the Port breakwater; and (4) vessels at berth in hoteling mode. Over time, vessel and train sources would produce a greater percentage of total Project emissions, as: (1) OGV main power plants currently are not subject to agency-adopted requirements to meet lower emissions standards; (2) the national line haul locomotive fleet simulated with the current 1997 EPA Rule has a slow turnover rate to cleaner standards (although the analysis simulates implementation of recently adopted EPA Tier 3 standards in 2025); and (3) proposed train trips generated by the Project rail

yard would increase by a factor of 14 between 2005 and 2030. Conversely, all other unmitigated Project emission source categories would turn over to future emission standards that would substantially reduce their emissions with time, due to the replacement of old vehicles.

The activity data, emission factors, and estimates of the unmitigated peak daily emissions from the operation of Alternative 1 are provided in Tables A.1.2PD-Alt1U-1 through -49. CEQA impacts for peak daily emissions were calculated by subtracting the peak daily CEQA Baseline emissions (Section 3.2, Table 3.2-6) from the unmitigated peak daily Project operational emissions for each analysis year (Section 3.2, Table 3.2-19). However, the annual average daily emissions are more representative of typical Port conditions, as peak daily conditions occur more infrequently and they are based on more theoretical sets of assumptions.

NEPA impacts were calculated by subtracting the NEPA Baseline emissions (Section 3.2, Table 3.2-13) from the unmitigated Project operational emissions for each analysis year (Section 3.2, Table 3.2-18). The results, which are presented in the "Net Change from NEPA Baseline" rows in Section 3.2, Table 3.2-18.

NEPA impacts for peak daily emissions were calculated by subtracting the annual average daily NEPA Baseline emissions (Section 3.2, Table 3.2-13) from the unmitigated peak daily Project operational emissions for each analysis year in Section 3.2, Table 3.2-19. These results, which are presented in the "Net Change from NEPA Baseline" rows in Section 3.2, Table 3.2-19,

Mitigated

Implementation of **Mitigation Measures AQ-4 through AQ-8** would reduce combustive emissions from operations and they were analyzed in this document, as discussed in Section 3.2.2.3, **Impact AQ-3**. Although not quantified, **Mitigation Measures AQ-9 through AQ-11, AQ-25, and AQ-26** would further reduce uncontrolled combustive emissions from operation of Alternative 1, as discussed in Section 3.2.2.3, **Impact AQ-3**. Calculations of emissions for the operation of the mitigated Alternative 1 are provided in Tables A.1.2-Alt1M-1 through -32.

Calculations of the mitigated peak daily emissions from the operation of Alternative 1 are provided in Tables A.1.2PD-Alt1M-1 through -32.

4.1.2 Greenhouse Gases

Construction

Unmitigated

Tables A.1.1-Alt1-159 to A.1.1-Alt1-241 present the estimation of GHG emissions that would occur from construction of Alternative 1. Sources considered in these emission calculations are the same as those analyzed for criteria pollutants. See additional details regarding construction GHG emission calculations assumptions and methodologies in Appendix A-1, Section 1.1.2.

The analysis did not consider any measures that would reduce GHG emissions from proposed construction.

Operations

Unmitigated

Operational sources considered in these emission calculations are the same as those analyzed for criteria pollutants

Tables A.1.3.1-Alt1U-1 to A.1.4-Alt1U-32 present the estimation of GHG emissions that would occur from the operation of the unmitigated Alternative 1 within the California domain.

Mitigated

Implementation of operational **Mitigation Measures AQ-4 through AQ-11**, which are intended to reduce criteria pollutant emissions, also would reduce GHG emissions. The Port is proposing additional mitigation measures which specifically target sources of GHG Project emissions. These include **Mitigation Measures AQ-12 through AQ-24, AQ-27, and AQ-28**.

The reduction in Project GHG emissions due to the implementation of **Mitigation Measures AQ-5, AQ-7a, AQ-12, and AQ-13** were analyzed. Use of these measures would reduce Alternative 1 emissions of CO₂e by 16 to 18 percent from unmitigated levels, depending on the Project year, as discussed in Section 3.2.2.3, **Impact AQ-8**.

Calculations of GHG emissions from the operation of the mitigated Alternative 1 are provided in Tables A.1.3.1-Alt1M-1 to -33.

As described in Section 3.2.1.2, airborne emissions of black carbon contribute to global warming. Black carbon is a component of DPM emissions generated by the Project. Although, the analysis did not calculate black carbon emissions,

review of the operational emissions tables shows that the mitigated Project would produce lower operational emissions of DPM, and therefore black carbon, in all future years as compared to the CEQA Baseline.

4.2 ALTERNATIVE 2 - 315-ACRE ALTERNATIVE

The 315-Acre Alternative would add 24.7 net acres of newly created land to the existing 294-acre Project site by filling Slip 1 between Piers E and F (Berths E12-E14 and F1-F4). This alternative would include terminal expansion on adjacent areas of existing and newly created land, dredge and fill operations, and new wharf construction. The new 2,900-foot wharf would consist of two deep water berths with -55 feet MLLW depth. Build out under this alternative would include the same rail improvements identified for Alternative 1.

The methodologies used to calculate criteria and GHG emissions for Alternative 2 follow those used for Alternative 1 as described above in Appendix A-1. The control measures which apply to Alternative 2 construction and operational activities are presented in Tables A-1-2 and A-1-3, respectively.

4.2.1 Criteria Pollutants

Construction

Unmitigated

The analysis included a review of the Alternative 2 construction schedule to determine a peak daily period of activity and resulting emissions for comparison to the SCAQMD daily emission thresholds. The activity data, emission factors, and estimates of the unmitigated construction emissions for Alternative 2 are provided in Tables A.1.1-Alt2-1 to A.1.1-Alt2-142. Tables A.1.1.1-Alt2-1 and -2 provide the estimation of peak daily emissions from Alternative 2.

The main source of combustive emissions would occur from tugboats that would be used to assist in wharf construction, dredging, and dike construction activities. With regard to PM₁₀ and PM_{2.5} emissions, the overwhelming majority of the emissions would occur in the form of fugitive dust.

Mitigated

Implementation of **Mitigation Measure AQ-1** would reduce fugitive dust emissions from Alternative 2 earth-moving activities by 90 percent

from uncontrolled levels, as discussed in Section 3.2, **Impact AQ-1**. Calculations of mitigated construction emissions from Alternative 2 are provided in Tables A.1.1-Alt2-83, -98, -115, -118, -121, -132, -139, and -142. Although not evaluated numerically, implementation of **Mitigation Measures AQ-2, AQ-2a, AQ-2b, AQ-3, and AQ-3a** would further reduce emissions from proposed construction.

The main source of emissions after mitigation would continue to be tugboats, which are used to assist in wharf construction, dredging, and dike construction activities.

Operations

Unmitigated

The activity data, emission factors, and estimates of the unmitigated annual average daily emissions from the operation of Alternative 2 are provided in Tables A.1.2-Alt2U-1 through -32.

The activity data, emission factors, and estimates of the unmitigated peak daily emissions from the operation of Alternative 2 are provided in Tables A.1.2PD-Alt2U-1 through -32.

CEQA impacts for annual average daily emissions were calculated by subtracting the CEQA Baseline average emissions (Table 3.2-5) from the unmitigated Alternative 2 operational emissions for each analysis year (Table 3.2-34). These results, which are presented in the "Net Change from 2005 CEQA Baseline" rows in Table 3.2-34.

Mitigated

Implementation of **Mitigation Measures AQ-4 through AQ-8** would reduce uncontrolled combustive emissions from operations of Alternative 2, and they were analyzed in this document, as discussed in Section 3.2.2.4, **Impact AQ-3**. Calculations of annual average daily emissions for the operation of the mitigated Alternative 2 are provided in Tables A.1.2-Alt2M-1 through -32. Additionally, implementation of **Mitigation Measures AQ-9 through AQ-11, AQ-25, and AQ-26** would further reduce combustive operational emissions of Alternative 2, as discussed in Section 3.2.2.4.

Calculations of the mitigated peak daily emissions from the operation of Alternative 2 are provided in Tables A.1.2PD-Alt2M-1 through -32.

Source/Assumption	Unmitigated and Mitigated Project Scenarios		
	Alt 1	Alt 2	Alt 3
Tugboats			
Main and Aux. Engines – ARB Harbor Craft Regulation	X	X	X
Main and Aux. Engines – ULSD	X	X	X
Trucks			
ARB Port Truck Regulation Fleet	X	X	X
Engines – ULSD	X	X	X
Construction Equipment			
Engines – EPA Nonroad Tier 3 Equivalent Standards	X	X	X
Engines – ULSD	X	X	X
Fugitive Dust			
Reduced 75% from Uncontrolled Levels	X ¹	X ¹	X ¹
<i>Notes:</i>			
1. Mitigated scenarios would reduce fugitive dust by 90% from uncontrolled levels.			
<i>Abbreviations:</i> ULSD - ultra low sulfur diesel.			

Source/Assumption	CAAP Measure	Project Scenario ¹							
		Baselines		Unmitigated			Mitigated		
		CEQA	NEPA	Alt 1	Alt 2	Alt 4	Alt 1	Alt 2	Alt 3
OGV									
Vessel Speed Reduction Program	OGV1		X	X	X	X	X	X	X
Main Engines - 2.7% S RFO		X							
Main Engines - 0.2% S RFO	OGV4		X				X	X	X
Aux. Engines - 71/29% RFO/MGO @ 2.7/0.5% S		X							
Aux. Engines - 0.2% S MGO	OGV3		X				X	X	X
Aux. Engines - Cold-ironed - 90% Control	OGV2		X				X	X	X
Aux. Engines - ARB Berthing Regulation			X	X	X	X	X	X	X
All Sources – 1.5/0.1% S Diesel pre-2012/2012 ²				X	X	X			
All Sources – 0.1% S Diesel in 2012 ²			X				X	X	X
Tugboats									
Year 2005 = Baseline Fleet		X							
ARB Harbor Craft Regulation	HC1		X	X	X	X	X	X	X
Main/Aux. Engines - 0.19% S Diesel		X							
Main/Aux. Engines – ULSD			X	X	X	X	X	X	X
Locomotives									
Switch Locomotives = 2005 Baseline Fleet		X							
Switch Locomotives = Tier 2 + DOCs	RL1		X	X	X	X	X	X	X
Switch Locomotives = 0.035% S Diesel		X							
Switch Locomotives = ULSD			X	X	X	X	X	X	X
Line Haul Locomotives = National Fleet		X	X	X	X	X	X	X	X
Line Haul/Switch Locomotives = Tier 3 in 2025			X	X	X	X	X	X	X
Line Haul Locomotives = 0.22% S Diesel		X							
Line Haul Locomotives = ULSD Year 2012			X	X	X	X	X	X	X
Trucks									
Port 2005 Baseline Fleet		X							
ARB Port Truck Regulation Fleet			X	X	X	X	X	X	X
Clean Truck Program Fleet	HDV1		X				X	X	X
0.035% S Diesel		X							
ULSD			X	X	X	X	X	X	X
Terminal/Rail yard Equipment									
Year 2005 = Baseline Fleet		X							
ARB CHE Regulation Only Fleet				X	X	X			
ARB CHE Regulation + CAAP CHE1 Fleet	CHE1		X				X	X	X
0.035% S Diesel		X							
ULSD			X	X	X	X	X	X	X
<i>Notes:</i>									
1. All project scenarios begin in 2010, except the CEQA Baseline is fixed at year 2005 emission levels.									
2. In compliance with the ARB Fuel Sulfur Regulation for OGVs.									
<i>Abbreviations:</i> S – sulfur; RFO - residual fuel oil; MGO - marine gas oil; ULSD - ultra low sulfur diesel; DOCs - diesel oxidation catalysts; CHE - cargo handling equipment.									

4.2.2 Greenhouse Gases

Construction

Unmitigated

Tables A.1.1-Alt2-143 to A.1.1-Alt2-278 present the estimation of GHG emissions that would occur from construction of Alternative 2. Sources considered in these emission calculations are the same as those analyzed for criteria pollutants. The analysis did not consider any measures that would reduce GHG emissions from proposed construction.

Operations

Unmitigated

Operational sources considered in these emission calculations are the same as those analyzed for criteria pollutants.

Tables A.1.3.1-Alt2U-1 to -33 present the estimation of GHG emissions that would occur from the operation of Alternative 2 within the California domain.

Mitigated

Implementation of **Mitigation Measures AQ-4 through AQ-8** would reduce uncontrolled emissions of GHG from the operation of Alternative 2 for all project years, as discussed in Section 3.2.2.4, **Impact AQ-8**.

The reduction in Alternative 2 GHG emissions due to the implementation of **Mitigation Measures AQ-5, AQ-7a, AQ-12, and AQ-13** was analyzed. Use of these measures would reduce Alternative 2 emissions of CO₂e emissions from unmitigated levels, as discussed in Section 3.2.2.4, **Impact AQ-8**.

Calculations of GHG emissions from the operation of the mitigated Alternative 2 are provided in Tables A.1.3.1-Alt2M-1 to -33.

As described in Section 3.2.1.2, airborne emissions of black carbon contribute to global warming. Black carbon is a component of DPM emissions generated by Alternative 2. Review of the operational emissions tables shows that the mitigated Alternative 2 would produce lower operational emissions of DPM, and therefore black carbon, in all future years as compared to the CEQA Baseline.

4.3 ALTERNATIVE 3 - LANDSIDE IMPROVEMENTS ALTERNATIVE

Alternative 3 would redevelop existing terminal areas on Piers E and F and convert underutilized land north of the Gerald Desmond Bridge and Ocean Boulevard within the Project site to a container yard. Alternative 3 also would include the same rail improvements identified for Alternatives 1 and 2, except that it would only expand the existing Pier F intermodal railyard to 25 acres, rather than 47 acres.

Alternative 3 is equivalent to the NEPA Baseline because it only includes construction and operational activities that would not require issuance of federal permits.

The methodologies used to calculate criteria and GHG emissions for Alternative 3 follow those used for Alternative 1 as described above in Appendix A-1. The control measures which apply to Alternative 3 construction and operational activities are presented in Tables A-1-2 and A-1-3, respectively.

4.3.1 Criteria Pollutants

Construction

Unmitigated

The analysis included a review of the Alternative 3 construction schedule to determine a peak daily period of activity and resulting emissions for comparison to the SCAQMD daily emission thresholds. The activity data, emission factors, and estimates of the unmitigated construction emissions for Alternative 3 are provided in Tables A.1.1-Alt3-1 to A.1.1-Alt3-41. Tables A.1.1.1-Alt3-1 and -2 provide the estimation of peak daily emissions from Alternative 3.

The main source of combustive emissions would occur from construction equipment associated with the Seaside Rail yard area redevelopment, new container yard construction, and new terminal building construction. With regard to PM₁₀ and PM_{2.5} emissions, the overwhelming majority of the emissions would occur in the form of fugitive dust.

Mitigated

Implementation of **Mitigation Measure AQ-1** would reduce fugitive dust emissions from Alternative 3 earth-moving activities by 90 percent from uncontrolled levels, as discussed in Section 3.2, **Impact AQ-1**. Calculations of mitigated construction emissions from Alternative 3 are

provided in Tables A.1.1-Alt3-21, -24, -27, -30, -33, -38, and -41. Although not evaluated numerically, implementation of **Mitigation Measures AQ-2, AQ-2a, AQ-2b, AQ-3, and AQ-3a** would further reduce emissions from proposed construction.

Operations

Unmitigated

The activity data, emission factors, and estimates of the unmitigated annual average daily emissions from the operation of Alternative 3 are provided in Tables A.1.2-Alt3-1 through -33.

The activity data, emission factors, and estimates of the unmitigated peak daily emissions from the operation of Alternative 3 are provided in Tables A.1.2PD-Alt 3-1 through -32.

CEQA impacts for annual average daily emissions were calculated by subtracting the CEQA Baseline average emissions (Table 3.2-5) from the unmitigated Alternative 3 operational emissions for each analysis year (Table 3.2-48). These results, which are presented in the "Net Change from 2005 CEQA Baseline" rows in Table 3.2-48.

Mitigated

Since the unmitigated Alternative 3 scenario adopts all feasible mitigation measures, including **Mitigation Measures AQ-4 through AQ-8**, the analysis did not estimate mitigated emissions that would occur from the operation of Alternative 3. Although not quantified in this analysis, **Mitigation Measures AQ-9 through AQ-11, AQ-25, and AQ-26** would further reduce combustive emissions from Project operations.

4.3.2 Greenhouse Gases

Construction

Unmitigated

Tables A.1.1-Alt3-42 to A.1.1-Alt3-79 present the estimation of GHG emissions that would occur from construction of Alternative 3. Sources considered in these emission calculations are the same as those analyzed for criteria pollutants.

The analysis did not consider any measures that would reduce GHG emissions from proposed construction.

Operations

Unmitigated

Operational sources considered in these emission calculations are the same as those analyzed for criteria pollutants.

Tables A.1.3.1-Alt3-1 to A.1.3.1-Alt3-33 present the estimation of GHG emissions that would occur from the operation of Alternative 3.

Mitigated

Since the unmitigated Alternative 3 scenario adopts all feasible mitigation measures, including **Mitigation Measures AQ-5, 7a, AQ-12, and AQ-13**, the analysis did not estimate mitigated emissions of GHG that would occur from the operation of Alternative 3. However, implementation of **Mitigation Measures AQ-14 through AQ-28** would further reduce GHG emissions from Alternative 3.

As described in Section 3.2.1.2, airborne emissions of black carbon contribute to global warming. Black carbon is a component of DPM emissions generated by Alternative 3. Review of the operational emissions tables show that the mitigated Alternative 3 would produce lower operational emissions of DPM, and therefore black carbon, in all future years as compared to the CEQA Baseline.

4.4 ALTERNATIVE 4 - NO PROJECT ALTERNATIVE

Alternative 4 would not construct or develop any portion of the existing terminal and it would maintain the current terminal size of 294 acres. However, the terminal would experience future increases in cargo throughputs, compared to existing levels. Operational impacts associated with Alternative 4 would occur from the same types of activities and sources as those defined for the CEQA Baseline.

The methodologies used to calculate criteria and GHG emissions for Alternative 4 follow those used for Alternative 1 as described above in Appendix A-1. The control measures that apply to Alternative 3 operational activities are presented in Table A-1-3.

4.4.1 Criteria Pollutants

Construction

Unmitigated/Mitigated

As no construction would occur from the No Project Alternative, calculations of construction emissions were not conducted.

Operations

Unmitigated

The activity data, emission factors, and estimates of the unmitigated annual average daily emissions from the operation of Alternative 4 are provided in Tables A.1.2-Alt4-1 through -32.

The activity data, emission factors, and estimates of the unmitigated peak daily emissions from the operation of Alternative 4 are provided in Tables A.1.2PD-Alt4-1 through -32.

Mitigated

Since the No Project Alternative is an unmitigated scenario, calculations of mitigated emissions that would occur from the operation of Alternative 4 were not conducted.

4.4.2 Greenhouse Gases

Construction

Mitigated/Unmitigated

As no construction would occur from the No Project Alternative, calculations of construction GHG emissions were not conducted.

Operations

Unmitigated

Operational sources considered in these emission calculations are the same as those analyzed for criteria pollutants.

Tables A.1.4-Alt4U-1 to -33 present the estimation of GHG emissions that would occur from the operation of Alternative 4.

As described in Section 3.2.1.2, airborne emissions of black carbon contribute to global warming. Although not quantified directly, black carbon emissions were indirectly assessed as a component of DPM emissions that would be generated by Alternative 4.

Mitigated

Since the No Project Alternative is an unmitigated scenario, calculations of mitigated GHG emissions that would occur from the operation of Alternative 4 were not conducted.

5.0 REFERENCES

Air Resources Board (ARB). 2006a. ARB OFFROAD Model. Website: <http://www.arb.ca.gov/msei/offroad/offroad.htm>.

_____. 2006b. ARB Mobile Source Emissions Inventory EMFAC2007. Website: <http://www.arb.ca.gov/msei/msei.htm>.

California Climate Action Registry (CCAR), 2007. *California Climate Action Registry General Reporting Protocol*. Version 2.2. March 2007. Website: <http://www.climateregistry.org/docs/PROTOCOLS/GRP%20V2-March2007.pdf>.

Moffatt and Nichol. 2007. Port of Long Beach Terminal Alternative Screening Analysis prepared for Port of Long Beach. April.

_____. 2006. Middle Harbor Container Terminal EIS/EIR Documents Backup, February 16.

Port of Long Beach (Port or POLB). 2007. Middle Harbor EIR Rail Analysis.

POLA and USACE. 2007. *Berths 136-147 Container Terminal Final EIS/EIR*. Appendix D1.

Starcrest Consulting Group, LLC. 2007a. *Port of Long Beach Air Emissions Inventory – 2005*.

_____. 2009. Port of Long Beach - Out-of-Basin Truck Emissions Methodology.

_____. 2007b. Personal communications with Guiselle Aldrete, June 1, 2007.

USEPA. 2004. Regulatory Announcement - Clean Air Nonroad Diesel Rule. EPA420-F-04-032. May 2004.

_____. 1997. *Emission Factors for Locomotives*. Engine Programs and Compliance Division, Ann Arbor, Michigan. December.

_____. 1995. *Compilation of Air Pollutant Emission Factors, AP-42, Volume I*. Section 13.2.3, Heavy Construction Operations. Web site <http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s02-3.pdf>.

World Resources Institute and World Business Council for Sustainable Development (WRI/WBCSD). 2007. GHG Protocol Initiative. Web site: <http://www.ghgprotocol.org/templates/GHG5/layout.asp?type=p&MenuId=ODQ5>. Accessed April 6.

This page intentionally left blank

Appendix A-1 Attachments Emission Calculation Tables

This page intentionally left blank.

Attachment A.1.1

Construction Emission Calculation Tables

This page intentionally left blank.

Construction Criteria Pollutant Emissions Tables

This page intentionally left blank.

Table A.1.1-Alt 1-1. Activity Data - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-2. Activity Data - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-3. Activity Data - Excavation Fronting E24 - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-4. Activity Data - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-5. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-6. Activity Data - Utility Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-7. Activity Data - Paving - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-8. Activity Data - Lighting, Striping, Crane Power - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-9. Activity Data - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-10. Activity Data - Fill within Dike - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-11. Activity Data - Remaining Dike Lifts - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-12. Activity Data - Remaining Fill Lifts - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-13. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-14. Activity Data - Construct South Mooring Dolphin - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-15. Activity Data - Wick Drains - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-16. Activity Data - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-17. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-18. Activity Data - Utility Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-19. Activity Data - Paving - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-20. Activity Data - Lighting, Fence, Striping, Crane Power - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-21. Activity Data - Construct Retaining Structure at Pier D Oil Area - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-22. Activity Data - Excavate & Truck Material in Cell Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-23. Activity Data - Excavate Material Fronting Pier D - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-24. Activity Data - Remove Cellular Sheetpile - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-25. Activity Data - Rock Revetment - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-26. Activity Data - Hydraulic or Clamshell Dredge to -55 ft - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-27. Activity Data - Ground Improvements Pier D - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-28. Activity Data - Demo E12-13 Wharf - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-29. Activity Data - Lift #1 (~ -30) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-30. Activity Data - Lift #2 (~ -15) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-31. Activity Data - Lift #3 (~ 0) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-32. Activity Data - Lift #4 (~ +15) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-33. Activity Data - Initial Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-34. Activity Data - 2nd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-35. Activity Data - 3rd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-36. Activity Data - Utility Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-37. Activity Data - Remove Surcharge - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-38. Activity Data - Container Yard Development - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-39. Activity Data - POLB Ocean Blvd Track Reconfiguration - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-40. Activity Data - Electrical Substation Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-41. Activity Data - Overhead Subtransmission Line Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-42. Air Emission Factors for the POLB Middle Harbor Project Construction Activities.

Table A.1.1-Alt 1-43. Daily Construction Emissions - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-44. Daily Construction Emissions - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-45. Daily Construction Emissions - Excavation Fronting E24 - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-46. Daily Construction Emissions - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-47. Daily Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-48. Daily Construction Emissions - Utility Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-49. Daily Construction Emissions - Paving - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-50. Daily Construction Emissions - Lighting, Striping, Crane Power - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-51. Daily Construction Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-52. Daily Construction Emissions - Fill Within Dike - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-53. Daily Construction Emissions - Remaining Dike Lifts - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-54. Daily Construction Emissions - Remaining Fill Lifts - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-55. Daily Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-56. Daily Construction Emissions - Construct South Mooring Dolphin - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-57. Daily Construction Emissions - Wick Drains - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-58. Daily Construction Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-59. Daily Construction Emissions - Remove Surcharge to Slip 1 Fill Site - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-60. Daily Construction Emissions - Utility Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-61. Daily Construction Emissions - Paving - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-62. Daily Construction Emissions - Lighting, Fence, Striping, Crane Power - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-63. Daily Construction Emissions - Construct Retaining Structure at Pier D Oil Area - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-64. Daily Construction Emissions - Excavate & Truck Material in Cell Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-65. Daily Construction Emissions - Excavate Material Fronting Pier D - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-66. Daily Construction Emissions - Remove Cellular Sheetpile - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-67. Daily Construction Emissions - Rock Revetment - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-68. Daily Construction Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-69. Daily Construction Emissions - Ground Improvements Pier D - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-70. Daily Construction Emissions - Demo - E12-13 Wharf - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-71. Daily Construction Emissions - Lift #1 (~ -30) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-72. Daily Construction Emissions - Lift #2 (~ -15) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-73. Daily Construction Emissions - Lift #3 (~ 0) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-74. Daily Construction Emissions - Lift #4 (~ +15) - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-75. Daily Construction Emissions - Initial Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-76. Daily Construction Emissions - 2nd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-77. Daily Construction Emissions - 3rd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-78. Daily Construction Emissions - 4th Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-79. Daily Construction Emissions - Remove Surcharge - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-80. Daily Construction Emissions - Container Yard Development - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-81. Daily Construction Emissions - POLB Ocean Blvd Track Reconfiguration - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-82. Daily Construction Emissions - Electrical Substation Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-83. Daily Construction Emissions - Overhead Subtransmission Line Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-84. Daily Construction Emissions - POLB Middle Harbor Project - Phase 1 - Stage 1 (1 of 3)

Table A.1.1-Alt 1-84. Daily Construction Emissions - POLB Middle Harbor Project - Phase 1 - Stage 1 (2 of 3)

Table A.1.1-Alt 1-84. Daily Construction Emissions - POLB Middle Harbor Project - Phase 1 - Stage 1 (3 of 3)

Table A.1.1-Alt 1-85. Activity Data - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-86. Activity Data - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-87. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-88. Activity Data - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-89. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-90. Activity Data - CY Development - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-91. Activity Data -Dredge to -55 ft - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-92. Daily Construction Emissions - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-93. Daily Construction Emissions - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-94. Daily Construction Emissions -Excavation Fronting E25 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-95. Daily Construction Emissions - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-96. Daily Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-97. Daily Construction Emissions - DCY Development - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-98. Daily Construction Emissions - Dredge to -55 ft - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-99. Daily Construction Emissions - POLB Middle Harbor Project - Phase 1 - Stage 2

Table A.1.1-Alt 1-100. Activity Data - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-101. Activity Data - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-102. Activity Data - Excavation Fronting E26 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-103. Activity Data - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-104. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-105. Activity Data - Construct E27 Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-106. Activity Data - CY Development - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-107. Activity Data - Hydraulic Dredging to -55ft - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-108. Daily Construction Emissions - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-109. Daily Construction Emissions - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-110. Daily Construction Emissions - Excavation Fronting E26 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-111. Daily Construction Emissions - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-112. Daily Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-113. Daily Construction Emissions - Construct E27 Bulkhead - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-114. Daily Construction Emissions - CY Development - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-115. Daily Construction Emissions - Hydraulic Dredging to -55ft - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-116. Daily Emissions - POLB Middle Harbor Project - Phase 1 - Stage 3

Table A.1.1-Alt 1-117. Activity Data - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-118. Daily Construction Emissions - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-119. Daily Emissions - POLB Middle Harbor Project - Phase 1 - Stage 4

Table A.1.1-Alt 1-120. Activity Data - New Container Yard Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-121. Daily Construction Emissions - New Container Yard Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-122. Daily Emissions - POLB Middle Harbor Project - Phase 1 - Stage 5

Table A.1.1-Alt 1-123. Activity Data - Demolition - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-124. Activity Data - Railyard Construction - POLB Middle Harbor - Alternative 1

Table A.1.1-Alt 1-125. Activity Data - Container Yard Development (F1 - F4) - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-126. Activity Data - Demo Existing F1 -4, F6 Wharf - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-127. Activity Data - Construct East Basain Retaining Dike - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-128. Activity Data -Slip/Basin Fill & Surcharge East- POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-129. Activity Data - Roll Surcharge - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-130. Daily Construction Emissions - Demolition - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-131. Daily Construction Emissions - Railyard Construction - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-132. Daily Construction Emissions - Container Yard Development - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-133. Daily Construction Emissions - Demo Existing F1 - F4, F6 Wharf - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-134. Daily Construction Emissions - Construct East Basin Retaining Dike - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-135. Daily Construction Emissions - Slip/Basin Fill & Surcharge East - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-136. Daily Construction Emissions - Roll Surcharge - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-137. Daily Emissions - POLB Middle Harbor Project - Phase 2 - Stage 1
 Table A.1.1-Alt 1-138. Activity Data - Construction - New Terminal Buildings - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-139. Activity Data - Dredge and Excavate at Quay Wall - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-140. Activity Data - Demo Existing F8-10 Wharf - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-141. Activity Data - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (1 of 2)
 Table A.1.1-Alt 1-141. Activity Data - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (2 of 2)
 Table A.1.1-Alt 1-142. Activity Data - Basin Fill and Surcharge West - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-143. Activity Data - Settlement Period - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-144. Daily Construction Emissions - Construction - New Terminal Buildings - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-145. Daily Construction Emissions - Dredge and Excavate Quay Wall - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-146. Daily Construction Emissions - Demo Existing F8-10 Wharf - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-147. Daily Construction Emissions - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (1 of 2)
 Table A.1.1-Alt 1-147. Daily Construction Emissions - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (2 of 2)
 Table A.1.1-Alt 1-148. Daily Construction Emissions - Basin Fill and Surcharge West - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-149. Daily Construction Emissions - Settlement Period - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-150. Daily Emissions - POLB Middle Harbor Project - Phase 2 - Stage 2
 Table A.1.1-Alt 1-151. Activity Data - Remove Surcharge - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-152. Activity Data - CY Development - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-153. Daily Construction Emissions - Remove Surcharge- POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-154. Daily Construction Emissions - CY Development - POLB Middle Harbor - Alternative 1
 Table A.1.1-Alt 1-155. Daily Emissions - POLB Middle Harbor Project - Phase 2 - Stage 3
 Table A.1.1-Alt1-156. Activity Data - Railyard Construction - POLB - MHTP - Alternative 1.
 Table A.1.1-Alt1-157. Daily Construction Emissions - Railyard Construction - POLB - MHTP - Alternative 1.
 Table A.1.1-Alt1-158. Daily Emissions - POLB - MHTP - Alternative 1 - Phase 2 - Stage 4.

This page intentionally left blank.

Table A.1.1-Alt 1-1. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	82	36,670
Excavator	428	0.57	1	244	8	1,952	82	160,038
Flatbed Truck	230	0.60	1	138	8	1,104	82	90,528
End Dump Truck	310	0.60	4	744	8	5,952	82	488,064
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	82	169,042
Auxiliary Engines	200	0.50	1	100	8	800	82	65,600
Work Tug	750	0.40	1	300	8	2,400	82	196,560
Auxiliary Engines	150	0.50	1	75	8	600	82	49,200
Hydra-Crane	130	0.43	1	56	8	447	82	36,626
Excavator	428	0.57	1	244	8	1,952	82	159,843
Flatbed Truck	230	0.60	1	138	8	1,104	82	90,418
End Dump Truck	310	0.60	3	558	8	4,464	82	365,602
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	82	94,382
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	82	171,990
Excavator	428	0.57	1	244	8	1,952	82	159,843
Flatbed Truck	230	0.60	1	138	8	1,104	82	90,418
Welding Machine	26	0.50	1	13	8	104	82	8,518
Generator	13	0.74	1	10	8	77	82	6,303

Table A.1.1-Alt 1-2. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	15	17,286
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	15	31,500
Flatbed Truck	230	0.60	1	138	8	1,104	15	16,560
Welding Machine	26	0.45	1	12	8	94	15	1,404
Generator	13	0.74	1	10	8	77	15	1,154

Table A.1.1-Alt 1-3. Activity Data - Excavation Fronting E24 - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	70	0
Auxiliary Engines	500	0.00	1	0	24	0	70	0
Bottom Dump Scow	250	0.05	1	13	24	300	70	21,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	70	2,688,000
Auxiliary Engines	400	0.50	1	200	24	4,800	70	336,000
Work Tug	750	0.50	1	375	24	9,000	70	630,000
Auxiliary Engines	150	0.50	1	75	24	1,800	70	126,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	70	201,600
Auxiliary Engines	80	0.50	1	40	24	960	70	67,200
LAND EX								
Excavator	428	0.57	1	244	8	1,952	70	136,618
Loader	170	0.68	1	116	8	925	70	64,736
End Dump Truck	310	0.60	4	744	8	5,952	70	416,640

Table A.1.1-Alt 1-4. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	50	103,200
Auxiliary Engines	200	0.50	1	100	8	800	50	40,000
Front End Loader	400	0.68	1	272	8	2,176	50	108,800
Tug Boat	1,500	0.50	1	750	8	6,000	50	300,000
Auxiliary Engines	150	0.50	1	75	8	600	50	30,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	50	800,000
Auxiliary Engines	400	0.50	1	200	8	1,600	50	80,000
Crew/Survey Boat	400	0.30	1	120	8	960	50	48,000
Auxiliary Engines	80	0.50	1	40	8	320	50	16,000

Table A.1.1-Alt 1-5. Activity Data - Wharf Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	39	20,598
Crane - 200 Ton	335	0.43	1	144	8	1,152	39	45,398
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	39	63,818
Piledriving Hammer	211	0.50	1	106	8	844	39	33,248
Loader-Wheel	300	0.68	1	204	8	1,632	39	64,291
Jet Pump	33	0.74	1	24	8	195	39	7,696
End Dump Truck	310	0.60	1	186	8	1,488	39	58,032
Truck-Flatbed	230	0.60	1	138	8	1,104	39	43,056
Truck-Lowboy	350	0.60	1	210	8	1,680	39	65,520
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	45	52,018
Derrick Barge	380	0.43	1	163	8	1,307	45	59,006
Auxiliary Engines	195	0.50	1	98	8	780	45	35,100
Piledriving Hammer	211	0.50	1	106	8	844	45	38,097
End Dump Truck	310	0.60	1	186	8	1,488	45	66,960
Tugboat	1,000	0.50	1	500	8	4,000	45	180,556
Auxiliary Engines	100	0.50	1	50	8	400	45	18,000
Truck-Flatbed	230	0.60	1	138	8	1,104	45	49,680
DRIVE PILES - MISC ACTIVITIES								
Excavator	175	0.57	1	100	8	798	175	139,650
Loader-Wheel	175	0.68	1	119	8	952	175	166,600
Hydraulic Crane	175	0.43	1	75	8	602	175	105,350
Crane - 150 Ton	175	0.43	1	75	8	602	175	105,350
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	175	201,670
Auxiliary Engines	107	0.50	1	54	8	428	175	74,900
Concrete Pump	210	0.74	1	155	8	1,243	175	217,560
Concrete Trucks	285	0.60	4.5	770	8	6,156	175	1,077,300
Sandblaster w/air compressor	50		1	0	8	0	175	0
Truck-Flatbed	230	0.60	1	138	8	1,104	175	193,200
Tugboat	1,000	0.50	1	500	8	4,000	175	700,000
Auxiliary Engines	100	0.50	1	50	8	400	175	70,000
Concrete Saw	35	0.10	1	4	8	28	175	4,900
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	175	255,500
Boom Truck	350	0.50	1	175	8	1,400	175	245,000
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	88	100,835
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	88	183,750
Flatbed Truck	230	0.60	1	138	8	1,104	88	96,600
Welding Machine	26	0.45	1	12	8	94	88	8,190
Generator	13	0.74	1	10	8	77	88	6,734

Table A.1.1-Alt 1-6. Activity Data - Utility Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	30	36,000
Auger	125	0.50	1	63	8	500	30	15,000
Crane	130	0.43	1	56	8	447	30	13,416
Grader	215	0.61	3	393	8	3,148	30	94,428
End Dump Truck	310	0.60	1	186	8	1,488	30	44,640
Flat Bed Truck	230	0.60	2	276	8	2,208	30	66,240
Concrete Truck	250	1	4	600	8	4,800	30	144,000
Front End Loader	400	0.68	2	544	8	4,352	30	130,560
Trencher	200	0.50	1	100	8	800	30	24,000

Table A.1.1-Alt 1-7. Activity Data - Paving - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	20	15,858
Grader	215	0.61	1	131	8	1,049	20	20,984
Roller	151	0.50	3	227	8	1,812	20	36,240
Vibration Roller	154	0.50	3	231	8	1,848	20	36,960
Water Truck	210	0.50	1	105	8	840	20	16,800
Road Sweeper	190	0.50	1	95	8	760	20	15,200

Table A.1.1-Alt 1-8. Activity Data - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	30	33,120
Truck Crane	130	0.43	1	56	8	447	30	13,416
Auger	125	0.50	1	63	8	500	30	15,000

Table A.1.1-Alt 1-9. Activity Data - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engines	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,500	0.50	1	750	8	6,000	60	360,000
Auxiliary Engines	150	0.50	1	75	8	600	60	36,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	60	960,000
Auxiliary Engines	400	0.50	1	200	8	1,600	60	96,000
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
Auxiliary Engines	80	0.50	1	40	8	320	60	19,200

Table A.1.1-Alt 1-10. Activity Data - Fill within Dike - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	18	0
Auxiliary Engines	500	0.00	1	0	24	0	18	0
Bottom Dump Scow	250	0.05	1	13	24	300	18	5,400
Tug Boat	4,000	0.40	1	1,600	24	38,400	18	691,200
Auxiliary Engines	400	0.50	1	200	24	4,800	18	86,400
Work Tug	750	0.50	1	375	24	9,000	18	162,000
Auxiliary Engines	150	0.50	1	75	24	1,800	18	32,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	18	51,840
Auxiliary Engines	80	0.50	1	40	24	960	18	17,280

Table A.1.1-Alt 1-11. Activity Data - Remaining Dike Lifts - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engines	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,500	0.50	1	750	8	6,000	60	360,000
Auxiliary Engines	150	0.50	1	75	8	600	60	36,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	60	960,000
Auxiliary Engines	400	0.50	1	200	8	1,600	60	96,000
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
Auxiliary Engines	80	0.50	1	40	8	320	60	19,200

Table A.1.1-Alt 1-12. Activity Data - Remaining Fill Lifts - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	60	0
Auxiliary Engines	500	0.00	1	0	24	0	60	0
Bottom Dump Scow	250	0.05	1	13	24	300	60	18,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	60	2,304,000
Auxiliary Engines	400	0.50	1	200	24	4,800	60	288,000
Work Tug	750	0.50	1	375	24	9,000	60	540,000
Auxiliary Engines	150	0.50	1	75	24	1,800	60	108,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	60	172,800
Auxiliary Engines	80	0.50	1	40	24	960	60	57,600

Table A.1.1-Alt 1-13. Activity Data - Wharf Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	33	17,429
Crane - 200 Ton	335	0.43	1	144	8	1,152	33	38,413
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	33	54,000
Piledriving Hammer	211	0.50	1	106	8	844	33	28,133
Loader-Wheel	300	0.68	1	204	8	1,632	33	54,400
Jet Pump	33	0.74	1	24	8	195	33	6,512
End Dump Truck	310	0.60	1	186	8	1,488	33	49,104
Truck-Flatbed	230	0.60	1	138	8	1,104	33	36,432
Truck-Lowboy	350	0.60	1	210	8	1,680	33	55,440
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	38	44,015
Derrick Barge	380	0.43	1	163	8	1,307	38	49,928
Auxiliary Engines	195	0.50	1	98	8	780	38	29,640
Piledriving Hammer	211	0.50	1	106	8	844	38	32,236
End Dump Truck	310	0.60	1	186	8	1,488	38	56,544
Tugboat	1,000	0.50	1	500	8	4,000	38	152,778
Auxiliary Engines	100	0.50	1	50	8	400	38	15,200
Truck-Flatbed	230	0.60	1	138	8	1,104	38	41,952
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	126	245,912
Loader-Wheel	180	0.68	1	122	8	979	126	123,379
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	126	145,202
Auxiliary Engines	107	0.50	1	54	8	428	126	53,928
Concrete Pump	210	0.74	1	155	8	1,243	126	156,643
Concrete Trucks	285	0.60	5	770	8	6,156	126	775,656
Sandblaster w/air compressor	50	0.75	1	38	8	300	126	37,800
Truck-Flatbed	230	0.60	1	138	8	1,104	126	139,104
Tugboat	1,000	0.50	1	500	8	4,000	126	504,000
Auxiliary Engines	100	0.50	1	50	8	400	126	50,400
Concrete Saw	35	0.10	1	4	8	28	126	3,528
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	126	183,960
Boom Truck	350	0.50	1	175	8	1,400	126	176,400
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	38	43,561
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	38	79,380
Flatbed Truck	230	0.60	1	138	8	1,104	38	41,731
Welding Machine	26	0.45	1	12	8	94	38	3,538
Generator	13	0.74	1	10	8	77	38	2,909

Table A.1.1-Alt 1-14. Activity Data - Construct South Mooring Dolphin - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	6	6,453
Derrick Barge	380	0.43	1	163	8	1,307	6	7,320
Auxiliary Engines	195	0.50	1	98	8	780	6	4,680
Piledriving Hammer	211	0.50	1	106	8	844	6	4,726
End Dump Truck	310	0.60	1	186	8	1,488	6	8,928
Tugboat	1,000	0.50	1	500	8	4,000	6	22,400
Auxiliary Engines	100	0.50	1	50	8	400	6	2,400
Truck-Flatbed	230	0.60	1	138	8	1,104	6	6,624

Table A.1.1-Alt 1-15. Activity Data - Wick Drains - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	9	9,245

Table A.1.1-Alt 1-16. Activity Data - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	8	196,992
Dozers	285	0.64	2	365	8	2,918	8	23,347
Loader	170	0.68	3	347	8	2,774	8	22,195
End Dump Truck	310	0.60	6	1,116	8	8,928	8	71,424
Water Truck	310	0.60	1	186	8	1,488	8	11,904

Table A.1.1-Alt 1-17. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	4	98,496
Dozers	285	0.64	2	365	8	2,918	4	11,674
Loader	170	0.68	3	347	8	2,774	4	11,098
End Dump Truck	310	0.60	6	1,116	8	8,928	4	35,712
Water Truck	310	0.60	1	186	8	1,488	4	5,952

Table A.1.1-Alt 1-18. Activity Data - Utility Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	60	72,000
Auger	125	0.50	1	63	8	500	60	30,000
Crane	130	0.43	1	56	8	447	60	26,832
Grader	215	0.61	3	393	8	3,148	60	188,856
End Dump Truck	310	0.60	1	186	8	1,488	60	89,280
Flat Bed Truck	230	0.60	2	276	8	2,208	60	132,480
Concrete Truck	250	0.60	4	600	8	4,800	60	288,000
Front End Loader	400	0.68	2	544	8	4,352	60	261,120
Trencher	200	0.50	1	100	8	800	60	48,000

Table A.1.1-Alt 1-19. Activity Data - Paving - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	60	47,573
Grader	215	0.61	1	131	8	1,049	60	62,952
Roller	151	0.50	3	227	8	1,812	60	108,720
Vibration Roller	154	0.50	3	231	8	1,848	60	110,880
Water Truck	210	0.50	1	105	8	840	60	50,400
Road Sweeper	190	0.50	1	95	8	760	60	45,600

Table A.1.1-Alt 1-20. Activity Data - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	60	66,240
Truck Crane	130	0.43	1	56	8	447	60	26,832
Auger	125	0.50	1	63	8	500	60	30,000

Table A.1.1-Alt 1-21. Activity Data - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	16	18,876
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	16	34,398
Flatbed Truck	230	0.60	1	138	8	1,104	16	18,084
Welding Machine	26	0.45	1	12	8	94	16	1,533
Generator	13	0.74	1	10	8	77	16	1,261

Table A.1.1-Alt 1-22. Activity Data - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	24	46,840
Loader	170	0.68	1	116	8	925	24	22,195
End Dump Truck	310	0.60	4	744	8	5,952	24	142,848

Table A.1.1-Alt 1-23. Activity Data - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	39	76,116
Loader	170	0.68	1	116	8	925	39	36,067
End Dump Truck	310	0.60	4	744	8	5,952	39	232,128
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	65	0
Auxiliary Engines	500	0.00	1	0	24	0	65	0
Bottom Dump Scow	250	0.05	1	13	24	300	65	19,500
Tug Boat	4,000	0.40	1	1,600	24	38,400	65	2,496,000
Auxiliary Engines	400	0.50	1	200	24	4,800	65	312,000
Work Tug	750	0.50	1	375	24	9,000	65	585,000
Auxiliary Engines	150	0.50	1	75	24	1,800	65	117,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	65	187,200
Auxiliary Engines	80	0.50	1	40	24	960	65	62,400

Table A.1.1-Alt 1-24. Activity Data - Remove Cellular Sheetpile - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	65	74,906
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	65	136,500
Excavator	428	0.57	1	244	8	1,952	65	126,859
Flatbed Truck	230	0.60	1	138	8	1,104	65	71,760
Welding Machine	26	0.50	1	13	8	104	65	6,760
Generator	13	0.74	1	10	8	77	65	5,002

Table A.1.1-Alt 1-25. Activity Data - Rock Revetment - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	48	99,072
Auxiliary Engines	200	0.50	1	100	8	800	48	38,400
Front End Loader	400	0.68	1	272	8	2,176	48	104,448
Tug Boat	1,500	0.50	1	750	8	6,000	48	288,000
Auxiliary Engines	150	0.50	1	75	8	600	48	28,800
Tug Boat	4,000	0.50	1	2,000	8	16,000	48	768,000
Auxiliary Engines	400	0.50	1	200	8	1,600	48	76,800
Crew/Survey Boat	400	0.30	1	120	8	960	48	46,080
Auxiliary Engines	80	0.50	1	40	8	320	48	15,360

Table A.1.1-Alt 1-26. Activity Data - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	18	0
Auxiliary Engines	500	0.00	1	0	24	0	18	0
Bottom Dump Scow	250	0.05	1	13	24	300	18	5,400
Tug Boat	4,000	0.40	1	1,600	24	38,400	18	691,200
Auxiliary Engines	400	0.50	1	200	24	4,800	18	86,400
Work Tug	750	0.50	1	375	24	9,000	18	162,000
Auxiliary Engines	150	0.50	1	75	24	1,800	18	32,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	18	51,840
Auxiliary Engines	80	0.50	1	40	24	960	18	17,280

Table A.1.1-Alt 1-27. Activity Data - Ground Improvements Pier D - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
STONE COLUMN INSTALLATION EQ								
Stone Column Crane - 100 Ton	335	0.43	3	432	8	3,457	68	234,168
Vibratory Probe & Power Pack	350	0.75	3	788	8	6,300	68	426,720
Auger Crane - 100 Ton	335	0.43	1	144	8	1,152	68	78,056
Auger & Hydraulic Power Pack	350	0.75	1	263	8	2,100	68	142,240
Welding Machine	26	0.50	1	13	8	104	68	7,044
Generator	13	0.74	1	10	8	77	68	5,213
Excavator	428	0.57	1	244	8	1,952	68	132,194
Loader	170	0.68	4	462	8	3,699	68	250,559
End Dump Truck	310	0.60	4	744	8	5,952	68	403,149
MARINE ROCK DELIVERY EQ								
Derrick Barge	800	0.43	1	344	8	2,752	34	93,201
Front End Loader	400	0.68	1	272	8	2,176	34	73,694
Tug Boat	1,650	0.50	1	825	8	6,600	34	223,520
Tug Boat	4,400	0.50	1	2,200	8	17,600	34	596,053

Table A.1.1-Alt 1-28. Activity Data - Demo E12-13 Wharf - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	109	48,834
Excavator	428	0.57	1	244	8	1,952	109	213,123
Flatbed Truck	230	0.60	1	138	8	1,104	109	120,557
End Dump Truck	310	0.60	4	744	8	5,952	109	649,958
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	109	225,389
Auxiliary Engines	200	0.50	1	100	8	800	109	87,200
Work Tug	750	0.40	1	300	8	2,400	109	262,080
Auxiliary Engines	150	0.50	1	75	8	600	109	65,400
Hydra-Crane	130	0.43	1	56	8	447	109	48,834
Excavator	428	0.57	1	244	8	1,952	109	213,123
Flatbed Truck	230	0.60	1	138	8	1,104	109	120,557
End Dump Truck	310	0.60	3	558	8	4,464	109	487,469

Table A.1.1-Alt 1-29. Activity Data - Lift #1 (~ -30) - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	27	55,728
Auxiliary Engines	200	0.50	1	100	8	800	27	21,600
Front End Loader	400	0.68	1	272	8	2,176	27	58,752
Tug Boat	1,500	0.50	1	750	8	6,000	27	162,000
Auxiliary Engines	150	0.50	1	75	8	600	27	16,200
Tug Boat	4,000	0.50	1	2,000	8	16,000	27	432,000
Auxiliary Engines	400	0.50	1	200	8	1,600	27	43,200
Crew/Survey Boat	400	0.30	1	120	8	960	27	25,920
Auxiliary Engines	80	0.50	1	40	8	320	27	8,640

Table A.1.1-Alt 1-30. Activity Data - Lift #2 (~ -15) - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	16	33,024
Auxiliary Engines	200	0.50	1	100	8	800	16	12,800
Front End Loader	400	0.68	1	272	8	2,176	16	34,816
Tug Boat	1,500	0.50	1	750	8	6,000	16	96,000
Auxiliary Engines	150	0.50	1	75	8	600	16	9,600
Tug Boat	4,000	0.50	1	2,000	8	16,000	16	256,000
Auxiliary Engines	400	0.50	1	200	8	1,600	16	25,600
Crew/Survey Boat	400	0.30	1	120	8	960	16	15,360
Auxiliary Engines	80	0.50	1	40	8	320	16	5,120

Table A.1.1-Alt 1-31. Activity Data - Lift #3 (~ 0) - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	14	28,896
Auxiliary Engines	200	0.50	1	100	8	800	14	11,200
Front End Loader	400	0.68	1	272	8	2,176	14	30,464
Tug Boat	1,500	0.50	1	750	8	6,000	14	84,000
Auxiliary Engines	150	0.50	1	75	8	600	14	8,400
Tug Boat	4,000	0.50	1	2,000	8	16,000	14	224,000
Auxiliary Engines	400	0.50	1	200	8	1,600	14	22,400
Crew/Survey Boat	400	0.30	1	120	8	960	14	13,440
Auxiliary Engines	80	0.50	1	40	8	320	14	4,480

Table A.1.1-Alt 1-32. Activity Data - Lift #4 (~ +15) - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	12	24,768
Auxiliary Engines	200	0.50	1	100	8	800	12	9,600
Front End Loader	400	0.68	1	272	8	2,176	12	26,112
Tug Boat	1,500	0.50	1	750	8	6,000	12	72,000
Auxiliary Engines	150	0.50	1	75	8	600	12	7,200
Tug Boat	4,000	0.50	1	2,000	8	16,000	12	192,000
Auxiliary Engines	400	0.50	1	200	8	1,600	12	19,200
Crew/Survey Boat	400	0.30	1	120	8	960	12	11,520
Auxiliary Engines	80	0.50	1	40	8	320	12	3,840

Table A.1.1-Alt 1-33. Activity Data - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	12	12,326
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	12	295,488
Dozers	285	0.64	2	365	8	2,918	12	35,021
Loader	170	0.68	3	347	8	2,774	12	33,293
End Dump Truck	310	0.60	6	1,116	8	8,928	12	107,136
Water Truck	310	0.60	1	186	8	1,488	12	17,856

Table A.1.1-Alt 1-34. Activity Data - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	30	30,816
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	18	443,232
Dozers	285	0.64	2	365	8	2,918	18	52,531
Loader	170	0.68	3	347	8	2,774	18	49,939
End Dump Truck	310	0.60	6	1,116	8	8,928	18	160,704
Water Truck	310	0.60	1	186	8	1,488	18	26,784

Table A.1.1-Alt 1-35. Activity Data - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	30	30,816
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	24	590,976
Dozers	285	0.64	2	365	8	2,918	24	70,042
Loader	170	0.68	3	347	8	2,774	24	66,586
End Dump Truck	310	0.60	6	1,116	8	8,928	24	214,272
Water Truck	310	0.60	1	186	8	1,488	24	35,712

Table A.1.1-Alt 1-36. Activity Data - Utility Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	27	27,734
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	45	1,108,080
Dozers	285	0.64	2	365	8	2,918	45	131,328
Loader	170	0.68	3	347	8	2,774	45	124,848
End Dump Truck	310	0.60	6	1,116	8	8,928	45	401,760
Water Truck	310	0.60	1	186	8	1,488	45	66,960

Table A.1.1-Alt 1-37. Activity Data - Remove Surcharge - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	36	886,464
Dozers	285	0.64	2	365	8	2,918	36	105,062
Loader	170	0.68	3	347	8	2,774	36	99,878
End Dump Truck	310	0.60	6	1,116	8	8,928	36	321,408
Water Truck	310	0.60	1	186	8	1,488	36	53,568

Table A.1.1-Alt 1-38. Activity Data - Container Yard Development - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	223	267,120
Auger	125	0.50	1	63	8	500	223	111,300
Crane	130	0.43	1	56	8	447	223	99,547
Grader	215	0.61	3	393	8	3,148	223	700,656
End Dump Truck	310	0.60	1	186	8	1,488	223	331,229
Flat Bed Truck	230	0.60	2	276	8	2,208	223	491,501
Concrete Truck	250	1	4	600	8	4,800	223	1,070,400
Front End Loader	400	0.68	2	544	8	4,352	223	968,755
Trencher	200	0.50	1	100	8	800	223	178,080
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	223	176,495
Grader	215	0.61	1	131	8	1,049	223	233,552
Roller	151	0.50	3	227	8	1,812	223	403,351
Vibration Roller	154	0.50	3	231	8	1,848	223	411,365
Water Truck	210	0.50	1	105	8	840	223	186,984
Road Sweeper	190	0.50	1	95	8	760	223	169,176
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	223	245,750
Truck Crane	130	0.43	1	56	8	447	223	99,547
Auger	125	0.50	1	63	8	500	223	111,300

Table A.1.1-Alt 1-39. Activity Data - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 1.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
TRIPLE TRACK INSTALLATION DEMO EQ								
Track hoe with breaker and bucket (demo)	428	0.57	1	244	8	1,952	2	3,903
Front end loader	170	0.68	1	116	8	925	7	6,474
Backhoe or skiploader (as needed)	335			0		0	3	0
12 or 14 H Blade	350			0		0	7	0
Sheepsfoot vibratory roller	26			0		0	2	0
Water truck	13			0		0	7	0
Haul off dump trucks for spoil	310	0.60		0		0	4	0
TRIPLE TRACK UTILITY RELOCATION EQ								
Front end loader	170	0.68	1	116	8	925		0
Backhoe				0		0	14	0
Trench vibratory roller or jumping jack				0		0	14	0
Water truck				0		0	14	0
Haul off dump trucks for spoil	310	0.60		0		0	7	0
Concrete trucks				0		0	7	0
TRIPLE TRACK GRADING EQ								
Haul in dump trucks for subballast material	310	0.60		0		0	5	0
966 (or equivalent) Front end loader	170	0.68	1	116	8	925	5	4,624
Backhoe or skiploader (as needed)				0		0	2	0
12 or 14 G Blade	1,500			0		0	5	0
Auxiliary Engines	150			0		0		
Smooth drum vibratory roller	4,000			0		0	5	0
Auxiliary Engines	400			0		0		
Water truck				0		0	5	0
TRIPLE TRACK RETAINING WALL EQ								
Backhoe				0		0	15	0
Trench vibratory roller or jumping jack				0		0	7	0
Water truck				0		0	15	0
Extendable forklift				0		0	7	0
Concrete trucks if CIP walls				0		0	4	0
Form Truck				0		0	7	0
TRIPLE TRACK TRACKWORK EQ								
Ballast delivery dump trucks	310	0.60		0		0	96	0
Smooth drum vibratory roller				0		0	7	0
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	170	0.68	1	116	8	925	96	88,781
Swingmaster or Speedswing loader for rail handling				0		0	96	0
Ballast cars for initial and final ballast placement				0		0	14	0
16 head vibratory Tamper with full electronics for alignment and grade				0		0	96	0
Ballast regulator				0		0	96	0
Water truck				0		0	96	0
Rail vibrator				0		0	7	0
TRIPLE TRACK MISCELLANEOUS EQ								
Mechanic's truck				0		0	96	0
Tool truck with small hydraulic hand tools				0		0	96	0
Welding truck with hydraulic equipment				0		0	96	0
Fuel truck				0		0	33	0
Working Pickups				0		0	96	0
Generator	13	0.74		0		0	33	0

Table A.1.1-Alt 1-40. Activity Data - Electrical Substation Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
Grading								
Water Trucks (Gasoline)	210	0.50	2	210	8	1,680	40	67,200
Truck for Soil Test Inspector (Gasoline)	210	0.50	1	105	8	840	40	33,600
980 Loader	318	0.50	1	159	8	1,272	40	50,880
Grader	215	0.61	1	131	8	1,049	40	41,968
Vibratory Compactor	130	0.61	1	79	6	476	20	9,516
Survey								
Survey Trucks (Gasoline)	210	0.50	2	210	8	1,680	45	75,600
Civil								
Crew Trucks	210	0.50	2	210	4	840	50	42,000
Dump Trucks	310	0.60	2	372	3	1,116	50	55,800
Stake Bed Truck (5-ton)	210	0.50	1	105	2	210	50	10,500
Trencher	200	0.50	1	100	8	800	30	24,000
Drill Rig	125	0.50	1	63	8	500	10	5,000
Tractor	210	0.50	1	105	7	735	50	36,750
Forklift	103	0.30	1	31	4	124	50	6,180
Electrical								
8-Ton Stake Truck	210	0.50	1	105	4	420	80	33,600
Crew Cab Trucks	210	0.50	2	210	6	1,260	80	100,800
Carryall Vehicles (Gasoline)	210	0.50	2	210	6	1,260	80	100,800
Cranes	130	0.43	2	112	4	447	80	35,776
Lift Truck	210	0.50	1	105	4	420	80	33,600
Pickups	210	0.50	2	210	4	840	80	67,200
Forklift	103	0.30	1	31	6	185	80	14,832
Manlifts	210	0.50	2	210	8	1,680	80	134,400
Support Trucks	210	0.50	2	210	4	840	80	67,200
Transformer Setup								
Carryall Vehicle (Gasoline)	210	0.50	1	105	2	210	20	4,200
Crew Truck	210	0.50	1	105	2	210	20	4,200
Crane	130	0.43	1	56	6	335	20	6,708
Forklift	103	0.30	1	31	6	185	20	3,708
Low Bed Truck	210	0.50	1	105	4	420	20	8,400
Test								
Test Truck	210	0.50	1	105	4	420	40	16,800
Paving								
Foreman Truck	210	0.50	1	105	6	630	5	3,150
2 Dump Trucks	310	0.60	2	372	6	2,232	5	11,160
2 Skip Loaders	170	0.68	2	231	6	1,387	5	6,936
Barbergreen	150	0.50	1	75	8	600	2	1,200
Fence Installation								
Foreman Truck	210	0.50	1	105	4	420	4	1,680
Crewcab	230	0.60	1	138	4	552	4	2,208
Bobcat (Gasoline)	100	0.50	1	50	8	400	4	1,600
3-Ton Flatbed Truck	230	0.60	1	138	2	276	2	552

Table A.1.1-Alt 1-41. Activity Data - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
Installation of 160 LWS poles and removal of wood poles								
Heavy Line Truck	300	0.50	1	150	4	600	60	36,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	60	25,200
Light Material Truck	210	0.50	1	105	4	420	60	25,200
75' Bucket Truck	210	0.50	1	105	4	420	60	25,200
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	60	25,200
Wire Replacement/Attachment and Termination								
Heavy Line Truck	300	0.50	1	150	4	600	90	54,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	90	37,800
Light Material Truck	210	0.50	1	105	4	420	90	37,800
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	90	37,800
Final Connection of New Lines								
Heavy Line Truck	300	0.50	1	150	4	600	2	1,200
Carry-All (Gasoline)	210	0.50	1	105	4	420	2	840
Light Material Truck	210	0.50	1	105	4	420	2	840
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	2	840

Table A.1.1-Alt 1-42. Air Emission Factors for the POLB Middle Harbor Terminal Project Construction Activities.

Project Year/Source Type	Fuel Type	Emission Factors (Grams/Horsepower-Hour)							References
		VOC	CO	NOx	SOx	PM	PM10	PM2.5	
Tier 3 or less Standards									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.00	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.00	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.00	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.00	0.13	0.13	0.12	(1)
Year 2007									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.004	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.004	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.004	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.004	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	5.00	30.04	67.52	0.04	1.39	1.39	1.28	(2)
On-road Truck - 5 mph (Gms/Mi)	D	2.43	24.99	16.10	0.02	0.66	0.66	0.61	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.81	6.99	9.81	0.02	0.03	0.03	0.03	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.40	4.94	12.73	0.02	0.16	0.16	0.15	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.97	8.79	10.44	0.02	0.09	0.09	0.09	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.58	6.35	12.31	0.02	0.16	0.16	0.15	(4)
Gasoline Vehicles (Gm/Hp-Hr)									
Year 2009									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.004	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.004	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.004	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.004	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.97	29.86	68.08	0.04	1.30	1.30	1.20	(2)
On-road Truck - 5 mph (Gms/Mi)	D	2.08	21.19	13.68	0.02	0.59	0.59	0.55	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.70	5.94	8.33	0.02	0.07	0.07	0.06	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.35	4.19	10.81	0.02	0.15	0.15	0.14	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.84	7.46	8.87	0.02	0.12	0.12	0.11	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.50	5.39	10.46	0.02	0.16	0.16	0.14	(4)
Year 2011									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.004	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.004	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.004	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.004	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.95	29.68	68.64	0.04	1.21	1.21	1.11	(2)
On-road Truck - 5 mph (Gms/Mi)	D	1.73	17.40	11.27	0.02	0.53	0.53	0.48	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.59	4.89	6.85	0.02	0.11	0.11	0.10	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.30	3.43	8.90	0.02	0.14	0.14	0.13	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.70	6.14	7.29	0.02	0.15	0.15	0.14	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.43	4.42	8.60	0.02	0.15	0.15	0.14	(4)

Table A.1.1-Alt 1-42. Air Emission Factors for the POLB Middle Harbor Terminal Project Construction Activities.

Year 2013									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.004	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.004	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.004	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.004	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.92	29.50	69.20	0.04	1.12	1.12	1.03	(2)
On-road Truck - 5 mph (Gms/Mi)	D	1.37	13.60	8.85	0.02	0.46	0.46	0.42	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.48	3.83	5.37	0.02	0.15	0.15	0.14	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.24	2.68	6.98	0.02	0.13	0.13	0.12	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.57	4.81	5.72	0.02	0.18	0.18	0.17	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.35	3.45	6.75	0.02	0.15	0.15	0.14	(4)
Year 2014									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.004	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.004	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.004	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.004	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.90	29.41	69.48	0.04	1.08	1.08	0.99	(2)
On-road Truck - 5 mph (Gms/Mi)	D	1.20	11.70	7.64	0.02	0.42	0.42	0.39	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.43	3.31	4.63	0.02	0.17	0.17	0.16	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.22	2.30	6.02	0.02	0.13	0.13	0.12	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.50	4.15	4.93	0.02	0.20	0.20	0.18	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.31	2.97	5.82	0.02	0.15	0.15	0.14	(4)
Year 2015									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.004	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.004	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.004	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.004	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.89	29.32	69.76	0.04	1.03	1.03	0.95	(2)
On-road Truck - 5 mph (Gms/Mi)	D	1.02	9.80	6.43	0.02	0.39	0.39	0.36	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.37	2.78	3.89	0.02	0.19	0.19	0.17	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.19	1.92	5.06	0.02	0.12	0.12	0.11	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.44	3.48	4.14	0.02	0.21	0.21	0.19	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.27	2.49	4.89	0.02	0.15	0.15	0.14	(4)

Table A.1.1-Alt 1-42. Air Emission Factors for the POLB Middle Harbor Terminal Project Construction Activities.

Year 2016									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.004	0.45	0.45	0.41	?
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.004	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.004	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.004	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.88	29.23	70.04	0.04	0.99	0.99	0.91	(2)
On-road Truck - 5 mph (Gms/Mi)	D	0.84	7.90	5.22	0.02	0.36	0.36	0.33	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.32	2.25	3.15	0.02	0.21	0.21	0.19	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.16	1.54	4.10	0.02	0.12	0.12	0.11	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.37	2.82	3.36	0.02	0.22	0.22	0.21	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.23	2.00	3.97	0.02	0.15	0.15	0.13	(4)
All Years									
Tugboat (Gm/Hp-Hr)	D	0.25	1.85	9.73	0.01	0.32	0.32	0.30	(5)
Fugitive Dust (Lbs/acre-day)	---	---	---	---	---	27.50	13.75	1.40	(6)
Building Demolition (Lbs/1000 cf)	---	---	---	---	---	0.84	0.42	0.04	(7)
Small Harbor Craft	D	0.16	1.27	7.46	0.47	0.30	0.30	0.28	(8)

- Notes: (1) Equal to the cleanest of EPA Tier 2 or 3 nonroad emission standards. For example, since there are no Tier 3 standards for PM, data presented = Tier 2 standards. Additionally, since there are no Tier 2/3 standards for CO, data presented derived from nonroad certification data. Source: Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling -- Compression-Ignition (USEPA 2004).
- (2) Heavy duty diesel truck running emission factors developed from EMFAC2007 (ARB 2006). Units in grams/mile calculated for each future project year.
- (3) Composite factors based on a round trip of 90% at 25 mph and 10% at 5 mph. Units in grams/mile. Although not shown in these calculations, emissions from 5 minutes of idling mode included for each truck round trip.
- (4) For on-road trucks other than dredge material haul trucks, composite factor based on a round trip of 75% at 55 mph, 20% at 25 mph, and 5% at 5 mph. Units in grams/mile. Although not shown in these calculations, emissions from 5 minutes of idling mode included for each truck round trip.
- (5) Data obtained from Table A.1.2-CB-1of this EIR/S, then divided by 1.34 to convert to units of Gm/Hp-Hr. Equal to Ports fleet average year of 2008.
- (6) Units in lbs/acre-day from section 11.2.3 of AP-42 (EPA 1995). Emissions reduced by 75% from uncontrolled levels to represent compliance with SCAQMD Rule 403 - Fugitive Dust.
- (7) CEQA Air Quality Handbook, Table A9-9-H (SCAQMD 1993). Units in lbs/1000 cubic feet (cf) of demolished building.
- (8) EPA (2006)

Table A.1.1-Alt 1-43. Daily Construction Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	17.79
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	52.92
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	29.94
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	161.40
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	262.04
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	55.90
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	21.69
Work Tug	1.32	9.79	51.46	0.03	1.71	1.71	1.60	139.71
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	23.86
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	17.76
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	52.86
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	29.90
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	120.90
Subtotal	6.36	32.88	122.02	0.14	5.65	5.65	5.22	462.59
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	31.21
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	56.88
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	52.86
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	29.90
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	8.45
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	6.25
Subtotal	3.02	12.07	40.93	0.06	2.27	2.27	2.08	185.55

Table A.1.1-Alt 1-44. Daily Construction Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	5.72
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	10.42
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	5.48
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	1.39
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	1.15
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	24.15

Table A.1.1-Alt 1-45. Daily Construction Emissions - Excavation Fronting E24 - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	6.94
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	1,910.54
Auxiliary Engines	2.12	8.89	29.63	0.05	1.59	1.59	1.46	111.11
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	447.78
Auxiliary Engines	0.79	3.45	11.11	0.02	0.87	0.87	0.80	61.11
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	133.33
Auxiliary Engines	0.42	5.02	6.98	0.01	0.63	0.63	0.58	44.44
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	2,715.27
LAND EX								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	45.18
Loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	31.40
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	137.78
Subtotal	3.89	16.41	54.50	0.09	3.06	3.06	2.82	214.35

Table A.1.1-Alt 1-46. Daily Construction Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	34.13
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	13.23
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	35.98
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	213.23
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	14.55
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	568.61
Auxiliary Engines	0.71	2.96	9.88	0.02	0.53	0.53	0.49	26.46
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	31.75
Auxiliary Engines	0.14	1.67	2.33	0.00	0.21	0.21	0.19	10.58
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	948.51

Table A.1.1-Alt 1-47. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	9.99
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	15.01
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	21.10
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	10.99
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	21.26
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	7.63
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	19.19
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	14.24
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	21.67
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	141.09
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	17.20
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	19.51
Auxiliary Engines	0.34	1.29	4.81	0.01	0.26	0.26	0.24	11.61
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	12.60
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	22.14
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	128.33
Auxiliary Engines	0.18	2.09	2.91	0.00	0.26	0.26	0.24	11.90
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	16.43
Subtotal	5.32	30.22	129.88	0.12	5.32	5.32	4.94	239.73
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.35	1.53	4.93	0.01	0.39	0.39	0.36	67.73
Loader-Wheel	0.42	1.83	5.88	0.01	0.46	0.46	0.42	80.80
Hydraulic Crane	0.27	1.15	3.72	0.01	0.29	0.29	0.27	51.10
Crane - 150 Ton	0.27	1.15	3.72	0.01	0.29	0.29	0.27	51.10
Subtotal	1.30	5.67	18.23	0.03	1.43	1.43	1.32	250.73
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	2.21	7.11	0.01	0.56	0.56	0.51	97.81
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Auxiliary Engines	0.19	2.24	3.11	0.00	0.28	0.28	0.26	49.54
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	71.94
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	356.25
Sandblaster w/air compressor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	63.89
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	497.54
Auxiliary Engines	0.18	2.09	2.91	0.00	0.26	0.26	0.24	46.30
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	4.86
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	84.49
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	81.02
Subtotal	8.86	47.79	183.58	0.20	8.50	8.50	7.87	1,487.02
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	33.34
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	60.76
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	31.94
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	8.13
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	6.68
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	140.86

Table A.1.1-Alt 1-48. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	11.90
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	7.28
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	6.51
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	31.23
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	14.76
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	21.90
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	47.62
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	43.17
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	7.94
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	192.31

Table A.1.1-Alt 1-49. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	5.24
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	6.94
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	17.58
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	17.93
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	5.56
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	5.03
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	58.27

Table A.1.1-Alt 1-50. Daily Construction Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	10.95
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	6.51
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	7.28
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	24.73

Table A.1.1-Alt 1-51. Daily Construction Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	40.95
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	43.17
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	255.88
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	17.46
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	682.34
Auxiliary Engines	0.71	2.96	9.88	0.02	0.53	0.53	0.49	31.75
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	38.10
Auxiliary Engines	0.14	1.67	2.33	0.00	0.21	0.21	0.19	12.70
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	1,138.21

Table A.1.1-Alt 1-52. Daily Construction Emissions - Fill Within Dike - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.79
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	491.28
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	28.57
Auxiliary Engines	2.12	8.89	29.63	0.05	1.59	1.59	1.46	115.14
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	15.71
Auxiliary Engines	0.79	3.45	11.11	0.02	0.87	0.87	0.80	34.29
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	11.43
Auxiliary Engines	0.42	5.02	6.98	0.01	0.63	0.63	0.58	698.21
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	1,396.43

Table A.1.1-Alt 1-53. Daily Construction Emissions - Remaining Dike Lifts - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	40.95
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	43.17
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	255.88
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	17.46
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	682.34
Auxiliary Engines	0.71	2.96	9.88	0.02	0.53	0.53	0.49	31.75
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	38.10
Auxiliary Engines	0.14	1.67	2.33	0.00	0.21	0.21	0.19	12.70
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	1,138.21

Table A.1.1-Alt 1-54. Daily Construction Emissions - Remaining Fill Lifts - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	5.95
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	1,637.61
Auxiliary Engines	2.12	8.89	29.63	0.05	1.59	1.59	1.46	95.24
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	383.81
Auxiliary Engines	0.79	3.45	11.11	0.02	0.87	0.87	0.80	52.38
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	114.29
Auxiliary Engines	0.42	5.02	6.98	0.01	0.63	0.63	0.58	38.10
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	2,327.38

Table A.1.1-Alt 1-55. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	8.45
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	12.70
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	17.86
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	9.30
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	17.99
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	6.46
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	16.24
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	12.05
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	18.33
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	119.39
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	14.56
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	16.51
Auxiliary Engines	0.34	1.29	4.81	0.01	0.26	0.26	0.24	9.80
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	10.66
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	18.70
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	108.59
Auxiliary Engines	0.18	2.09	2.91	0.00	0.26	0.26	0.24	10.05
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	13.87
Subtotal	5.32	30.22	129.88	0.12	5.32	5.32	4.94	202.74
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	81.32
Loader-Wheel	0.43	1.62	6.04	0.01	0.32	0.32	0.30	40.80
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	31.95
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Subtotal	2.03	8.37	28.43	0.04	1.60	1.60	1.48	202.09
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	31.95
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Auxiliary Engines	0.19	2.24	3.11	0.00	0.28	0.28	0.26	35.67
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	51.80
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	256.50
Sandblaster w/air compressor	0.40	1.01	3.31	0.00	0.30	0.30	0.27	37.50
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	46.00
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	358.23
Auxiliary Engines	0.18	2.09	2.91	0.00	0.26	0.26	0.24	33.33
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	3.50
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	60.83
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	58.33
Subtotal	9.26	47.59	183.00	0.20	8.49	8.49	7.86	1,069.68
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	14.41
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	26.25
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	13.80
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	3.51
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	2.89
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	60.85

Table A.1.1-Alt 1-56. Daily Construction Emissions - Construct South Mooring Dolphin - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	2.13
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	2.42
Auxiliary Engines	0.34	1.29	4.81	0.01	0.26	0.26	0.24	1.55
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	1.56
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	2.95
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	15.92
Auxiliary Engines	0.18	2.09	2.91	0.00	0.26	0.26	0.24	1.59
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	2.19
Subtotal	5.32	30.22	129.88	0.12	5.32	5.32	4.94	30.32

Table A.1.1-Alt 1-57. Daily Construction Emissions - Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	3.06
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	3.06

Table A.1.1-Alt 1-58. Daily Construction Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	65.14
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	7.72
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	10.76
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	23.62
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	3.94
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	111.18

Table A.1.1-Alt 1-59. Daily Construction Emissions - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	32.57
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	3.86
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	5.38
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	11.81
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	1.97
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	55.59

Table A.1.1-Alt 1-60. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	23.81
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	14.55
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	62.45
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	29.52
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	43.81
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	95.24
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	86.35
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	384.62

Table A.1.1-Alt 1-61. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	15.73
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	20.82
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	52.73
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	53.78
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	16.67
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	15.08
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	174.80

Table A.1.1-Alt 1-62. Daily Construction Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	21.90
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	14.55
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	49.47

Table A.1.1-Alt 1-63. Daily Construction Emissions - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	6.24
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	11.38
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	5.98
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	1.52
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	1.25
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	26.37

Table A.1.1-Alt 1-64. Daily Construction Emissions - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
LAND EX								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	15.49
Loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	10.76
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	47.24
Subtotal	3.89	16.41	54.50	0.09	3.06	3.06	2.82	73.49

Table A.1.1-Alt 1-65. Daily Construction Emissions - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
LAND EX								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	25.17
Loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	17.49
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	76.76
Subtotal	3.89	16.41	54.50	0.09	3.06	3.06	2.82	119.43
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	6.45
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	1,774.08
Auxiliary Engines	2.12	8.89	29.63	0.05	1.59	1.59	1.46	103.17
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	415.80
Auxiliary Engines	0.79	3.45	11.11	0.02	0.87	0.87	0.80	56.75
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	123.81
	0.42	5.02	6.98	0.01	0.63	0.63	0.58	41.27
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	2,521.32

Table A.1.1-Alt 1-66. Daily Construction Emissions - Remove Cellular Sheetpile - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	24.77
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	45.14
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	41.95
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	23.73
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	6.71
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	4.96
Subtotal	3.02	12.07	40.93	0.06	2.27	2.27	2.08	147.26

Table A.1.1-Alt 1-67. Daily Construction Emissions - Rock Revetment - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	32.76
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	12.70
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	34.54
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	204.70
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	13.97
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	545.87
Auxiliary Engines	0.71	2.96	9.88	0.02	0.53	0.53	0.49	25.40
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	30.48
	0.14	1.67	2.33	0.00	0.21	0.21	0.19	10.16
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	910.57

Table A.1.1-Alt 1-68. Daily Construction Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	1.79
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	491.28
Auxiliary Engines	2.12	8.89	29.63	0.05	1.59	1.59	1.46	28.57
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	115.14
Auxiliary Engines	0.79	3.45	11.11	0.02	0.87	0.87	0.80	15.71
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	34.29
Auxiliary Engines	0.42	5.02	6.98	0.01	0.63	0.63	0.58	11.43
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	698.21

Table A.1.1-Alt 1-69. Daily Construction Emissions - Ground Improvements Pier D - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
STONE COLUMN INSTALLATION EQ								
Stone Column Crane - 100 Ton	1.52	6.40	21.34	0.03	1.14	1.14	1.05	77.44
Vibratory Probe & Power Pack	2.78	11.67	38.89	0.06	2.08	2.08	1.92	141.11
Auger Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	25.81
Auger & Hydraulic Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	47.04
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	6.99
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	5.17
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	43.71
Loader	1.63	7.10	22.83	0.04	1.79	1.79	1.65	121.52
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	133.32
Subtotal	11.09	46.43	153.92	0.24	8.89	8.89	8.18	602.11
MARINE ROCK DELIVERY EQ								
Derrick Barge	1.82	4.61	27.30	0.03	0.79	0.79	0.73	26.71
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	24.37
Tug Boat	3.63	26.91	141.51	0.09	4.69	4.69	4.40	158.87
Tug Boat	9.68	71.76	377.37	0.23	12.51	12.51	11.72	423.66
Subtotal	16.09	107.32	559.62	0.36	18.71	18.71	17.50	633.61

Table A.1.1-Alt 1-70. Daily Construction Emissions - Demo - E12-13 Wharf - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	23.69
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	70.48
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	39.87
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	214.93
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	348.96
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	74.53
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	28.84
Work Tug	1.32	9.79	51.46	0.03	1.71	1.71	1.60	186.28
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	31.72
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	23.69
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	70.48
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	39.87
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	161.20
Subtotal	6.36	32.88	122.02	0.14	5.65	5.65	5.22	616.60

Table A.1.1-Alt 1-71. Daily Construction Emissions - Lift #1 (- 30) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	18.43
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	7.14
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	19.43
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	115.14
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	7.86
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	307.05
Auxiliary Engines	0.71	2.96	9.88	0.02	0.53	0.53	0.49	14.29
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	17.14
Auxiliary Engines	0.14	1.67	2.33	0.00	0.21	0.21	0.19	5.71
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	512.20

Table A.1.1-Alt 1-72. Daily Construction Emissions - Lift #2 (- 15) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	10.92
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	4.23
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	11.51
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	68.23
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	4.66
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	181.96
Auxiliary Engines	0.71	2.96	9.88	0.02	0.53	0.53	0.49	8.47
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	10.16
Auxiliary Engines	0.14	1.67	2.33	0.00	0.21	0.21	0.19	3.39
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	303.52

Table A.1.1-Alt 1-73. Daily Construction Emissions - Lift #3 (- 0) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	9.56
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	3.70
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	10.07
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	59.70
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	4.07
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	159.21
Auxiliary Engines	0.71	2.96	9.88	0.02	0.53	0.53	0.49	7.41
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	8.89
Auxiliary Engines	0.14	1.67	2.33	0.00	0.21	0.21	0.19	2.96
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	265.58

Table A.1.1-Alt 1-74. Daily Construction Emissions - Lift #4 (- +15) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	8.19
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	3.17
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	8.63
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	51.18
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	3.49
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	136.47
Auxiliary Engines	0.71	2.96	9.88	0.02	0.53	0.53	0.49	6.35
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	7.62
Auxiliary Engines	0.14	1.67	2.33	0.00	0.21	0.21	0.19	2.54
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	227.64

Table A.1.1-Alt 1-75. Daily Construction Emissions - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	4.08
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	4.08
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	97.71
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	11.58
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	16.15
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	35.43
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	5.90
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	166.78

Table A.1.1-Alt 1-76. Daily Construction Emissions - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	10.19
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	10.19
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	146.57
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	17.37
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	24.22
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	53.14
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	8.86
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	250.16

Table A.1.1-Alt 1-77. Daily Construction Emissions - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	10.19
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	10.19
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	195.43
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	23.16
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	32.29
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	70.86
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	11.81
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	333.55

Table A.1.1-Alt 1-78. Daily Construction Emissions - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	9.17
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	9.17
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	366.43
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	43.43
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	60.55
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	132.86
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	22.14
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	625.41

Table A.1.1-Alt 1-79. Daily Construction Emissions - Remove Surcharge - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	293.14
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	34.74
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	48.44
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	106.29
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	17.71
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	500.33

Table A.1.1-Alt 1-80. Daily Construction Emissions - Container Yard Development - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	88.33
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	53.98
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	48.28
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	231.70
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	109.53
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	162.53
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	353.97
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	320.36
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	58.89
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,427.57
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	58.36
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	77.23
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	195.63
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	199.52
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	61.83
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	55.94
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	648.52
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	81.27
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	48.28
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	53.98
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	183.53

Table A.1.1-Alt 1-81. Daily Construction Emissions - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
TRIPLE TRACK INSTALLATION DEMO EQ								
Track hoe with breaker and bucket (demo)	0.86	3.61	12.05	0.02	0.65	0.65	0.59	1.29
Front end loader	0.41	1.71	5.71	0.01	0.31	0.31	0.28	2.14
Backhoe or skiploader (as needed)								
12 or 14 H Blade								
Sheepsfoot vibratory roller								
Water truck								
Haul off dump trucks for spoil								
Subtotal	1.27	5.33	17.76	0.03	0.95	0.95	0.88	3.43
TRIPLE TRACK UTILITY RELOCATION EQ								
Front end loader								
Backhoe								
Trench vibratory roller or jumping jack								
Water truck								
Haul off dump trucks for spoil								
Concrete trucks								
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRIPLE TRACK GRADING EQ								
Haul in dump trucks for subballast material								
966 (or equivalent) Front end loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	2.24
Backhoe or skiploader (as needed)								
12 or 14 G Blade								
Auxiliary Engines								
Smooth drum vibratory roller								
Auxiliary Engines								
Water truck								
Subtotal	0.41	1.77	5.71	0.01	0.45	0.45	0.41	2.24
TRIPLE TRACK RETAINING WALL EQ								
Backhoe								
Trench vibratory roller or jumping jack								
Water truck								
Extendable forklift								
Concrete trucks if CIP walls								
Form Truck								
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRIPLE TRACK TRACKWORK EQ								
Ballast delivery dump trucks								
Smooth drum vibratory roller								
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	0.41	1.77	5.71	0.01	0.45	0.45	0.41	43.06
Swingmaster or Speedswing loader for rail handling								
Ballast cars for initial and final ballast placement								
16 head vibratory Tamper with full electronics for alignment and grade								
Ballast regulator								
Water truck								
Rail vibrator								
Subtotal	0.41	1.77	5.71	0.01	0.45	0.45	0.41	43.06
TRIPLE TRACK MISCELLANEOUS EQ								
Mechanic's truck								
Tool truck with small hydraulic hand tools								
Welding truck with hydraulic equipment								
Fuel truck								
Working Pickups								
Generator								
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.1-Alt 1-82. Daily Construction Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Grading								
Water Trucks (Gasoline)								
Truck for Soil Test Inspector (Gasoline)								
980 Loader	0.56	2.36	7.85	0.01	0.42	0.42	0.39	16.83
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	13.88
Vibratory Compactor	0.21	0.91	2.94	0.00	0.23	0.23	0.21	4.62
Subtotal	1.23	5.00	17.27	0.03	1.00	1.00	0.92	35.32
Survey								
Survey Trucks (Gasoline)								
Civil								
Crew Trucks	0.37	1.39	5.19	0.01	0.28	0.28	0.26	13.89
Dump Trucks	0.49	2.07	6.89	0.01	0.37	0.37	0.34	18.45
Stake Bed Truck (5-ton)	0.09	0.35	1.30	0.00	0.07	0.07	0.06	3.47
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	7.94
Drill Rig	0.22	0.96	3.09	0.00	0.24	0.24	0.22	2.43
Tractor	0.32	1.22	4.54	0.01	0.24	0.24	0.22	12.15
Forklift	0.05	0.65	0.90	0.00	0.08	0.08	0.08	4.09
Subtotal	1.91	7.95	26.83	0.04	1.55	1.55	1.42	62.42
Electrical								
8-Ton Stake Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	11.11
Crew Cab Trucks	0.56	2.08	7.78	0.01	0.42	0.42	0.38	33.33
Carryall Vehicles (Gasoline)								
Cranes	0.20	0.86	2.76	0.00	0.22	0.22	0.20	17.35
Lift Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	11.11
Pickups	0.37	1.39	5.19	0.01	0.28	0.28	0.26	22.22
Forklift	0.08	0.97	1.35	0.00	0.12	0.12	0.11	9.81
Manlifts	0.74	2.78	10.37	0.02	0.56	0.56	0.51	44.44
Support Trucks	0.37	1.39	5.19	0.01	0.28	0.28	0.26	22.22
Subtotal	2.69	10.85	37.81	0.06	2.15	2.15	1.97	171.61
Transformer Setup								
Carryall Vehicle (Gasoline)								
Crew Truck	0.09	0.35	1.30	0.00	0.07	0.07	0.06	1.39
Crane	0.15	0.64	2.07	0.00	0.16	0.16	0.15	3.25
Forklift	0.08	0.97	1.35	0.00	0.12	0.12	0.11	2.45
Low Bed Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	2.78
Subtotal	0.51	2.65	7.31	0.01	0.49	0.49	0.45	9.87
Test								
Test Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	5.56
Paving								
Foreman Truck	0.28	1.04	3.89	0.01	0.21	0.21	0.19	1.04
2 Dump Trucks	0.98	4.13	13.78	0.02	0.74	0.74	0.68	3.69
2 Skip Loaders	0.61	2.66	8.56	0.01	0.67	0.67	0.62	3.36
Barbergreen	0.26	1.15	3.70	0.01	0.29	0.29	0.27	0.58
Subtotal	2.14	8.99	29.93	0.05	1.91	1.91	1.76	8.68
Fence Installation								
Foreman Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	0.56
Crewcab	0.24	0.91	3.41	0.01	0.18	0.18	0.17	0.73
Bobcat (Gasoline)	0.18	0.66	2.47	0.00	0.13	0.13	0.12	0.53
3-Ton Flatbed Truck	0.12	0.46	1.70	0.00	0.09	0.09	0.08	0.18
Subtotal	0.73	2.72	10.17	0.02	0.54	0.54	0.50	2.00

Table A.1.1-Alt 1-83. Daily Construction Emissions - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Installation of 160 LWS poles and removal of wood poles								
Heavy Line Truck	0.26	1.11	3.70	0.01	0.20	0.20	0.18	11.90
Carry-All (Gasoline)								
Light Material Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	8.33
75' Bucket Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	8.33
Pickup Truck (Gasoline)								
Subtotal	0.63	2.50	8.89	0.01	0.48	0.48	0.44	28.57
Wire Replacement/Attachment and Termination								
Heavy Line Truck	0.26	1.11	3.70	0.01	0.20	0.20	0.18	17.86
Carry-All (Gasoline)								
Light Material Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	12.50
Pickup Truck (Gasoline)								
Subtotal	0.45	1.81	6.30	0.01	0.34	0.34	0.31	30.36
Final Connection of New Lines								
Heavy Line Truck	0.26	1.11	3.70	0.01	0.20	0.20	0.18	0.40
Carry-All (Gasoline)								
Light Material Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	0.28
Pickup Truck (Gasoline)								
Subtotal	0.45	1.81	6.30	0.01	0.34	0.34	0.31	0.67

Table A.1.1-Alt 1-84. Daily Construction Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 1 (1 of 3).

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Demolish Existing Facilities								
Wharf Demolition Landside	4	17	58	0	3	3	3	262
Wharf Demolition Marine	6	33	122	0	6	6	5	463
Sheet Pile Bulkhead Demolition	3	12	41	0	2	2	2	186
Construct New Bulkhead								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	24
Excavation Fronting E24								
Clamshell Dredging	31	219	1,113	4	39	39	36	2,715
Land Ex	4	16	54	0	3	3	3	214
Construct New Armor Slope								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	949
Wharf Construction								
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	141
Drive 24-In Octagonal Piles - Water	5	30	130	0	5	5	5	240
Drive Piles - Misc Activities	1	6	18	0	1	1	1	251
Reinforced Concrete Wharf	9	48	184	0	8	8	8	1,487
Retaining Bulkhead Construction	2	8	29	0	2	2	1	141
Utility Construction								
New Container Yard Utilities	8	33	117	0	6	6	6	192
Paving								
New Container Yard Construction - Paving	3	13	44	0	3	3	3	58
Lighting, Striping, Crane Power								
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	25
Prepare for Toe Die/Construct Dike (1st Lift)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	1,138
Fill within Dike								
Clamshell Dredging	31	219	1,113	4	39	39	36	1,396
Remaining Dike Lifts								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	1,138
Remaining Fill Lifts								
Clamshell Dredging	31	219	1,113	4	39	39	36	2,327
Wharf Construction								
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	119
Drive 24-In Octagonal Piles - Water	5	30	130	0	5	5	5	203
Drive Piles - Misc Activities	2	8	28	0	2	2	1	202
Reinforced Concrete Wharf	9	48	183	0	8	8	8	1,070
Retaining Bulkhead Construction	2	8	29	0	2	2	1	61
Construct South Mooring Dolphin								
Drive 24-In Octagonal Piles - Water	5	30	130	0	5	5	5	30
Wick Drains								
Wick Drains	0	2	6	0	0	0	0	3
Remove Surcharge								
Roll Surcharge	18	76	251	0	14	14	13	111
Remove Surcharge to Slip 1 Fill Site								
Roll Surcharge	18	76	251	0	14	14	13	56
Utility Construction								
New Container Yard Utilities	8	33	117	0	6	6	6	385

Table A.1.1-Alt 1-84. Daily Construction Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 1 (2 of 3).

Paving								
New Container Yard Construction - Paving	3	13	44	0	3	3	3	175
Lighting, Fence, Stripine, Crane Power								
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	49
Construct Retaining Structure at Pier D Oil Area								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	26
Excavate Trucking Material in Cell Bulkhead								
Land Ex	4	16	54	0	3	3	3	73
Excavate Material Fronting Pier D								
Land Ex	4	16	54	0	3	3	3	119
Clamshell Dredging	31	219	1,113	4	39	39	36	2,521
Remove Cellular Sheetpile								
Sheet Pile Bulkhead Demolition	3	12	41	0	2	2	2	147
Rock Revetment								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	911
Hydraulic or Clamshell Dredge to -55ft								
Clamshell Dredging	31	219	1,113	4	39	39	36	698
Ground Improvements Pier D								
Stone Column Installation Eq	11	46	154	0	9	9	8	602
Marine Rock Delivery Eq	16	107	560	0	19	19	18	634
Demo - E12-13 Wharf								
Wharf Demolition Landside	4	17	58	0	3	3	3	349
Wharf Demolition Marine	6	33	122	0	6	6	5	617
Lift #1 (~ -30)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	512
Lift #2 (~ -15)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	304
Lift #3 (~ 0)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	266
Lift #4 (~ +15)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	228
Initial Surcharge and Wick Drains								
Wick Drains	0	2	6	0	0	0	0	4
Roll Surcharge	18	76	251	0	14	14	13	167
2 nd Surcharge and Wick Drains								
Wick Drains	0	2	6	0	0	0	0	10
Roll Surcharge	18	76	251	0	14	14	13	250
3rd Surcharge and Wick Drains								
Wick Drains	0	2	6	0	0	0	0	10
Roll Surcharge	18	76	251	0	14	14	13	334
4th Surcharge and Wick Drains								
Wick Drains	0	2	6	0	0	0	0	9
Roll Surcharge	18	76	251	0	14	14	13	625
Remove Surcharge								
Roll Surcharge	18	76	251	0	14	14	13	500
Container Yard Development								
New Container Yard Utilities	8	33	117	0	6	6	6	1,428
New Container Yard Construction - Paving	3	13	44	0	3	3	3	649
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	184

Table A.1.1-Alt 1-84. Daily Construction Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 1 (3 of 3).

POLB Ocean Blvd Track Reconfiguration								
Triple Track Installation Demo Eq	1	5	18	0	1	1	1	3
Triple Track Utility Relocation Eq	0	0	0	0	0	0	0	0
Triple Track Grading Eq	0	2	6	0	0	0	0	2
Triple Track Retaining Wall Eq	0	0	0	0	0	0	0	0
Triple Track Trackwork Eq	0	2	6	0	0	0	0	43
Triple Track Miscellaneous Eq	0	0	0	0	0	0	0	0
Electrical Substation Construction								
Grading	1	5	17	0	1	1	1	35
Survey	0	0	0	0	0	0	0	0
Civil	2	8	27	0	2	2	1	62
Electrical	3	11	38	0	2	2	2	172
Transformer Setup	1	3	7	0	0	0	0	10
Test	0	1	3	0	0	0	0	6
Paving	2	9	30	0	2	2	2	9
Fence Installation	1	3	10	0	1	1	1	2
Overhead Subtransmission Line Construction								
Installation of 160 LWS poles and removal of wood poles	1	3	9	0	0	0	0	29
Wire Replacement/Attachment and Termination	0	2	6	0	0	0	0	30
Final Connection of New Lines	0	2	6	0	0	0	0	1
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	908	444	93	
Commuter Emissions	1	22	2	0	3	3	2	
Dredging Activities								
Dredging Activities	153	1,096	5,566	18	194	194	181	9,659
Peak Daily Emissions	169	1,109	5,179	15	985	524	213	
NEPA Impact - Unmitigated	157	1,060	5,005	14	985	68	110	
Mitigated Peak Daily Emissions (1)	169	1,109	5,179	15	394	209	85	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 1-85. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	60	69,144
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	60	126,000
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.60	1	138	8	1,104	60	66,240
Welding Machine	26	0.50	1	13	8	104	60	6,240
Generator	13	0.74	1	10	8	77	60	4,618
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	60	26,832
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.60	1	138	8	1,104	60	66,240
End Dump Truck	310	0.60	4	744	8	5,952	60	357,120
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Work Tug	750	0.40	1	300	8	2,400	60	144,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Hydra-Crane	130	0.43	1	56	8	447	60	26,832
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.60	1	138	8	1,104	60	66,240
End Dump Truck	310	0.60	3	558	8	4,464	60	267,840

Table A.1.1-Alt 1-86. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	9	10,372
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	9	18,900
Flatbed Truck	230	0.60	1	138	8	1,104	9	9,936
Welding Machine	26	0.45	1	12	8	94	9	842
Generator	13	0.74	1	10	8	77	9	693

Table A.1.1-Alt 1-87. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	30	0
Auxiliary Engine	500	0.00	1	0	24	0	30	0
Bottom Dump Scow	250	0.05	1	13	24	300	30	9,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	30	1,152,000
Auxiliary Engine	400	0.50	1	200	24	4,800	30	144,000
Work Tug	750	0.50	1	375	24	9,000	30	270,000
Auxiliary Engine	150	0.50	1	75	24	1,800	30	54,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	30	86,400
Auxiliary Engine	80	0.50	1	40	24	960	30	28,800

Table A.1.1-Alt 1-88. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,500	0.50	1	750	8	6,000	60	360,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	60	960,000
Auxiliary Engine	400	0.50	1	200	8	1,600	60	96,000
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
Auxiliary Engine	80	0.50	1	40	8	320	60	19,200

Table A.1.1-Alt 1-89. Activity Data - Wharf Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	36	19,014
Crane - 200 Ton	335	0.43	1	144	8	1,152	36	41,905
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	36	58,909
Piledriving Hammer	211	0.50	1	106	8	844	36	30,691
Loader-Wheel	300	0.68	1	204	8	1,632	36	59,345
Jet Pump	33	0.74	1	24	8	195	36	7,104
End Dump Truck	310	0.60	1	186	8	1,488	36	53,568
Truck-Flatbed	230	0.60	1	138	8	1,104	36	39,744
Truck-Lowboy	350	0.60	1	210	8	1,680	36	60,480
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	42	48,017
Derrick Barge	380	0.43	1	163	8	1,307	42	54,467
Auxiliary Engine	195	0.50	1	98	8	780	42	32,760
Piledriving Hammer	211	0.50	1	106	8	844	42	35,167
End Dump Truck	310	0.60	1	186	8	1,488	42	62,496
Tugboat	1,000	0.50	1	500	8	4,000	42	166,667
Auxiliary Engine	100	0.50	1	50	8	400	42	16,800
Truck-Flatbed	230	0.60	1	138	8	1,104	42	46,368
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	175	341,544
Loader-Wheel	180	0.68	1	122	8	979	175	171,360
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	175	201,670
Auxiliary Engine	107	0.50	1	54	8	428	175	74,900
Concrete Pump	210	0.74	1	155	8	1,243	175	217,560
Concrete Trucks	285	0.60	5	770	8	6,156	175	1,077,300
Sandblaster w/air compressor	50	0.75	1	38	8	300	175	52,500
Truck-Flatbed	230	0.60	1	138	8	1,104	175	193,200
Tugboat	1,000	0.50	1	500	8	4,000	175	700,000
Auxiliary Engine	100	0.50	1	50	8	400	175	70,000
Concrete Saw	35	0.10	1	4	8	28	175	4,900
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	175	255,500
Boom Truck	350	0.50	1	175	8	1,400	175	245,000

Table A.1.1-Alt 1-90. Activity Data - CY Development - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	38	29,733
Grader	215	0.61	1	131	8	1,049	38	39,345
Roller	151	0.50	3	227	8	1,812	38	67,950
Vibration Roller	154	0.50	3	231	8	1,848	38	69,300
Water Truck	210	0.50	1	105	8	840	38	31,500
Road Sweeper	190	0.50	1	95	8	760	38	28,500

Table A.1.1-Alt 1-91. Activity Data -Dredge to -55 ft - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	20	0
Auxiliary Engine	500	0.00	1	0	24	0	20	0
Bottom Dump Scow	250	0.05	1	13	24	300	20	6,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	20	768,000
Auxiliary Engine	400	0.50	1	200	24	4,800	20	96,000
Work Tug	750	0.50	1	375	24	9,000	20	180,000
Auxiliary Engine	150	0.50	1	75	24	1,800	20	36,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	20	57,600
Auxiliary Engine	80	0.50	1	40	24	960	20	19,200

Table A.1.1-Alt 1-92. Daily Construction Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	22.87
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	41.67
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	38.72
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	21.90
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	6.19
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	4.58
Subtotal	3.02	12.07	40.93	0.06	2.27	2.27	2.08	135.93
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	38.72
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	21.90
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	118.10
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	191.74
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	40.95
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Work Tug	1.32	9.79	38.87	0.03	1.22	1.22	1.14	72.97
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	17.46
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	38.72
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	21.90
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	88.57
Subtotal	6.36	32.88	109.43	0.14	5.16	5.16	4.77	309.47

Table A.1.1-Alt 1-93. Daily Construction Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	3.43
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	6.25
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	3.29
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	0.84
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	0.69
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	14.49

Table A.1.1-Alt 1-94. Daily Construction Emissions -Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	2.98
Tug Boat	21.11	156.58	621.93	0.50	19.46	19.46	18.23	583.79
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	47.62
Work Tug	4.95	36.70	145.76	0.12	4.56	4.56	4.27	136.83
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	26.19
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	57.14
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	19.05
Subtotal	30.55	219.19	864.63	3.68	29.12	29.12	27.23	873.59

Table A.1.1-Alt 1-95. Daily Construction Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	40.95
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	43.17
Tug Boat	3.30	24.46	97.18	0.08	3.04	3.04	2.85	182.43
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	17.46
Tug Boat	8.80	65.24	259.14	0.21	8.11	8.11	7.60	486.49
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	31.75
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	38.10
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	12.70
Subtotal	15.77	109.58	419.12	1.35	14.48	14.48	13.52	868.92

Table A.1.1-Alt 1-96. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	9.22
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	13.86
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	19.48
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	10.15
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	19.62
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	7.05
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	17.71
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	13.14
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	20.00
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	130.24
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	15.88
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	18.01
Auxiliary Engine	0.34	1.29	4.81	0.01	0.26	0.26	0.24	10.83
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	11.63
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	20.67
Tugboat	2.20	16.31	64.78	0.05	2.03	2.03	1.90	84.46
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	11.11
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	15.33
Subtotal	5.32	30.22	108.90	0.12	4.50	4.50	4.17	187.92
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	112.94
Loader-Wheel	0.43	1.62	6.04	0.01	0.32	0.32	0.30	56.67
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	44.38
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Subtotal	2.03	8.37	28.43	0.04	1.60	1.60	1.48	280.68
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	44.38
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Auxiliary Engine	0.19	2.24	3.11	0.00	0.28	0.28	0.26	49.54
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	71.94
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	356.25
Sandblaster w/air compressor	0.40	1.01	3.31	0.00	0.30	0.30	0.27	52.08
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	63.89
Tugboat	2.20	16.31	64.78	0.05	2.03	2.03	1.90	354.73
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	46.30
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	4.86
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	84.49
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	81.02
Subtotal	9.26	47.59	162.02	0.20	7.67	7.67	7.09	1,342.86

Table A.1.1-Alt 1-97. Daily Construction Emissions - DCY Development - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	9.83
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	13.01
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	32.96
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	33.61
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	10.42
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	9.42
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	109.25

Table A.1.1-Alt 1-98. Daily Construction Emissions - Dredge to -55 ft - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	1.98
Tug Boat	21.11	156.58	621.93	0.50	19.46	19.46	18.23	389.19
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	31.75
Work Tug	4.95	36.70	145.76	0.12	4.56	4.56	4.27	91.22
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	17.46
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	38.10
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	12.70
Subtotal	30.55	219.19	864.63	3.68	29.12	29.12	27.23	582.39

Table A.1.1-Alt 1-99. Daily Construction Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 2.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Demolish Existing Facilities								
Sheet Pile Bulkhead Demolition	3	12	41	0	2	2	2	136
Wharf Demolition Landside	4	17	58	0	3	3	3	192
Wharf Demolition Marine	6	33	109	0	5	5	5	309
Construct New Bulkhead (Install Transition Bulkhead)								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	14
Excavation Fronting E25 and Dispose Slip 1								
Clamshell Dredging	31	219	865	4	29	29	27	874
Construct New Armor Slope								
Rock Placement, Push Off & Tub & Orange Peels	16	110	419	1	14	14	14	869
Wharf Construction								
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	130
Drive 24-In Octagonal Piles - Water	5	30	109	0	4	4	4	188
Drive Piles - Misc Activities	2	8	28	0	2	2	1	281
Reinforced Concrete Wharf	9	48	162	0	8	8	7	1,343
CY Development								
New Container Yard Construction - Paving	3	13	44	0	3	3	3	109
Dredge to -55 ft								
Clamshell Dredging	31	219	865	4	29	29	27	582
Other Peak Daily Emissions								
Fugitive Emissions	-	-	-	-	605	296	62	
Commuter Emissions	2	33	3	0	4	4	4	
Dredging Activities								
Dredging Activities	61	438	1,729	7	58	58	54	1,456
Peak Daily Emissions	48	362	1,287	5	649	344	106	
Mitigated Peak Daily Emissions (1)	48	362	1,287	5	259	137	42	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 1-100. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	120	53,664
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.60	1	138	8	1,104	120	132,480
End Dump Truck	310	0.60	4	744	8	5,952	120	714,240
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	120	247,680
Auxiliary Engine	200	0.50	1	100	8	800	120	96,000
Work Tug	750	0.40	1	300	8	2,400	120	288,000
Auxiliary Engine	150	0.50	1	75	8	600	120	72,000
Hydra-Crane	130	0.43	1	56	8	447	120	53,664
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.60	1	138	8	1,104	120	132,480
End Dump Truck	310	0.60	3	558	8	4,464	120	535,680
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	120	138,288
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	120	252,000
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.60	1	138	8	1,104	120	132,480
Welding Machine	26	0.50	1	13	8	104	120	12,480
Generator	13	0.74	1	10	8	77	120	9,235

Table A.1.1-Alt 1-101. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	12	13,829
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	12	25,200
Flatbed Truck	230	0.60	1	138	8	1,104	12	13,248
Welding Machine	26	0.45	1	12	8	94	12	1,123
Generator	13	0.74	1	10	8	77	12	924

Table A.1.1-Alt 1-102. Activity Data - Excavation Fronting E26 and Dispose Slip 1 - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	27	0
Auxiliary Engine	500	0.00	1	0	24	0	27	0
Bottom Dump Scow	250	0.05	1	13	24	300	27	8,100
Tug Boat	4,000	0.40	1	1,600	24	38,400	27	1,036,800
Auxiliary Engine	400	0.40	1	160	24	3,840	27	103,680
Work Tug	750	0.50	1	375	24	9,000	27	243,000
Auxiliary Engine	150	0.50	1	75	24	1,800	27	48,600
Crew/Survey Boat	400	0.30	1	120	24	2,880	27	77,760
Auxiliary Engine	80	0.50	1	40	24	960	27	25,920

Table A.1.1-Alt 1-103. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	90	185,760
Auxiliary Engine	200	0.50	1	100	8	800	90	72,000
Front End Loader	400	0.68	1	272	8	2,176	90	195,840
Tug Boat	1,500	0.50	1	750	8	6,000	90	540,000
Auxiliary Engine	150	0.50	1	75	8	600	90	54,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	90	1,440,000
Auxiliary Engine	400	0.50	1	200	8	1,600	90	144,000
Crew/Survey Boat	400	0.30	1	120	8	960	90	86,400
Auxiliary Engine	80	0.50	1	40	8	320	90	28,800

Table A.1.1-Alt 1-104. Activity Data - Wharf Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	67	34,859
Crane - 200 Ton	335	0.43	1	144	8	1,152	67	76,827
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	67	108,000
Piledriving Hammer	211	0.50	1	106	8	844	67	56,267
Loader-Wheel	300	0.68	1	204	8	1,632	67	108,800
Jet Pump	33	0.74	1	24	8	195	67	13,024
End Dump Truck	310	0.60	1	186	8	1,488	67	99,696
Truck-Flatbed	230	0.60	1	138	8	1,104	67	73,968
Truck-Lowboy	350	0.60	1	210	8	1,680	67	112,560
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	76	88,031
Derrick Barge	380	0.43	1	163	8	1,307	76	99,856
Auxiliary Engine	195	0.50	1	98	8	780	76	59,280
Piledriving Hammer	211	0.50	1	106	8	844	76	64,472
End Dump Truck	310	0.60	1	186	8	1,488	76	113,088
Tugboat	1,000	0.50	1	500	8	4,000	76	305,556
Auxiliary Engine	100	0.50	1	50	8	400	76	30,400
Truck-Flatbed	230	0.60	1	138	8	1,104	76	83,904
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	245	478,162
Loader-Wheel	180	0.68	1	122	8	979	245	239,904
Hydraulic Crane	152	0.43	1	65	8	523	245	128,106
Crane - 150 Ton	335	0.43	1	144	8	1,152	245	282,338
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	245	128,106
Crane - 150 Ton	335	0.43	1	144	8	1,152	245	282,338
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	245	282,338
Auxiliary Engine	107	0.50	1	54	8	428	245	104,860
Concrete Pump	210	0.74	1	155	8	1,243	245	304,584
Concrete Trucks	285	0.60	5	770	8	6,156	245	1,508,220
Sandblaster w/air compressor	50	0.75	1	38	8	300	245	73,500
Truck-Flatbed	230	0.60	1	138	8	1,104	245	270,480
Tugboat	1,000	0.50	1	500	8	4,000	245	980,000
Auxiliary Engine	100	0.50	1	50	8	400	245	98,000
Concrete Saw	35	0.10	1	4	8	28	245	6,860
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	245	357,700
Boom Truck	350	0.50	1	175	8	1,400	245	343,000

Table A.1.1-Alt 1-105. Activity Data - Construct E27 Bulkhead - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	40	46,096
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	40	84,000
Flatbed Truck	230	0.60	1	138	8	1,104	40	44,160
Welding Machine	26	0.45	1	12	8	94	40	3,744
Generator	13	0.74	1	10	8	77	40	3,078

Table A.1.1-Alt 1-106. Activity Data - CY Development - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	210	252,000
Auger	125	0.50	1	63	8	500	210	105,000
Crane	130	0.43	1	56	8	447	210	93,912
Grader	215	0.61	3	393	8	3,148	210	660,996
End Dump Truck	310	0.60	1	186	8	1,488	210	312,480
Flat Bed Truck	230	0.60	2	276	8	2,208	210	463,680
Concrete Truck	250	0.60	4	600	8	4,800	210	1,008,000
Front End Loader	400	0.68	2	544	8	4,352	210	913,920
Trencher	200	0.50	1	100	8	800	210	168,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	210	166,505
Grader	215	0.61	1	131	8	1,049	210	220,332
Roller	151	0.50	3	227	8	1,812	210	380,520
Vibration Roller	154	0.50	3	231	8	1,848	210	388,080
Water Truck	210	0.50	1	105	8	840	210	176,400
Road Sweeper	190	0.50	1	95	8	760	210	159,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	210	231,840
Truck Crane	130	0.43	1	56	8	447	210	93,912
Auger	125	0.50	1	63	8	500	210	105,000

Table A.1.1-Alt 1-107. Activity Data - Hydraulic Dredging to -55ft - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	30	0
Auxiliary Engine	500	0.00	1	0	24	0	30	0
Bottom Dump Scow	250	0.05	1	13	24	300	30	9,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	30	1,152,000
Auxiliary Engine	400	0.50	1	200	24	4,800	30	144,000
Work Tug	750	0.50	1	375	24	9,000	30	270,000
Auxiliary Engine	105	0.50	1	53	24	1,260	30	37,800
Crew/Survey Boat	400	0.30	1	120	24	2,880	30	86,400
Auxiliary Engine	80	0.30	1	24	24	576	30	17,280

Table A.1.1-Alt 1-108. Daily Construction Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	26.03
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	77.45
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	43.81
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	236.19
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	383.48
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	81.90
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	31.75
Work Tug	1.32	9.79	26.28	0.03	0.73	0.73	0.68	87.19
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	34.92
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	26.03
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	77.45
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	43.81
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	177.14
Subtotal	6.36	32.88	96.84	0.14	4.67	4.67	4.31	560.19
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	45.73
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	83.33
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	77.45
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	43.81
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	12.38
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	9.16
Subtotal	3.02	12.07	40.93	0.06	2.27	2.27	2.08	271.86

Table A.1.1-Alt 1-109. Daily Construction Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	4.57
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	8.33
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	4.38
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	1.11
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	0.92
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	19.32

Table A.1.1-Alt 1-110. Daily Construction Emissions - Excavation Fronting E26 and Dispose Slip 1 - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	2.68
Tug Boat	21.11	156.58	420.50	0.50	11.63	11.63	10.89	313.89
Auxiliary Engine	1.69	7.11	23.70	0.04	1.27	1.27	1.17	34.29
Work Tug	4.95	36.70	98.55	0.12	2.72	2.72	2.55	73.57
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	23.57
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	51.43
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	17.14
Subtotal	30.12	217.41	610.07	3.67	19.13	19.13	17.88	516.57

Table A.1.1-Alt 1-111. Daily Construction Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	61.43
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	23.81
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	64.76
Tug Boat	3.30	24.46	65.70	0.08	1.82	1.82	1.70	163.49
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	26.19
Tug Boat	8.80	65.24	175.21	0.21	4.84	4.84	4.54	435.96
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	47.62
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	57.14
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	19.05
Subtotal	15.77	109.58	303.72	1.35	9.99	9.99	9.32	899.45

Table A.1.1-Alt 1-112. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	16.91
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	25.41
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	35.71
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	18.61
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	35.98
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	12.92
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	32.97
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	24.46
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	37.22
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	240.18
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	29.11
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	33.02
Auxiliary Engine	0.34	1.29	4.81	0.01	0.26	0.26	0.24	19.60
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	21.32
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	37.40
Tugboat	2.20	16.31	43.80	0.05	1.21	1.21	1.13	92.51
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	20.11
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	27.75
Subtotal	5.32	30.22	87.92	0.12	3.68	3.68	3.41	280.81
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	158.12
Loader-Wheel	0.43	1.62	6.04	0.01	0.32	0.32	0.30	79.33
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	62.13
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	93.37
Subtotal	2.03	8.37	28.43	0.04	1.60	1.60	1.48	392.95
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	62.13
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	93.37
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	93.37
Auxiliary Engine	0.19	2.24	3.11	0.00	0.28	0.28	0.26	69.35
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	100.72
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	498.75
Sandblaster w/air compressor	0.40	1.01	3.31	0.00	0.30	0.30	0.27	72.92
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	89.44
Tugboat	2.20	16.31	43.80	0.05	1.21	1.21	1.13	296.70
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	64.81
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	6.81
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	118.29
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	113.43
Subtotal	9.26	47.59	141.04	0.20	6.86	6.86	6.33	1,680.08

Table A.1.1-Alt 1-113. Daily Construction Emissions - Construct E27 Bulkhead - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	15.24
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	27.78
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	14.60
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	3.71
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	3.05
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	64.39

Table A.1.1-Alt 1-114. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelaye	0.53	2.22	7.41	0.01	0.40	0.40	0.37	83.33
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	50.93
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	45.55
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	218.58
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	103.33
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	153.33
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	333.33
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	302.22
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	55.56
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,346.17
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	55.06
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	72.86
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	184.56
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	188.22
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	58.33
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	52.78
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	611.81
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	76.67
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	45.55
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	50.93
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	173.14

Table A.1.1-Alt 1-115. Daily Construction Emissions - Hydraulic Dredging to -55ft - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	2.98
Tug Boat	21.11	156.58	420.50	0.50	11.63	11.63	10.89	348.77
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	47.62
Work Tug	4.95	36.70	98.55	0.12	2.72	2.72	2.55	81.74
Auxiliary Engine	0.56	6.58	9.17	0.01	0.83	0.83	0.77	25.00
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	57.14
Auxiliary Engine	0.25	3.01	4.19	0.01	0.38	0.38	0.35	11.43
Subtotal	30.14	220.31	611.25	3.67	19.16	19.16	17.90	574.68

Table A.1.1-Alt 1-116. Daily Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 3.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Demolish Existing Facilities								
Wharf Demolition Landside	4	17	58	0	3	3	3	383
Wharf Demolition Marine	6	33	97	0	5	5	4	560
Sheet Pile Bulkhead Demolition	3	12	41	0	2	2	2	272
Construct New Bulkhead								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	19
Excavation Fronting E26 and Dispose Slip 1								
Clamshell Dredging	30	217	610	4	19	19	18	517
Construct New Armor Slope								
Rock Placement, Push Off & Tub & Orange Peels	16	110	304	1	10	10	9	899
Wharf Construction								
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	240
Drive 24-In Octagonal Piles - Water	5	30	88	0	4	4	3	281
Drive Piles - Misc Activities	2	8	28	0	2	2	1	393
Reinforced Concrete Wharf	9	48	141	0	7	7	6	1,680
Construct E27 Bulkhead								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	64
CY Development								
Vibratory Hammer & Power Pack	8	33	117	0	6	6	6	1,346
Flatbed Truck	3	13	44	0	3	3	3	612
Welding Machine	1	4	13	0	1	1	1	173
Hydraulic Dredge to -55ft								
Clamshell Dredging	30	220	611	4	19	19	18	575
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	1,568	767	160	
Commuter Emissions	1	15	1	0	2	2	2	
Dredging Activities								
Dredging Activities	60	438	1,221	7	38	38	36	1,091
Peak Daily Emissions	52	340	934	4	1,602	801	192	
Mitigated Peak Daily Emissions	52	340	934	4	641	321	77	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 1-117. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	335	402,000
Auger	125	0.50	1	63	8	500	335	167,500
Crane	130	0.43	1	56	8	447	335	149,812
Grader	215	0.61	3	393	8	3,148	335	1,054,446
End Dump Truck	310	0.60	1	186	8	1,488	335	498,480
Flat Bed Truck	230	0.60	2	276	8	2,208	335	739,680
Concrete Truck	250	0.60	4	600	8	4,800	335	1,608,000
Front End Loader	400	0.68	2	544	8	4,352	335	1,457,920
Trencher	200	0.50	1	100	8	800	335	268,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	335	265,615
Grader	215	0.61	1	131	8	1,049	335	351,482
Roller	151	0.50	3	227	8	1,812	335	607,020
Vibration Roller	154	0.50	3	231	8	1,848	335	619,080
Water Truck	210	0.50	1	105	8	840	335	281,400
Road Sweeper	190	0.50	1	95	8	760	335	254,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	335	369,840
Truck Crane	130	0.43	1	56	8	447	335	149,812
Auger	125	0.50	1	63	8	500	335	167,500

Table A.1.1-Alt 1-118. Daily Construction Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	132.94
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	81.24
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	72.66
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	348.69
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	164.84
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	244.60
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	531.75
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	482.12
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	88.62
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	2,147.46
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	87.84
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	116.23
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	294.41
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	300.26
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	93.06
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	84.19
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	975.98
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	122.30
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	72.66
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	81.24
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	276.20

Table A.1.1-Alt 1-119. Daily Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 4.

<i>Activity</i>	<i>Pounds per Day</i>							<i>Total lbs.</i>
	<i>VOC</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM</i>	<i>PM10</i>	<i>PM2.5</i>	<i>DPM</i>
Seaside Railyard Area Redevelopment								
New Container Yard Utilities	8	33	117	0	6	6	6	2,147
New Container Yard Construction - Paving	3	13	44	0	3	3	3	976
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	276
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	2,530	1,237	258	
Commuter Emissions	0	6	1	0	1	1	1	
Peak Daily Emissions	13	55	174	0	2,540	1,247	267	
Mitigated Peak Daily Emissions	13	55	174	0	1,016	499	107	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 1-120. Activity Data - New Container Yard Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	255	305,760
Auger	125	0.50	1	63	8	500	255	127,400
Crane	130	0.43	1	56	8	447	255	113,947
Grader	215	0.61	3	393	8	3,148	255	802,008
End Dump Truck	310	0.60	1	186	8	1,488	255	379,142
Flat Bed Truck	230	0.60	2	276	8	2,208	255	562,598
Concrete Truck	250	1	4	600	8	4,800	255	1,224,000
Front End Loader	400	0.68	2	544	8	4,352	255	1,108,890
Trencher	200	0.50	1	100	8	800	255	203,840
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	255	202,026
Grader	215	0.61	1	131	8	1,049	255	267,336
Roller	151	0.50	3	227	8	1,812	255	461,698
Vibration Roller	154	0.50	3	231	8	1,848	255	470,870
Water Truck	210	0.50	1	105	8	840	255	214,032
Road Sweeper	190	0.50	1	95	8	760	255	193,648
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	255	281,299
Truck Crane	130	0.43	1	56	8	447	255	113,947
Auger	125	0.50	1	63	8	500	255	127,400

Table A.1.1-Alt 1-121. Daily Construction Emissions - New Container Yard Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	101.11
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	61.79
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	55.27
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	265.21
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	125.38
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	186.04
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	404.76
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	366.70
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	67.41
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,633.67
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	66.81
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	88.40
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	223.93
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	228.38
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	70.78
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	64.04
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	742.33
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	93.02
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	55.27
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	61.79
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	210.08

Table A.1.1-Alt 1-122. Daily Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 5.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
New Yard Development								
New Container Yard Utilities	8	33	117	0	6	6	6	1,634
New Container Yard Construction - Paving	3	13	44	0	3	3	3	742
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	210
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	2,530	1,237	258	
Commuter Emissions	1	24	2	0	4	4	3	
Peak Daily Emissions	14	73	175	0	2,540	1,247	267	
Mitigated Peak Daily Emissions (1)	14	73	175	0	1,016	499	107	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

(15) (407)

Table A.1.1-Alt 1-123. Activity Data - Demolition - POLB - MHTP - Alternative 1.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	140	62,608
Excavator	428	0.57	1	244	8	1,952	140	273,235
Flatbed Truck	230	0.60	1	138	8	1,104	140	154,560
End Dump Truck	310	0.60	4	744	8	5,952	140	833,280

Table A.1.1-Alt 1-124. Activity Data - Railyard Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
INTERMODAL YARD CONSTRUCTION								
Backhoe	102	0.57	1	58	8	465	315	146,513
Excavator	428	0.57	1	244	8	1,952	315	614,779
Ballast Spreader	100	0.50	1	50	8	400	315	126,000
Ballast Tamper	100	0.50	1	50	8	400	315	126,000
Generator Set	23	0.74	2	34	8	272	315	85,781
Roller	151	0.50	1	76	8	604	315	190,260
Grader	215	0.61	1	131	8	1,049	315	330,498
Truck Mounted Crane	130	0.43	1	56	8	447	315	140,868
Forklift	103	0.30	1	31	8	247	315	77,868
Flatbed Truck	230	0.60	2	276	8	2,208	315	695,520
End Dump Truck	310	0.60	2	372	8	2,976	315	937,440
Water Truck	210	0.60	1	126	8	1,008	315	317,520

Table A.1.1-Alt 1-125. Activity Data - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	112	134,400
Auger	125	0.50	1	63	8	500	112	56,000
Crane	130	0.43	1	56	8	447	112	50,086
Grader	215	0.61	3	393	8	3,148	112	352,531
End Dump Truck	310	0.60	1	186	8	1,488	112	166,656
Flat Bed Truck	230	0.60	2	276	8	2,208	112	247,296
Concrete Truck	250	0.60	4	600	8	4,800	112	537,600
Front End Loader	400	0.68	2	544	8	4,352	112	487,424
Trencher	200	0.50	1	100	8	800	112	89,600
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	112	88,803
Grader	215	0.61	1	131	8	1,049	112	117,510
Roller	151	0.50	3	227	8	1,812	112	202,944
Vibration Roller	154	0.50	3	231	8	1,848	112	206,976
Water Truck	210	0.50	1	105	8	840	112	94,080
Road Sweeper	190	0.50	1	95	8	760	112	85,120
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	112	123,648
Truck Crane	130	0.43	1	56	8	447	112	50,086
Auger	125	0.50	1	63	8	500	112	56,000

Table A.1.1-Alt 1-126. Activity Data - Demo Existing F1 -4, F6 Wharf - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	4	744	8	5,952	182	1,083,264
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	182	375,648
Auxiliary Engine	200	0.50	1	100	8	800	182	145,600
Work Tug	750	0.40	1	300	8	2,400	182	436,800
Auxiliary Engine	150	0.50	1	75	8	600	182	109,200
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	3	558	8	4,464	182	812,448

Table A.1.1-Alt 1-127. Activity Data - Construct East Basain Retaining Dike - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	90	185,760
Auxiliary Engine	200	0.50	1	100	8	800	90	72,000
Front End Loader	400	0.68	1	272	8	2,176	90	195,840
Tug Boat	1,500	0.50	1	750	8	6,000	90	540,000
Auxiliary Engine	150	0.50	1	75	8	600	90	54,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	90	1,440,000
Auxiliary Engine	400	0.50	1	200	8	1,600	90	144,000
Crew/Survey Boat	400	0.30	1	120	8	960	90	86,400
Auxiliary Engine	80	0.50	1	40	8	320	90	28,800

Table A.1.1-Alt 1-128. Activity Data -Slip/Basin Fill & Surcharge East- POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CUTTER SUCTION DREDGING- Spill Barge (no booster)								
Cutter Suction Dredge	8,400	0.00	1	0	24	0	34	0
Auxiliary Engine	4,800	0.00	1	0	24	0	34	0
Work Tug	750	0.50	2	750	24	18,000	34	617,400
Auxiliary Engine	150	0.50	1	75	24	1,800	34	61,200
Derrick Barge	600	0.43	1	258	24	6,192	34	212,386
Auxiliary Engine	200	0.50	1	100	24	2,400	34	81,600
Spill Barge	300	0.20	1	60	24	1,440	34	49,392
Auxiliary Engine	50	0.50	1	25	24	600	34	20,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	34	98,784
Auxiliary Engine	80	0.50	1	40	24	960	34	32,640
CUTTER SUCTION DREDGING- Land Disposal (no booster)								
Cutter Suction Dredge	8,400	0.00	1	0	24	0	34	0
Auxiliary Engine	4,800	0.00	1	0	24	0	34	0
Work Tug	750	0.50	2	750	24	18,000	34	617,400
Auxiliary Engine	150	0.50	1	75	24	1,800	34	61,200
Derrick Barge	600	0.43	1	258	24	6,192	34	212,386
Auxiliary Engine	200	0.50	1	100	24	2,400	34	81,600
Hydra-crane	130	0.43	1	56	24	1,342	34	46,017
Dozer	285	0.64	3	547	24	13,133	34	450,455
Crew/Survey Boat	400	0.30	1	120	24	2,880	34	98,784
Auxiliary Engine	80	0.50	1	40	24	960	34	32,640
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	147	150,998

Table A.1.1-Alt 1-129. Activity Data - Roll Surcharge - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	42	1,034,208
Dozers	285	0.64	2	365	8	2,918	42	122,573
Loader	170	0.68	3	347	8	2,774	42	116,525
End Dump Truck	310	0.60	6	1,116	8	8,928	42	374,976
Water Truck	310	0.60	1	186	8	1,488	42	62,496

Table A.1.1-Alt 1-130. Daily Construction Emissions - Demolition - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	30.37
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	90.36
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	51.11
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	275.56
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	447.39

Table A.1.1-Alt 1-131. Daily Construction Emissions - Railyard Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
INTERMODAL YARD CONSTRUCTION								
Backhoe	0.21	2.43	3.38	0.00	0.31	0.31	0.28	96.90
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	203.30
Ballast Spreader	0.18	2.09	2.91	0.00	0.26	0.26	0.24	83.33
Ballast Tamper	0.18	2.09	2.91	0.00	0.26	0.26	0.24	83.33
Generator Set	0.36	0.92	3.00	0.00	0.27	0.27	0.25	85.10
Roller	0.27	1.16	3.73	0.01	0.29	0.29	0.27	92.28
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	109.29
Truck Mounted Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	68.32
Forklift	0.11	1.29	1.80	0.00	0.16	0.16	0.15	51.50
Flatbed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	230.00
End Dump Truck	1.31	8.73	18.37	0.03	0.98	0.98	0.91	310.00
Water Truck	0.44	1.67	6.22	0.01	0.33	0.33	0.31	105.00
Subtotal	5.54	30.23	77.24	0.12	4.82	4.82	4.43	1,518.36

Table A.1.1-Alt 1-132. Daily Construction Emissions - Container Yard Development - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	44.44
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	27.16
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	24.29
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	116.58
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	55.11
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	81.78
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	177.78
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	161.19
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	29.63
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	717.96
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	29.37
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	38.86
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	98.43
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	100.39
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	31.11
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	28.15
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	326.30
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	40.89
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	24.29
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	27.16
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	92.34

Table A.1.1-Alt 1-133. Daily Construction Emissions - Demo Existing F1 - F4, F6 Wharf - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	39.48
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	117.46
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	66.44
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	358.22
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	581.60
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	124.22
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	48.15
Work Tug	1.32	9.79	19.99	0.03	0.48	0.48	0.45	87.69
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	52.96
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	39.48
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	117.46
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	66.44
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	268.67
Subtotal	6.36	32.88	90.55	0.14	4.42	4.42	4.08	805.07

Table A.1.1-Alt 1-134. Daily Construction Emissions - Construct East Basin Retaining Dike - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	61.43
Auxiliary Engines	0.35	1.32	4.94	0.01	0.26	0.26	0.24	23.81
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	64.76
Tug Boat	3.30	24.46	49.97	0.08	1.20	1.20	1.13	108.40
Auxiliary Engines	0.26	1.15	3.70	0.01	0.29	0.29	0.27	26.19
Tug Boat	8.80	65.24	133.24	0.21	3.21	3.21	3.01	289.07
Auxiliary Engines	0.71	2.96	9.88	0.02	0.53	0.53	0.49	47.62
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	57.14
Auxiliary Engines	0.14	1.67	2.33	0.00	0.21	0.21	0.19	19.05
Subtotal	15.77	109.58	246.02	1.35	7.75	7.75	7.22	697.48

Table A.1.1-Alt 1-135. Daily Construction Emissions - Slip/Basin Fill & Surcharge East - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CUTTER SUCTION DREDGING- Spill Barge (no booster)								
Cutter Suction Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Tug	9.90	73.39	149.90	0.23	3.61	3.61	3.39	123.94
Auxiliary Engines	0.79	3.45	11.11	0.02	0.87	0.87	0.80	29.68
Derrick Barge	2.73	18.16	38.22	0.06	2.05	2.05	1.88	70.23
Auxiliary Engines	1.06	3.97	14.81	0.02	0.79	0.79	0.73	26.98
Spill Barge	0.63	2.67	8.89	0.01	0.48	0.48	0.44	16.33
Auxiliary Engines	0.79	2.02	6.61	0.01	0.60	0.60	0.55	20.24
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	65.33
Auxiliary Engines	0.42	5.02	6.98	0.01	0.63	0.63	0.58	21.59
Subtotal	17.35	116.74	283.90	3.35	10.94	10.94	10.16	374.33
CUTTER SUCTION DREDGING- Land Disposal (no booster)								
Cutter Suction Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Tug	9.90	73.39	149.90	0.23	3.61	3.61	3.39	123.94
Auxiliary Engines	0.79	3.45	11.11	0.02	0.87	0.87	0.80	29.68
Derrick Barge	2.73	18.16	38.22	0.06	2.05	2.05	1.88	70.23
Auxiliary Engines	1.06	3.97	14.81	0.02	0.79	0.79	0.73	26.98
Hydra-crane	0.59	2.48	8.28	0.01	0.44	0.44	0.41	15.22
Dozer	17.37	44.30	144.76	0.13	13.03	13.03	11.99	446.88
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	65.33
Auxiliary Engines	0.42	5.02	6.98	0.01	0.63	0.63	0.58	21.59
Subtotal	33.88	158.83	421.44	3.47	23.34	23.34	21.57	799.86
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	49.93
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	49.93

Table A.1.1-Alt 1-136. Daily Construction Emissions - Roll Surcharge - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	342.00
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	40.53
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	56.52
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	124.00
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	20.67
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	583.72

Table A.1.1-Alt 1-137. Daily Emissions - POLB - MHTP - Alternative 1 - Phase 2 - Stage 1.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Demolition								
Wharf Demolition Landside	4	17	58	0	3	3	3	447
Railyard								
Intermodal Yard Construction	6	30	77	0	5	5	4	1,518
Container Yard Development								
New Container Yard Utilities	8	33	117	0	6	6	6	718
New Container Yard Construction - Paving	3	13	44	0	3	3	3	326
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	92
Demo Existing F1 - F4, F6 Wharf								
Wharf Demolition Landside	4	17	58	0	3	3	3	582
Wharf Demolition Marine	6	33	91	0	4	4	4	805
Construct East Basin Retaining Dike								
Rock Placement, Push Off & Tub & Orange Peels	16	110	246	1	8	8	7	697
Slip/Basin Fill & Surcharge East								
Cutter Suction Dredging- Spill Barge (No Booster)	17	117	284	3	11	11	10	374
Cutter Suction Dredging- Land Disposal (No Booster)	34	159	421	3	23	23	22	800
Wick Drains	0	2	6	0	0	0	0	50
Roll Surcharge								
Roll Surcharge	18	76	251	0	14	14	13	584
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	1,568	767	160	
Commuter Emissions	1	15	1	0	2	2	2	
Dredging Activities								
Clamshell Dredging	51	276	705	7	34	34	32	1,174
Peak Daily Emissions	69	372	939	7	1,615	814	203	
Mitigated Peak Daily Emissions (1)	69	372	939	7	646	325	81	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

(189) (40)

Table A.1.1-Alt 1-138. Activity Data - Construction - New Terminal Buildings - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
Building Construction								
Auger	125	0.50	1	63	8	500	180	90,000
Crane	130	0.43	3	168	8	1,342	180	241,488
Grader	215	0.61	3	393	8	3,148	180	566,568
End Dump Truck	310	0.60	4	744	8	5,952	180	1,071,360
Flat Bed Truck	230	0.60	2	276	8	2,208	180	397,440
Concrete Truck	250	0.60	2	300	8	2,400	180	432,000
Front End Loader	400	0.68	2	544	8	4,352	180	783,360
Trencher	200	0.50	1	100	8	800	180	144,000

Table A.1.1-Alt 1-139. Activity Data - Dredge and Excavate at Quay Wall - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	84	0
Auxiliary Engine	500	0.00	1	0	24	0	84	0
Bottom Dump Scow	250	0.05	1	13	24	300	84	25,200
Tug Boat	4,000	0.40	1	1,600	24	38,400	84	3,225,600
Auxiliary Engine	400	0.50	1	200	24	4,800	84	403,200
Work Tug	750	0.50	1	375	24	9,000	84	756,000
Auxiliary Engine	150	0.50	1	75	24	1,800	84	151,200
Crew/Survey Boat	400	0.30	1	120	24	2,880	84	241,920
Auxiliary Engine	80	0.50	1	40	24	960	84	80,640

Table A.1.1-Alt 1-140. Activity Data - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	4	744	8	5,952	182	1,083,264
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	182	375,648
Auxiliary Engine	200	0.50	1	100	8	800	182	145,600
Work Tug	750	0.40	1	300	8	2,400	182	436,800
Auxiliary Engine	150	0.50	1	75	8	600	182	109,200
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	3	558	8	4,464	182	812,448

Table A.1.1-Alt 1-141. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 1. (1 of 2)

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	168	327,882
Loader	170	0.68	1	116	8	925	168	155,366
End Dump Truck	310	0.60	4	744	8	5,952	168	999,936
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	168	346,752
Auxiliary Engine	200	0.50	1	100	8	800	168	134,400
Front End Loader	400	0.68	1	272	8	2,176	168	365,568
Tug Boat	1,500	0.50	1	750	8	6,000	168	1,008,000
Auxiliary Engine	150	0.50	1	75	8	600	168	100,800
Tug Boat	4,000	0.50	1	2,000	8	16,000	168	2,688,000
Auxiliary Engine	400	0.50	1	200	8	1,600	168	268,800
Crew/Survey Boat	400	0.30	1	120	8	960	168	161,280
Auxiliary Engine	80	0.50	1	40	8	320	168	53,760
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	168	193,603
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	168	352,800
Flatbed Truck	230	0.60	1	138	8	1,104	168	185,472
Welding Machine	26	0.45	1	12	8	94	168	15,725
Generator	13	0.74	1	10	8	77	168	12,929
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 200 Ton	335	0.43	1	144	8	1,152	126	145,202
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	126	204,120
Piledriving Hammer	211	0.50	1	106	8	844	126	106,344
Loader-Wheel	300	0.68	1	204	8	1,632	126	205,632
Jet Pump	33	0.74	1	24	8	195	126	24,615
End Dump Truck	310	0.60	1	186	8	1,488	126	187,488
Truck-Flatbed	230	0.60	1	138	8	1,104	126	139,104
Truck-Lowboy	350	0.60	1	210	8	1,680	126	211,680

Table A.1.1-Alt 1-141. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 1. (2 of 2)

DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	126	145,202
Derrick Barge	380	0.43	1	163	8	1,307	126	164,707
Auxiliary Engine	195	0.50	1	98	8	780	126	98,280
Piledriving Hammer	211	0.50	1	106	8	844	126	106,344
End Dump Truck	310	0.60	1	186	8	1,488	126	187,488
Tugboat	1,000	0.50	1	500	8	4,000	126	504,000
Auxiliary Engine	100	0.50	1	50	8	400	126	50,400
Truck-Flatbed	230	0.60	1	138	8	1,104	126	139,104
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	126	245,912
Loader-Wheel	180	0.68	1	122	8	979	126	123,379
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	210	109,805
Crane - 150 Ton	335	0.43	1	144	8	1,152	210	242,004
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	210	242,004
Auxiliary Engine	107	0.50	1	54	8	428	210	89,880
Concrete Pump	210	0.74	1	155	8	1,243	210	261,072
Concrete Trucks	285	0.60	5	770	8	6,156	210	1,292,760
Sandblaster w/air compressor	50	0.75	1	38	8	300	210	63,000
Truck-Flatbed	230	0.60	1	138	8	1,104	210	231,840
Tugboat	1,000	0.50	1	500	8	4,000	210	840,000
Auxiliary Engine	100	0.50	1	50	8	400	210	84,000
Concrete Saw	35	0.10	1	4	8	28	210	5,880
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	210	306,600
Boom Truck	350	0.50	1	175	8	1,400	210	294,000

Table A.1.1-Alt 1-142. Activity Data - Basin Fill and Surcharge West - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CUTTER SUCTION DREDGING- Spill Barge (no booster)								
Cutter Suction Dredge	8,400	0.00	1	0	24	0	74	0
Auxiliary Engine	4,800	0.00	1	0	24	0	74	0
Work Tug	750	0.50	2	750	24	18,000	74	1,323,000
Auxiliary Engine	150	0.50	2	150	24	3,600	74	266,400
Derrick Barge	600	0.43	1	258	24	6,192	74	455,112
Auxiliary Engine	200	0.50	1	100	24	2,400	74	177,600
Spill Barge	300	0.20	1	60	24	1,440	74	105,840
Auxiliary Engine	50	0.50	1	25	24	600	74	44,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	74	211,680
Auxiliary Engine	80	0.50	1	40	24	960	74	71,040
CUTTER SUCTION DREDGING- Land Disposal (no booster)								
Cutter Suction Dredge	8,400	0.00	1	0	24	0	74	0
Auxiliary Engine	4,800	0.00	1	0	24	0	74	0
Work Tug	750	0.50	2	750	24	18,000	74	1,323,000
Auxiliary Engine	150	0.50	2	150	24	3,600	74	266,400
Derrick Barge	600	0.43	1	258	24	6,192	74	455,112
Auxiliary Engine	200	0.50	1	100	24	2,400	74	177,600
Hydra-crane	130	0.43	1	56	24	1,342	74	98,608
Dozer	285	0.64	3	547	24	13,133	74	965,261
Crew/Survey Boat	400	0.30	1	120	24	2,880	74	211,680
Auxiliary Engine	80	0.50	1	40	24	960	74	71,040
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	245	251,664

Table A.1.1-Alt 1-143. Activity Data - Settlement Period - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	182	4,481,568
Dozers	285	0.64	2	365	8	2,918	182	531,149
Loader	170	0.68	3	347	8	2,774	182	504,941
End Dump Truck	310	0.60	6	1,116	8	8,928	182	1,624,896
Water Truck	310	0.60	1	186	8	1,488	182	270,816

Table A.1.1-Alt 1-144. Daily Construction Emissions - Construction - New Terminal Buildings - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Building Construction								
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	43.65
Crane	0.59	2.57	8.28	0.01	0.65	0.65	0.60	117.12
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	187.36
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	354.29
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	131.43
Concrete Truck	1.06	3.97	14.81	0.02	0.79	0.79	0.73	142.86
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	259.05
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	47.62
Subtotal	9.13	36.76	127.79	0.20	7.13	7.13	6.56	1,283.37

Table A.1.1-Alt 1-145. Daily Construction Emissions - Dredge and Excavate Quay Wall - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	8.33
Tug Boat	21.11	156.58	304.26	0.50	7.22	7.22	6.76	606.15
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	133.33
Work Tug	4.95	36.70	71.31	0.12	1.69	1.69	1.58	142.07
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	73.33
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	160.00
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	53.33
Subtotal	30.55	219.19	472.51	3.68	14.01	14.01	13.07	1,176.55

Table A.1.1-Alt 1-146. Daily Construction Emissions - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	39.48
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	117.46
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	66.44
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	358.22
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	581.60
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	124.22
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	48.15
Work Tug	1.32	9.79	19.02	0.03	0.45	0.45	0.42	82.08
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	52.96
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	39.48
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	117.46
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	66.44
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	268.67
Subtotal	6.36	32.88	89.58	0.14	4.39	4.39	4.05	799.46

Table A.1.1-Alt 1-147. Daily Construction Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 1 (1 of 2).

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
LAND EX								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	108.43
Loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	75.35
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	330.67
Subtotal	3.89	16.41	54.50	0.09	3.06	3.06	2.82	514.45
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	114.67
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	44.44
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	120.89
Tug Boat	3.30	24.46	47.54	0.08	1.13	1.13	1.06	189.42
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	48.89
Tug Boat	8.80	65.24	126.77	0.21	3.01	3.01	2.82	505.12
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	88.89
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	106.67
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	35.56
Subtotal	15.77	109.58	237.12	1.35	7.47	7.47	6.95	1,254.54
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	64.02
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	116.67
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	61.33
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	15.60
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	12.83
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	270.45
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	31.95
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	67.50
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	35.17
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	68.00
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	24.42
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	62.00
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	46.00
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	70.00
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	453.06

Table A.1.1-Alt 1-147. Daily Construction Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 1 (2 of 2).

DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	54.47
Auxiliary Engine	0.34	1.29	4.81	0.01	0.26	0.26	0.24	32.50
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	35.17
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	62.00
Tugboat	2.20	16.31	31.69	0.05	0.75	0.75	0.70	94.71
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	33.33
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	46.00
Subtotal	5.32	30.22	75.81	0.12	3.22	3.22	2.98	406.19
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	81.32
Loader-Wheel	0.43	1.62	6.04	0.01	0.32	0.32	0.30	40.80
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	31.95
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Subtotal	2.03	8.37	28.43	0.04	1.60	1.60	1.48	202.09
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	53.26
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	80.03
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	80.03
Auxiliary Engine	0.19	2.24	3.11	0.00	0.28	0.28	0.26	59.44
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	86.33
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	427.50
Sandblaster w/air compressor	0.40	1.01	3.31	0.00	0.30	0.30	0.27	62.50
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	76.67
Tugboat	2.20	16.31	31.69	0.05	0.75	0.75	0.70	157.85
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	55.56
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	5.83
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	101.39
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	97.22
Subtotal	4.56	26.63	62.69	0.10	2.65	2.65	2.45	557.02

Table A.1.1-Alt 1-148. Daily Construction Emissions - Basin Fill and Surcharge West - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CUTTER SUCTION DREDGING- Spill Barge (no booster)								
Cutter Suction Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Tug	9.90	73.39	142.62	0.23	3.38	3.38	3.17	248.61
Auxiliary Engine	1.59	6.90	22.22	0.03	1.75	1.75	1.61	129.21
Derrick Barge	2.73	18.16	38.22	0.06	2.05	2.05	1.88	150.50
Auxiliary Engine	1.06	3.97	14.81	0.02	0.79	0.79	0.73	58.73
Spill Barge	0.63	2.67	8.89	0.01	0.48	0.48	0.44	35.00
Auxiliary Engine	0.79	2.02	6.61	0.01	0.60	0.60	0.55	44.05
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	140.00
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	46.98
Subtotal	18.14	120.19	287.73	3.37	11.58	11.58	10.74	853.08
CUTTER SUCTION DREDGING- Land Disposal (no booster)								
Cutter Suction Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Tug	9.90	73.39	142.62	0.23	3.38	3.38	3.17	248.61
Auxiliary Engine	1.59	6.90	22.22	0.03	1.75	1.75	1.61	129.21
Derrick Barge	2.73	18.16	38.22	0.06	2.05	2.05	1.88	150.50
Auxiliary Engine	1.06	3.97	14.81	0.02	0.79	0.79	0.73	58.73
Hydra-crane	0.59	2.57	8.28	0.01	0.65	0.65	0.60	47.83
Dozer	5.79	24.32	81.07	0.13	4.34	4.34	4.00	319.20
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	140.00
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	46.98
Subtotal	23.09	142.40	361.58	3.49	15.50	15.50	14.35	1,141.06
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	83.22
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	83.22

Table A.1.1-Alt 1-149. Daily Construction Emissions - Settlement Period - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	1,482.00
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	175.64
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	244.90
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	537.33
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	89.56
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	2,529.43

Table A.1.1-Alt 1-150. Daily Emissions - POLB - MHTP - Alternative 1 - Phase 2 - Stage 2.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Construction new Terminal Buildings								
Building Construction	9	37	128	0	7	7	7	1,283
Dredge and Excavate Quay Wall								
Clamshell Dredging	31	219	473	4	14	14	13	1,177
Demo Existing F8-10 Wharf								
Wharf Demolition Landside	4	17	58	0	3	3	3	582
Wharf Demolition Marine	6	33	90	0	4	4	4	799
Construct Wharf, Armor, Fill								
Land Ex	4	16	54	0	3	3	3	514
Rock Placement, Push Off & Tub & Orange Peels	16	110	237	1	7	7	7	1,255
Retaining Bulkhead Construction	2	8	29	0	2	2	1	270
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	453
Drive 24-In Octagonal Piles - Water	5	30	76	0	3	3	3	406
Drive Piles - Misc Activities	2	8	28	0	2	2	1	202
Reinforced Concrete Wharf	5	27	63	0	3	3	2	557
Basin Fill and Surcharge West								
Cutter Suction Dredging- Spill Barge (No Booster)	18	120	288	3	12	12	11	853
Cutter Suction Dredging- Land Disposal (No Booster)	23	142	362	3	16	16	14	1,141
Wick Drains	0	2	6	0	0	0	0	83
Settlement Period								
Roll Surcharge	18	76	251	0	14	14	13	2,529
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	2,530	1,237	258	
Commuter Emissions	0	6	1	0	1	1	1	
Dredging Activities								
Clamshell Dredging	72	482	1,122	11	41	41	38	3,171
Peak Daily Emissions	90	526	1,335	9	2,560	1,268	286	
Mitigated Peak Daily Emissions (1)	90	526	1,335	9	1,024	507	114	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 1-151. Activity Data - Remove Surcharge - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	91	2,240,784
Dozers	285	0.64	2	365	8	2,918	91	265,574
Loader	170	0.68	3	347	8	2,774	91	252,470
End Dump Truck	310	0.60	6	1,116	8	8,928	91	812,448
Water Truck	310	0.60	1	186	8	1,488	91	135,408

Table A.1.1-Alt 1-152. Activity Data - CY Development - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	238	285,600
Auger	125	0.50	1	63	8	500	238	119,000
Crane	130	0.43	1	56	8	447	238	106,434
Grader	215	0.61	3	393	8	3,148	238	749,129
End Dump Truck	310	0.60	1	186	8	1,488	238	354,144
Flat Bed Truck	230	0.60	2	276	8	2,208	238	525,504
Concrete Truck	250	1	4	600	8	4,800	238	1,142,400
Front End Loader	400	0.68	2	544	8	4,352	238	1,035,776
Trencher	200	0.50	1	100	8	800	238	190,400
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	238	188,705
Grader	215	0.61	1	131	8	1,049	238	249,710
Roller	151	0.50	3	227	8	1,812	238	431,256
Vibration Roller	154	0.50	3	231	8	1,848	238	439,824
Water Truck	210	0.50	1	105	8	840	238	199,920
Road Sweeper	190	0.50	1	95	8	760	238	180,880
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	238	262,752
Truck Crane	130	0.43	1	56	8	447	238	106,434
Auger	125	0.50	1	63	8	500	238	119,000

Table A.1.1-Alt 1-153. Daily Construction Emissions - Remove Surcharge- POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	741.00
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	87.82
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	122.45
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	268.67
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	44.78
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	1,264.72

Table A.1.1-Alt 1-154. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	94.44
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	57.72
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	51.62
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	247.73
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	117.11
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	173.78
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	377.78
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	342.52
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	62.96
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,525.66
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	62.40
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	82.58
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	209.16
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	213.32
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	66.11
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	59.81
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	693.39
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	86.89
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	51.62
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	57.72
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	196.23

Table A.1.1-Alt 1-155. Daily Emissions - POLB - MHTP - Alternative 1 - Phase 2 - Stage 3.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Remove Surcharge								
Roll Surcharge	18	76	251	0	14	14	13	1,265
CY Development								
New Container Yard Utilities	8	33	117	0	6	6	6	1,526
New Container Yard Construction - Paving	3	13	44	0	3	3	3	693
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	196
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	1,265	619	129	
Commuter Emissions	0	4	0	0	1	1	1	
Peak Daily Emissions	31	129	425	1	1,289	643	151	
Mitigated Peak Daily Emissions	31	129	425	1	516	257	60	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 1-156. Activity Data - Railyard Construction - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RAILYARD								
Backhoe	102	0.57	1	58	8	465	40	18,605
Excavator	428	0.57	1	244	8	1,952	40	78,067
Ballast Spreader	100	0.50	1	50	8	400	40	16,000
Ballast Tamper	100	0.50	1	50	8	400	40	16,000
Generator Set	23	0.74	2	34	8	272	40	10,893
Roller	151	0.50	1	76	8	604	40	24,160
Grader	215	0.61	1	131	8	1,049	40	41,968
Truck Mounted Crane	130	0.43	1	56	8	447	40	17,888
Forklift	103	0.30	1	31	8	247	40	9,888
Flatbed Truck	230	0.60	2	276	8	2,208	40	88,320
End Dump Truck	310	0.60	2	372	8	2,976	40	119,040
Water Truck	210	0.60	1	126	8	1,008	40	40,320

Table A.1.1-Alt 1-157. Daily Construction Emissions - Railyard Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RAILYARD								
Backhoe	0.21	0.86	2.87	0.00	0.15	0.15	0.14	6.15
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	25.82
Ballast Spreader	0.18	0.77	2.47	0.00	0.19	0.19	0.18	7.76
Ballast Tamper	0.18	0.74	2.47	0.00	0.13	0.13	0.12	5.29
Generator Set	0.12	0.50	1.68	0.00	0.09	0.09	0.08	3.60
Roller	0.27	1.12	3.73	0.01	0.20	0.20	0.18	7.99
Grader	0.46	1.94	6.48	0.01	0.35	0.35	0.32	13.88
Truck Mounted Crane	0.20	0.83	2.76	0.00	0.15	0.15	0.14	5.92
Forklift	0.11	0.46	1.53	0.00	0.08	0.08	0.08	3.27
Flatbed Truck	0.97	4.09	13.63	0.02	0.73	0.73	0.67	29.21
End Dump Truck	1.31	5.51	18.37	0.03	0.98	0.98	0.91	39.37
Water Truck	0.44	1.87	6.22	0.01	0.33	0.33	0.31	13.33
Subtotal	5.30	22.30	74.25	0.12	4.04	4.04	3.72	161.58

Table A.1.1-Alt 1-158. Daily Emissions - POLB - MHTP - Alternative 1 - Phase 2 - Stage 4.

<i>Activity</i>	<i>Pounds per Day</i>							<i>Total lbs.</i>
	<i>VOC</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM</i>	<i>PM10</i>	<i>PM2.5</i>	<i>DPM</i>
Railyard Construction								
Railyard	5	22	74	0	4	4	4	162
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	55	28	3	
Commuter Emissions	1	15	1	0	2	2	2	
Peak Daily Emissions	6	37	75	0	61	34	9	
Mitigated Peak Daily Emissions	6	37	75	0	25	14	3	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

This page intentionally left blank.

Table A.1.1-Alt 2-1. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-2. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-3. Activity Data - Excavation Fronting E24 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-4. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-5. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-6. Activity Data - Utility Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-7. Activity Data - Paving - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-8. Activity Data - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-9. Activity Data - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-10. Activity Data - Fill within Dike - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-11. Activity Data - Remaining Dike Lifts - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-12. Activity Data - Remaining Fill Lifts - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-13. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-14. Activity Data - Construct South Mooring Dolphin - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-15. Activity Data - Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-16. Activity Data - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-17. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-18. Activity Data - Utility Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-19. Activity Data - Paving - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-20. Activity Data - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-21. Activity Data - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-22. Activity Data - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-23. Activity Data - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-24. Activity Data - Remove Cellular Sheetpile - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-25. Activity Data - Rock Revetment - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-26. Activity Data - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-27. Activity Data - Ground Improvements Pier D - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-28. Activity Data - Demo - E12-13 Wharf - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-29. Activity Data - Lift #1 (~ -30) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-30. Activity Data - Lift #2 (~ -15) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-31. Activity Data - Lift #3 (~ 0) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-32. Activity Data - Lift #4 (~ +15) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-33. Activity Data - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-34. Activity Data - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-35. Activity Data - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-36. Activity Data - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-37. Activity Data - Remove Surcharge - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-38. Activity Data - Container Yard Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-39. Activity Data - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-40. Activity Data - Electrical Substation Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-41. Activity Data - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-42. Daily Construction Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-43. Daily Construction Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-44. Daily Construction Emissions - Excavation Fronting E24 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-45. Daily Construction Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-46. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-47. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-48. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-49. Daily Construction Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-50. Daily Construction Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-51. Daily Construction Emissions - Fill within Dike - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-52. Daily Construction Emissions - Remaining Dike Lifts - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-53. Daily Construction Emissions - Remaining Fill Lifts - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-54. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-55. Daily Construction Emissions - Construct South Mooring Dolphin - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-56. Daily Construction Emissions - Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-57. Daily Construction Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-58. Daily Construction Emissions - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-59. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-60. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-61. Daily Construction Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-62. Daily Construction Emissions - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-63. Daily Construction Emissions - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-64. Daily Construction Emissions - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-65. Daily Construction Emissions - Remove Cellular Sheetpile - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-66. Daily Construction Emissions - Rock Revetment - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-67. Daily Construction Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-68. Daily Construction Emissions - Ground Improvements Pier D - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-69. Daily Construction Emissions - Demo - E12-13 Wharf - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-70. Daily Construction Emissions - Lift #1 (~ -30) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-71. Daily Construction Emissions - Lift #2 (~ -15) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-72. Daily Construction Emissions - Lift #3 (~ 0) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-73. Daily Construction Emissions - Lift #4 (~ +15) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-74. Daily Construction Emissions - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-75. Daily Construction Emissions - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-76. Daily Construction Emissions - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-77. Daily Construction Emissions - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-78. Daily Construction Emissions - Remove Surcharge - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-79. Daily Construction Emissions - Container Yard Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-80. Daily Construction Emissions - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-81. Daily Construction Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-82. Daily Construction Emissions - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-83. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (1 of 3).

Table A.1.1-Alt 2-83. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (2 of 3).

Table A.1.1-Alt 2-83. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (3 of 3).

Table A.1.1-Alt 2-84. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-85. Activity Data - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-86. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-87. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-88. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-89. Activity Data - CY Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-90. Activity Data - Dredge to -55 ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-91. Daily Construction Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-92. Daily Construction Emissions - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-93. Daily Construction Emissions - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-94. Daily Construction Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-95. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-96. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-97. Daily Construction Emissions - Dredge to -55 ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-98. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 2.

Table A.1.1-Alt 2-99. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-100. Activity Data - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-101. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-102. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-103. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-104. Activity Data - Construct E27 Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-105. Activity Data - CY Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-106. Activity Data - Hydraulic Dredge to -55ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-107. Daily Construction Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-108. Daily Construction Emissions - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-109. Daily Construction Emissions - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-110. Daily Construction Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-111. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-112. Daily Construction Emissions - Construct E27 Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-113. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-114. Daily Construction Emissions - Hydraulic Dredge -55ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-115. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 3.

Table A.1.1-Alt 2-116. Activity Data - Seaside Railyard Area Redevelopment (not in schedule, added) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-117. Daily Construction Emissions - Seaside Railyard Area Redevelopment - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-118. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 4.

Table A.1.1-Alt 2-119. Activity Data - Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-120. Daily Construction Emissions - Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-121. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 5.

Table A.1.1-Alt 2-122. Activity Data - Demolition - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-123. Activity Data - Railyard - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-124. Activity Data - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-125. Activity Data - Demo Existing F1-4, F6 Wharf - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-126. Activity Data - Roll Surcharge - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-127. Daily Construction Emissions - Demolition - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-128. Daily Construction Emissions - Railyard - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-129. Daily Construction Emissions - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-130. Daily Construction Emissions - Demo Existing F1-4, F6 Wharf - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-131. Daily Construction Emissions - Roll Surcharge - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-132. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 2 - Stage 1.

Table A.1.1-Alt 2-133. Activity Data - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 2.

Table A.1.1-Alt 2-134. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2. (1 of 2)

- Table A.1.1-Alt 2-135. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2. (2 of 2)
- Table A.1.1-Alt 2-136. Daily Construction Emissions - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 2.
- Table A.1.1-Alt 2-137. Daily Construction Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2 (1 of 2).
- Table A.1.1-Alt 2-138. Daily Construction Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2 (2 of 2).
- Table A.1.1-Alt 2-139. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 2 - Stage 2.
- Table A.1.1-Alt 2-140. Activity Data - Remove Surcharge - POLB - MHTP - Alternative 2.
- Table A.1.1-Alt 2-141. Daily Construction Emissions - Railyard Construction - POLB - MHTP - Alternative 2.
- Table A.1.1-Alt 2-142. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 2 - Stage 3.

This page intentionally left blank.

Table A.1.1-Alt 2-1. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	82	36,670
Excavator	428	0.57	1	244	8	1,952	82	160,038
Flatbed Truck	230	0.60	1	138	8	1,104	82	90,528
End Dump Truck	310	0.60	4	744	8	5,952	82	488,064
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	82	169,042
Auxiliary Engine	200	0.50	1	100	8	800	82	65,600
Work Tug	750	0.40	1	300	8	2,400	82	196,560
Auxiliary Engine	150	0.50	1	75	8	600	82	49,200
Hydra-Crane	130	0.43	1	56	8	447	82	36,626
Excavator	428	0.57	1	244	8	1,952	82	159,843
Flatbed Truck	230	0.60	1	138	8	1,104	82	90,418
End Dump Truck	310	0.60	3	558	8	4,464	82	365,602
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	82	94,382
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	82	171,990
Excavator	428	0.57	1	244	8	1,952	82	159,843
Flatbed Truck	230	0.60	1	138	8	1,104	82	90,418
Welding Machine	26	0.50	1	13	8	104	82	8,518
Generator	13	0.74	1	10	8	77	82	6,303

Table A.1.1-Alt 2-2. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	15	17,286
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	15	31,500
Flatbed Truck	230	0.60	1	138	8	1,104	15	16,560
Welding Machine	26	0.45	1	12	8	94	15	1,404
Generator	13	0.74	1	10	8	77	15	1,154

Table A.1.1-Alt 2-3. Activity Data - Excavation Fronting E24 - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	70	0
Auxiliary Engine	500	0.00	1	0	24	0	70	0
Bottom Dump Scow	250	0.05	1	13	24	300	70	21,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	70	2,688,000
Auxiliary Engine	400	0.50	1	200	24	4,800	70	336,000
Work Tug	750	0.50	1	375	24	9,000	70	630,000
Auxiliary Engine	150	0.50	1	75	24	1,800	70	126,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	70	201,600
Auxiliary Engine	80	0.50	1	40	24	960	70	67,200
LAND EX								
Excavator	428	0.57	1	244	8	1,952	70	136,618
Loader	170	0.68	1	116	8	925	70	64,736
End Dump Truck	310	0.60	4	744	8	5,952	70	416,640

Table A.1.1-Alt 2-4. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	50	103,200
Auxiliary Engine	200	0.50	1	100	8	800	50	40,000
Front End Loader	400	0.68	1	272	8	2,176	50	108,800
Tug Boat	1,500	0.50	1	750	8	6,000	50	300,000
Auxiliary Engine	150	0.50	1	75	8	600	50	30,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	50	800,000
Auxiliary Engine	400	0.50	1	200	8	1,600	50	80,000
Crew/Survey Boat	400	0.30	1	120	8	960	50	48,000
Auxiliary Engine	80	0.50	1	40	8	320	50	16,000

Table A.1.1-Alt 2-5. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	39	20,598
Crane - 200 Ton	335	0.43	1	144	8	1,152	39	45,398
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	39	63,818
Piledriving Hammer	211	0.50	1	106	8	844	39	33,248
Loader-Wheel	300	0.68	1	204	8	1,632	39	64,291
Jet Pump	33	0.74	1	24	8	195	39	7,696
End Dump Truck	310	0.60	1	186	8	1,488	39	58,032
Truck-Flatbed	230	0.60	1	138	8	1,104	39	43,056
Truck-Lowboy	350	0.60	1	210	8	1,680	39	65,520
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	45	52,018
Derrick Barge	380	0.43	1	163	8	1,307	45	59,006
Auxiliary Engine	195	0.50	1	98	8	780	45	35,100
Piledriving Hammer	211	0.50	1	106	8	844	45	38,097
End Dump Truck	310	0.60	1	186	8	1,488	45	66,960
Tugboat	1,000	0.50	1	500	8	4,000	45	180,556
Auxiliary Engine	100	0.50	1	50	8	400	45	18,000
Truck-Flatbed	230	0.60	1	138	8	1,104	45	49,680
DRIVE PILES - MISC ACTIVITIES								
Excavator	175	0.57	1	100	8	798	175	139,650
Loader-Wheel	175	0.68	1	119	8	952	175	166,600
Hydraulic Crane	175	0.43	1	75	8	602	175	105,350
Crane - 150 Ton	175	0.43	1	75	8	602	175	105,350
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	175	201,670
Auxiliary Engine	107	0.50	1	54	8	428	175	74,900
Concrete Pump	210	0.74	1	155	8	1,243	175	217,560
Concrete Trucks	285	0.60	4.5	770	8	6,156	175	1,077,300
Sandblaster w/air compressor	50		1	0	8	0	175	0
Truck-Flatbed	230	0.60	1	138	8	1,104	175	193,200
Tugboat	1,000	0.50	1	500	8	4,000	175	700,000
Auxiliary Engine	100	0.50	1	50	8	400	175	70,000
Concrete Saw	35	0.10	1	4	8	28	175	4,900
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	175	255,500
Boom Truck	350	0.50	1	175	8	1,400	175	245,000
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	88	100,835
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	88	183,750
Flatbed Truck	230	0.60	1	138	8	1,104	88	96,600
Welding Machine	26	0.45	1	12	8	94	88	8,190
Generator	13	0.74	1	10	8	77	88	6,734

Table A.1.1-Alt 2-6. Activity Data - Utility Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	30	36,000
Auger	125	0.50	1	63	8	500	30	15,000
Crane	130	0.43	1	56	8	447	30	13,416
Grader	215	0.61	3	393	8	3,148	30	94,428
End Dump Truck	310	0.60	1	186	8	1,488	30	44,640
Flat Bed Truck	230	0.60	2	276	8	2,208	30	66,240
Concrete Truck	250	1	4	600	8	4,800	30	144,000
Front End Loader	400	0.68	2	544	8	4,352	30	130,560
Trencher	200	0.50	1	100	8	800	30	24,000

Table A.1.1-Alt 2-7. Activity Data - Paving - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	20	15,858
Grader	215	0.61	1	131	8	1,049	20	20,984
Roller	151	0.50	3	227	8	1,812	20	36,240
Vibration Roller	154	0.50	3	231	8	1,848	20	36,960
Water Truck	210	0.50	1	105	8	840	20	16,800
Road Sweeper	190	0.50	1	95	8	760	20	15,200

Table A.1.1-Alt 2-8. Activity Data - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	30	33,120
Truck Crane	130	0.43	1	56	8	447	30	13,416
Auger	125	0.50	1	63	8	500	30	15,000

Table A.1.1-Alt 2-9. Activity Data - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,500	0.50	1	750	8	6,000	60	360,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	60	960,000
Auxiliary Engine	400	0.50	1	200	8	1,600	60	96,000
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
Auxiliary Engine	80	0.50	1	40	8	320	60	19,200

Table A.1.1-Alt 2-10. Activity Data - Fill within Dike - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	18	0
Auxiliary Engine	500	0.00	1	0	24	0	18	0
Bottom Dump Scow	250	0.05	1	13	24	300	18	5,400
Tug Boat	4,000	0.40	1	1,600	24	38,400	18	691,200
Auxiliary Engine	400	0.50	1	200	24	4,800	18	86,400
Work Tug	750	0.50	1	375	24	9,000	18	162,000
Auxiliary Engine	150	0.50	1	75	24	1,800	18	32,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	18	51,840
Auxiliary Engine	80	0.50	1	40	24	960	18	17,280

Table A.1.1-Alt 2-11. Activity Data - Remaining Dike Lifts - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,500	0.50	1	750	8	6,000	60	360,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	60	960,000
Auxiliary Engine	400	0.50	1	200	8	1,600	60	96,000
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
	80	0.50	1	40	8	320	60	19,200

Table A.1.1-Alt 2-12. Activity Data - Remaining Fill Lifts - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	60	0
Auxiliary Engine	500	0.00	1	0	24	0	60	0
Bottom Dump Scow	250	0.05	1	13	24	300	60	18,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	60	2,304,000
Auxiliary Engine	400	0.50	1	200	24	4,800	60	288,000
Work Tug	750	0.50	1	375	24	9,000	60	540,000
Auxiliary Engine	150	0.50	1	75	24	1,800	60	108,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	60	172,800
Auxiliary Engine	80	0.50	1	40	24	960	60	57,600

Table A.1.1-Alt 2-13. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	33	17,429
Crane - 200 Ton	335	0.43	1	144	8	1,152	33	38,413
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	33	54,000
Piledriving Hammer	211	0.50	1	106	8	844	33	28,133
Loader-Wheel	300	0.68	1	204	8	1,632	33	54,400
Jet Pump	33	0.74	1	24	8	195	33	6,512
End Dump Truck	310	0.60	1	186	8	1,488	33	49,104
Truck-Flatbed	230	0.60	1	138	8	1,104	33	36,432
Truck-Lowboy	350	0.60	1	210	8	1,680	33	55,440
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	38	44,015
Derrick Barge	380	0.43	1	163	8	1,307	38	49,928
Auxiliary Engine	195	0.50	1	98	8	780	38	29,640
Piledriving Hammer	211	0.50	1	106	8	844	38	32,236
End Dump Truck	310	0.60	1	186	8	1,488	38	56,544
Tugboat	1,000	0.50	1	500	8	4,000	38	152,778
Auxiliary Engine	100	0.50	1	50	8	400	38	15,200
Truck-Flatbed	230	0.60	1	138	8	1,104	38	41,952
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	126	245,912
Loader-Wheel	180	0.68	1	122	8	979	126	123,379
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	126	145,202
Auxiliary Engine	107	0.50	1	54	8	428	126	53,928
Concrete Pump	210	0.74	1	155	8	1,243	126	156,643
Concrete Trucks	285	0.60	5	770	8	6,156	126	775,656
Sandblaster w/air compressor	50	0.75	1	38	8	300	126	37,800
Truck-Flatbed	230	0.60	1	138	8	1,104	126	139,104
Tugboat	1,000	0.50	1	500	8	4,000	126	504,000
Auxiliary Engine	100	0.50	1	50	8	400	126	50,400
Concrete Saw	35	0.10	1	4	8	28	126	3,528
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	126	183,960
Boom Truck	350	0.50	1	175	8	1,400	126	176,400
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	38	43,561
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	38	79,380
Flatbed Truck	230	0.60	1	138	8	1,104	38	41,731
Welding Machine	26	0.45	1	12	8	94	38	3,538
Generator	13	0.74	1	10	8	77	38	2,909

Table A.1.1-Alt 2-14. Activity Data - Construct South Mooring Dolphin - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	6	6,453
Derrick Barge	380	0.43	1	163	8	1,307	6	7,320
Auxiliary Engine	195	0.50	1	98	8	780	6	4,680
Piledriving Hammer	211	0.50	1	106	8	844	6	4,726
End Dump Truck	310	0.60	1	186	8	1,488	6	8,928
Tugboat	1,000	0.50	1	500	8	4,000	6	22,400
Auxiliary Engine	100	0.50	1	50	8	400	6	2,400
Truck-Flatbed	230	0.60	1	138	8	1,104	6	6,624

Table A.1.1-Alt 2-15. Activity Data - Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	9	9,245

Table A.1.1-Alt 2-16. Activity Data - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	8	196,992
Dozers	285	0.64	2	365	8	2,918	8	23,347
Loader	170	0.68	3	347	8	2,774	8	22,195
End Dump Truck	310	0.60	6	1,116	8	8,928	8	71,424
Water Truck	310	0.60	1	186	8	1,488	8	11,904

Table A.1.1-Alt 2-17. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	4	98,496
Dozers	285	0.64	2	365	8	2,918	4	11,674
Loader	170	0.68	3	347	8	2,774	4	11,098
End Dump Truck	310	0.60	6	1,116	8	8,928	4	35,712
Water Truck	310	0.60	1	186	8	1,488	4	5,952

Table A.1.1-Alt 2-18. Activity Data - Utility Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	60	72,000
Auger	125	0.50	1	63	8	500	60	30,000
Crane	130	0.43	1	56	8	447	60	26,832
Grader	215	0.61	3	393	8	3,148	60	188,856
End Dump Truck	310	0.60	1	186	8	1,488	60	89,280
Flat Bed Truck	230	0.60	2	276	8	2,208	60	132,480
Concrete Truck	250	0.60	4	600	8	4,800	60	288,000
Front End Loader	400	0.68	2	544	8	4,352	60	261,120
Trencher	200	0.50	1	100	8	800	60	48,000

Table A.1.1-Alt 2-19. Activity Data - Paving - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	60	47,573
Grader	215	0.61	1	131	8	1,049	60	62,952
Roller	151	0.50	3	227	8	1,812	60	108,720
Vibration Roller	154	0.50	3	231	8	1,848	60	110,880
Water Truck	210	0.50	1	105	8	840	60	50,400
Road Sweeper	190	0.50	1	95	8	760	60	45,600

Table A.1.1-Alt 2-20. Activity Data - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	60	66,240
Truck Crane	130	0.43	1	56	8	447	60	26,832
Auger	125	0.50	1	63	8	500	60	30,000

Table A.1.1-Alt 2-21. Activity Data - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	16	18,876
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	16	34,398
Flatbed Truck	230	0.60	1	138	8	1,104	16	18,084
Welding Machine	26	0.45	1	12	8	94	16	1,533
Generator	13	0.74	1	10	8	77	16	1,261

Table A.1.1-Alt 2-22. Activity Data - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	24	46,840
Loader	170	0.68	1	116	8	925	24	22,195
End Dump Truck	310	0.60	4	744	8	5,952	24	142,848

Table A.1.1-Alt 2-23. Activity Data - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	39	76,116
Loader	170	0.68	1	116	8	925	39	36,067
End Dump Truck	310	0.60	4	744	8	5,952	39	232,128
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	65	0
Auxiliary Engine	500	0.00	1	0	24	0	65	0
Bottom Dump Scow	250	0.05	1	13	24	300	65	19,500
Tug Boat	4,000	0.40	1	1,600	24	38,400	65	2,496,000
Auxiliary Engine	400	0.50	1	200	24	4,800	65	312,000
Work Tug	750	0.50	1	375	24	9,000	65	585,000
Auxiliary Engine	150	0.50	1	75	24	1,800	65	117,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	65	187,200
Auxiliary Engine	80	0.50	1	40	24	960	65	62,400

Table A.1.1-Alt 2-24. Activity Data - Remove Cellular Sheetpile - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	65	74,906
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	65	136,500
Excavator	428	0.57	1	244	8	1,952	65	126,859
Flatbed Truck	230	0.60	1	138	8	1,104	65	71,760
Welding Machine	26	0.50	1	13	8	104	65	6,760
Generator	13	0.74	1	10	8	77	65	5,002

Table A.1.1-Alt 2-25. Activity Data - Rock Revetment - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	48	99,072
Auxiliary Engine	200	0.50	1	100	8	800	48	38,400
Front End Loader	400	0.68	1	272	8	2,176	48	104,448
Tug Boat	1,500	0.50	1	750	8	6,000	48	288,000
Auxiliary Engine	150	0.50	1	75	8	600	48	28,800
Tug Boat	4,000	0.50	1	2,000	8	16,000	48	768,000
Auxiliary Engine	400	0.50	1	200	8	1,600	48	76,800
Crew/Survey Boat	400	0.30	1	120	8	960	48	46,080
Auxiliary Engine	80	0.50	1	40	8	320	48	15,360

Table A.1.1-Alt 2-26. Activity Data - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	18	0
Auxiliary Engine	500	0.00	1	0	24	0	18	0
Bottom Dump Scow	250	0.05	1	13	24	300	18	5,400
Tug Boat	4,000	0.40	1	1,600	24	38,400	18	691,200
Auxiliary Engine	400	0.50	1	200	24	4,800	18	86,400
Work Tug	750	0.50	1	375	24	9,000	18	162,000
Auxiliary Engine	150	0.50	1	75	24	1,800	18	32,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	18	51,840
Auxiliary Engine	80	0.50	1	40	24	960	18	17,280

Table A.1.1-Alt 2-27. Activity Data - Ground Improvements Pier D - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
STONE COLUMN INSTALLATION EQ								
Stone Column Crane - 100 Ton	335	0.43	3	432	8	3,457	68	234,168
Vibratory Probe & Power Pack	350	0.75	3	788	8	6,300	68	426,720
Auger Crane - 100 Ton	335	0.43	1	144	8	1,152	68	78,056
Auger & Hydraulic Power Pack	350	0.75	1	263	8	2,100	68	142,240
Welding Machine	26	0.50	1	13	8	104	68	7,044
Generator	13	0.74	1	10	8	77	68	5,213
Excavator	428	0.57	1	244	8	1,952	68	132,194
Loader	170	0.68	4	462	8	3,699	68	250,559
End Dump Truck	310	0.60	4	744	8	5,952	68	403,149
MARINE ROCK DELIVERY EQ								
Derrick Barge	800	0.43	1	344	8	2,752	34	93,201
Front End Loader	400	0.68	1	272	8	2,176	34	73,694
Tug Boat	1,650	0.50	1	825	8	6,600	34	223,520
Tug Boat	4,400	0.50	1	2,200	8	17,600	34	596,053

Table A.1.1-Alt 2-28. Activity Data - Demo - E12-13 Wharf - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	109	48,834
Excavator	428	0.57	1	244	8	1,952	109	213,123
Flatbed Truck	230	0.60	1	138	8	1,104	109	120,557
End Dump Truck	310	0.60	4	744	8	5,952	109	649,958
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	109	225,389
Auxiliary Engine	200	0.50	1	100	8	800	109	87,200
Work Tug	750	0.40	1	300	8	2,400	109	262,080
Auxiliary Engine	150	0.50	1	75	8	600	109	65,400
Hydra-Crane	130	0.43	1	56	8	447	109	48,834
Excavator	428	0.57	1	244	8	1,952	109	213,123
Flatbed Truck	230	0.60	1	138	8	1,104	109	120,557
End Dump Truck	310	0.60	3	558	8	4,464	109	487,469

Table A.1.1-Alt 2-29. Activity Data - Lift #1 (~ -30) - POLB - MHTP - Alternative 2. Lift #1 (~ -30)

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	27	55,728
Auxiliary Engine	200	0.50	1	100	8	800	27	21,600
Front End Loader	400	0.68	1	272	8	2,176	27	58,752
Tug Boat	1,500	0.50	1	750	8	6,000	27	162,000
Auxiliary Engine	150	0.50	1	75	8	600	27	16,200
Tug Boat	4,000	0.50	1	2,000	8	16,000	27	432,000
Auxiliary Engine	400	0.50	1	200	8	1,600	27	43,200
Crew/Survey Boat	400	0.30	1	120	8	960	27	25,920
Auxiliary Engine	80	0.50	1	40	8	320	27	8,640

Table A.1.1-Alt 2-30. Activity Data - Lift #2 (~ -15) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	16	33,024
Auxiliary Engine	200	0.50	1	100	8	800	16	12,800
Front End Loader	400	0.68	1	272	8	2,176	16	34,816
Tug Boat	1,500	0.50	1	750	8	6,000	16	96,000
Auxiliary Engine	150	0.50	1	75	8	600	16	9,600
Tug Boat	4,000	0.50	1	2,000	8	16,000	16	256,000
Auxiliary Engine	400	0.50	1	200	8	1,600	16	25,600
Crew/Survey Boat	400	0.30	1	120	8	960	16	15,360
Auxiliary Engine	80	0.50	1	40	8	320	16	5,120

Table A.1.1-Alt 2-31. Activity Data - Lift #3 (- 0) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	14	28,896
Auxiliary Engine	200	0.50	1	100	8	800	14	11,200
Front End Loader	400	0.68	1	272	8	2,176	14	30,464
Tug Boat	1,500	0.50	1	750	8	6,000	14	84,000
Auxiliary Engine	150	0.50	1	75	8	600	14	8,400
Tug Boat	4,000	0.50	1	2,000	8	16,000	14	224,000
Auxiliary Engine	400	0.50	1	200	8	1,600	14	22,400
Crew/Survey Boat	400	0.30	1	120	8	960	14	13,440
Auxiliary Engine	80	0.50	1	40	8	320	14	4,480

Table A.1.1-Alt 2-32. Activity Data - Lift #4 (- +15) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	12	24,768
Auxiliary Engine	200	0.50	1	100	8	800	12	9,600
Front End Loader	400	0.68	1	272	8	2,176	12	26,112
Tug Boat	1,500	0.50	1	750	8	6,000	12	72,000
Auxiliary Engine	150	0.50	1	75	8	600	12	7,200
Tug Boat	4,000	0.50	1	2,000	8	16,000	12	192,000
Auxiliary Engine	400	0.50	1	200	8	1,600	12	19,200
Crew/Survey Boat	400	0.30	1	120	8	960	12	11,520
Auxiliary Engine	80	0.50	1	40	8	320	12	3,840

Table A.1.1-Alt 2-33. Activity Data - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	12	12,326
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	12	295,488
Dozers	285	0.64	2	365	8	2,918	12	35,021
Loader	170	0.68	3	347	8	2,774	12	33,293
End Dump Truck	310	0.60	6	1,116	8	8,928	12	107,136
Water Truck	310	0.60	1	186	8	1,488	12	17,856

Table A.1.1-Alt 2-34. Activity Data - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	30	30,816
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	18	443,232
Dozers	285	0.64	2	365	8	2,918	18	52,531
Loader	170	0.68	3	347	8	2,774	18	49,939
End Dump Truck	310	0.60	6	1,116	8	8,928	18	160,704
Water Truck	310	0.60	1	186	8	1,488	18	26,784

Table A.1.1-Alt 2-35. Activity Data - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	30	30,816
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	24	590,976
Dozers	285	0.64	2	365	8	2,918	24	70,042
Loader	170	0.68	3	347	8	2,774	24	66,586
End Dump Truck	310	0.60	6	1,116	8	8,928	24	214,272
Water Truck	310	0.60	1	186	8	1,488	24	35,712

Table A.1.1-Alt 2-36. Activity Data - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	27	27,734
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	45	1,108,080
Dozers	285	0.64	2	365	8	2,918	45	131,328
Loader	170	0.68	3	347	8	2,774	45	124,848
End Dump Truck	310	0.60	6	1,116	8	8,928	45	401,760
Water Truck	310	0.60	1	186	8	1,488	45	66,960

Table A.1.1-Alt 2-37. Activity Data - Remove Surcharge - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	36	886,464
Dozers	285	0.64	2	365	8	2,918	36	105,062
Loader	170	0.68	3	347	8	2,774	36	99,878
End Dump Truck	310	0.60	6	1,116	8	8,928	36	321,408
Water Truck	310	0.60	1	186	8	1,488	36	53,568

Table A.1.1-Alt 2-38. Activity Data - Container Yard Development - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	223	267,120
Auger	125	0.50	1	63	8	500	223	111,300
Crane	130	0.43	1	56	8	447	223	99,547
Grader	215	0.61	3	393	8	3,148	223	700,656
End Dump Truck	310	0.60	1	186	8	1,488	223	331,229
Flat Bed Truck	230	0.60	2	276	8	2,208	223	491,501
Concrete Truck	250	1	4	600	8	4,800	223	1,070,400
Front End Loader	400	0.68	2	544	8	4,352	223	968,755
Trencher	200	0.50	1	100	8	800	223	178,080
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	223	176,495
Grader	215	0.61	1	131	8	1,049	223	233,552
Roller	151	0.50	3	227	8	1,812	223	403,351
Vibration Roller	154	0.50	3	231	8	1,848	223	411,365
Water Truck	210	0.50	1	105	8	840	223	186,984
Road Sweeper	190	0.50	1	95	8	760	223	169,176
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	223	245,750
Truck Crane	130	0.43	1	56	8	447	223	99,547
Auger	125	0.50	1	63	8	500	223	111,300

Table A.1.1-Alt 2-39. Activity Data - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
TRIPLE TRACK INSTALLATION DEMO EQ								
Track hoe with breaker and bucket (demo)	428	0.57	1	244	8	1,952	2	3,903
Front end loader	170	0.68	1	116	8	925	7	6,474
TRIPLE TRACK GRADING EQ								
966 (or equivalent) Front end loader	170	0.68	1	116	8	925	5	4,624
TRIPLE TRACK TRACKWORK EQ								
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	170	0.68	1	116	8	925	96	88,781

Table A.1.1-Alt 2-40. Activity Data - Electrical Substation Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
Grading								
Water Trucks (Gasoline)	210	0.50	2	210	8	1,680	40	67,200
Truck for Soil Test Inspector (Gasoline)	210	0.50	1	105	8	840	40	33,600
980 Loader	318	0.50	1	159	8	1,272	40	50,880
Grader	215	0.61	1	131	8	1,049	40	41,968
Vibratory Compactor	130	0.61	1	79	6	476	20	9,516
Survey								
Survey Trucks (Gasoline)	210	0.50	2	210	8	1,680	45	75,600
Civil								
Crew Trucks	210	0.50	2	210	4	840	50	42,000
Dump Trucks	310	0.60	2	372	3	1,116	50	55,800
Stake Bed Truck (5-ton)	210	0.50	1	105	2	210	50	10,500
Trencher	200	0.50	1	100	8	800	30	24,000
Drill Rig	125	0.50	1	63	8	500	10	5,000
Tractor	210	0.50	1	105	7	735	50	36,750
Forklift	103	0.30	1	31	4	124	50	6,180
Electrical								
8-Ton Stake Truck	210	0.50	1	105	4	420	80	33,600
Crew Cab Trucks	210	0.50	2	210	6	1,260	80	100,800
Carryall Vehicles (Gasoline)	210	0.50	2	210	6	1,260	80	100,800
Cranes	130	0.43	2	112	4	447	80	35,776
Lift Truck	210	0.50	1	105	4	420	80	33,600
Pickups	210	0.50	2	210	4	840	80	67,200
Forklift	103	0.30	1	31	6	185	80	14,832
Manlifts	210	0.50	2	210	8	1,680	80	134,400
Support Trucks	210	0.50	2	210	4	840	80	67,200
Transformer Setup								
Carryall Vehicle (Gasoline)	210	0.50	1	105	2	210	20	4,200
Crew Truck	210	0.50	1	105	2	210	20	4,200
Crane	130	0.43	1	56	6	335	20	6,708
Forklift	103	0.30	1	31	6	185	20	3,708
Low Bed Truck	210	0.50	1	105	4	420	20	8,400
Test								
Test Truck	210	0.50	1	105	4	420	40	16,800
Paving								
Foreman Truck	210	0.50	1	105	6	630	5	3,150
2 Dump Trucks	310	0.60	2	372	6	2,232	5	11,160
2 Skip Loaders	170	0.68	2	231	6	1,387	5	6,936
Barbergreen	150	0.50	1	75	8	600	2	1,200
Fence Installation								
Foreman Truck	210	0.50	1	105	4	420	4	1,680
Crewcab	230	0.60	1	138	4	552	4	2,208
Bobcat (Gasoline)	100	0.50	1	50	8	400	4	1,600
3-Ton Flatbed Truck	230	0.60	1	138	2	276	2	552

Table A.1.1-Alt 2-41. Activity Data - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
Installation of 160 LWS poles and removal of wood poles								
Heavy Line Truck	300	0.50	1	150	4	600	60	36,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	60	25,200
Light Material Truck	210	0.50	1	105	4	420	60	25,200
75' Bucket Truck	210	0.50	1	105	4	420	60	25,200
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	60	25,200
Wire Replacement/Attachment and Termination								
Heavy Line Truck	300	0.50	1	150	4	600	90	54,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	90	37,800
Light Material Truck	210	0.50	1	105	4	420	90	37,800
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	90	37,800
Final Connection of New Lines								
Heavy Line Truck	300	0.50	1	150	4	600	2	1,200
Carry-All (Gasoline)	210	0.50	1	105	4	420	2	840
Light Material Truck	210	0.50	1	105	4	420	2	840
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	2	840

Table A.1.1-Alt 2-42. Daily Construction Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	17.79
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	52.92
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	29.94
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	161.40
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	262.04
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	55.90
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	21.69
Work Tug	1.32	9.79	51.46	0.03	1.71	1.71	1.60	139.71
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	23.86
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	17.76
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	52.86
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	29.90
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	120.90
Subtotal	6.36	32.88	122.02	0.14	5.65	5.65	5.22	462.59
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	31.21
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	56.88
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	52.86
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	29.90
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	8.45
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	6.25
Subtotal	3.02	12.07	40.93	0.06	2.27	2.27	2.08	185.55

Table A.1.1-Alt 2-43. Daily Construction Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	5.72
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	10.42
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	5.48
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	1.39
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	1.15
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	24.15

Table A.1.1-Alt 2-44. Daily Construction Emissions - Excavation Fronting E24 - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	6.94
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	1,910.54
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	111.11
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	447.78
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	61.11
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	133.33
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	44.44
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	2,715.27
LAND EX								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	45.18
Loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	31.40
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	137.78
Subtotal	3.89	16.41	54.50	0.09	3.06	3.06	2.82	214.35

Table A.1.1-Alt 2-45. Daily Construction Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	34.13
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	13.23
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	35.98
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	213.23
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	14.55
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	568.61
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	26.46
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	31.75
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	10.58
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	948.51

Table A.1.1-Ait 2-46. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	9.99
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	15.01
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	21.10
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	10.99
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	21.26
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	7.63
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	19.19
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	14.24
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	21.67
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	141.09
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	17.20
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	19.51
Auxiliary Engine	0.34	1.29	4.81	0.01	0.26	0.26	0.24	11.61
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	12.60
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	22.14
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	128.33
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	11.90
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	16.43
Subtotal	5.32	30.22	129.88	0.12	5.32	5.32	4.94	239.73
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.35	1.53	4.93	0.01	0.39	0.39	0.36	67.73
Loader-Wheel	0.42	1.83	5.88	0.01	0.46	0.46	0.42	80.80
Hydraulic Crane	0.27	1.15	3.72	0.01	0.29	0.29	0.27	51.10
Crane - 150 Ton	0.27	1.15	3.72	0.01	0.29	0.29	0.27	51.10
Subtotal	1.30	5.67	18.23	0.03	1.43	1.43	1.32	250.73
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	2.21	7.11	0.01	0.56	0.56	0.51	97.81
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Auxiliary Engine	0.19	2.24	3.11	0.00	0.28	0.28	0.26	49.54
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	71.94
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	356.25
Sandblaster w/air compressor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	63.89
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	497.54
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	46.30
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	4.86
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	84.49
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	81.02
Subtotal	8.86	47.79	183.58	0.20	8.50	8.50	7.87	1,487.02
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	33.34
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	60.76
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	31.94
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	8.13
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	6.68
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	140.86

Table A.1.1-Alt 2-47. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	11.90
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	7.28
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	6.51
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	31.23
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	14.76
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	21.90
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	47.62
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	43.17
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	7.94
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	192.31

Table A.1.1-Alt 2-48. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	5.24
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	6.94
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	17.58
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	17.93
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	5.56
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	5.03
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	58.27

Table A.1.1-Alt 2-49. Daily Construction Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	10.95
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	6.51
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	7.28
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	24.73

Table A.1.1-Alt 2-50. Daily Construction Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	40.95
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	43.17
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	255.88
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	17.46
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	682.34
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	31.75
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	38.10
	0.14	1.67	2.33	0.00	0.21	0.21	0.19	12.70
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	1,138.21

Table A.1.1-Alt 2-51. Daily Construction Emissions - Fill within Dike - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	1.79
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	491.28
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	28.57
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	115.14
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	15.71
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	34.29
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	11.43
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	698.21

Table A.1.1-Alt 2-52. Daily Construction Emissions - Remaining Dike Lifts - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	40.95
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	43.17
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	255.88
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	17.46
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	682.34
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	31.75
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	38.10
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	12.70
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	1,138.21

Table A.1.1-Alt 2-53. Daily Construction Emissions - Remaining Fill Lifts - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	5.95
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	1,637.61
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	95.24
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	383.81
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	52.38
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	114.29
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	38.10
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	2,327.38

Table A.1.1-Ait 2-54. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	8.45
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	12.70
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	17.86
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	9.30
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	17.99
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	6.46
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	16.24
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	12.05
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	18.33
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	119.39
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	14.56
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	16.51
Auxiliary Engine	0.34	1.29	4.81	0.01	0.26	0.26	0.24	9.80
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	10.66
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	18.70
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	108.59
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	10.05
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	13.87
Subtotal	5.32	30.22	129.88	0.12	5.32	5.32	4.94	202.74
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	81.32
Loader-Wheel	0.43	1.62	6.04	0.01	0.32	0.32	0.30	40.80
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	31.95
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Subtotal	2.03	8.37	28.43	0.04	1.60	1.60	1.48	202.09
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	31.95
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Auxiliary Engine	0.19	2.24	3.11	0.00	0.28	0.28	0.26	35.67
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	51.80
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	256.50
Sandblaster w/air compressor	0.40	1.01	3.31	0.00	0.30	0.30	0.27	37.50
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	46.00
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	358.23
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	33.33
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	3.50
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	60.83
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	58.33
Subtotal	9.26	47.59	183.00	0.20	8.49	8.49	7.86	1,069.68
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	14.41
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	26.25
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	13.80
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	3.51
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	2.89
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	60.85

Table A.1.1-Alt 2-55. Daily Construction Emissions - Construct South Mooring Dolphin - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	2.13
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	2.42
Auxiliary Engine	0.34	1.29	4.81	0.01	0.26	0.26	0.24	1.55
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	1.56
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	2.95
Tugboat	2.20	16.31	85.77	0.05	2.84	2.84	2.66	15.92
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	1.59
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	2.19
Subtotal	5.32	30.22	129.88	0.12	5.32	5.32	4.94	30.32

Table A.1.1-Alt 2-56. Daily Construction Emissions - Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	3.06
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	3.06

Table A.1.1-Alt 2-57. Daily Construction Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	65.14
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	7.72
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	10.76
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	23.62
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	3.94
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	111.18

Table A.1.1-Alt 2-58. Daily Construction Emissions - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	32.57
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	3.86
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	5.38
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	11.81
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	1.97
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	55.59

Table A.1.1-Alt 2-59. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	23.81
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	14.55
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	62.45
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	29.52
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	43.81
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	95.24
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	86.35
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	384.62

Table A.1.1-Alt 2-60. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	15.73
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	20.82
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	52.73
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	53.78
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	16.67
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	15.08
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	174.80

Table A.1.1-Alt 2-61. Daily Construction Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	21.90
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	14.55
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	49.47

Table A.1.1-Alt 2-62. Daily Construction Emissions - Construct Retaining Structure at Pier D Oil Area- POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	6.24
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	11.38
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	5.98
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	1.52
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	1.25
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	26.37

Table A.1.1-Alt 2-63. Daily Construction Emissions - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
LAND EX								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	15.49
Loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	10.76
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	47.24
Subtotal	3.89	16.41	54.50	0.09	3.06	3.06	2.82	73.49

Table A.1.1-Alt 2-64. Daily Construction Emissions - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
LAND EX								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	25.17
Loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	17.49
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	76.76
Subtotal	3.89	16.41	54.50	0.09	3.06	3.06	2.82	119.43
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	6.45
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	1,774.08
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	103.17
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	415.80
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	56.75
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	123.81
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	41.27
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	2,521.32

Table A.1.1-Alt 2-65. Daily Construction Emissions - Remove Cellular Sheetpile - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	24.77
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	45.14
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	41.95
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	23.73
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	6.71
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	4.96
Subtotal	3.02	12.07	40.93	0.06	2.27	2.27	2.08	147.26

Table A.1.1-Alt 2-66. Daily Construction Emissions - Rock Revetment - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	32.76
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	12.70
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	34.54
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	204.70
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	13.97
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	545.87
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	25.40
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	30.48
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	10.16
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	910.57

Table A.1.1-Alt 2-67. Daily Construction Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	1.79
Tug Boat	21.11	156.58	823.36	0.50	27.29	27.29	25.57	491.28
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	28.57
Work Tug	4.95	36.70	192.97	0.12	6.40	6.40	5.99	115.14
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	15.71
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	34.29
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	11.43
Subtotal	30.55	219.19	1,113.27	3.68	38.79	38.79	36.29	698.21

Table A.1.1-Alt 2-68. Daily Construction Emissions - Ground Improvements Pier D - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
STONE COLUMN INSTALLATION EQ								
Stone Column Crane - 100 Ton	1.52	6.40	21.34	0.03	1.14	1.14	1.05	77.44
Vibratory Probe & Power Pack	2.78	11.67	38.89	0.06	2.08	2.08	1.92	141.11
Auger Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	25.81
Auger & Hydraulic Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	47.04
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	6.99
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	5.17
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	43.71
Loader	1.63	7.10	22.83	0.04	1.79	1.79	1.65	121.52
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	133.32
Subtotal	11.09	46.43	153.92	0.24	8.89	8.89	8.18	602.11
MARINE ROCK DELIVERY EQ								
Derrick Barge	1.82	4.61	27.30	0.03	0.79	0.79	0.73	26.71
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	24.37
Tug Boat	3.63	26.91	141.51	0.09	4.69	4.69	4.40	158.87
Tug Boat	9.68	71.76	377.37	0.23	12.51	12.51	11.72	423.66
Subtotal	16.09	107.32	559.62	0.36	18.71	18.71	17.50	633.61

Table A.1.1-Alt 2-69. Daily Construction Emissions - Demo - E12-13 Wharf - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	23.69
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	70.48
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	39.87
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	214.93
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	348.96
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	74.53
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	28.84
Work Tug	1.32	9.79	51.46	0.03	1.71	1.71	1.60	186.28
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	31.72
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	23.69
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	70.48
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	39.87
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	161.20
Subtotal	6.36	32.88	122.02	0.14	5.65	5.65	5.22	616.60

Table A.1.1-Alt 2-70. Daily Construction Emissions - Lift #1 (~ -30) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	18.43
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	7.14
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	19.43
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	115.14
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	7.86
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	307.05
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	14.29
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	17.14
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	5.71
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	512.20

Table A.1.1-Alt 2-71. Daily Construction Emissions - Lift #2 (~ -15) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	10.92
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	4.23
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	11.51
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	68.23
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	4.66
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	181.96
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	8.47
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	10.16
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	3.39
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	303.52

Table A.1.1-Alt 2-72. Daily Construction Emissions - Lift #3 (- 0) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	9.56
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	3.70
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	10.07
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	59.70
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	4.07
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	159.21
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	7.41
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	8.89
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	2.96
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	265.58

Table A.1.1-Alt 2-73. Daily Construction Emissions - Lift #4 (~ +15) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	8.19
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	3.17
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	8.63
Tug Boat	3.30	24.46	128.65	0.08	4.26	4.26	4.00	51.18
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	3.49
Tug Boat	8.80	65.24	343.06	0.21	11.37	11.37	10.66	136.47
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	6.35
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	7.62
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	2.54
Subtotal	15.77	109.58	534.52	1.35	18.97	18.97	17.73	227.64

Table A.1.1-Alt 2-74. Daily Construction Emissions - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	4.08
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	4.08
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	97.71
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	11.58
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	16.15
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	35.43
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	5.90
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	166.78

Table A.1.1-Alt 2-75. Daily Construction Emissions - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	10.19
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	10.19
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	146.57
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	17.37
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	24.22
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	53.14
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	8.86
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	250.16

Table A.1.1-Alt 2-76. Daily Construction Emissions - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	10.19
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	10.19
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	195.43
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	23.16
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	32.29
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	70.86
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	11.81
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	333.55

Table A.1.1-Alt 2-77. Daily Construction Emissions - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	0.45	1.90	6.34	0.01	0.34	0.34	0.31	9.17
Subtotal	0.45	1.90	6.34	0.01	0.34	0.34	0.31	9.17
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	366.43
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	43.43
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	60.55
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	132.86
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	22.14
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	625.41

Table A.1.1-Alt 2-78. Daily Construction Emissions - Remove Surcharge - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	293.14
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	34.74
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	48.44
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	106.29
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	17.71
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	500.33

Table A.1.1-Alt 2-79. Daily Construction Emissions - Container Yard Development - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelaye	0.53	2.22	7.41	0.01	0.40	0.40	0.37	88.33
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	53.98
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	48.28
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	231.70
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	109.53
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	162.53
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	353.97
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	320.36
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	58.89
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,427.57
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	58.36
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	77.23
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	195.63
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	199.52
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	61.83
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	55.94
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	648.52
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	81.27
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	48.28
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	53.98
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	183.53

Table A.1.1-Ait 2-80. Daily Construction Emissions - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
TRIPLE TRACK INSTALLATION DEMO EQ								
Track hoe with breaker and bucket (demo)	0.86	3.61	12.05	0.02	0.65	0.65	0.59	1.29
Front end loader	0.41	1.71	5.71	0.01	0.31	0.31	0.28	2.14
Subtotal	1.27	5.33	17.76	0.03	0.95	0.95	0.88	3.43
TRIPLE TRACK GRADING EQ								
966 (or equivalent) Front end loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	2.24
Subtotal	0.41	1.77	5.71	0.01	0.45	0.45	0.41	2.24
TRIPLE TRACK TRACKWORK EQ								
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	0.41	1.77	5.71	0.01	0.45	0.45	0.41	43.06
Subtotal	0.41	1.77	5.71	0.01	0.45	0.45	0.41	43.06

Table A.1.1-Alt 2-81. Daily Construction Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Grading								
Water Trucks (Gasoline)								
Truck for Soil Test Inspector (Gasoline)								
980 Loader	0.56	2.36	7.85	0.01	0.42	0.42	0.39	16.83
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	13.88
Vibratory Compactor	0.21	0.91	2.94	0.00	0.23	0.23	0.21	4.62
Subtotal	1.23	5.00	17.27	0.03	1.00	1.00	0.92	35.32
Survey								
Survey Trucks (Gasoline)								
Civil								
Crew Trucks	0.37	1.39	5.19	0.01	0.28	0.28	0.26	13.89
Dump Trucks	0.49	2.07	6.89	0.01	0.37	0.37	0.34	18.45
Stake Bed Truck (5-ton)	0.09	0.35	1.30	0.00	0.07	0.07	0.06	3.47
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	7.94
Drill Rig	0.22	0.96	3.09	0.00	0.24	0.24	0.22	2.43
Tractor	0.32	1.22	4.54	0.01	0.24	0.24	0.22	12.15
Forklift	0.05	0.65	0.90	0.00	0.08	0.08	0.08	4.09
Subtotal	1.91	7.95	26.83	0.04	1.55	1.55	1.42	62.42
Electrical								
8-Ton Stake Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	11.11
Crew Cab Trucks	0.56	2.08	7.78	0.01	0.42	0.42	0.38	33.33
Carryall Vehicles (Gasoline)								
Cranes	0.20	0.86	2.76	0.00	0.22	0.22	0.20	17.35
Lift Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	11.11
Pickups	0.37	1.39	5.19	0.01	0.28	0.28	0.26	22.22
Forklift	0.08	0.97	1.35	0.00	0.12	0.12	0.11	9.81
Manlifts	0.74	2.78	10.37	0.02	0.56	0.56	0.51	44.44
Support Trucks	0.37	1.39	5.19	0.01	0.28	0.28	0.26	22.22
Subtotal	2.69	10.85	37.81	0.06	2.15	2.15	1.97	171.61
Transformer Setup								
Carryall Vehicle (Gasoline)								
Crew Truck	0.09	0.35	1.30	0.00	0.07	0.07	0.06	1.39
Crane	0.15	0.64	2.07	0.00	0.16	0.16	0.15	3.25
Forklift	0.08	0.97	1.35	0.00	0.12	0.12	0.11	2.45
Low Bed Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	2.78
Subtotal	0.51	2.65	7.31	0.01	0.49	0.49	0.45	9.87
Test								
Test Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	5.56
Paving								
Foreman Truck	0.28	1.04	3.89	0.01	0.21	0.21	0.19	1.04
2 Dump Trucks	0.98	4.13	13.78	0.02	0.74	0.74	0.68	3.69
2 Skip Loaders	0.61	2.66	8.56	0.01	0.67	0.67	0.62	3.36
Barbergreen	0.26	1.15	3.70	0.01	0.29	0.29	0.27	0.58
Subtotal	2.14	8.99	29.93	0.05	1.91	1.91	1.76	8.68
Fence Installation								
Foreman Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	0.56
Crewcab	0.24	0.91	3.41	0.01	0.18	0.18	0.17	0.73
Bobcat (Gasoline)	0.18	0.66	2.47	0.00	0.13	0.13	0.12	0.53
3-Ton Flatbed Truck	0.12	0.46	1.70	0.00	0.09	0.09	0.08	0.18
Subtotal	0.73	2.72	10.17	0.02	0.54	0.54	0.50	2.00

Table A.1.1-Alt 2-82. Daily Construction Emissions - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Installation of 160 LWS poles and removal of wood poles								
Heavy Line Truck	0.26	1.11	3.70	0.01	0.20	0.20	0.18	11.90
Carry-All (Gasoline)								
Light Material Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	8.33
75' Bucket Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	8.33
Pickup Truck (Gasoline)								
Subtotal	0.63	2.50	8.89	0.01	0.48	0.48	0.44	28.57
Wire Replacement/Attachment and Termination								
Heavy Line Truck	0.26	1.11	3.70	0.01	0.20	0.20	0.18	17.86
Carry-All (Gasoline)								
Light Material Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	12.50
Pickup Truck (Gasoline)								
Subtotal	0.45	1.81	6.30	0.01	0.34	0.34	0.31	30.36
Final Connection of New Lines								
Heavy Line Truck	0.26	1.11	3.70	0.01	0.20	0.20	0.18	0.40
Carry-All (Gasoline)								
Light Material Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	0.28
Pickup Truck (Gasoline)								
Subtotal	0.45	1.81	6.30	0.01	0.34	0.34	0.31	0.67

Table A.1.1-A1t 2-83. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (1 of 3).

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Demolish Existing Facilities								
Wharf Demolition Landside	4	17	58	0	3	3	3	262
Wharf Demolition Marine	6	33	122	0	6	6	5	463
Sheet Pile Bulkhead Demolition	3	12	41	0	2	2	2	186
Construct New Bulkhead								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	24
Excavation Fronting E24								
Clamshell Dredging	31	219	1,113	4	39	39	36	2,715
Land Ex	4	16	54	0	3	3	3	214
Construct New Armor Slope								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	949
Wharf Construction								
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	141
Drive 24-In Octagonal Piles - Water	5	30	130	0	5	5	5	240
Drive Piles - Misc Activities	1	6	18	0	1	1	1	251
Reinforced Concrete Wharf	9	48	184	0	8	8	8	1,487
Retaining Bulkhead Construction	2	8	29	0	2	2	1	141
Utility Construction								
New Container Yard Utilities	8	33	117	0	6	6	6	192
Paving								
New Container Yard Construction - Paving	3	13	44	0	3	3	3	58
Lighting, Striping, Crane Power								
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	25
Prepare for Toe Dike/Construct Diek (1st Lift)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	1,138
Fill within Dike								
Clamshell Dredging	31	219	1,113	4	39	39	36	698
Remaining Dike Lifts								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	1,138
Remaining Fill Lifts								
Clamshell Dredging	31	219	1,113	4	39	39	36	2,327
Wharf Construction								
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	119
Drive 24-In Octagonal Piles - Water	5	30	130	0	5	5	5	203
Drive Piles - Misc Activities	2	8	28	0	2	2	1	202
Reinforced Concrete Wharf	9	48	183	0	8	8	8	1,070
Retaining Bulkhead Construction	2	8	29	0	2	2	1	61
Construct South Mooring Dolphins								
Drive 24-In Octagonal Piles - Water	5	30	130	0	5	5	5	30
Wick Drains								
Wick Drains	0	2	6	0	0	0	0	3
Surcharge (Initial Pump, Clamshell or Truck)								
Roll Surcharge	18	76	251	0	14	14	13	111
Remove Surcharge to Slip 1 Fill Site								
Roll Surcharge	18	76	251	0	14	14	13	56
Utility Construction								
New Container Yard Utilities	8	33	117	0	6	6	6	385

Table A.1.1-Alt 2-83. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (2 of 3).

Paving								
New Container Yard Construction - Paving	3	13	44	0	3	3	3	175
Lighting, Fence, Striping, Crane Power								
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	49
Construct Retaining Structure at Pier D Oil Area								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	26
Excavate and Truck material to Cell Bulkhead								
Land Ex	4	16	54	0	3	3	3	73
Excavate Material Fronting Pier D								
Land Ex	4	16	54	0	3	3	3	119
Clamshell Dredging	31	219	1,113	4	39	39	36	2,521
Remove Cellular Sheetpile								
Sheet Pile Bulkhead Demolition	3	12	41	0	2	2	2	147
Rock Revetment								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	911
Hydraulic or Clamshell Dredge to -55ft								
Clamshell Dredging	31	219	1,113	4	39	39	36	698
Ground Improvements Pier D								
Stone Column Installation Eq	11	46	154	0	9	9	8	602
Marine Rock Delivery Eq	16	107	560	0	19	19	18	634
Demo E12-13 Wharf								
Wharf Demolition Landside	4	17	58	0	3	3	3	349
Wharf Demolition Marine	6	33	122	0	6	6	5	617
Lift #1 (- -30)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	512
Lift #2 (- -15)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	304
Lift #3 (- 0)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	266
Lift #4 (- +15)								
Rock Placement, Push Off & Tub & Orange Peels	16	110	535	1	19	19	18	228
Initial Surcharge and Wick Drains								
Wick Drains	0	2	6	0	0	0	0	4
Roll Surcharge	18	76	251	0	14	14	13	167
2nd Surcharge and Wick Drains								
Wick Drains	0	2	6	0	0	0	0	10
Roll Surcharge	18	76	251	0	14	14	13	250
3rd Surcharge and Wick Drains								
Wick Drains	0	2	6	0	0	0	0	10
Roll Surcharge	18	76	251	0	14	14	13	334
4th Surcharge and Wick Drains								
Wick Drains	0	2	6	0	0	0	0	9
Roll Surcharge	18	76	251	0	14	14	13	625
Remove Surcharge								
Roll Surcharge	18	76	251	0	14	14	13	500
Container Yard Development								
New Container Yard Utilities	8	33	117	0	6	6	6	1,428
New Container Yard Construction - Paving	3	13	44	0	3	3	3	649
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	184

Table A.1.1-Alt 2-83. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (3 of 3).

POLB Ocean Blvd. Track Reconfiguration								
Triple Track Installation Demo Eq	1	5	18	0	1	1	1	3
Triple Track Grading Eq	0	2	6	0	0	0	0	2
Triple Track Trackwork Eq	0	2	6	0	0	0	0	43
Electrical Substation Construction								
Grading	1	5	17	0	1	1	1	35
Survey	0	0	0	0	0	0	0	0
Civil	2	8	27	0	2	2	1	62
Electrical	3	11	38	0	2	2	2	172
Transformer Setup	1	3	7	0	0	0	0	10
Test	0	1	3	0	0	0	0	6
Paving	2	9	30	0	2	2	2	9
Fence Installation	1	3	10	0	1	1	1	2
Overhead Subtransmission Line Construction								
Installation of 160 LWS poles and removal of wood poles	1	3	9	0	0	0	0	29
Wire Replacement/Attachment and Termination	0	2	6	0	0	0	0	30
Final Connection of New Lines	0	2	6	0	0	0	0	1
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	908	444	93	
Commuter Emissions	1	22	2	0	3	3	2	
Dredging Activities								
Dredging Activities	153	1,096	5,566	18	194	194	181	8,960
Peak Daily Emissions	169	1,109	5,179	15	985	521	211	
Mitigated Peak Daily Emissions (1)	169	1,109	5,179	15	394	208	84	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 2-84. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	60	69,144
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	60	126,000
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.60	1	138	8	1,104	60	66,240
Welding Machine	26	0.50	1	13	8	104	60	6,240
Generator	13	0.74	1	10	8	77	60	4,618
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	60	26,832
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.60	1	138	8	1,104	60	66,240
End Dump Truck	310	0.60	4	744	8	5,952	60	357,120
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Work Tug	750	0.40	1	300	8	2,400	60	144,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Hydra-Crane	130	0.43	1	56	8	447	60	26,832
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.60	1	138	8	1,104	60	66,240
End Dump Truck	310	0.60	3	558	8	4,464	60	267,840

Table A.1.1-Alt 2-85. Activity Data - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	9	10,372
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	9	18,900
Flatbed Truck	230	0.60	1	138	8	1,104	9	9,936
Welding Machine	26	0.45	1	12	8	94	9	842
Generator	13	0.74	1	10	8	77	9	693

Table A.1.1-Alt 2-86. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Bottom Dump Scow	250	0.05	1	13	24	300	30	9,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	30	1,152,000
Auxiliary Engine	400	0.50	1	200	24	4,800	30	144,000
Work Tug	750	0.50	1	375	24	9,000	30	270,000
Auxiliary Engine	150	0.50	1	75	24	1,800	30	54,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	30	86,400
Auxiliary Engine	80	0.50	1	40	24	960	30	28,800

Table A.1.1-Alt 2-87. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,500	0.50	1	750	8	6,000	60	360,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	60	960,000
Auxiliary Engine	400	0.50	1	200	8	1,600	60	96,000
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
Auxiliary Engine	80	0.50	1	40	8	320	60	19,200

Table A.1.1-Alt 2-88. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	36	19,014
Crane - 200 Ton	335	0.43	1	144	8	1,152	36	41,905
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	36	58,909
Piledriving Hammer	211	0.50	1	106	8	844	36	30,691
Loader-Wheel	300	0.68	1	204	8	1,632	36	59,345
Jet Pump	33	0.74	1	24	8	195	36	7,104
End Dump Truck	310	0.60	1	186	8	1,488	36	53,568
Truck-Flatbed	230	0.60	1	138	8	1,104	36	39,744
Truck-Lowboy	350	0.60	1	210	8	1,680	36	60,480
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	42	48,017
Derrick Barge	380	0.43	1	163	8	1,307	42	54,467
Auxiliary Engine	195	0.50	1	98	8	780	42	32,760
Piledriving Hammer	211	0.50	1	106	8	844	42	35,167
End Dump Truck	310	0.60	1	186	8	1,488	42	62,496
Tugboat	1,000	0.50	1	500	8	4,000	42	166,667
Auxiliary Engine	100	0.50	1	50	8	400	42	16,800
Truck-Flatbed	230	0.60	1	138	8	1,104	42	46,368
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	175	341,544
Loader-Wheel	180	0.68	1	122	8	979	175	171,360
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	175	201,670
Auxiliary Engine	107	0.50	1	54	8	428	175	74,900
Concrete Pump	210	0.74	1	155	8	1,243	175	217,560
Concrete Trucks	285	0.60	5	770	8	6,156	175	1,077,300
Sandblaster w/air compressor	50	0.75	1	38	8	300	175	52,500
Truck-Flatbed	230	0.60	1	138	8	1,104	175	193,200
Tugboat	1,000	0.50	1	500	8	4,000	175	700,000
Auxiliary Engine	100	0.50	1	50	8	400	175	70,000
Concrete Saw	35	0.10	1	4	8	28	175	4,900
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	175	255,500
Boom Truck	350	0.50	1	175	8	1,400	175	245,000

Table A.1.1-Alt 2-89. Activity Data - CY Development - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	38	29,733
Grader	215	0.61	1	131	8	1,049	38	39,345
Roller	151	0.50	3	227	8	1,812	38	67,950
Vibration Roller	154	0.50	3	231	8	1,848	38	69,300
Water Truck	210	0.50	1	105	8	840	38	31,500
Road Sweeper	190	0.50	1	95	8	760	38	28,500

Table A.1.1-Alt 2-90. Activity Data - Dredge to -55 ft - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Bottom Dump Scow	250	0.05	1	13	24	300	20	6,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	20	768,000
Auxiliary Engine	400	0.50	1	200	24	4,800	20	96,000
Work Tug	750	0.50	1	375	24	9,000	20	180,000
Auxiliary Engine	150	0.50	1	75	24	1,800	20	36,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	20	57,600
Auxiliary Engine	80	0.50	1	40	24	960	20	19,200

Table A.1.1-Ait 2-91. Daily Construction Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	22.87
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	41.67
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	38.72
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	21.90
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	6.19
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	4.58
Subtotal	3.02	12.07	40.93	0.06	2.27	2.27	2.08	135.93
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	38.72
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	21.90
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	118.10
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	191.74
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	40.95
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Work Tug	1.32	9.79	38.87	0.03	1.22	1.22	1.14	72.97
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	17.46
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	38.72
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	21.90
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	88.57
Subtotal	6.36	32.88	109.43	0.14	5.16	5.16	4.77	309.47

Table A.1.1-Ait 2-92. Daily Construction Emissions - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	3.43
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	6.25
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	3.29
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	0.84
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	0.69
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	14.49

Table A.1.1-Ait 2-93. Daily Construction Emissions - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	2.98
Tug Boat	21.11	156.58	621.93	0.50	19.46	19.46	18.23	583.79
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	47.62
Work Tug	4.95	36.70	145.76	0.12	4.56	4.56	4.27	136.83
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	26.19
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	57.14
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	19.05
Subtotal	30.55	219.19	864.63	3.68	29.12	29.12	27.23	873.59

Table A.1.1-Alt 2-94. Daily Construction Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	40.95
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	43.17
Tug Boat	3.30	24.46	97.18	0.08	3.04	3.04	2.85	182.43
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	17.46
Tug Boat	8.80	65.24	259.14	0.21	8.11	8.11	7.60	486.49
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	31.75
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	38.10
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	12.70
Subtotal	15.77	109.58	419.12	1.35	14.48	14.48	13.52	868.92

Table A.1.1-Alt 2-95. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	9.22
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	13.86
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	19.48
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	10.15
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	19.62
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	7.05
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	17.71
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	13.14
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	20.00
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	130.24
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	15.88
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	18.01
Auxiliary Engine	0.34	1.29	4.81	0.01	0.26	0.26	0.24	10.83
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	11.63
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	20.67
Tugboat	2.20	16.31	64.78	0.05	2.03	2.03	1.90	84.46
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	11.11
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	15.33
Subtotal	5.32	30.22	108.90	0.12	4.50	4.50	4.17	187.92
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	112.94
Loader-Wheel	0.43	1.62	6.04	0.01	0.32	0.32	0.30	56.67
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	44.38
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Subtotal	2.03	8.37	28.43	0.04	1.60	1.60	1.48	280.68
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	44.38
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	66.69
Auxiliary Engine	0.19	2.24	3.11	0.00	0.28	0.28	0.26	49.54
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	71.94
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	356.25
Sandblaster w/air compressor	0.40	1.01	3.31	0.00	0.30	0.30	0.27	52.08
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	63.89
Tugboat	2.20	16.31	64.78	0.05	2.03	2.03	1.90	354.73
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	46.30
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	4.86
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	84.49
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	81.02
Subtotal	9.26	47.59	162.02	0.20	7.67	7.67	7.09	1,342.86

Table A.1.1-Alt 2-96. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	9.83
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	13.01
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	32.96
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	33.61
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	10.42
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	9.42
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	109.25

Table A.1.1-Alt 2-97. Daily Construction Emissions - Dredge to -55 ft - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	1.98
Tug Boat	21.11	156.58	621.93	0.50	19.46	19.46	18.23	389.19
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	31.75
Work Tug	4.95	36.70	145.76	0.12	4.56	4.56	4.27	91.22
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	17.46
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	38.10
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	12.70
Subtotal	30.55	219.19	864.63	3.68	29.12	29.12	27.23	582.39

Table A.1.1-Alt 2-98. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 2.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Demolish Existing Facilities								
Sheet Pile Bulkhead Demolition	3	12	41	0	2	2	2	136
Wharf Demolition Landside	4	17	58	0	3	3	3	192
Wharf Demolition Marine	6	33	109	0	5	5	5	309
Construct New Bulkhead								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	14
Excavation Fronting E25 and Dispose Slip 1								
Clamshell Dredging	31	219	865	4	29	29	27	874
Construct New Armor Slope								
Rock Placement, Push Off & Tub & Orange Peels	16	110	419	1	14	14	14	869
Wharf Construction								
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	130
Drive 24-In Octagonal Piles - Water	5	30	109	0	4	4	4	188
Drive Piles - Misc Activities	2	8	28	0	2	2	1	281
Reinforced Concrete Wharf	9	48	162	0	8	8	7	1,343
CY Development								
New Container Yard Construction - Paving	3	13	44	0	3	3	3	109
Dredge to -55 ft								
Clamshell Dredging	31	219	865	4	29	29	27	582
Other Peak Daily Emissions								
Fugitive Emissions	-	-	-	-	605	296	62	
Commuter Emissions	2	33	3	0	4	4	4	
Dredging Activities								
Dredging Activities	61	438	1,729	7	58	58	54	1,456
Peak Daily Emissions	48	362	1,287	5	649	339	102	
Mitigated Peak Daily Emissions (1)	48	362	1,287	5	259	136	41	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 2-99. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	120	53,664
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.60	1	138	8	1,104	120	132,480
End Dump Truck	310	0.60	4	744	8	5,952	120	714,240
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	120	247,680
Auxiliary Engine	200	0.50	1	100	8	800	120	96,000
Work Tug	750	0.40	1	300	8	2,400	120	288,000
Auxiliary Engine	150	0.50	1	75	8	600	120	72,000
Hydra-Crane	130	0.43	1	56	8	447	120	53,664
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.60	1	138	8	1,104	120	132,480
End Dump Truck	310	0.60	3	558	8	4,464	120	535,680
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	120	138,288
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	120	252,000
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.60	1	138	8	1,104	120	132,480
Welding Machine	26	0.50	1	13	8	104	120	12,480
Generator	13	0.74	1	10	8	77	120	9,235

Table A.1.1-Alt 2-100. Activity Data - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	12	13,829
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	12	25,200
Flatbed Truck	230	0.60	1	138	8	1,104	12	13,248
Welding Machine	26	0.45	1	12	8	94	12	1,123
Generator	13	0.74	1	10	8	77	12	924

Table A.1.1-Alt 2-101. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Bottom Dump Scow	250	0.05	1	13	24	300	27	8,100
Tug Boat	4,000	0.40	1	1,600	24	38,400	27	1,036,800
Auxiliary Engine	400	0.40	1	160	24	3,840	27	103,680
Work Tug	750	0.50	1	375	24	9,000	27	243,000
Auxiliary Engine	150	0.50	1	75	24	1,800	27	48,600
Crew/Survey Boat	400	0.30	1	120	24	2,880	27	77,760
Auxiliary Engine	80	0.50	1	40	24	960	27	25,920

Table A.1.1-Alt 2-102. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	90	185,760
Auxiliary Engine	200	0.50	1	100	8	800	90	72,000
Front End Loader	400	0.68	1	272	8	2,176	90	195,840
Tug Boat	1,500	0.50	1	750	8	6,000	90	540,000
Auxiliary Engine	150	0.50	1	75	8	600	90	54,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	90	1,440,000
Auxiliary Engine	400	0.50	1	200	8	1,600	90	144,000
Crew/Survey Boat	400	0.30	1	120	8	960	90	86,400
Auxiliary Engine	80	0.50	1	40	8	320	90	28,800

Table A.1.1-Alt 2-103. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	67	34,859
Crane - 200 Ton	335	0.43	1	144	8	1,152	67	76,827
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	67	108,000
Piledriving Hammer	211	0.50	1	106	8	844	67	56,267
Loader-Wheel	300	0.68	1	204	8	1,632	67	108,800
Jet Pump	33	0.74	1	24	8	195	67	13,024
End Dump Truck	310	0.60	1	186	8	1,488	67	99,696
Truck-Flatbed	230	0.60	1	138	8	1,104	67	73,968
Truck-Lowboy	350	0.60	1	210	8	1,680	67	112,560
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	76	88,031
Derrick Barge	380	0.43	1	163	8	1,307	76	99,856
Auxiliary Engine	195	0.50	1	98	8	780	76	59,280
Piledriving Hammer	211	0.50	1	106	8	844	76	64,472
End Dump Truck	310	0.60	1	186	8	1,488	76	113,088
Tugboat	1,000	0.50	1	500	8	4,000	76	305,556
Auxiliary Engine	100	0.50	1	50	8	400	76	30,400
Truck-Flatbed	230	0.60	1	138	8	1,104	76	83,904
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	245	478,162
Loader-Wheel	180	0.68	1	122	8	979	245	239,904
Hydraulic Crane	152	0.43	1	65	8	523	245	128,106
Crane - 150 Ton	335	0.43	1	144	8	1,152	245	282,338
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	245	128,106
Crane - 150 Ton	335	0.43	1	144	8	1,152	245	282,338
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	245	282,338
Auxiliary Engine	107	0.50	1	54	8	428	245	104,860
Concrete Pump	210	0.74	1	155	8	1,243	245	304,584
Concrete Trucks	285	0.60	5	770	8	6,156	245	1,508,220
Sandblaster w/air compressor	50	0.75	1	38	8	300	245	73,500
Truck-Flatbed	230	0.60	1	138	8	1,104	245	270,480
Tugboat	1,000	0.50	1	500	8	4,000	245	980,000
Auxiliary Engine	100	0.50	1	50	8	400	245	98,000
Concrete Saw	35	0.10	1	4	8	28	245	6,860
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	245	357,700
Boom Truck	350	0.50	1	175	8	1,400	245	343,000

Table A.1.1-Alt 2-104. Activity Data - Construct E27 Bulkhead - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	40	46,096
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	40	84,000
Flatbed Truck	230	0.60	1	138	8	1,104	40	44,160
Welding Machine	26	0.45	1	12	8	94	40	3,744
Generator	13	0.74	1	10	8	77	40	3,078

Table A.1.1-Alt 2-105. Activity Data - CY Development - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelay	300	0.50	1	150	8	1,200	210	252,000
Auger	125	0.50	1	63	8	500	210	105,000
Crane	130	0.43	1	56	8	447	210	93,912
Grader	215	0.61	3	393	8	3,148	210	660,996
End Dump Truck	310	0.60	1	186	8	1,488	210	312,480
Flat Bed Truck	230	0.60	2	276	8	2,208	210	463,680
Concrete Truck	250	0.60	4	600	8	4,800	210	1,008,000
Front End Loader	400	0.68	2	544	8	4,352	210	913,920
Trencher	200	0.50	1	100	8	800	210	168,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	210	166,505
Grader	215	0.61	1	131	8	1,049	210	220,332
Roller	151	0.50	3	227	8	1,812	210	380,520
Vibration Roller	154	0.50	3	231	8	1,848	210	388,080
Water Truck	210	0.50	1	105	8	840	210	176,400
Road Sweeper	190	0.50	1	95	8	760	210	159,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	210	231,840
Truck Crane	130	0.43	1	56	8	447	210	93,912
Auger	125	0.50	1	63	8	500	210	105,000

Table A.1.1-Alt 2-106. Activity Data - Hydraulic Dredge to -55ft - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Bottom Dump Scow	250	0.05	1	13	24	300	30	9,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	30	1,152,000
Auxiliary Engine	400	0.50	1	200	24	4,800	30	144,000
Work Tug	750	0.50	1	375	24	9,000	30	270,000
Auxiliary Engine	105	0.50	1	53	24	1,260	30	37,800
Crew/Survey Boat	400	0.30	1	120	24	2,880	30	86,400
Auxiliary Engine	80	0.30	1	24	24	576	30	17,280

Table A.1.1-Alt 2-107. Daily Construction Emissions - Demolish Existing Facilities - POLB - N Demolish Existing Facilities

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	26.03
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	77.45
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	43.81
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	236.19
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	383.48
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	81.90
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	31.75
Work Tug	1.32	9.79	26.28	0.03	0.73	0.73	0.68	87.19
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	34.92
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	26.03
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	77.45
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	43.81
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	177.14
Subtotal	6.36	32.88	96.84	0.14	4.67	4.67	4.31	560.19
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	45.73
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	83.33
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	77.45
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	43.81
Welding Machine	0.14	0.35	1.15	0.00	0.10	0.10	0.09	12.38
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	9.16
Subtotal	3.02	12.07	40.93	0.06	2.27	2.27	2.08	271.86

Table A.1.1-Alt 2-108. Daily Construction Emissions - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	4.57
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	8.33
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	4.38
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	1.11
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	0.92
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	19.32

Table A.1.1-Alt 2-109. Daily Construction Emissions - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	2.68
Tug Boat	21.11	156.58	420.50	0.50	11.63	11.63	10.89	313.89
Auxiliary Engine	1.69	7.11	23.70	0.04	1.27	1.27	1.17	34.29
Work Tug	4.95	36.70	98.55	0.12	2.72	2.72	2.55	73.57
Auxiliary Engine	0.79	3.45	11.11	0.02	0.87	0.87	0.80	23.57
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	51.43
Auxiliary Engine	0.42	5.02	6.98	0.01	0.63	0.63	0.58	17.14
Subtotal	30.12	217.41	610.07	3.67	19.13	19.13	17.88	516.57

Table A.1.1-Alt 2-110. Daily Construction Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	61.43
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	23.81
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	64.76
Tug Boat	3.30	24.46	65.70	0.08	1.82	1.82	1.70	163.49
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	26.19
Tug Boat	8.80	65.24	175.21	0.21	4.84	4.84	4.54	435.96
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	47.62
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	57.14
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	19.05
Subtotal	15.77	109.58	303.72	1.35	9.99	9.99	9.32	899.45

Table A.1.1-Alt 2-111. Daily Construction Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	16.91
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	25.41
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	35.71
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	18.61
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	35.98
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	12.92
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	32.97
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	24.46
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	37.22
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	240.18
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	29.11
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	33.02
Auxiliary Engine	0.34	1.29	4.81	0.01	0.26	0.26	0.24	19.60
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	21.32
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	37.40
Tugboat	2.20	16.31	43.80	0.05	1.21	1.21	1.13	92.51
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	20.11
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	27.75
Subtotal	5.32	30.22	87.92	0.12	3.68	3.68	3.41	280.81
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	158.12
Loader-Wheel	0.43	1.62	6.04	0.01	0.32	0.32	0.30	79.33
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	62.13
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	93.37
Subtotal	2.03	8.37	28.43	0.04	1.60	1.60	1.48	392.95
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	62.13
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	93.37
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	93.37
Auxiliary Engine	0.19	2.24	3.11	0.00	0.28	0.28	0.26	69.35
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	100.72
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	498.75
Sandblaster w/air compressor	0.40	1.01	3.31	0.00	0.30	0.30	0.27	72.92
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	89.44
Tugboat	2.20	16.31	43.80	0.05	1.21	1.21	1.13	296.70
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	64.81
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	6.81
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	118.29
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	113.43
Subtotal	9.26	47.59	141.04	0.20	6.86	6.86	6.33	1,680.08

Table A.1.1-Alt 2-112. Daily Construction Emissions - Construct E27 Bulkhead - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	15.24
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	27.78
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	14.60
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	3.71
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	3.05
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	64.39

Table A.1.1-Alt 2-113. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	83.33
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	50.93
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	45.55
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	218.58
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	103.33
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	153.33
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	333.33
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	302.22
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	55.56
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,346.17
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	55.06
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	72.86
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	184.56
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	188.22
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	58.33
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	52.78
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	611.81
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	76.67
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	45.55
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	50.93
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	173.14

Table A.1.1-Alt 2-114. Daily Construction Emissions - Hydraulic Dredge -55ft - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CLAMSHELL DREDGING								
Bottom Dump Scow	0.13	0.50	1.85	0.00	0.10	0.10	0.09	2.98
Tug Boat	21.11	156.58	420.50	0.50	11.63	11.63	10.89	348.77
Auxiliary Engine	2.12	8.89	29.63	0.05	1.59	1.59	1.46	47.62
Work Tug	4.95	36.70	98.55	0.12	2.72	2.72	2.55	81.74
Auxiliary Engine	0.56	6.58	9.17	0.01	0.83	0.83	0.77	25.00
Crew/Survey Boat	1.02	8.06	47.37	2.98	1.90	1.90	1.78	57.14
Auxiliary Engine	0.25	3.01	4.19	0.01	0.38	0.38	0.35	11.43
Subtotal	30.14	220.31	611.25	3.67	19.16	19.16	17.90	574.68

Table A.1.1-Alt 2-115. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 3.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Demolish Existing Facilities								
Wharf Demolition Landside	4	17	58	0	3	3	3	383
Wharf Demolition Marine	6	33	97	0	5	5	4	560
Sheet Pile Bulkhead Demolition	3	12	41	0	2	2	2	272
Construct New Bulkhead (Install Transition Bulkhead)								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	19
Excavation Fronting E25 and Dispose Slip 1								
Clamshell Dredging	30	217	610	4	19	19	18	517
Construct New Armor Slope								
Rock Placement, Push Off & Tub & Orange Peels	16	110	304	1	10	10	9	899
Wharf Construction								
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	240
Drive 24-In Octagonal Piles - Water	5	30	88	0	4	4	3	281
Drive Piles - Misc Activities	2	8	28	0	2	2	1	393
Reinforced Concrete Wharf	9	48	141	0	7	7	6	1,680
Construct E27 Bulkhead								
Retaining Bulkhead Construction	2	8	29	0	2	2	1	64
0								
Vibratory Hammer & Power Pack	8	33	117	0	6	6	6	1,346
Flatbed Truck	3	13	44	0	3	3	3	612
Welding Machine	1	4	13	0	1	1	1	173
Hydraulic Dredge -55ft								
Clamshell Dredging	30	220	611	4	19	19	18	575
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	1,568	767	160	
Commuter Emissions	1	15	1	0	2	2	2	
Dredging Activities								
Dredging Activities	60	438	1,221	7	38	38	36	1,091
Peak Daily Emissions	52	340	934	4	1,602	801	192	
Mitigated Peak Daily Emissions (1)	52	340	934	4	641	321	77	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 2-116. Activity Data - Seaside Railyard Area Redevelopment (not in schedule, added) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	335	402,000
Auger	125	0.50	1	63	8	500	335	167,500
Crane	130	0.43	1	56	8	447	335	149,812
Grader	215	0.61	3	393	8	3,148	335	1,054,446
End Dump Truck	310	0.60	1	186	8	1,488	335	498,480
Flat Bed Truck	230	0.60	2	276	8	2,208	335	739,680
Concrete Truck	250	0.60	4	600	8	4,800	335	1,608,000
Front End Loader	400	0.68	2	544	8	4,352	335	1,457,920
Trencher	200	0.50	1	100	8	800	335	268,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	335	265,615
Grader	215	0.61	1	131	8	1,049	335	351,482
Roller	151	0.50	3	227	8	1,812	335	607,020
Vibration Roller	154	0.50	3	231	8	1,848	335	619,080
Water Truck	210	0.50	1	105	8	840	335	281,400
Road Sweeper	190	0.50	1	95	8	760	335	254,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	335	369,840
Truck Crane	130	0.43	1	56	8	447	335	149,812
Auger	125	0.50	1	63	8	500	335	167,500

Table A.1.1-Alt 2-117. Daily Construction Emissions - Seaside Railyard Area Redevelopment - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	132.94
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	81.24
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	72.66
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	348.69
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	164.84
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	244.60
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	531.75
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	482.12
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	88.62
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	2,147.46
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	87.84
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	116.23
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	294.41
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	300.26
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	93.06
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	84.19
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	975.98
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	122.30
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	72.66
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	81.24
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	276.20

Table A.1.1-Alt 2-118. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 4.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Seaside Railyard Area Redevelopment								
New Container Yard Utilities	8	33	117	0	6	6	6	2,147
New Container Yard Construction - Paving	3	13	44	0	3	3	3	976
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	276
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	2,530	1,237	258	
Commuter Emissions	0	6	1	0	1	1	1	
Peak Daily Emissions	13	55	174	0	2,540	1,247	267	
Mitigated Peak Daily Emissions (1)	13	55	174	0	1,016	499	107	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 2-119. Activity Data - Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	255	305,760
Auger	125	0.50	1	63	8	500	255	127,400
Crane	130	0.43	1	56	8	447	255	113,947
Grader	215	0.61	3	393	8	3,148	255	802,008
End Dump Truck	310	0.60	1	186	8	1,488	255	379,142
Flat Bed Truck	230	0.60	2	276	8	2,208	255	562,598
Concrete Truck	250	1	4	600	8	4,800	255	1,224,000
Front End Loader	400	0.68	2	544	8	4,352	255	1,108,890
Trencher	200	0.50	1	100	8	800	255	203,840
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	255	202,026
Grader	215	0.61	1	131	8	1,049	255	267,336
Roller	151	0.50	3	227	8	1,812	255	461,698
Vibration Roller	154	0.50	3	231	8	1,848	255	470,870
Water Truck	210	0.50	1	105	8	840	255	214,032
Road Sweeper	190	0.50	1	95	8	760	255	193,648
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	255	281,299
Truck Crane	130	0.43	1	56	8	447	255	113,947
Auger	125	0.50	1	63	8	500	255	127,400

Table A.1.1-Alt 2-120. Daily Construction Emissions - Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	101.11
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	61.79
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	55.27
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	265.21
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	125.38
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	186.04
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	404.76
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	366.70
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	67.41
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,633.67
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	66.81
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	88.40
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	223.93
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	228.38
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	70.78
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	64.04
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	742.33
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	93.02
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	55.27
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	61.79
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	210.08

Table A.1.1-Alt 2-121. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 5.

<i>Activity</i>	<i>Pounds per Day</i>							<i>Total lbs.</i>
	<i>VOC</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM</i>	<i>PM10</i>	<i>PM2.5</i>	<i>DPM</i>
Construction								
New Container Yard Utilities	8	33	117	0	6	6	6	1,634
New Container Yard Construction - Paving	3	13	44	0	3	3	3	742
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	210
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	2,530	1,237	258	
Commuter Emissions	1	24	2	0	4	4	3	
Peak Daily Emissions	14	73	175	0	2,540	1,247	267	
Mitigated Peak Daily Emissions (1)	14	73	175	0	1,016	499	107	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 2-122. Activity Data - Demolition - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	140	62,608
Excavator	428	0.57	1	244	8	1,952	140	273,235
Flatbed Truck	230	0.60	1	138	8	1,104	140	154,560
End Dump Truck	310	0.60	4	744	8	5,952	140	833,280

Table A.1.1-Alt 2-123. Activity Data - Railyard - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
INTERMODAL YARD CONSTRUCTION								
Backhoe	102	0.57	1	58	8	465	315	146,513
Excavator	428	0.57	1	244	8	1,952	315	614,779
Ballast Spreader	100	0.50	1	50	8	400	315	126,000
Ballast Tamper	100	0.50	1	50	8	400	315	126,000
Generator Set	23	0.74	2	34	8	272	315	85,781
Roller	151	0.50	1	76	8	604	315	190,260
Grader	215	0.61	1	131	8	1,049	315	330,498
Truck Mounted Crane	130	0.43	1	56	8	447	315	140,868
Forklift	103	0.30	1	31	8	247	315	77,868
Flatbed Truck	230	0.60	2	276	8	2,208	315	695,520
End Dump Truck	310	0.60	2	372	8	2,976	315	937,440
Water Truck	210	0.60	1	126	8	1,008	315	317,520

Table A.1.1-Alt 2-124. Activity Data - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	112	134,400
Auger	125	0.50	1	63	8	500	112	56,000
Crane	130	0.43	1	56	8	447	112	50,086
Grader	215	0.61	3	393	8	3,148	112	352,531
End Dump Truck	310	0.60	1	186	8	1,488	112	166,656
Flat Bed Truck	230	0.60	2	276	8	2,208	112	247,296
Concrete Truck	250	0.60	4	600	8	4,800	112	537,600
Front End Loader	400	0.68	2	544	8	4,352	112	487,424
Trencher	200	0.50	1	100	8	800	112	89,600
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	112	88,803
Grader	215	0.61	1	131	8	1,049	112	117,510
Roller	151	0.50	3	227	8	1,812	112	202,944
Vibration Roller	154	0.50	3	231	8	1,848	112	206,976
Water Truck	210	0.50	1	105	8	840	112	94,080
Road Sweeper	190	0.50	1	95	8	760	112	85,120
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	112	123,648
Truck Crane	130	0.43	1	56	8	447	112	50,086
Auger	125	0.50	1	63	8	500	112	56,000

Table A.1.1-Alt 2-125. Activity Data - Demo Existing F1-4, F6 Wharf - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	4	744	8	5,952	182	1,083,264

Table A.1.1-Alt 2-126. Activity Data - Roll Surcharge - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	42	1,034,208
Dozers	285	0.64	2	365	8	2,918	42	122,573
Loader	170	0.68	3	347	8	2,774	42	116,525
End Dump Truck	310	0.60	6	1,116	8	8,928	42	374,976
Water Truck	310	0.60	1	186	8	1,488	42	62,496

Table A.1.1-Alt 2-127. Daily Construction Emissions - Demolition - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	30.37
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	90.36
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	51.11
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	275.56
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	447.39

Table A.1.1-Alt 2-128. Daily Construction Emissions - Railyard - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
INTERMODAL YARD CONSTRUCTION								
Backhoe	0.21	2.43	3.38	0.00	0.31	0.31	0.28	96.90
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	203.30
Ballast Spreader	0.18	2.09	2.91	0.00	0.26	0.26	0.24	83.33
Ballast Tamper	0.18	2.09	2.91	0.00	0.26	0.26	0.24	83.33
Generator Set	0.36	0.92	3.00	0.00	0.27	0.27	0.25	85.10
Roller	0.27	1.16	3.73	0.01	0.29	0.29	0.27	92.28
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	109.29
Truck Mounted Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	68.32
Forklift	0.11	1.29	1.80	0.00	0.16	0.16	0.15	51.50
Flatbed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	230.00
End Dump Truck	1.31	8.73	18.37	0.03	0.98	0.98	0.91	310.00
Water Truck	0.44	1.67	6.22	0.01	0.33	0.33	0.31	105.00
Subtotal	5.54	30.23	77.24	0.12	4.82	4.82	4.43	1,518.36

Table A.1.1-Alt 2-129. Daily Construction Emissions - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelaye	0.53	2.22	7.41	0.01	0.40	0.40	0.37	44.44
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	27.16
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	24.29
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	116.58
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	55.11
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	81.78
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	177.78
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	161.19
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	29.63
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	717.96
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	29.37
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	38.86
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	98.43
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	100.39
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	31.11
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	28.15
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	326.30
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	40.89
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	24.29
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	27.16
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	92.34

Table A.1.1-Alt 2-130. Daily Construction Emissions - Demo Existing F1-4, F6 Wharf - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	39.48
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	117.46
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	66.44
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	358.22
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	581.60

Table A.1.1-Alt 2-131. Daily Construction Emissions - Roll Surcharge - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
ROLL SURCHARGE								
Scrapers	10.86	45.60	152.00	0.24	8.14	8.14	7.49	342.00
Dozers	1.29	5.40	18.01	0.03	0.97	0.97	0.89	40.53
Loader	1.22	5.32	17.13	0.03	1.35	1.35	1.24	56.52
End Dump Truck	3.94	16.53	55.11	0.09	2.95	2.95	2.72	124.00
Water Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	20.67
Subtotal	17.96	75.61	251.44	0.40	13.90	13.90	12.79	583.72

Table A.1.1-Alt 2-132. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 2 - Stage 1.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Demolition								
Wharf Demolition Landside	4	17	58	0	3	3	3	447
Railyard								
Intermodal Yard Construction	6	30	77	0	5	5	4	1,518
Container Yard Development (F1 - F4)								
New Container Yard Utilities	8	33	117	0	6	6	6	718
New Container Yard Construction - Paving	3	13	44	0	3	3	3	326
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	92
Demo Existing F1-4, F6 Wharf								
Wharf Demolition Landside	4	17	58	0	3	3	3	582
Roll Surcharge								
Roll Surcharge								
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	1,100	538	112	
Commuter Emissions	1	15	1	0	2	2	2	
Peak Daily Emissions	11	62	137	0	1,108	546	120	
Mitigated Peak Daily Emissions (1)	11	62	137	0	443	218	48	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 2-133. Activity Data - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	4	744	8	5,952	182	1,083,264
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	182	375,648
Auxiliary Engine	200	0.50	1	100	8	800	182	145,600
Work Tug	750	0.40	1	300	8	2,400	182	436,800
Auxiliary Engine	150	0.50	1	75	8	600	182	109,200
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	3	558	8	4,464	182	812,448

Table A.1.1-Alt 2-134. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2. (1 of 2)

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
LAND EX								
Excavator	428	0.57	1	244	8	1,952	168	327,882
Loader	170	0.68	1	116	8	925	168	155,366
End Dump Truck	310	0.60	4	744	8	5,952	168	999,936
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	168	346,752
Auxiliary Engine	200	0.50	1	100	8	800	168	134,400
Front End Loader	400	0.68	1	272	8	2,176	168	365,568
Tug Boat	1,500	0.50	1	750	8	6,000	168	1,008,000
Auxiliary Engine	150	0.50	1	75	8	600	168	100,800
Tug Boat	4,000	0.50	1	2,000	8	16,000	168	2,688,000
Auxiliary Engine	400	0.50	1	200	8	1,600	168	268,800
Crew/Survey Boat	400	0.30	1	120	8	960	168	161,280
Auxiliary Engine	80	0.50	1	40	8	320	168	53,760
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	168	193,603
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	168	352,800
Flatbed Truck	230	0.60	1	138	8	1,104	168	185,472
Welding Machine	26	0.45	1	12	8	94	168	15,725
Generator	13	0.74	1	10	8	77	168	12,929
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 200 Ton	335	0.43	1	144	8	1,152	126	145,202
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	126	204,120
Piledriving Hammer	211	0.50	1	106	8	844	126	106,344
Loader-Wheel	300	0.68	1	204	8	1,632	126	205,632
Jet Pump	33	0.74	1	24	8	195	126	24,615
End Dump Truck	310	0.60	1	186	8	1,488	126	187,488
Truck-Flatbed	230	0.60	1	138	8	1,104	126	139,104
Truck-Lowboy	350	0.60	1	210	8	1,680	126	211,680

Table A.1.1-Alt 2-135. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2. (2 of 2)

DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	126	145,202
Derrick Barge	380	0.43	1	163	8	1,307	126	164,707
Auxiliary Engine	195	0.50	1	98	8	780	126	98,280
Piledriving Hammer	211	0.50	1	106	8	844	126	106,344
End Dump Truck	310	0.60	1	186	8	1,488	126	187,488
Tugboat	1,000	0.50	1	500	8	4,000	126	504,000
Auxiliary Engine	100	0.50	1	50	8	400	126	50,400
Truck-Flatbed	230	0.60	1	138	8	1,104	126	139,104
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	126	245,912
Loader-Wheel	180	0.68	1	122	8	979	126	123,379
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	210	109,805
Crane - 150 Ton	335	0.43	1	144	8	1,152	210	242,004
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	210	242,004
Auxiliary Engine	107	0.50	1	54	8	428	210	89,880
Concrete Pump	210	0.74	1	155	8	1,243	210	261,072
Concrete Trucks	285	0.60	5	770	8	6,156	210	1,292,760
Sandblaster w/air compressor	50	0.75	1	38	8	300	210	63,000
Truck-Flatbed	230	0.60	1	138	8	1,104	210	231,840
Tugboat	1,000	0.50	1	500	8	4,000	210	840,000
Auxiliary Engine	100	0.50	1	50	8	400	210	84,000
Concrete Saw	35	0.10	1	4	8	28	210	5,880
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	210	306,600
Boom Truck	350	0.50	1	175	8	1,400	210	294,000

Table A.1.1-Alt 2-136. Daily Construction Emissions - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	39.48
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	117.46
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	66.44
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	358.22
Subtotal	4.17	17.32	58.36	0.09	3.20	3.20	2.94	581.60
WHARF DEMOLITION MARINE								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	124.22
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	48.15
Work Tug	1.32	9.79	19.02	0.03	0.45	0.45	0.42	82.08
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	52.96
Hydra-Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	39.48
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	117.46
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	66.44
End Dump Truck	1.97	8.27	27.56	0.04	1.48	1.48	1.36	268.67
Subtotal	6.36	32.88	89.58	0.14	4.39	4.39	4.05	799.46

Table A.1.1-Alt 2-137. Daily Construction Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2 (1 of 2).

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
LAND EX								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	108.43
Loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	75.35
End Dump Truck	2.62	11.02	36.74	0.06	1.97	1.97	1.81	330.67
Subtotal	3.89	16.41	54.50	0.09	3.06	3.06	2.82	514.45
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	0.91	6.05	12.74	0.02	0.68	0.68	0.63	114.67
Auxiliary Engine	0.35	1.32	4.94	0.01	0.26	0.26	0.24	44.44
Front End Loader	0.96	4.03	13.43	0.02	0.72	0.72	0.66	120.89
Tug Boat	3.30	24.46	47.54	0.08	1.13	1.13	1.06	189.42
Auxiliary Engine	0.26	1.15	3.70	0.01	0.29	0.29	0.27	48.89
Tug Boat	8.80	65.24	126.77	0.21	3.01	3.01	2.82	505.12
Auxiliary Engine	0.71	2.96	9.88	0.02	0.53	0.53	0.49	88.89
Crew/Survey Boat	0.34	2.69	15.79	0.99	0.63	0.63	0.59	106.67
Auxiliary Engine	0.14	1.67	2.33	0.00	0.21	0.21	0.19	35.56
Subtotal	15.77	109.58	237.12	1.35	7.47	7.47	6.95	1,254.54
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	64.02
Vibratory Hammer & Power Pack	0.93	3.89	12.96	0.02	0.69	0.69	0.64	116.67
Flatbed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	61.33
Welding Machine	0.12	0.32	1.03	0.00	0.09	0.09	0.09	15.60
Generator	0.10	0.26	0.85	0.00	0.08	0.08	0.07	12.83
Subtotal	2.15	8.42	28.77	0.04	1.61	1.61	1.48	270.45
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	31.95
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Drill/Power Pack HPSI	0.71	3.00	10.00	0.02	0.54	0.54	0.49	67.50
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	35.17
Loader-Wheel	0.72	3.02	10.07	0.02	0.54	0.54	0.50	68.00
Jet Pump	0.26	0.66	2.15	0.00	0.19	0.19	0.18	24.42
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	62.00
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	46.00
Truck-Lowboy	0.74	3.11	10.37	0.02	0.56	0.56	0.51	70.00
Subtotal	4.69	18.91	64.15	0.10	3.60	3.60	3.31	453.06

Table A.1.1-Alt 2-138. Daily Construction Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2 (2 of 2).

DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Derrick Barge	0.58	2.42	8.07	0.01	0.43	0.43	0.40	54.47
Auxiliary Engine	0.34	1.29	4.81	0.01	0.26	0.26	0.24	32.50
Piledriving Hammer	0.37	1.40	5.21	0.01	0.28	0.28	0.26	35.17
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	62.00
Tugboat	2.20	16.31	31.69	0.05	0.75	0.75	0.70	94.71
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	33.33
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	46.00
Subtotal	5.32	30.22	75.81	0.12	3.22	3.22	2.98	406.19
DRIVE PILES - MISC ACTIVITIES								
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	81.32
Loader-Wheel	0.43	1.62	6.04	0.01	0.32	0.32	0.30	40.80
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	31.95
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	48.02
Subtotal	2.03	8.37	28.43	0.04	1.60	1.60	1.48	202.09
REINFORCED CONCRETE WHARF								
Hydraulic Crane	0.23	1.00	3.23	0.01	0.25	0.25	0.23	53.26
Crane - 150 Ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	80.03
Crane Barge - 150 ton	0.51	2.13	7.11	0.01	0.38	0.38	0.35	80.03
Auxiliary Engine	0.19	2.24	3.11	0.00	0.28	0.28	0.26	59.44
Concrete Pump	0.55	2.06	7.67	0.01	0.41	0.41	0.38	86.33
Concrete Trucks	2.71	11.40	38.00	0.06	2.04	2.04	1.87	427.50
Sandblaster w/air compressor	0.40	1.01	3.31	0.00	0.30	0.30	0.27	62.50
Truck-Flatbed	0.49	1.83	6.81	0.01	0.37	0.37	0.34	76.67
Tugboat	2.20	16.31	31.69	0.05	0.75	0.75	0.70	157.85
Auxiliary Engine	0.18	2.09	2.91	0.00	0.26	0.26	0.24	55.56
Concrete Saw	0.04	0.09	0.31	0.00	0.03	0.03	0.03	5.83
Truck Crane - 65 ton	0.64	2.70	9.01	0.01	0.48	0.48	0.44	101.39
Boom Truck	0.62	2.59	8.64	0.01	0.46	0.46	0.43	97.22
Subtotal	4.56	26.63	62.69	0.10	2.65	2.65	2.45	557.02

Table A.1.1-Alt 2-139. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 2 - Stage 2.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Demo Existing F8-10 Wharf								
Wharf Demolition Landside	4	17	58	0	3	3	3	582
Wharf Demolition Marine	6	33	90	0	4	4	4	799
Construct Wharf, Armor, Fill								
Land Ex	4	16	54	0	3	3	3	514
Rock Placement, Push Off & Tub & Orange Peels	16	110	237	1	7	7	7	1,255
Retaining Bulkhead Construction	2	8	29	0	2	2	1	270
Drive 24-In Octagonal Piles - Land	5	19	64	0	4	4	3	453
Drive 24-In Octagonal Piles - Water	5	30	76	0	3	3	3	406
Drive Piles - Misc Activities	2	8	28	0	2	2	1	202
Reinforced Concrete Wharf	5	27	63	0	3	3	2	557
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	138	67	14	
Commuter Emissions	0	6	1	0	1	1	1	
Peak Daily Emissions	39	224	552	2	161	90	35	
Mitigated Peak Daily Emissions (1)	39	224	552	2	64	36	14	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt 2-140. Activity Data - Remove Surcharge - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RAILYARD								
Backhoe	102	0.57	1	58	8	465	40	18,605
Excavator	428	0.57	1	244	8	1,952	40	78,067
Ballast Spreader	100	0.50	1	50	8	400	40	16,000
Ballast Tamper	100	0.50	1	50	8	400	40	16,000
Generator Set	23	0.74	2	34	8	272	40	10,893
Roller	151	0.50	1	76	8	604	40	24,160
Grader	215	0.61	1	131	8	1,049	40	41,968
Truck Mounted Crane	130	0.43	1	56	8	447	40	17,888
Forklift	103	0.30	1	31	8	247	40	9,888
Flatbed Truck	230	0.60	2	276	8	2,208	40	88,320
End Dump Truck	310	0.60	2	372	8	2,976	40	119,040
Water Truck	210	0.60	1	126	8	1,008	40	40,320

Table A.1.1-Alt 2-141. Daily Construction Emissions - Railyard Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RAILYARD								
Backhoe	0.21	0.86	2.87	0.00	0.15	0.15	0.14	6.15
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	25.82
Ballast Spreader	0.18	0.77	2.47	0.00	0.19	0.19	0.18	7.76
Ballast Tamper	0.18	0.77	2.47	0.00	0.19	0.19	0.18	7.76
Generator Set	0.12	0.52	1.68	0.00	0.13	0.13	0.12	5.28
Roller	0.27	1.16	3.73	0.01	0.29	0.29	0.27	11.72
Grader	0.46	2.01	6.48	0.01	0.51	0.51	0.47	20.35
Truck Mounted Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	8.68
Forklift	0.11	0.47	1.53	0.00	0.12	0.12	0.11	4.80
Flatbed Truck	0.97	4.23	13.63	0.02	1.07	1.07	0.99	42.84
End Dump Truck	1.31	5.71	18.37	0.03	1.44	1.44	1.33	57.74
Water Truck	0.44	1.93	6.22	0.01	0.49	0.49	0.45	19.56
Subtotal	5.30	22.91	74.25	0.12	5.46	5.46	5.02	218.44

Table A.1.1-Alt 2-142. Daily Emissions - POLB - MHTP - Alternative 2 - Phase 2 - Stage 3.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Railyard Construction								
Railyard	5	23	74	0	5	5	5	218
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	55	28	3	
Commuter Emissions	1	15	1	0	2	2	2	
Peak Daily Emissions	6	37	75	0	63	35	10	
Mitigated Peak Daily Emissions (1)	6	37	75	0	25	14	4	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt3-1. Activity Data - Utility Construction - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-2. Activity Data - Paving - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-3. Activity Data - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-4. Activity Data - Utility Construction - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-5. Activity Data - Paving - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-6. Activity Data - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-7. Activity Data - Container Yard Development - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-8. Activity Data - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-9. Activity Data - Electrical Substation Construction - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-10. Activity Data - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-11. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-12. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-13. Daily Construction Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-14. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-15. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-16. Daily Construction Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-17. Daily Construction Emissions - Container Yard Development - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-18. Daily Construction Emissions - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-19. Daily Construction Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-20. Daily Construction Emissions - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 3.

Table A.1.1-Alt3-21. Daily Emissions - MHTP - Alternative 3 - Phase 1 - Stage 1 (1 of 2).

Table A.1.1-Alt3-21. Daily Emissions - MHTP - Alternative 3 - Phase 1 - Stage 1 (2 of 2).

Table A.1.1-Alt3-22. Activity Data - CY Development - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-23. Daily Construction Emissions - CY Development - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-24. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 1 - Stage 2.

Table A.1.1-Alt3-25. Activity Data - CY Development - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-26. Daily Construction Emissions - CY Development - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-27. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 1 - Stage 3.

Table A.1.1-Alt3-28. Activity Data - Seaside Railyard Area Redevelopment (not in schedule, added) - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-29. Daily Construction Emissions - Seaside Railyard Area Redevelopment - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-30. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 1 - Stage 4.

Table A.1.1-Alt3-31. Activity Data - Construction - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-32. Daily Construction Emissions - Construction - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-33. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 1 - Stage 5.

Table A.1.1-Alt3-34. Activity Data - Railyard - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-35. Activity Data - Container Yard Development (F1 - F4) - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-36. Daily Construction Emissions - Railyard - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-37. Daily Construction Emissions - Container Yard Development (F1 - F4) - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-38. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 2 - Stage 1.

Table A.1.1-Alt3-39. Activity Data - Railyard Construction - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-40. Daily Construction Emissions - Railyard Construction - POLB - MHTP - Mitigated Alternative 3.

Table A.1.1-Alt3-41. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 2 - Stage 2.

This page intentionally left blank.

Table A.1.1-Alt3-1. Activity Data - Utility Construction - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	30	36,000
Auger	125	0.50	1	63	8	500	30	15,000
Crane	130	0.43	1	56	8	447	30	13,416
Grader	215	0.61	3	393	8	3,148	30	94,428
End Dump Truck	310	0.60	1	186	8	1,488	30	44,640
Flat Bed Truck	230	0.60	2	276	8	2,208	30	66,240
Concrete Truck	250	1	4	600	8	4,800	30	144,000
Front End Loader	400	0.68	2	544	8	4,352	30	130,560
Trencher	200	0.50	1	100	8	800	30	24,000

Table A.1.1-Alt3-2. Activity Data - Paving - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	20	15,858
Grader	215	0.61	1	131	8	1,049	20	20,984
Roller	151	0.50	3	227	8	1,812	20	36,240
Vibration Roller	154	0.50	3	231	8	1,848	20	36,960
Water Truck	210	0.50	1	105	8	840	20	16,800
Road Sweeper	190	0.50	1	95	8	760	20	15,200

Table A.1.1-Alt3-3. Activity Data - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	30	33,120
Truck Crane	130	0.43	1	56	8	447	30	13,416
Auger	125	0.50	1	63	8	500	30	15,000

Table A.1.1-Alt3-4. Activity Data - Utility Construction - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	60	72,000
Auger	125	0.50	1	63	8	500	60	30,000
Crane	130	0.43	1	56	8	447	60	26,832
Grader	215	0.61	3	393	8	3,148	60	188,856
End Dump Truck	310	0.60	1	186	8	1,488	60	89,280
Flat Bed Truck	230	0.60	2	276	8	2,208	60	132,480
Concrete Truck	250	0.60	4	600	8	4,800	60	288,000
Front End Loader	400	0.68	2	544	8	4,352	60	261,120
Trencher	200	0.50	1	100	8	800	60	48,000

Table A.1.1-Alt3-5. Activity Data - Paving - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	60	47,573
Grader	215	0.61	1	131	8	1,049	60	62,952
Roller	151	0.50	3	227	8	1,812	60	108,720
Vibration Roller	154	0.50	3	231	8	1,848	60	110,880
Water Truck	210	0.50	1	105	8	840	60	50,400
Road Sweeper	190	0.50	1	95	8	760	60	45,600

Table A.1.1-Alt3-6. Activity Data - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	60	66,240
Truck Crane	130	0.43	1	56	8	447	60	26,832
Auger	125	0.50	1	63	8	500	60	30,000

Table A.1.1-Alt3-7. Activity Data - Container Yard Development - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	223	267,120
Auger	125	0.50	1	63	8	500	223	111,300
Crane	130	0.43	1	56	8	447	223	99,547
Grader	215	0.61	3	393	8	3,148	223	700,656
End Dump Truck	310	0.60	1	186	8	1,488	223	331,229
Flat Bed Truck	230	0.60	2	276	8	2,208	223	491,501
Concrete Truck	250	1	4	600	8	4,800	223	1,070,400
Front End Loader	400	0.68	2	544	8	4,352	223	968,755
Trencher	200	0.50	1	100	8	800	223	178,080
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	223	176,495
Grader	215	0.61	1	131	8	1,049	223	233,552
Roller	151	0.50	3	227	8	1,812	223	403,351
Vibration Roller	154	0.50	3	231	8	1,848	223	411,365
Water Truck	210	0.50	1	105	8	840	223	186,984
Road Sweeper	190	0.50	1	95	8	760	223	169,176
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	223	245,750
Truck Crane	130	0.43	1	56	8	447	223	99,547
Auger	125	0.50	1	63	8	500	223	111,300

Table A.1.1-Alt3-8. Activity Data - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
TRIPLE TRACK INSTALLATION DEMO EQ								
Track hoe with breaker and bucket (demo)	428	0.57	1	244	8	1,952	2	3,903
Front end loader	170	0.68	1	116	8	925	7	6,474
Backhoe or skid loader (as needed)	335			0		0	3	0
12 or 14 H Blade	350			0		0	7	0
Sheepsfoot vibratory roller	26			0		0	2	0
Water truck	13			0		0	7	0
Haul off dump trucks for spoil	310	0.60		0		0	4	0
TRIPLE TRACK UTILITY RELOCATION EQ								
Front end loader	170	0.68	1	116	8	925		0
Backhoe				0		0	14	0
Trench vibratory roller or jumping jack				0		0	14	0
Water truck				0		0	14	0
Haul off dump trucks for spoil	310	0.60		0		0	7	0
Concrete trucks				0		0	7	0
TRIPLE TRACK GRADING EQ								
Haul in dump trucks for subballast material	310	0.60		0		0	5	0
966 (or equivalent) Front end loader	170	0.68	1	116	8	925	5	4,624
Backhoe or skid loader (as needed)				0		0	2	0
12 or 14 G Blade	1,500			0		0	5	0
	150			0		0		
Smooth drum vibratory roller	4,000			0		0	5	0
	400			0		0		
Water truck				0		0	5	0
TRIPLE TRACK RETAINING WALL EQ								
Backhoe				0		0	15	0
Trench vibratory roller or jumping jack				0		0	7	0
Water truck				0		0	15	0
Extendable forklift				0		0	7	0
Concrete trucks if CIP walls				0		0	4	0
Form Truck				0		0	7	0
TRIPLE TRACK TRACKWORK EQ								
Ballast delivery dump trucks	310	0.60		0		0	96	0
Smooth drum vibratory roller				0		0	7	0
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	170	0.68	1	116	8	925	96	88,781

Table A.1.1-Alt3-9. Activity Data - Electrical Substation Construction - POLB - MHTP - Alternative 3.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
Grading								
Water Trucks (Gasoline)	210	0.50	2	210	8	1,680	40	67,200
Truck for Soil Test Inspector (Gasoline)	210	0.50	1	105	8	840	40	33,600
980 Loader	318	0.50	1	159	8	1,272	40	50,880
Grader	215	0.61	1	131	8	1,049	40	41,968
Vibratory Compactor	130	0.61	1	79	6	476	20	9,516
Survey								
Survey Trucks (Gasoline)	210	0.50	2	210	8	1,680	45	75,600
Civil								
Crew Trucks	210	0.50	2	210	4	840	50	42,000
Dump Trucks	310	0.60	2	372	3	1,116	50	55,800
Stake Bed Truck (5-ton)	210	0.50	1	105	2	210	50	10,500
Trencher	200	0.50	1	100	8	800	30	24,000
Drill Rig	125	0.50	1	63	8	500	10	5,000
Tractor	210	0.50	1	105	7	735	50	36,750
Forklift	103	0.30	1	31	4	124	50	6,180
Electrical								
8-Ton Stake Truck	210	0.50	1	105	4	420	80	33,600
Crew Cab Trucks	210	0.50	2	210	6	1,260	80	100,800
Carryall Vehicles (Gasoline)	210	0.50	2	210	6	1,260	80	100,800
Cranes	130	0.43	2	112	4	447	80	35,776
Lift Truck	210	0.50	1	105	4	420	80	33,600
Pickups	210	0.50	2	210	4	840	80	67,200
Forklift	103	0.30	1	31	6	185	80	14,832
Manlifts	210	0.50	2	210	8	1,680	80	134,400
Support Trucks	210	0.50	2	210	4	840	80	67,200
Transformer Setup								
Carryall Vehicle (Gasoline)	210	0.50	1	105	2	210	20	4,200
Crew Truck	210	0.50	1	105	2	210	20	4,200
Crane	130	0.43	1	56	6	335	20	6,708
Forklift	103	0.30	1	31	6	185	20	3,708
Low Bed Truck	210	0.50	1	105	4	420	20	8,400
Test								
Test Truck	210	0.50	1	105	4	420	40	16,800
Paving								
Foreman Truck	210	0.50	1	105	6	630	5	3,150
2 Dump Trucks	310	0.60	2	372	6	2,232	5	11,160
2 Skip Loaders	170	0.68	2	231	6	1,387	5	6,936
Barbergreen	150	0.50	1	75	8	600	2	1,200
Fence Installation								
Foreman Truck	210	0.50	1	105	4	420	4	1,680
Crewcab	230	0.60	1	138	4	552	4	2,208
Bobcat (Gasoline)	100	0.50	1	50	8	400	4	1,600
3-Ton Flatbed Truck	230	0.60	1	138	2	276	2	552

Table A.1.1-Alt3-10. Activity Data - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
Installation of 160 LWS poles and removal of wood poles								
Heavy Line Truck	300	0.50	1	150	4	600	60	36,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	60	25,200
Light Material Truck	210	0.50	1	105	4	420	60	25,200
75' Bucket Truck	210	0.50	1	105	4	420	60	25,200
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	60	25,200
Wire Replacement/Attachment and Termination								
Heavy Line Truck	300	0.50	1	150	4	600	90	54,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	90	37,800
Light Material Truck	210	0.50	1	105	4	420	90	37,800
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	90	37,800
Final Connection of New Lines								
Heavy Line Truck	300	0.50	1	150	4	600	2	1,200
Carry-All (Gasoline)	210	0.50	1	105	4	420	2	840
Light Material Truck	210	0.50	1	105	4	420	2	840
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	2	840

Table A.1.1-Alt3-11. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	11.90
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	7.28
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	6.51
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	31.23
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	14.76
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	21.90
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	47.62
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	43.17
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	7.94
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	192.31

Table A.1.1-Alt3-12. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	5.24
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	6.94
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	17.58
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	17.93
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	5.56
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	5.03
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	58.27

Table A.1.1-Alt3-13. Daily Construction Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	10.95
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	6.51
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	7.28
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	24.73

Table A.1.1-Alt3-14. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	23.81
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	14.55
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	62.45
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	29.52
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	43.81
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	95.24
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	86.35
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	15.87
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	384.62

Table A.1.1-Alt3-15. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	15.73
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	20.82
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	52.73
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	53.78
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	16.67
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	15.08
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	174.80

Table A.1.1-Alt3-16. Daily Construction Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	21.90
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	13.01
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	14.55
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	49.47

Table A.1.1-Alt3-17. Daily Construction Emissions - Container Yard Development - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	88.33
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	53.98
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	48.28
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	231.70
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	109.53
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	162.53
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	353.97
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	320.36
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	58.89
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,427.57
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	58.36
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	77.23
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	195.63
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	199.52
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	61.83
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	55.94
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	648.52
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	81.27
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	48.28
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	53.98
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	183.53

Table A.1.1-A13-18. Daily Construction Emissions - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
TRIPLE TRACK INSTALLATION DEMO EQ								
Track hoe with breaker and bucket (demo)	0.86	3.61	12.05	0.02	0.65	0.65	0.59	1.29
Front end loader	0.41	1.71	5.71	0.01	0.31	0.31	0.28	2.14
Backhoe or skid loader (as needed)								
12 or 14 H Blade								
Sheepsfoot vibratory roller								
Water truck								
Haul off dump trucks for spoil								
Subtotal	1.27	5.33	17.76	0.03	0.95	0.95	0.88	3.43
TRIPLE TRACK UTILITY RELOCATION EQ								
Front end loader								
Backhoe								
Trench vibratory roller or jumping jack								
Water truck								
Haul off dump trucks for spoil								
Concrete trucks								
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRIPLE TRACK GRADING EQ								
Haul in dump trucks for subballast material								
966 (or equivalent) Front end loader	0.41	1.77	5.71	0.01	0.45	0.45	0.41	2.24
Backhoe or skid loader (as needed)								
12 or 14 G Blade								
Smooth drum vibratory roller								
Water truck								
Subtotal	0.41	1.77	5.71	0.01	0.45	0.45	0.41	2.24
TRIPLE TRACK RETAINING WALL EQ								
Backhoe								
Trench vibratory roller or jumping jack								
Water truck								
Extendable forklift								
Concrete trucks if CIP walls								
Form Truck								
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRIPLE TRACK TRACKWORK EQ								
Ballast delivery dump trucks								
Smooth drum vibratory roller								
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	0.41	1.77	5.71	0.01	0.45	0.45	0.41	43.06
Subtotal	0.41	1.77	5.71	0.01	0.45	0.45	0.41	43.06

Table A.1.1-Alt3-19. Daily Construction Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Grading								
Water Trucks (Gasoline)								
Truck for Soil Test Inspector (Gasoline)								
980 Loader	0.56	2.36	7.85	0.01	0.42	0.42	0.39	16.83
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	13.88
Vibratory Compactor	0.21	0.91	2.94	0.00	0.23	0.23	0.21	4.62
Subtotal	1.23	5.00	17.27	0.03	1.00	1.00	0.92	35.32
Survey								
Survey Trucks (Gasoline)								
Civil								
Crew Trucks	0.37	1.39	5.19	0.01	0.28	0.28	0.26	13.89
Dump Trucks	0.49	2.07	6.89	0.01	0.37	0.37	0.34	18.45
Stake Bed Truck (5-ton)	0.09	0.35	1.30	0.00	0.07	0.07	0.06	3.47
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	7.94
Drill Rig	0.22	0.96	3.09	0.00	0.24	0.24	0.22	2.43
Tractor	0.32	1.22	4.54	0.01	0.24	0.24	0.22	12.15
Forklift	0.05	0.65	0.90	0.00	0.08	0.08	0.08	4.09
Subtotal	1.91	7.95	26.83	0.04	1.55	1.55	1.42	62.42
Electrical								
8-Ton Stake Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	11.11
Crew Cab Trucks	0.56	2.08	7.78	0.01	0.42	0.42	0.38	33.33
Carryall Vehicles (Gasoline)								
Cranes	0.20	0.86	2.76	0.00	0.22	0.22	0.20	17.35
Lift Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	11.11
Pickups	0.37	1.39	5.19	0.01	0.28	0.28	0.26	22.22
Forklift	0.08	0.97	1.35	0.00	0.12	0.12	0.11	9.81
Manlifts	0.74	2.78	10.37	0.02	0.56	0.56	0.51	44.44
Support Trucks	0.37	1.39	5.19	0.01	0.28	0.28	0.26	22.22
Subtotal	2.69	10.85	37.81	0.06	2.15	2.15	1.97	171.61
Transformer Setup								
Carryall Vehicle (Gasoline)								
Crew Truck	0.09	0.35	1.30	0.00	0.07	0.07	0.06	1.39
Crane	0.15	0.64	2.07	0.00	0.16	0.16	0.15	3.25
Forklift	0.08	0.97	1.35	0.00	0.12	0.12	0.11	2.45
Low Bed Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	2.78
Subtotal	0.51	2.65	7.31	0.01	0.49	0.49	0.45	9.87
Test								
Test Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	5.56
Paving								
Foreman Truck	0.28	1.04	3.89	0.01	0.21	0.21	0.19	1.04
2 Dump Trucks	0.98	4.13	13.78	0.02	0.74	0.74	0.68	3.69
2 Skip Loaders	0.61	2.66	8.56	0.01	0.67	0.67	0.62	3.36
Barbergreen	0.26	1.15	3.70	0.01	0.29	0.29	0.27	0.58
Subtotal	2.14	8.99	29.93	0.05	1.91	1.91	1.76	8.68
Fence Installation								
Foreman Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	0.56
Crewcab	0.24	0.91	3.41	0.01	0.18	0.18	0.17	0.73
Bobcat (Gasoline)	0.18	0.66	2.47	0.00	0.13	0.13	0.12	0.53
3-Ton Flatbed Truck	0.12	0.46	1.70	0.00	0.09	0.09	0.08	0.18
Subtotal	0.73	2.72	10.17	0.02	0.54	0.54	0.50	2.00

Table A.1.1-Alt3-20. Daily Construction Emissions - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Installation of 160 LWS poles and removal of wood poles								
Heavy Line Truck	0.26	1.11	3.70	0.01	0.20	0.20	0.18	11.90
Carry-All (Gasoline)								
Light Material Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	8.33
75' Bucket Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	8.33
Pickup Truck (Gasoline)								
Subtotal	0.63	2.50	8.89	0.01	0.48	0.48	0.44	28.57
Wire Replacement/Attachment and Termination								
Heavy Line Truck	0.26	1.11	3.70	0.01	0.20	0.20	0.18	17.86
Carry-All (Gasoline)								
Light Material Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	12.50
Pickup Truck (Gasoline)								
Subtotal	0.45	1.81	6.30	0.01	0.34	0.34	0.31	30.36
Final Connection of New Lines								
Heavy Line Truck	0.26	1.11	3.70	0.01	0.20	0.20	0.18	0.40
Carry-All (Gasoline)								
Light Material Truck	0.19	0.69	2.59	0.00	0.14	0.14	0.13	0.28
Pickup Truck (Gasoline)								
Subtotal	0.45	1.81	6.30	0.01	0.34	0.34	0.31	0.67

Table A.1.1-Alt3-21. Daily Emissions - MHTP - Alternative 3 - Phase 1 - Stage 1 (1 of 2).

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Utility Construction								
New Container Yard Utilities	8	33	117	0	6	6	6	192
Paving								
New Container Yard Construction - Paving	3	13	44	0	3	3	3	58
Lighting, Striping, Crane Power								
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	25
Utility Construction								
New Container Yard Utilities	8	33	117	0	6	6	6	385
Paving								
New Container Yard Construction - Paving	3	13	44	0	3	3	3	175
Lighting, Fence, Striping, Crane Power								
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	49
Container Yard Development								
New Container Yard Utilities	8	33	117	0	6	6	6	1,428
New Container Yard Construction - Paving	3	13	44	0	3	3	3	649
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	184

Table A.1.1-Alt3-21. Daily Emissions - MHTP - Alternative 3 - Phase 1 - Stage 1 (2 of 2).

POLB Ocean Blvd. Track Reconfiguration								
Triple Track Installation Demo Eq	1	5	18	0	1	1	1	3
Triple Track Grading Eq	0	2	6	0	0	0	0	2
Triple Track Trackwork Eq	0	2	6	0	0	0	0	43
Electrical Substation Construction								
Grading	1	5	17	0	1	1	1	35
Civil	2	8	27	0	2	2	1	62
Electrical	3	11	38	0	2	2	2	172
Transformer Setup	1	3	7	0	0	0	0	10
Test	0	1	3	0	0	0	0	6
Paving	2	9	30	0	2	2	2	9
Fence Installation	1	3	10	0	1	1	1	2
Overhead Subtransmission Line Construction								
Installation of 160 LWS poles and removal of wood poles	1	3	9	0	0	0	0	29
Wire Replacement/Attachment and Termination	0	2	6	0	0	0	0	30
Final Connection of New Lines	0	2	6	0	0	0	0	1
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	908	444	93	
Commuter Emissions	1	22	2	0	3	3	2	
Peak Daily Emissions	12	49	173	0		456	103	
Mitigated Peak Daily Emissions (1)	12	49	173	0	0	182	41	
SCAQMD Daily Significance Thresholds								
	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt3-22. Activity Data - CY Development - POLB - MHTP - Mitigated Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	38	29,733
Grader	215	0.61	1	131	8	1,049	38	39,345
Roller	151	0.50	3	227	8	1,812	38	67,950
Vibration Roller	154	0.50	3	231	8	1,848	38	69,300
Water Truck	210	0.50	1	105	8	840	38	31,500
Road Sweeper	190	0.50	1	95	8	760	38	28,500

Table A.1.1-Alt3-23. Daily Construction Emissions - CY Development - POLB - MHTP - Mitigated Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	9.83
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	13.01
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	32.96
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	33.61
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	10.42
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	9.42
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	109.25

Table A.1.1-Alt3-24. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 1 - Stage 2.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
CY Development								
New Container Yard Construction - Paving	3	13	44	0	3	3	3	109
Other Peak Daily Emissions								
Fugitive Emissions	-	-	-	-	605	296	62	
Commuter Emissions	2	33	3	0	4	4	4	
Peak Daily Emissions	5	46	47	0	612	303	68	
Mitigated Peak Daily Emissions (1)	5	46	47	0	245	121	27	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt3-25. Activity Data - CY Development - POLB - MHTP - Mitigated Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	210	252,000
Auger	125	0.50	1	63	8	500	210	105,000
Crane	130	0.43	1	56	8	447	210	93,912
Grader	215	0.61	3	393	8	3,148	210	660,996
End Dump Truck	310	0.60	1	186	8	1,488	210	312,480
Flat Bed Truck	230	0.60	2	276	8	2,208	210	463,680
Concrete Truck	250	0.60	4	600	8	4,800	210	1,008,000
Front End Loader	400	0.68	2	544	8	4,352	210	913,920
Trencher	200	0.50	1	100	8	800	210	168,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	210	166,505
Grader	215	0.61	1	131	8	1,049	210	220,332
Roller	151	0.50	3	227	8	1,812	210	380,520
Vibration Roller	154	0.50	3	231	8	1,848	210	388,080
Water Truck	210	0.50	1	105	8	840	210	176,400
Road Sweeper	190	0.50	1	95	8	760	210	159,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	210	231,840
Truck Crane	130	0.43	1	56	8	447	210	93,912
Auger	125	0.50	1	63	8	500	210	105,000

Table A.1.1-Alt3-26. Daily Construction Emissions - CY Development - POLB - MHTP - Mitigated Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	83.33
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	50.93
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	45.55
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	218.58
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	103.33
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	153.33
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	333.33
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	302.22
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	55.56
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,346.17
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	55.06
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	72.86
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	184.56
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	188.22
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	58.33
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	52.78
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	611.81
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	76.67
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	45.55
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	50.93
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	173.14

Table A.1.1-Alt3-27. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 1 - Stage 3.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
New Container Yard								
Vibratory Hammer & Power Pack	8	33	117	0	6	6	6	1,346
Flatbed Truck	3	13	44	0	3	3	3	612
Welding Machine	1	4	13	0	1	1	1	173
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	1,568	767	160	
Commuter Emissions	1	15	1	0	2	2	2	
Peak Daily Emissions	12	49	173	0	1,578	779	171	
Mitigated Peak Daily Emissions (1)	12	49	173	0	631	312	69	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt3-28. Activity Data - Seaside Railyard Area Redevelopment (not in schedule, added) - POLB - MHTP - Mitigated Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	335	402,000
Auger	125	0.50	1	63	8	500	335	167,500
Crane	130	0.43	1	56	8	447	335	149,812
Grader	215	0.61	3	393	8	3,148	335	1,054,446
End Dump Truck	310	0.60	1	186	8	1,488	335	498,480
Flat Bed Truck	230	0.60	2	276	8	2,208	335	739,680
Concrete Truck	250	0.60	4	600	8	4,800	335	1,608,000
Front End Loader	400	0.68	2	544	8	4,352	335	1,457,920
Trencher	200	0.50	1	100	8	800	335	268,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	335	265,615
Grader	215	0.61	1	131	8	1,049	335	351,482
Roller	151	0.50	3	227	8	1,812	335	607,020
Vibration Roller	154	0.50	3	231	8	1,848	335	619,080
Water Truck	210	0.50	1	105	8	840	335	281,400
Road Sweeper	190	0.50	1	95	8	760	335	254,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	335	369,840
Truck Crane	130	0.43	1	56	8	447	335	149,812
Auger	125	0.50	1	63	8	500	335	167,500

Table A.1.1-A1t3-29. Daily Construction Emissions - Seaside Railyard Area Redevelopment - POLB - MHTP - Mitigated Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	132.94
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	81.24
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	72.66
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	348.69
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	164.84
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	244.60
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	531.75
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	482.12
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	88.62
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	2,147.46
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	87.84
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	116.23
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	294.41
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	300.26
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	93.06
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	84.19
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	975.98
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	122.30
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	72.66
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	81.24
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	276.20

Table A.1.1-Alt3-30. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 1 - Stage 4.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Seaside Railyard Area Redevelopment								
New Container Yard Utilities	8	33	117	0	6	6	6	2,147
New Container Yard Construction - Paving	3	13	44	0	3	3	3	976
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	276
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	2,530	1,237	258	
Commuter Emissions	0	6	1	0	1	1	1	
Peak Daily Emissions	13	55	174	0	2,541	1,249	269	
Mitigated Peak Daily Emissions (1)	13	55	174	0	1,028	511	118	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt3-31. Activity Data - Construction - POLB - MHTP - Mitigated Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	255	305,760
Auger	125	0.50	1	63	8	500	255	127,400
Crane	130	0.43	1	56	8	447	255	113,947
Grader	215	0.61	3	393	8	3,148	255	802,008
End Dump Truck	310	0.60	1	186	8	1,488	255	379,142
Flat Bed Truck	230	0.60	2	276	8	2,208	255	562,598
Concrete Truck	250	1	4	600	8	4,800	255	1,224,000
Front End Loader	400	0.68	2	544	8	4,352	255	1,108,890
Trencher	200	0.50	1	100	8	800	255	203,840
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	255	202,026
Grader	215	0.61	1	131	8	1,049	255	267,336
Roller	151	0.50	3	227	8	1,812	255	461,698
Vibration Roller	154	0.50	3	231	8	1,848	255	470,870
Water Truck	210	0.50	1	105	8	840	255	214,032
Road Sweeper	190	0.50	1	95	8	760	255	193,648
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	255	281,299
Truck Crane	130	0.43	1	56	8	447	255	113,947
Auger	125	0.50	1	63	8	500	255	127,400

Table A.1.1-Alt3-32. Daily Construction Emissions - Construction - POLB - MHTP - Mitigated Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	101.11
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	61.79
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	55.27
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	265.21
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	125.38
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	186.04
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	404.76
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	366.70
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	67.41
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	1,633.67
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	66.81
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	88.40
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	223.93
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	228.38
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	70.78
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	64.04
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	742.33
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	93.02
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	55.27
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	61.79
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	210.08

Table A.1.1-Alt3-33. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 1 - Stage 5.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Construction								
New Container Yard Utilities	8	33	117	0	6	6	6	1,634
New Container Yard Construction - Paving	3	13	44	0	3	3	3	742
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	210
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	2,530	1,237	258	
Commuter Emissions	1	24	2	0	4	4	3	
Peak Daily Emissions	14	73	175	0	2,544	1,251	271	
Mitigated Peak Daily Emissions (1)	14	73	175	0	1,031	514	121	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt3-34. Activity Data - Railyard - POLB - MHTP - Mitigated Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
INTERMODAL YARD CONSTRUCTION								
Backhoe	102	0.57	1	58	8	465	315	146,513
Excavator	428	0.57	1	244	8	1,952	315	614,779
Ballast Spreader	100	0.50	1	50	8	400	315	126,000
Ballast Tamper	100	0.50	1	50	8	400	315	126,000
Generator Set	23	0.74	2	34	8	272	315	85,781
Roller	151	0.50	1	76	8	604	315	190,260
Grader	215	0.61	1	131	8	1,049	315	330,498
Truck Mounted Crane	130	0.43	1	56	8	447	315	140,868
Forklift	103	0.30	1	31	8	247	315	77,868
Flatbed Truck	230	0.60	2	276	8	2,208	315	695,520
End Dump Truck	310	0.60	2	372	8	2,976	315	937,440
Water Truck	210	0.60	1	126	8	1,008	315	317,520

Table A.1.1-Alt3-35. Activity Data - Container Yard Development (F1 - F4) - POLB - MHTP - Mitigated Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	112	134,400
Auger	125	0.50	1	63	8	500	112	56,000
Crane	130	0.43	1	56	8	447	112	50,086
Grader	215	0.61	3	393	8	3,148	112	352,531
End Dump Truck	310	0.60	1	186	8	1,488	112	166,656
Flat Bed Truck	230	0.60	2	276	8	2,208	112	247,296
Concrete Truck	250	0.60	4	600	8	4,800	112	537,600
Front End Loader	400	0.68	2	544	8	4,352	112	487,424
Trencher	200	0.50	1	100	8	800	112	89,600
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	112	88,803
Grader	215	0.61	1	131	8	1,049	112	117,510
Roller	151	0.50	3	227	8	1,812	112	202,944
Vibration Roller	154	0.50	3	231	8	1,848	112	206,976
Water Truck	210	0.50	1	105	8	840	112	94,080
Road Sweeper	190	0.50	1	95	8	760	112	85,120
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	112	123,648
Truck Crane	130	0.43	1	56	8	447	112	50,086
Auger	125	0.50	1	63	8	500	112	56,000

Table A.1.1-Alt3-36. Daily Construction Emissions - Railyard - POLB - MHTP - Mitigated Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
INTERMODAL YARD CONSTRUCTION								
Backhoe	0.21	2.43	3.38	0.00	0.31	0.31	0.28	96.90
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	203.30
Ballast Spreader	0.18	2.09	2.91	0.00	0.26	0.26	0.24	83.33
Ballast Tamper	0.18	2.09	2.91	0.00	0.26	0.26	0.24	83.33
Generator Set	0.36	0.92	3.00	0.00	0.27	0.27	0.25	85.10
Roller	0.27	1.16	3.73	0.01	0.29	0.29	0.27	92.28
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	109.29
Truck Mounted Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	68.32
Forklift	0.11	1.29	1.80	0.00	0.16	0.16	0.15	51.50
Flatbed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	230.00
End Dump Truck	1.31	8.73	18.37	0.03	0.98	0.98	0.91	310.00
Water Truck	0.44	1.67	6.22	0.01	0.33	0.33	0.31	105.00
Subtotal	5.54	30.23	77.24	0.12	4.82	4.82	4.43	1,518.36

Table A.1.1-Alt3-37. Daily Construction Emissions - Container Yard Development (F1 - F4) - POLB - MHTP - Mitigated Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
NEW CONTAINER YARD UTILITIES								
Pipelayer	0.53	2.22	7.41	0.01	0.40	0.40	0.37	44.44
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	27.16
Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	24.29
Grader	1.39	5.20	19.43	0.03	1.04	1.04	0.96	116.58
End Dump Truck	0.66	2.76	9.19	0.01	0.49	0.49	0.45	55.11
Flat Bed Truck	0.97	3.65	13.63	0.02	0.73	0.73	0.67	81.78
Concrete Truck	2.12	7.94	29.63	0.05	1.59	1.59	1.46	177.78
Front End Loader	1.92	8.06	26.86	0.04	1.44	1.44	1.32	161.19
Trencher	0.35	1.32	4.94	0.01	0.26	0.26	0.24	29.63
Subtotal	8.35	32.97	116.93	0.18	6.41	6.41	5.90	717.96
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	0.35	1.31	4.89	0.01	0.26	0.26	0.24	29.37
Grader	0.46	1.73	6.48	0.01	0.35	0.35	0.32	38.86
Roller	0.80	3.48	11.19	0.02	0.88	0.88	0.81	98.43
Vibration Roller	0.81	3.54	11.41	0.02	0.90	0.90	0.82	100.39
Water Truck	0.37	1.39	5.19	0.01	0.28	0.28	0.26	31.11
Road Sweeper	0.34	1.26	4.69	0.01	0.25	0.25	0.23	28.15
Subtotal	3.13	12.71	43.84	0.07	2.91	2.91	2.68	326.30
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	0.49	1.83	6.81	0.01	0.37	0.37	0.34	40.89
Truck Crane	0.20	0.86	2.76	0.00	0.22	0.22	0.20	24.29
Auger	0.22	0.96	3.09	0.00	0.24	0.24	0.22	27.16
Subtotal	0.90	3.64	12.66	0.02	0.82	0.82	0.76	92.34

Table A.1.1-Alt3-38. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 2 - Stage 1.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Intermodal Yard Construction	6	30	77	0	5	5	4	1,518
Container Yard Development (F1 - F4)								
New Container Yard Utilities	8	33	117	0	6	6	6	718
New Container Yard Construction - Paving	3	13	44	0	3	3	3	326
New Container Yard Construction - Electrical	1	4	13	0	1	1	1	92
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	1,100	538	112	
Commuter Emissions	1	15	1	0	2	2	2	
Peak Daily Emissions	12	49	173	0	1,105	545	117	
Mitigated Peak Daily Emissions (1)	12	49	173	0	442	218	47	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Table A.1.1-Alt3-39. Activity Data - Railyard Construction - POLB - MHTP - Mitigated Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RAILYARD								
Backhoe	102	0.57	1	58	8	465	40	18,605
Excavator	428	0.57	1	244	8	1,952	40	78,067
Ballast Spreader	100	0.50	1	50	8	400	40	16,000
Ballast Tamper	100	0.50	1	50	8	400	40	16,000
Generator Set	23	0.74	2	34	8	272	40	10,893
Roller	151	0.50	1	76	8	604	40	24,160
Grader	215	0.61	1	131	8	1,049	40	41,968
Truck Mounted Crane	130	0.43	1	56	8	447	40	17,888
Forklift	103	0.30	1	31	8	247	40	9,888
Flatbed Truck	230	0.60	2	276	8	2,208	40	88,320
End Dump Truck	310	0.60	2	372	8	2,976	40	119,040
Water Truck	210	0.60	1	126	8	1,008	40	40,320

Table A.1.1-AIt3-40. Daily Construction Emissions - Railyard Construction - POLB - MHTP - Mitigated Alternative 3.

Location/Equipment Type	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
RAILYARD								
Backhoe	0.21	0.86	2.87	0.00	0.15	0.15	0.14	6.15
Excavator	0.86	3.61	12.05	0.02	0.65	0.65	0.59	25.82
Ballast Spreader	0.18	0.74	2.47	0.00	0.13	0.13	0.12	5.29
Ballast Tamper	0.18	0.74	2.47	0.00	0.13	0.13	0.12	5.29
Generator Set	0.12	0.50	1.68	0.00	0.09	0.09	0.08	3.60
Roller	0.27	1.12	3.73	0.01	0.20	0.20	0.18	7.99
Grader	0.46	1.94	6.48	0.01	0.35	0.35	0.32	13.88
Truck Mounted Crane	0.20	0.83	2.76	0.00	0.15	0.15	0.14	5.92
Forklift	0.11	0.46	1.53	0.00	0.08	0.08	0.08	3.27
Flatbed Truck	0.97	4.09	13.63	0.02	0.73	0.73	0.67	29.21
End Dump Truck	1.31	5.51	18.37	0.03	0.98	0.98	0.91	39.37
Water Truck	0.44	1.87	6.22	0.01	0.33	0.33	0.31	13.33
Subtotal	5.30	22.28	74.25	0.12	3.98	3.98	3.66	159.11

Table A.1.1-AIt3-41. Daily Emissions - POLB - MHTP - Mitigated Alternative 3 - Phase 2 - Stage 2.

Activity	Pounds per Day							Total lbs.
	VOC	CO	NOx	SOx	PM	PM10	PM2.5	DPM
Roll Surcharge								
Railyard	5	22	74	0	4	4	4	159
Other Peak Daily Emissions								
Fugitive Dust	-	-	-	-	55	28	3	
Commuter Emissions	1	15	1	0	2	2	2	
Peak Daily Emissions	6	37	75	0	61	34	9	
Mitigated Peak Daily Emissions (1)	6	37	75	0	24	13	3	
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55	

(1) These data represent 90% control of fugitive dust only.

Construction GHG Emissions Tables

This page intentionally left blank.

Table A.1.1-Alt1-159.	GHG Emission Factors for the POLB Middle Harbor Project Construction Activities.
Table A.1.1-Alt1-160.	Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-161.	Total Construction GHG Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-162.	Total Construction GHG Emissions - Excavation Fronting E24 - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-163.	Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-164.	Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-165.	Total Construction GHG Emissions - Utility Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-166.	Total Construction GHG Emissions - Paving - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-167.	Total Construction GHG Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-168.	Total Construction GHG Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-169.	Total Construction GHG Emissions - Fill within Dike - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-170.	Total Construction GHG Emissions - Remaining Dike Lifts - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-171.	Total Construction GHG Emissions - Remaining Fill Lifts - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-172.	Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-173.	Total Construction GHG Emissions - Construct South Mooring Dolphin - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-174.	Total Construction GHG Emissions - Wick Drains - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-175.	Total Construction GHG Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-176.	Total Construction GHG Emissions - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-177.	Total Construction GHG Emissions - Utility Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-178.	Total Construction GHG Emissions - Paving - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-179.	Total Construction GHG Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-180.	Total Construction GHG Emissions - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-181.	Total Construction GHG Emissions - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-182.	Total Construction GHG Emissions - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-183.	Total Construction GHG Emissions - Remove Cellular Sheetpile - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-184.	Total Construction GHG Emissions - Rock Revetment - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-185.	Total Construction GHG Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-186.	Total Construction GHG Emissions - Ground Improvements Pier D - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-187.	Total Construction GHG Emissions - Demo - E12-13 Wharf - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-188.	Total Construction GHG Emissions - Lift #1 (~ -30) - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-189.	Total Construction GHG Emissions - Lift #2 (~ -15) - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-190.	Total Construction GHG Emissions - Lift #3 (~ 0) - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-191.	Total Construction GHG Emissions - Lift #4 (~ +15) - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-192.	Total Construction GHG Emissions - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-193.	Total Construction GHG Emissions - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-194.	Total Construction GHG Emissions - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-195.	Total Construction GHG Emissions - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-196.	Total Construction GHG Emissions - Remove Surcharge - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-197.	Total Construction GHG Emissions - Container Yard Development - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-198.	Total Construction GHG Emissions - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-199.	Total Construction GHG Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-200.	Total Construction GHG Emissions - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-201.	Total GHG Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 1 (1 of 3).
Table A.1.1-Alt1-201.	Total GHG Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 1 (2 of 3).
Table A.1.1-Alt1-201.	Total GHG Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 1 (3 of 3).
Table A.1.1-Alt1-202.	Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-203.	Total Construction GHG Emissions - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-204.	Total Construction GHG Emissions - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-205.	Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-206.	Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-207.	Total Construction GHG Emissions - Container Yard Development - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-208.	Total Construction GHG Emissions - Dredge to -55 ft - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-209.	Total Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 2.
Table A.1.1-Alt1-210.	Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-211.	Total Construction GHG Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-212.	Total Construction GHG Emissions - Excavation Fronting E26 and Dispose Slip 1 - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-213.	Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-214.	Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-215.	Total Construction GHG Emissions - Construct E27 Bulkhead - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-216.	Total Construction GHG Emissions - Container Yard Development - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-217.	Total Construction GHG Emissions - Dredge to -55 ft - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-218.	Total Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 3.
Table A.1.1-Alt1-219.	Total Construction GHG Emissions - Seaside Railyard Area Redevelopment - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-220.	Total Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 4.
Table A.1.1-Alt1-221.	Total Construction GHG Emissions - Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-222.	Total Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 5.
Table A.1.1-Alt1-223.	Total Construction GHG Emissions - Demolition - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-224.	Total Construction GHG Emissions - Railyard - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-225.	Total Construction GHG Emissions - Container Yard Development (F1 - F4)- POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-226.	Total Construction GHG Emissions - Demo Existing F1-4, F6 Wharf - POLB - MHTP - Alternative 1.

Table A.1.1-Alt1-227. Total Construction GHG Emissions - Construct East Basin Retaining Dike - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-228. Total Construction GHG Emissions - Slip/Basin Fill & Surcharge East - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-229. Total Construction GHG Emissions - Roll Surcharge - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-230. Total Emissions - POLB - MHTP -Alternative 1 - Phase 2 - Stage 1.
Table A.1.1-Alt1-231. Total Construction GHG Emissions - Construction - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-232. Total Construction GHG Emissions - Dredge and Excavate at Quay Wall - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-233. Total Construction GHG Emissions - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-234. Total Construction GHG Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 1 (1 of 2).
Table A.1.1-Alt1-235. Total Construction GHG Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 1 (2 of 2).
Table A.1.1-Alt1-236. Total Construction GHG Emissions - Basin Fill and Surcharge West - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-237. Total Construction GHG Emissions - Settlement Period - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-238. Total Emissions - POLB - MHTP -Alternative 1 - Phase 2 - Stage 2.
Table A.1.1-Alt1-239. Total Construction GHG Emissions - Remove Surcharge - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-240. Total Construction GHG Emissions - CY Development - POLB - MHTP - Alternative 1.
Table A.1.1-Alt1-241. Total Emissions - POLB - MHTP -Alternative 1 - Phase 2 - Stage 3.

Table A.1.1-AIt1-159. GHG Emission Factors for the POLB Middle Harbor Project Construction Activities.

Project Year/Source Type	Fuel Type	Emission Factors (Grams/Horsepower-Hour)			References
		CO2	CH4	N2O	
Year 2007					
Off-Road Equipment - 25-50 Hp	D	568.00	0.11	0.01	(1)
Off-Road Equipment - 51-120 Hp	D	568.00	0.10	0.01	(1)
Off-Road Equipment - 121-175 Hp	D	568.00	0.09	0.01	(1)
Off-Road Equipment - 176-250 Hp	D	568.00	0.09	0.01	(1)
Off-Road Equipment - 251-500 Hp	D	568.00	0.08	0.01	(1)
Off-Road Equipment - 501-750 Hp	D	568.00	0.08	0.01	(1)
Off-Road Equipment - >750 Hp	D	568.00	0.08		(1)
On-road Truck - Idle (Gms/Hr)	D	6,994.00	0.50	0.25	(3)
On-road Truck - 5 mph (Gms/Mi)	D	3,845.00	0.10	0.05	(3)
On-road Truck - 25 mph (Gms/Mi)	D	2,043.00	0.10	0.05	(3)
On-road Truck - 55 mph (Gms/Mi)	D	1,662.00	0.10	0.05	(3)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	2,223.00	0.10	0.05	(4)
Other On-Road Trucks - Composite (Gms/Mi)	D	1,848.00	0.10	0.05	(5)
Year 2009					
Off-Road Equipment - 25-50 Hp	D	568.00	0.11	0.01	(1)
Off-Road Equipment - 51-120 Hp	D	568.00	0.10	0.01	(1)
Off-Road Equipment - 121-175 Hp	D	568.00	0.09	0.01	(1)
Off-Road Equipment - 176-250 Hp	D	568.00	0.09	0.01	(1)
Off-Road Equipment - 251-500 Hp	D	568.00	0.08	0.01	(1)
Off-Road Equipment - 501-750 Hp	D	568.00	0.08	0.01	(1)
Off-Road Equipment - >750 Hp	D	568.00	0.08	0.01	(1)
On-road Truck - Idle (Gms/Hr)	D	6,994.00	0.50	0.25	(6)
On-road Truck - 5 mph (Gms/Mi)	D	3,845.00	0.10	0.05	(6)
On-road Truck - 25 mph (Gms/Mi)	D	2,043.00	0.10	0.05	(6)
On-road Truck - 55 mph (Gms/Mi)	D	1,662.00	0.10	0.05	(6)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	2,223.00	0.10	0.05	(6)
Other On-Road Trucks - Composite (Gms/Mi)	D	1,848.00	0.10	0.05	(6)
Year 2011					
Off-Road Equipment - 25-50 Hp	D	568.00	0.11	0.01	(1)
Off-Road Equipment - 51-120 Hp	D	568.00	0.10	0.01	(1)
Off-Road Equipment - 121-175 Hp	D	568.00	0.09	0.01	(1)
Off-Road Equipment - 176-250 Hp	D	568.00	0.09	0.01	(1)
Off-Road Equipment - 251-500 Hp	D	568.00	0.08	0.01	(1)
Off-Road Equipment - 501-750 Hp	D	568.00	0.08	0.01	(1)
Off-Road Equipment - >750 Hp	D	568.00	0.08	0.01	(1)
On-road Truck - Idle (Gms/Hr)	D	6,994.00	0.50	0.25	(6)
On-road Truck - 5 mph (Gms/Mi)	D	3,845.00	0.10	0.05	(6)
On-road Truck - 25 mph (Gms/Mi)	D	2,043.00	0.10	0.05	(6)
On-road Truck - 55 mph (Gms/Mi)	D	1,662.00	0.10	0.05	(6)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	2,223.00	0.10	0.05	(6)
Other On-Road Trucks - Composite (Gms/Mi)	D	1,848.00	0.10	0.05	(6)

Year 2013					
Off-Road Equipment - 25-50 Hp	D	568.00	0.11	0.01	?
Off-Road Equipment - 51-120 Hp	D	568.00	0.10	0.01	?
Off-Road Equipment - 121-175 Hp	D	568.00	0.09	0.01	?
Off-Road Equipment - 176-250 Hp	D	568.00	0.09	0.01	?
Off-Road Equipment - 251-500 Hp	D	568.00	0.08	0.01	?
Off-Road Equipment - 501-750 Hp	D	568.00	0.08	0.01	?
Off-Road Equipment - >750 Hp	D	568.00	0.08	0.01	?
On-road Truck - Idle (Gms/Hr)	D	6,994.00	0.50	0.25	(6)
On-road Truck - 5 mph (Gms/Mi)	D	3,845.00	0.10	0.05	(6)
On-road Truck - 25 mph (Gms/Mi)	D	2,043.00	0.10	0.05	(6)
On-road Truck - 55 mph (Gms/Mi)	D	1,662.00	0.10	0.05	(6)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	2,223.00	0.10	0.05	(6)
Other On-Road Trucks - Composite (Gms/Mi)	D	1,848.00	0.10	0.05	(6)
Year 2014					
Off-Road Equipment - 25-50 Hp	D	568.00	0.11	0.01	?
Off-Road Equipment - 51-120 Hp	D	568.00	0.10	0.01	?
Off-Road Equipment - 121-175 Hp	D	568.00	0.09	0.01	?
Off-Road Equipment - 176-250 Hp	D	568.00	0.09	0.01	?
Off-Road Equipment - 251-500 Hp	D	568.00	0.08	0.01	?
Off-Road Equipment - 501-750 Hp	D	568.00	0.08	0.01	?
Off-Road Equipment - >750 Hp	D	568.00	0.08	0.01	?
On-road Truck - Idle (Gms/Hr)	D	6,994.00	0.50	0.25	(6)
On-road Truck - 5 mph (Gms/Mi)	D	3,845.00	0.10	0.05	(6)
On-road Truck - 25 mph (Gms/Mi)	D	2,043.00	0.10	0.05	(6)
On-road Truck - 55 mph (Gms/Mi)	D	1,662.00	0.10	0.05	(6)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	2,223.00	0.10	0.05	(6)
Other On-Road Trucks - Composite (Gms/Mi)	D	1,848.00	0.10	0.05	(6)

Year 2015					
Off-Road Equipment - 25-50 Hp	D	568.00	0.11	0.01	?
Off-Road Equipment - 51-120 Hp	D	568.00	0.10	0.01	?
Off-Road Equipment - 121-175 Hp	D	568.00	0.09	0.01	?
Off-Road Equipment - 176-250 Hp	D	568.00	0.09	0.01	?
Off-Road Equipment - 251-500 Hp	D	568.00	0.08	0.01	?
Off-Road Equipment - 501-750 Hp	D	568.00	0.08	0.01	?
Off-Road Equipment - >750 Hp	D	568.00	0.08	0.01	?
On-road Truck - Idle (Gms/Hr)	D	6,994.00	0.50	0.25	(3)
On-road Truck - 5 mph (Gms/Mi)	D	3,845.00	0.10	0.05	(3)
On-road Truck - 25 mph (Gms/Mi)	D	2,043.00	0.10	0.05	(3)
On-road Truck - 55 mph (Gms/Mi)	D	1,662.00	0.10	0.05	(3)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	2,223.00	0.10	0.05	(4)
Other On-Road Trucks - Composite (Gms/Mi)	D	1,848.00	0.10	0.05	(5)
Year 2016					
Off-Road Equipment - 25-50 Hp	D	568.00	0.11	0.01	?
Off-Road Equipment - 51-120 Hp	D	568.00	0.10	0.01	?
Off-Road Equipment - 121-175 Hp	D	568.00	0.09	0.01	?
Off-Road Equipment - 176-250 Hp	D	568.00	0.09	0.01	?
Off-Road Equipment - 251-500 Hp	D	568.00	0.08	0.01	?
Off-Road Equipment - 501-750 Hp	D	568.00	0.08	0.01	?
Off-Road Equipment - >750 Hp	D	568.00	0.08	0.01	?
On-road Truck - Idle (Gms/Hr)	D	6,994.00	0.50	0.25	(8)
On-road Truck - 5 mph (Gms/Mi)	D	3,845.00	0.10	0.05	(8)
On-road Truck - 25 mph (Gms/Mi)	D	2,043.00	0.10	0.05	(8)
On-road Truck - 55 mph (Gms/Mi)	D	1,662.00	0.10	0.05	(8)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	2,223.00	0.10	0.05	(8)
Other On-Road Trucks - Composite (Gms/Mi)	D	1,848.00	0.10	0.05	(8)
All Years					
Tugboat (Gm/Hp-Hr)	D	645.00	0.09	0.01	(9)
Small Harbor Craft	D	645.00	0.09	0.01	(12)

Table A.1.1-AIt1-160. Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	45,918.84	7.60	0.54	46,246.34
Excavator	200,400.02	28.93	2.05	201,641.93
Flatbed Truck	113,359.58	18.76	1.34	114,168.06
End Dump Truck	611,155.98	88.23	6.24	614,943.42
Subtotal	970,834.42	143.52	10.17	976,999.76
WHARF DEMOLITION MARINE				
Derrick Barge	211,674.67	31.30	2.24	213,025.21
Auxiliary Engine	82,144.62	13.59	0.97	82,730.48
Work Tug	279,500.00	38.57	2.77	281,169.63
Auxiliary Engine	61,608.47	10.20	0.73	62,047.86
Hydra-Crane	45,862.84	7.59	0.54	46,189.94
Excavator	200,155.63	28.90	2.04	201,396.03
Flatbed Truck	113,221.33	18.74	1.34	114,028.83
End Dump Truck	457,808.00	66.09	4.67	460,645.12
Subtotal	1,451,975.56	214.98	15.30	1,461,233.10
SHEET PILE BULKHEAD DEMOLITION				
Crane - 100 Ton	118,185.02	17.06	1.21	118,917.44
Vibratory Hammer & Power Pack	215,366.67	31.09	2.20	216,701.33
Excavator	200,155.63	28.90	2.04	201,396.03
Flatbed Truck	113,221.33	18.74	1.34	114,028.83
Welding Machine	10,665.78	2.01	0.14	10,752.79
Generator	7,892.68	1.49	0.11	7,957.07
Subtotal	665,487.10	99.28	7.04	669,753.49

Table A.1.1-AIt1-161. Total Construction GHG Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	21,645.61	3.12	0.22	21,779.75
Vibratory Hammer & Power Pack	39,444.44	5.69	0.40	39,688.89
Flatbed Truck	20,736.51	3.43	0.24	20,884.40
Welding Machine	1,758.10	0.33	0.02	1,772.44
Generator	1,445.54	0.27	0.02	1,457.34
Subtotal	85,030.20	12.85	0.91	85,582.82

Table A.1.1-Alt1-162. Total Construction GHG Emissions - Excavation Fronting E24 - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	26,296.30	4.35	0.31	26,483.84
Tug Boat	3,822,222.22	527.41	37.93	3,845,054.81
Auxiliary Engine	420,740.74	60.74	4.30	423,348.15
Work Tug	895,833.33	123.61	8.89	901,184.72
Auxiliary Engine	157,777.78	26.11	1.86	158,903.06
Crew/Survey Boat	286,666.67	39.56	2.84	288,379.11
Auxiliary Engine	84,148.15	14.37	1.04	84,771.41
Subtotal	5,693,685.19	796.15	57.16	5,728,125.10
LAND EX				
Excavator	171,073.19	24.70	1.75	172,133.36
Loader	81,062.72	13.42	0.96	81,640.86
End Dump Truck	521,718.52	75.32	5.33	524,951.70
Subtotal	773,854.42	113.43	8.03	778,725.92

Table A.1.1-Alt1-163. Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	129,227.51	19.11	1.37	130,052.02
Auxiliary Engine	50,088.18	8.29	0.59	50,445.41
Front End Loader	136,239.86	19.67	1.39	137,084.16
Tug Boat	426,587.30	58.86	4.23	429,135.58
Auxiliary Engine	37,566.14	6.22	0.44	37,834.06
Tug Boat	1,137,566.14	156.97	11.29	1,144,361.55
Auxiliary Engine	100,176.37	14.46	1.02	100,797.18
Crew/Survey Boat	68,253.97	9.42	0.68	68,661.69
Auxiliary Engine	20,035.27	3.42	0.25	20,183.67
Subtotal	2,105,740.74	296.42	21.26	2,118,555.33

Table A.1.1-AIt1-164. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	25,793.29	4.27	0.30	25,977.25
Crane - 200 Ton	56,847.05	8.21	0.58	57,199.34
Drill/Power Pack HPSI	79,913.42	11.54	0.82	80,408.66
Piledriving Hammer	41,633.91	6.89	0.49	41,930.84
Loader-Wheel	80,505.37	11.62	0.82	81,004.28
Jet Pump	9,636.97	1.82	0.13	9,715.59
End Dump Truck	72,667.94	10.49	0.74	73,118.27
Truck-Flatbed	53,914.92	8.92	0.64	54,299.44
Truck-Lowboy	82,044.44	11.84	0.84	82,552.89
Subtotal	502,957.31	75.60	5.36	506,206.56
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	65,137.25	9.40	0.67	65,540.92
Derrick Barge	73,887.03	10.67	0.75	74,344.92
Auxiliary Engine	43,952.38	7.27	0.52	44,265.85
Piledriving Hammer	47,705.52	7.89	0.56	48,045.75
End Dump Truck	83,847.62	12.10	0.86	84,367.24
Tugboat	256,742.36	35.43	2.55	258,276.04
Auxiliary Engine	22,539.68	3.85	0.28	22,706.63
Truck-Flatbed	62,209.52	10.30	0.73	62,653.20
Subtotal	656,021.36	96.91	6.92	660,200.55
DRIVE PILES - MISC ACTIVITIES				
Excavator	174,870.37	28.94	2.06	176,117.55
Loader-Wheel	208,617.28	34.52	2.46	210,105.15
Hydraulic Crane	131,919.75	21.83	1.56	132,860.61
Crane - 150 Ton	131,919.75	21.83	1.56	132,860.61
Subtotal	647,327.16	107.13	7.64	651,943.93
REINFORCED CONCRETE WHARF				
Hydraulic Crane	114,581.73	18.96	1.35	115,398.93
Crane - 150 Ton	252,532.10	36.46	2.58	254,097.09
Crane Barge - 150 ton	252,532.10	36.46	2.58	254,097.09
Auxiliary Engine	93,790.12	16.02	1.16	94,484.80
Concrete Pump	272,429.63	45.09	3.21	274,372.61
Concrete Trucks	1,349,000.00	194.75	13.78	1,357,360.00
Sandblaster w/air compressor	0.00	0.00	0.00	0.00
Truck-Flatbed	241,925.93	40.04	2.85	243,651.35
Tugboat	995,370.37	137.35	9.88	1,001,316.36
Auxiliary Engine	87,654.32	14.97	1.08	88,303.55
Concrete Saw	6,135.80	1.16	0.08	6,185.86
Truck Crane - 65 ton	319,938.27	46.19	3.27	321,920.99
Boom Truck	306,790.12	44.29	3.13	308,691.36
Subtotal	4,292,680.49	631.71	44.95	4,319,879.98
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	126,266.05	18.23	1.29	127,048.54
Vibratory Hammer & Power Pack	230,092.59	33.22	2.35	231,518.52
Flatbed Truck	120,962.96	20.02	1.43	121,825.68
Welding Machine	10,255.56	1.93	0.14	10,339.23
Generator	8,432.35	1.59	0.11	8,501.14
Subtotal	496,009.51	74.99	5.32	499,233.10

Table A.1.1-Alt1-165. Total Construction GHG Emissions - Utility Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	45,079.37	6.51	0.46	45,358.73
Auger	18,783.07	3.11	0.22	18,917.03
Crane	16,799.58	2.78	0.20	16,919.39
Grader	118,243.17	19.57	1.39	119,086.49
End Dump Truck	55,898.41	8.07	0.57	56,244.83
Flat Bed Truck	82,946.03	13.73	0.98	83,537.61
Concrete Truck	180,317.46	29.84	2.13	181,603.49
Front End Loader	163,487.83	23.60	1.67	164,500.99
Trencher	30,052.91	4.97	0.35	30,267.25
Subtotal	711,607.83	112.18	7.97	716,435.81

Table A.1.1-Alt1-166. Total Construction GHG Emissions - Paving - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	19,856.96	3.29	0.23	19,998.58
Grader	26,276.26	4.35	0.31	26,463.66
Roller	45,379.89	7.51	0.54	45,703.55
Vibration Roller	46,281.48	7.66	0.55	46,611.56
Water Truck	21,037.04	3.48	0.25	21,187.07
Road Sweeper	19,033.51	3.15	0.22	19,169.26
Subtotal	177,865.14	29.44	2.10	179,133.68

Table A.1.1-Alt1-167. Total Construction GHG Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	41,473.02	6.86	0.49	41,768.80
Truck Crane	16,799.58	2.78	0.20	16,919.39
Auger	18,783.07	3.11	0.22	18,917.03
Subtotal	77,055.66	12.75	0.91	77,605.23

Table A.1.1-Alt1-168. Total Construction GHG Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	155,073.02	22.93	1.64	156,062.43
Auxiliary Engine	60,105.82	9.95	0.71	60,534.50
Front End Loader	163,487.83	23.60	1.67	164,500.99
Tug Boat	511,904.76	70.63	5.08	514,962.70
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Tug Boat	1,365,079.37	188.36	13.54	1,373,233.86
Auxiliary Engine	120,211.64	17.35	1.23	120,956.61
Crew/Survey Boat	81,904.76	11.30	0.81	82,394.03
Auxiliary Engine	24,042.33	4.11	0.30	24,220.40
Subtotal	2,526,888.89	355.70	25.51	2,542,266.40

Table A.1.1-Alt1-169. Total Construction GHG Emissions - Fill within Dike - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	6,761.90	1.12	0.08	6,810.13
Tug Boat	982,857.14	135.62	9.75	988,728.38
Auxiliary Engine	108,190.48	15.62	1.10	108,860.95
Work Tug	230,357.14	31.79	2.29	231,733.21
Auxiliary Engine	40,571.43	6.71	0.48	40,860.79
Crew/Survey Boat	73,714.29	10.17	0.73	74,154.63
Auxiliary Engine	21,638.10	3.70	0.27	21,798.36
Subtotal	1,464,090.48	204.72	14.70	1,472,946.45

Table A.1.1-Alt1-170. Total Construction GHG Emissions - Remaining Dike Lifts - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	155,073.02	22.93	1.64	156,062.43
Auxiliary Engine	60,105.82	9.95	0.71	60,534.50
Front End Loader	163,487.83	23.60	1.67	164,500.99
Tug Boat	511,904.76	70.63	5.08	514,962.70
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Tug Boat	1,365,079.37	188.36	13.54	1,373,233.86
Auxiliary Engine	120,211.64	17.35	1.23	120,956.61
Crew/Survey Boat	81,904.76	11.30	0.81	82,394.03
Auxiliary Engine	24,042.33	4.11	0.30	24,220.40
Subtotal	2,526,888.89	355.70	25.51	2,542,266.40

Table A.1.1-Alt1-171. Total Construction GHG Emissions - Remaining Fill Lifts - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	22,539.68	3.73	0.27	22,700.44
Tug Boat	3,276,190.48	452.06	32.51	3,295,761.27
Auxiliary Engine	360,634.92	52.06	3.68	362,869.84
Work Tug	767,857.14	105.95	7.62	772,444.05
Auxiliary Engine	135,238.10	22.38	1.60	136,202.62
Crew/Survey Boat	245,714.29	33.90	2.44	247,182.10
Auxiliary Engine	72,126.98	12.32	0.89	72,661.21
Subtotal	4,880,301.59	682.41	49.00	4,909,821.52

Table A.1.1-AIt1-172. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	21,825.09	3.61	0.26	21,980.75
Crane - 200 Ton	48,101.35	6.94	0.49	48,399.45
Drill/Power Pack HPSI	67,619.05	9.76	0.69	68,038.10
Piledriving Hammer	35,228.69	5.83	0.42	35,479.94
Loader-Wheel	68,119.93	9.83	0.70	68,542.08
Jet Pump	8,154.36	1.54	0.11	8,220.88
End Dump Truck	61,488.25	8.88	0.63	61,869.31
Truck-Flatbed	45,620.32	7.55	0.54	45,945.68
Truck-Lowboy	69,422.22	10.02	0.71	69,852.44
Subtotal	425,579.26	63.97	4.54	428,328.63
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	55,116.13	7.96	0.56	55,457.70
Derrick Barge	62,519.79	9.03	0.64	62,907.24
Auxiliary Engine	37,115.34	6.14	0.44	37,380.05
Piledriving Hammer	40,366.21	6.68	0.48	40,654.10
End Dump Truck	70,804.66	10.22	0.72	71,243.45
Tugboat	217,243.53	29.98	2.16	218,541.27
Auxiliary Engine	19,033.51	3.25	0.23	19,174.49
Truck-Flatbed	52,532.49	8.69	0.62	52,907.15
Subtotal	554,731.66	81.95	5.85	558,265.44
DRIVE PILES - MISC ACTIVITIES				
Excavator	307,931.73	44.45	3.14	309,840.04
Loader-Wheel	154,496.00	25.57	1.82	155,597.87
Hydraulic Crane	82,498.84	13.65	0.97	83,087.23
Crane - 150 Ton	181,823.11	26.25	1.86	182,949.90
Subtotal	726,749.69	109.93	7.80	731,475.05
REINFORCED CONCRETE WHARF				
Hydraulic Crane	82,498.84	13.65	0.97	83,087.23
Crane - 150 Ton	181,823.11	26.25	1.86	182,949.90
Crane Barge - 150 ton	181,823.11	26.25	1.86	182,949.90
Auxiliary Engine	67,528.89	11.53	0.83	68,029.05
Concrete Pump	196,149.33	32.46	2.31	197,548.28
Concrete Trucks	971,280.00	140.22	9.92	977,299.20
Sandblaster w/air compressor	47,333.33	8.92	0.64	47,719.50
Truck-Flatbed	174,186.67	28.83	2.05	175,428.97
Tugboat	716,666.67	98.89	7.11	720,947.78
Auxiliary Engine	63,111.11	10.78	0.78	63,578.56
Concrete Saw	4,417.78	0.83	0.06	4,453.82
Truck Crane - 65 ton	230,355.56	33.26	2.35	231,783.11
Boom Truck	220,888.89	31.89	2.26	222,257.78
Subtotal	3,138,063.29	463.75	33.00	3,158,033.08
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	54,546.93	7.87	0.56	54,884.97
Vibratory Hammer & Power Pack	99,400.00	14.35	1.02	100,016.00
Flatbed Truck	52,256.00	8.65	0.62	52,628.69
Welding Machine	4,430.40	0.83	0.06	4,466.55
Generator	3,642.77	0.69	0.05	3,672.49
Subtotal	214,276.11	32.39	2.30	215,668.70

Table A.1.1-Alt1-173. Total Construction GHG Emissions - Construct South Mooring Dolphin - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	8,081.03	1.17	0.08	8,131.11
Derrick Barge	9,166.54	1.32	0.09	9,223.34
Auxiliary Engine	5,860.32	0.97	0.07	5,902.11
Piledriving Hammer	5,918.42	0.98	0.07	5,960.63
End Dump Truck	11,179.68	1.61	0.11	11,248.97
Tugboat	31,851.85	4.40	0.32	32,042.12
Auxiliary Engine	3,005.29	0.51	0.04	3,027.55
Truck-Flatbed	8,294.60	1.37	0.10	8,353.76
Subtotal	83,357.73	12.33	0.88	83,889.59

Table A.1.1-Alt1-174. Total Construction GHG Emissions - Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	11,576.38	1.67	0.12	11,648.12
Subtotal	11,576.38	1.67	0.12	11,648.12

Table A.1.1-Alt1-175. Total Construction GHG Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROLL SURCHARGE				
Scrapers	246,674.29	35.61	2.52	248,202.97
Dozers	29,235.47	4.22	0.30	29,416.65
Loader	27,792.93	4.60	0.33	27,991.15
End Dump Truck	89,437.46	12.91	0.91	89,991.72
Water Truck	14,906.24	2.15	0.15	14,998.62
Subtotal	408,046.39	59.50	4.21	410,601.11

Table A.1.1-Alt1-176. Total Construction GHG Emissions - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROLL SURCHARGE				
Scrapers	123,337.14	17.81	1.26	124,101.49
Dozers	14,617.74	2.11	0.15	14,708.32
Loader	13,896.47	2.30	0.16	13,995.58
End Dump Truck	44,718.73	6.46	0.46	44,995.86
Water Truck	7,453.12	1.08	0.08	7,499.31
Subtotal	204,023.20	29.75	2.11	205,300.56

Table A.1.1-AIt1-177. Total Construction GHG Emissions - Utility Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	90,158.73	13.02	0.92	90,717.46
Auger	37,566.14	6.22	0.44	37,834.06
Crane	33,599.15	5.56	0.40	33,838.78
Grader	236,486.35	39.14	2.79	238,172.98
End Dump Truck	111,796.83	16.14	1.14	112,489.65
Flat Bed Truck	165,892.06	27.45	1.96	167,075.21
Concrete Truck	360,634.92	59.68	4.25	363,206.98
Front End Loader	326,975.66	47.20	3.34	329,001.99
Trencher	60,105.82	9.95	0.71	60,534.50
Subtotal	1,423,215.66	224.36	15.95	1,432,871.62

Table A.1.1-AIt1-178. Total Construction GHG Emissions - Paving - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	59,570.88	9.86	0.70	59,995.74
Grader	78,828.78	13.05	0.93	79,390.99
Roller	136,139.68	22.53	1.61	137,110.64
Vibration Roller	138,844.44	22.98	1.64	139,834.69
Water Truck	63,111.11	10.44	0.74	63,561.22
Road Sweeper	57,100.53	9.45	0.67	57,507.77
Subtotal	533,595.43	88.31	6.29	537,401.05

Table A.1.1-AIt1-179. Total Construction GHG Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	82,946.03	13.73	0.98	83,537.61
Truck Crane	33,599.15	5.56	0.40	33,838.78
Auger	37,566.14	6.22	0.44	37,834.06
Subtotal	154,111.32	25.50	1.82	155,210.45

Table A.1.1-AIt1-180. Total Construction GHG Emissions - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	23,637.00	3.41	0.24	23,783.49
Vibratory Hammer & Power Pack	43,073.33	6.22	0.44	43,340.27
Flatbed Truck	22,644.27	3.75	0.27	22,805.77
Welding Machine	1,919.84	0.36	0.03	1,935.50
Generator	1,578.54	0.30	0.02	1,591.41
Subtotal	92,852.98	14.04	1.00	93,456.44

Table A.1.1-AIt1-181. Total Construction GHG Emissions - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
LAND EX				
Excavator	58,653.66	8.47	0.60	59,017.15
Loader	27,792.93	4.60	0.33	27,991.15
End Dump Truck	178,874.92	25.82	1.83	179,983.44
Subtotal	265,321.52	38.89	2.75	266,991.74

Table A.1.1-AIt1-182. Total Construction GHG Emissions - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
LAND EX				
Excavator	95,312.20	13.76	0.97	95,902.87
Loader	45,163.51	7.47	0.53	45,485.62
End Dump Truck	290,671.75	41.96	2.97	292,473.09
Subtotal	431,147.46	63.20	4.47	433,861.58
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	24,417.99	4.04	0.29	24,592.14
Tug Boat	3,549,206.35	489.74	35.22	3,570,408.04
Auxiliary Engine	390,687.83	56.40	3.99	393,108.99
Work Tug	831,845.24	114.78	8.25	836,814.38
Auxiliary Engine	146,507.94	24.25	1.73	147,552.84
Crew/Survey Boat	266,190.48	36.73	2.64	267,780.60
Auxiliary Engine	78,137.57	13.34	0.96	78,716.31
Subtotal	5,286,993.39	739.28	53.08	5,318,973.31

Table A.1.1-AIt1-183. Total Construction GHG Emissions - Remove Cellular Sheetpile - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
SHEET PILE BULKHEAD DEMOLITION				
Crane - 100 Ton	93,797.64	13.54	0.96	94,378.92
Vibratory Hammer & Power Pack	170,925.93	24.68	1.75	171,985.19
Excavator	158,853.67	22.93	1.62	159,838.12
Flatbed Truck	89,858.20	14.87	1.06	90,499.07
Welding Machine	8,464.90	1.59	0.11	8,533.96
Generator	6,264.03	1.18	0.08	6,315.13
Subtotal	528,164.37	78.80	5.58	531,550.39

Table A.1.1-Alt1-184. Total Construction GHG Emissions - Rock Revetment - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	124,058.41	18.35	1.31	124,849.94
Auxiliary Engine	48,084.66	7.96	0.57	48,427.60
Front End Loader	130,790.26	18.88	1.34	131,600.80
Tug Boat	409,523.81	56.51	4.06	411,970.16
Auxiliary Engine	36,063.49	5.97	0.43	36,320.70
Tug Boat	1,092,063.49	150.69	10.84	1,098,587.09
Auxiliary Engine	96,169.31	13.88	0.98	96,765.29
Crew/Survey Boat	65,523.81	9.04	0.65	65,915.23
Auxiliary Engine	19,233.86	3.28	0.24	19,376.32
Subtotal	2,021,511.11	284.56	20.41	2,033,813.12

Table A.1.1-Alt1-185. Total Construction GHG Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	6,761.90	1.12	0.08	6,810.13
Tug Boat	982,857.14	135.62	9.75	988,728.38
Auxiliary Engine	108,190.48	15.62	1.10	108,860.95
Work Tug	230,357.14	31.79	2.29	231,733.21
Auxiliary Engine	40,571.43	6.71	0.48	40,860.79
Crew/Survey Boat	73,714.29	10.17	0.73	74,154.63
Auxiliary Engine	21,638.10	3.70	0.27	21,798.36
Subtotal	1,464,090.48	204.72	14.70	1,472,946.45

Table A.1.1-Alt1-186. Total Construction GHG Emissions - Ground Improvements Pier D - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
STONE COLUMN INSTALLATION EQ				
Stone Column Crane - 100 Ton	293,225.84	42.33	2.99	295,043.02
Vibratory Probe & Power Pack	534,340.74	77.14	5.46	537,652.15
Auger Crane - 100 Ton	97,741.95	14.11	1.00	98,347.67
Auger & Hydraulic Power Pack	178,113.58	25.71	1.82	179,217.38
Welding Machine	8,820.86	1.66	0.12	8,892.83
Generator	6,527.44	1.23	0.09	6,580.69
Excavator	165,533.67	23.90	1.69	166,559.51
Loader	313,751.31	51.92	3.70	315,989.00
End Dump Truck	504,824.78	72.88	5.15	507,953.27
Subtotal	2,102,880.17	310.89	22.02	2,116,235.52
MARINE ROCK DELIVERY EQ				
Derrick Barge	116,706.80	17.26	0.00	117,069.25
Front End Loader	92,279.80	13.32	0.94	92,851.67
Tug Boat	317,835.98	43.86	3.15	319,734.62
Tug Boat	847,562.61	116.95	8.41	852,625.65
Subtotal	1,374,385.19	191.39	12.51	1,382,281.19

Table A.1.1-AIt1-187. Total Construction GHG Emissions - Demo - E12-13 Wharf - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	61,150.46	10.12	0.72	61,586.59
Excavator	266,874.17	38.53	2.73	268,528.04
Flatbed Truck	150,961.78	24.98	1.78	152,038.44
End Dump Truck	813,880.89	117.50	8.31	818,924.66
Subtotal	1,292,867.29	191.13	13.54	1,301,077.73
WHARF DEMOLITION MARINE				
Derrick Barge	282,232.89	41.74	2.98	284,033.61
Auxiliary Engine	109,192.24	18.07	1.29	109,971.00
Work Tug	372,666.67	51.42	3.70	374,892.84
Auxiliary Engine	81,894.18	13.55	0.97	82,478.25
Hydra-Crane	61,150.46	10.12	0.72	61,586.59
Excavator	266,874.17	38.53	2.73	268,528.04
Flatbed Truck	150,961.78	24.98	1.78	152,038.44
End Dump Truck	610,410.67	88.12	6.23	614,193.49
Subtotal	1,935,383.05	286.54	20.39	1,947,722.28

Table A.1.1-AIt1-188. Total Construction GHG Emissions - Lift #1 (~ -30) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	69,782.86	10.32	0.74	70,228.09
Auxiliary Engine	27,047.62	4.48	0.32	27,240.52
Front End Loader	73,569.52	10.62	0.75	74,025.45
Tug Boat	230,357.14	31.79	2.29	231,733.21
Auxiliary Engine	20,285.71	3.36	0.24	20,430.39
Tug Boat	614,285.71	84.76	6.10	617,955.24
Auxiliary Engine	54,095.24	7.81	0.55	54,430.48
Crew/Survey Boat	36,857.14	5.09	0.37	37,077.31
Auxiliary Engine	10,819.05	1.85	0.13	10,899.18
Subtotal	1,137,100.00	160.06	11.48	1,144,019.88

Table A.1.1-AIt1-189. Total Construction GHG Emissions - Lift #2 (~ -15) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	41,352.80	6.12	0.44	41,616.65
Auxiliary Engine	16,028.22	2.65	0.19	16,142.53
Front End Loader	43,596.75	6.29	0.45	43,866.93
Tug Boat	136,507.94	18.84	1.35	137,323.39
Auxiliary Engine	12,021.16	1.99	0.14	12,106.90
Tug Boat	364,021.16	50.23	3.61	366,195.70
Auxiliary Engine	32,056.44	4.63	0.33	32,255.10
Crew/Survey Boat	21,841.27	3.01	0.22	21,971.74
Auxiliary Engine	6,411.29	1.09	0.08	6,458.77
Subtotal	673,837.04	94.85	6.80	677,937.71

Table A.1.1-Alt1-190. Total Construction GHG Emissions - Lift #3 (~ 0) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	36,183.70	5.35	0.38	36,414.57
Auxiliary Engine	14,024.69	2.32	0.17	14,124.72
Front End Loader	38,147.16	5.51	0.39	38,383.57
Tug Boat	119,444.44	16.48	1.19	120,157.96
Auxiliary Engine	10,518.52	1.74	0.12	10,593.54
Tug Boat	318,518.52	43.95	3.16	320,421.23
Auxiliary Engine	28,049.38	4.05	0.29	28,223.21
Crew/Survey Boat	19,111.11	2.64	0.19	19,225.27
Auxiliary Engine	5,609.88	0.96	0.07	5,651.43
Subtotal	589,607.41	83.00	5.95	593,195.49

Table A.1.1-Alt1-191. Total Construction GHG Emissions - Lift #4 (~ +15) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	31,014.60	4.59	0.33	31,212.49
Auxiliary Engine	12,021.16	1.99	0.14	12,106.90
Front End Loader	32,697.57	4.72	0.33	32,900.20
Tug Boat	102,380.95	14.13	1.02	102,992.54
Auxiliary Engine	9,015.87	1.49	0.11	9,080.17
Tug Boat	273,015.87	37.67	2.71	274,646.77
Auxiliary Engine	24,042.33	3.47	0.25	24,191.32
Crew/Survey Boat	16,380.95	2.26	0.16	16,478.81
Auxiliary Engine	4,808.47	0.82	0.06	4,844.08
Subtotal	505,377.78	71.14	5.10	508,453.28

Table A.1.1-Alt1-192. Total Construction GHG Emissions - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	15,435.17	2.23	0.16	15,530.83
Subtotal	15,435.17	2.23	0.16	15,530.83
ROLL SURCHARGE				
Scrapers	370,011.43	53.42	3.78	372,304.46
Dozers	43,853.21	6.33	0.45	44,124.97
Loader	41,689.40	6.90	0.49	41,986.73
End Dump Truck	134,156.19	19.37	1.37	134,987.58
Water Truck	22,359.37	3.23	0.23	22,497.93
Subtotal	612,069.59	89.24	6.32	615,901.67

Table A.1.1-AIt1-193. Total Construction GHG Emissions - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	38,587.94	5.57	0.39	38,827.07
Subtotal	38,587.94	5.57	0.39	38,827.07
ROLL SURCHARGE				
Scrapers	555,017.14	80.13	5.67	558,456.69
Dozers	65,779.81	9.50	0.67	66,187.46
Loader	62,534.10	10.35	0.74	62,980.09
End Dump Truck	201,234.29	29.05	2.05	202,481.37
Water Truck	33,539.05	4.84	0.34	33,746.90
Subtotal	918,104.38	133.86	9.47	923,852.50

Table A.1.1-AIt1-194. Total Construction GHG Emissions - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	38,587.94	5.57	0.39	38,827.07
Subtotal	38,587.94	5.57	0.39	38,827.07
ROLL SURCHARGE				
Scrapers	740,022.86	106.83	7.56	744,608.91
Dozers	87,706.41	12.66	0.90	88,249.95
Loader	83,378.79	13.80	0.98	83,973.45
End Dump Truck	268,312.38	38.74	2.74	269,975.16
Water Truck	44,718.73	6.46	0.46	44,995.86
Subtotal	1,224,139.17	178.49	12.63	1,231,803.34

Table A.1.1-AIt1-195. Total Construction GHG Emissions - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	34,729.14	5.01	0.35	34,944.37
Subtotal	34,729.14	5.01	0.35	34,944.37
ROLL SURCHARGE				
Scrapers	1,387,542.86	200.31	14.17	1,396,141.71
Dozers	164,449.52	23.74	1.68	165,468.65
Loader	156,335.24	25.87	1.84	157,450.23
End Dump Truck	503,085.71	72.63	5.14	506,203.43
Water Truck	83847.61905	12.1047619	0.856190476	84367.2381
Subtotal	2295260.952	334.6609524	23.6852381	2309631.256

Table A.1.1-AIt1-196. Total Construction GHG Emissions - Remove Surcharge - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
ROLL SURCHARGE				
Scrapers	1,110,034.29	160.25	11.33	1,116,913.37
Dozers	131,559.62	18.99	1.34	132,374.92
Loader	125,068.19	20.70	1.48	125,960.18
End Dump Truck	402,468.57	58.10	4.11	404,962.74
Water Truck	67,078.10	9.68	0.68	67,493.79
Subtotal	1,836,208.76	267.73	18.95	1,847,705.00

Table A.1.1-Alt1-197. Total Construction GHG Emissions - Container Yard Development - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	334,488.89	48.29	3.42	336,561.78
Auger	139,370.37	23.06	1.64	140,364.37
Crane	124,652.86	20.63	1.47	125,541.89
Grader	877,364.36	145.20	10.35	883,621.76
End Dump Truck	414,766.22	59.88	4.24	417,336.60
Flat Bed Truck	615,459.56	101.85	7.26	619,849.04
Concrete Truck	1,340,359.79	221.82	15.81	1,349,919.29
Front End Loader	1,213,079.70	175.13	12.39	1,220,597.38
Trencher	222,992.59	36.90	2.63	224,582.99
Subtotal	5,282,534.34	832.76	59.20	5,318,375.09
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	221,007.96	36.58	2.61	222,584.20
Grader	292,454.79	48.40	3.45	294,540.59
Roller	505,078.22	83.59	5.96	508,680.46
Vibration Roller	515,112.89	85.25	6.08	518,786.70
Water Truck	234,142.22	38.75	2.76	235,812.13
Road Sweeper	211,842.96	35.06	2.50	213,353.84
Subtotal	1,979,639.04	327.62	23.35	1,993,757.91
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	307,729.78	50.93	3.63	309,924.52
Truck Crane	124,652.86	20.63	1.47	125,541.89
Auger	139,370.37	23.06	1.64	140,364.37
Subtotal	571,753.01	94.62	6.74	575,830.77

Table A.1.1-Alt1-198. Total Construction GHG Emissions - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
TRIPLE TRACK INSTALLATION DEMO EQ				
Track hoe with breaker and bucket (demo)	4,887.81	0.71	0.05	4,918.10
Front end loader	8,106.27	1.17	0.08	8,156.51
Subtotal	12,994.08	1.88	0.13	13,074.60
TRIPLE TRACK GRADING EQ				
966 (or equivalent) Front end loader	5,790.19	0.96	0.07	5,831.49
Subtotal	5,790.19	0.96	0.07	5,831.49
TRIPLE TRACK TRACKWORK EQ				
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	111,171.72	18.40	1.31	111,964.61
Subtotal	111,171.72	18.40	1.31	111,964.61

Table A.1.1-Alt1-199. Total Construction GHG Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
Grading				
Water Trucks (Gasoline)				
Truck for Soil Test Inspector (Gasoline)				
980 Loader	63,712.17	9.20	0.65	64,107.01
Grader	52,552.52	8.70	0.62	52,927.33
Vibratory Compactor	11,915.98	1.97	0.14	12,000.96
Subtotal	128,180.67	19.87	1.41	129,035.30
Survey				
Survey Trucks (Gasoline)				
Civil				
Crew Trucks	52,592.59	8.70	0.62	52,967.69
Dump Trucks	69,873.02	10.09	0.71	70,306.03
Stake Bed Truck (5-ton)	13,148.15	2.18	0.16	13,241.92
Trencher	30,052.91	4.97	0.35	30,267.25
Drill Rig	6,261.02	1.04	0.07	6,305.68
Tractor	46,018.52	7.62	0.54	46,346.72
Forklift	7,738.62	1.32	0.10	7,795.94
Subtotal	225,684.83	35.91	2.56	227,231.23
Electrical				
8-Ton Stake Truck	42,074.07	6.96	0.50	42,374.15
Crew Cab Trucks	126,222.22	20.89	1.49	127,122.44
Carryall Vehicles (Gasoline)				
Cranes	44,798.87	7.41	0.53	45,118.38
Lift Truck	42,074.07	6.96	0.50	42,374.15
Pickups	84,148.15	13.93	0.99	84,748.30
Forklift	18,572.70	3.17	0.23	18,710.26
Manlifts	168,296.30	27.85	1.99	169,496.59
Support Trucks	84,148.15	13.93	0.99	84,748.30
Subtotal	610,334.53	101.10	7.21	614,692.57
Transformer Setup				
Carryall Vehicle (Gasoline)				
Crew Truck	5,259.26	0.87	0.06	5,296.77
Crane	8,399.79	1.39	0.10	8,459.70
Forklift	4,643.17	0.79	0.06	4,677.57
Low Bed Truck	10,518.52	1.74	0.12	10,593.54
Subtotal	28,820.74	4.79	0.34	29,027.57
Test				
Test Truck	21,037.04	3.48	0.25	21,187.07
Paving				
Foreman Truck	3,944.44	0.65	0.05	3,972.58
2 Dump Trucks	13,974.60	2.02	0.14	14,061.21
2 Skip Loaders	8,685.29	1.44	0.10	8,747.23
Barbargreen	1,502.65	0.25	0.02	1,513.36
Subtotal	28,106.98	4.36	0.31	28,294.38
Fence Installation				
Foreman Truck	2,103.70	0.35	0.02	2,118.71
Crewcab	2,764.87	0.46	0.03	2,784.59
Bobcat (Gasoline)	2,003.53	0.33	0.02	2,017.82
3-Ton Flatbed Truck	691.22	0.11	0.01	696.15
Subtotal	7,563.32	1.25	0.09	7,617.26

Table A.1.1-A1t1-200. Total Construction GHG Emissions - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
Installation of 160 LWS poles and removal of wood poles				
Heavy Line Truck	45,079.37	6.51	0.46	45,358.73
Carry-All (Gasoline)				
Light Material Truck	31,555.56	5.22	0.37	31,780.61
75' Bucket Truck	31,555.56	5.22	0.37	31,780.61
Pickup Truck (Gasoline)				
Subtotal	108,190.48	16.95	1.20	108,919.95
Wire Replacement/Attachment and Termination				
Heavy Line Truck	67,619.05	9.76	0.69	68,038.10
Carry-All (Gasoline)				
Light Material Truck	47,333.33	7.83	0.56	47,670.92
Pickup Truck (Gasoline)				
Subtotal	114,952.38	17.60	1.25	115,709.01
Final Connection of New Lines				
Heavy Line Truck	1,502.65	0.22	0.02	1,511.96
Carry-All (Gasoline)				
Light Material Truck	1,051.85	0.17	0.01	1,059.35
Pickup Truck (Gasoline)				
Subtotal	2,554.50	0.39	0.03	2,571.31

Table A.1.1-Alt1-201. Total GHG Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 1 (1 of 3).

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Demolish Existing Facilities				
Wharf Demolition Landside	970,834	144	10	977,000
Wharf Demolition Marine	1,451,976	215	15	1,461,233
Sheet Pile Bulkhead Demolition	665,487	99	7	669,753
Construct New Bulkhead				
Retaining Bulkhead Construction	85,030	13	1	85,583
Excavation Fronting E24				
Clamshell Dredging	5,693,685	796	57	5,728,125
Land Ex	773,854	113	8	778,726
Construct New Armor Slope				
Rock Placement, Push Off & Tub & Orange Peels	2,105,741	296	21	2,118,555
Wharf Construction				
Drive 24-In Octagonal Piles - Land	502,957	76	5	506,207
Drive 24-In Octagonal Piles - Water	656,021	97	7	660,201
Drive Piles - Misc Activities	647,327	107	8	651,944
Reinforced Concrete Wharf	4,292,680	632	45	4,319,880
Retaining Bulkhead Construction	496,010	75	5	499,233
Utility Construction				
New Container Yard Utilities	711,608	112	8	716,436
Paving				
New Container Yard Construction - Paving	177,865	29	2	179,134
Lighting, Striping, Crane Power				
New Container Yard Construction - Electrical	77,056	13	1	77,605
Prepare for Dike/Construct Dike (1st Lift)				
Rock Placement, Push Off & Tub & Orange Peels	2,526,889	356	26	2,542,266
Fill Within Dike				
Clamshell Dredging	1,464,090	205	15	1,472,946
Remaining Dike Lifts				
Rock Placement, Push Off & Tub & Orange Peels	2,526,889	356	26	2,542,266
Remaining Fill Lifts				
Clamshell Dredging	4,880,302	682	49	4,909,822
Wharf Construction				
Drive 24-In Octagonal Piles - Land	425,579	64	5	428,329
Drive 24-In Octagonal Piles - Water	554,732	82	6	558,265
Drive Piles - Misc Activities	726,750	110	8	731,475
Reinforced Concrete Wharf	3,138,063	464	33	3,158,033
Retaining Bulkhead Construction	214,276	32	2	215,669
Construct South Mooring Dolphin				
Drive 24-In Octagonal Piles - Water	83,358	12	1	83,890
Wick Drains				
Wick Drains	11,576	2	0	11,648
Surcharge (Initial Pump, Plus Clamshell or Truck)				
Roll Surcharge	408,046	59	4	410,601
Remove Surcharge to Slip q Fill Site				
Roll Surcharge	204,023	30	2	205,301
Utility Construction				
New Container Yard Utilities	1,423,216	224	16	1,432,872

Table A.1.1-Alt1-201. Total GHG Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 1 (2 of 3).

Paving				
New Container Yard Construction - Paving	533,595	88	6	537,401
Lighting, Fence, Striping, Crane Power				
New Container Yard Construction - Electrical	154,111	26	2	155,210
Construct Retaining Structure at Pier D Oil Area				
Retaining Bulkhead Construction	92,853	14	1	93,456
Excavate & Truck Material in Cell Bulkhead				
Land Ex	265,322	39	3	266,992
Excavate Material Fronting Pier D				
Land Ex	431,147	63	4	433,862
Clamshell Dredging	5,286,993	739	53	5,318,973
Remove Cellular Sheetpile				
Sheet Pile Bulkhead Demolition	528,164	79	6	531,550
Rock Revetment				
Rock Placement, Push Off & Tub & Orange Peels	2,021,511	285	20	2,033,813
Hydraulic or Clamshell Dredge to -55 ft				
Clamshell Dredging	1,464,090	205	15	1,472,946
Ground Improvements to Pier D				
Stone Column Installation Eq	2,102,880	311	22	2,116,236
Marine Rock Delivery Eq	1,374,385	191	13	1,382,281
Demo - E12-13 Wharf				
Wharf Demolition Landside	1,292,867	191	14	1,301,078
Wharf Demolition Marine	1,935,383	287	20	1,947,722
Lift #1 (~ -30)				
Rock Placement, Push Off & Tub & Orange Peels	1,137,100	160	11	1,144,020
Lift #2 (~ -15)				
Rock Placement, Push Off & Tub & Orange Peels	673,837	95	7	677,938
Lift #3 (~ 0)				
Rock Placement, Push Off & Tub & Orange Peels	589,607	83	6	593,195
Lift #4 (~ +15)				
Rock Placement, Push Off & Tub & Orange Peels	505,378	71	5	508,453
Initial Surcharge and Wick Drains				
Wick Drains	15,435	2	0	15,531
Roll Surcharge	612,070	89	6	615,902
2nd Surcharge and Wick Drains				
Wick Drains	38,588	6	0	38,827
Roll Surcharge	918,104	134	9	923,853
3rd Surcharge and Wick Drains				
Wick Drains	38,588	6	0	38,827
Roll Surcharge	1,224,139	178	13	1,231,803
4th Surcharge and Wick Drains				
Wick Drains	34,729	5	0	34,944
Roll Surcharge	2,295,261	335	24	2,309,631
Remove Surcharge				
Roll Surcharge	1,836,209	268	19	1,847,705
Container Yard Development				
New Container Yard Utilities	5,282,534	833	59	5,318,375
New Container Yard Construction - Paving	1,979,639	328	23	1,993,758
New Container Yard Construction - Electrical	571,753	95	7	575,831

Table A.1.1-Alt1-201. Total GHG Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 1 (3 of 3).

POLB Ocean Blvd Track Reconfiguration				
Triple Track Installation Demo Eq	12,994	2	0	13,075
Triple Track Utility Relocation Eq	0	0	0	0
Triple Track Grading Eq	5,790	1	0	5,831
Triple Track Retaining Wall Eq	0	0	0	0
Triple Track Trackwork Eq	111,172	18	1	111,965
Triple Track Miscellaneous Eq	0	0	0	0
Electrical Substation Construction				
Grading	128,181	20	1	129,035
Survey	0	0	0	0
Civil	225,685	36	3	227,231
Electrical	610,335	101	7	614,693
Transformer Setup	28,821	5	0	29,028
Test	21,037	3	0	21,187
Paving	28,107	4	0	28,294
Fence Installation	7,563	1	0	7,617
Overhead Subtransmission Line Construction				
Installation of 160 LWS poles and removal of wood poles	108,190	17	1	108,920
Wire Replacement/Attachment and Termination	114,952	18	1	115,709
Final Connection of New Lines	2,554	0	0	2,571
Other Emissions				
Fugitive Dust	-	-	-	-
Commuter Emissions	1	22	2	924.83
Total Emissions	74,537,579	10,948	780	75,009,193

Table A.1.1-AIt1-202. Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
SHEET PILE BULKHEAD DEMOLITION				
Crane - 100 Ton	86,582.43	12.50	0.88	87,119.00
Vibratory Hammer & Power Pack	157,777.78	22.78	1.61	158,755.56
Excavator	146,634.16	21.17	1.50	147,542.88
Flatbed Truck	82,946.03	13.73	0.98	83,537.61
Welding Machine	7,813.76	1.47	0.11	7,877.50
Generator	5,782.18	1.09	0.08	5,829.35
Subtotal	487,536.34	72.73	5.16	490,661.90
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	33,599.15	5.56	0.40	33,838.78
Excavator	146,634.16	21.17	1.50	147,542.88
Flatbed Truck	82,946.03	13.73	0.98	83,537.61
End Dump Truck	447,187.30	64.56	4.57	449,958.60
Subtotal	710,366.65	105.02	7.44	714,877.87
WHARF DEMOLITION MARINE				
Derrick Barge	155,073.02	22.93	1.64	156,062.43
Auxiliary Engine	60,105.82	9.95	0.71	60,534.50
Work Tug	204,761.90	28.25	2.03	205,985.08
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Hydra-Crane	33,599.15	5.56	0.40	33,838.78
Excavator	146,634.16	21.17	1.50	147,542.88
Flatbed Truck	82,946.03	13.73	0.98	83,537.61
End Dump Truck	335,390.48	48.42	3.42	337,468.95
Subtotal	1,063,589.93	157.47	11.21	1,070,371.10

Table A.1.1-AIt1-203. Total Construction GHG Emissions - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	23,666.67	3.42	0.24	23,813.33
Flatbed Truck	12,441.90	2.06	0.15	12,530.64
Welding Machine	1,054.86	0.20	0.01	1,063.46
Generator	867.33	0.16	0.01	874.40
Subtotal	38,030.76	5.84	0.41	38,281.84

Table A.1.1-AIt1-204. Total Construction GHG Emissions - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	969,206.35	143.33	10.24	975,390.16
Auxiliary Engine	225,396.83	32.54	2.30	226,793.65
Bottom Dump Scow	11,269.84	1.87	0.13	11,350.22
Tug Boat	1,638,095.24	226.03	16.25	1,647,880.63
Auxiliary Engine	180,317.46	26.03	1.84	181,434.92
Work Tug	383,928.57	52.98	3.81	386,222.02
Auxiliary Engine	67,619.05	11.19	0.80	68,101.31
Crew/Survey Boat	122,857.14	16.95	1.22	123,591.05
Auxiliary Engine	36,063.49	6.16	0.44	36,330.60
Subtotal	3,634,753.97	517.08	37.04	3,657,094.57

Table A.1.1-Alt1-205. Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 1.

<i>Location/Equipment Type</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	155,073.02	22.93	1.64	156,062.43
Auxiliary Engine	60,105.82	9.95	0.71	60,534.50
Front End Loader	163,487.83	23.60	1.67	164,500.99
Tug Boat	511,904.76	70.63	5.08	514,962.70
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Tug Boat	1,365,079.37	188.36	13.54	1,373,233.86
Auxiliary Engine	120,211.64	17.35	1.23	120,956.61
Crew/Survey Boat	81,904.76	11.30	0.81	82,394.03
Auxiliary Engine	24,042.33	4.11	0.30	24,220.40
Subtotal	2,526,888.89	355.70	25.51	2,542,266.40

Table A.1.1-AIt1-206. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	23,809.19	3.94	0.28	23,979.00
Crane - 200 Ton	52,474.20	7.58	0.54	52,799.39
Drill/Power Pack HPSI	73,766.23	10.65	0.75	74,223.38
Piledriving Hammer	38,431.30	6.36	0.45	38,705.39
Loader-Wheel	74,312.65	10.73	0.76	74,773.18
Jet Pump	8,895.66	1.68	0.12	8,968.24
End Dump Truck	67,078.10	9.68	0.68	67,493.79
Truck-Flatbed	49,767.62	8.24	0.59	50,122.56
Truck-Lowboy	75,733.33	10.93	0.77	76,202.67
Subtotal	464,268.28	69.78	4.95	467,267.60
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	60,126.69	8.68	0.61	60,499.31
Derrick Barge	68,203.41	9.85	0.70	68,626.08
Auxiliary Engine	41,022.22	6.79	0.48	41,314.79
Piledriving Hammer	44,035.86	7.29	0.52	44,349.93
End Dump Truck	78,257.78	11.30	0.80	78,742.76
Tugboat	236,992.95	32.70	2.35	238,408.66
Auxiliary Engine	21,037.04	3.59	0.26	21,192.85
Truck-Flatbed	58,062.22	9.61	0.68	58,476.32
Subtotal	607,738.17	89.80	6.41	611,610.69
DRIVE PILES - MISC ACTIVITIES				
Excavator	427,682.96	61.74	4.37	430,333.39
Loader-Wheel	214,577.78	35.51	2.53	216,108.16
Hydraulic Crane	114,581.73	18.96	1.35	115,398.93
Crane - 150 Ton	252,532.10	36.46	2.58	254,097.09
Subtotal	1,009,374.57	152.67	10.83	1,015,937.56
REINFORCED CONCRETE WHARF				
Hydraulic Crane	114,581.73	18.96	1.35	115,398.93
Crane - 150 Ton	252,532.10	36.46	2.58	254,097.09
Crane Barge - 150 ton	252,532.10	36.46	2.58	254,097.09
Auxiliary Engine	93,790.12	16.02	1.16	94,484.80
Concrete Pump	272,429.63	45.09	3.21	274,372.61
Concrete Trucks	1,349,000.00	194.75	13.78	1,357,360.00
Sandblaster w/air compressor	65,740.74	12.38	0.89	66,277.08
Truck-Flatbed	241,925.93	40.04	2.85	243,651.35
Tugboat	995,370.37	137.35	9.88	1,001,316.36
Auxiliary Engine	87,654.32	14.97	1.08	88,303.55
Concrete Saw	6,135.80	1.16	0.08	6,185.86
Truck Crane - 65 ton	319,938.27	46.19	3.27	321,920.99
Boom Truck	306,790.12	44.29	3.13	308,691.36
Subtotal	4,358,421.23	644.10	45.84	4,386,157.06

Table A.1.1-Alt1-207. Total Construction GHG Emissions - Container Yard Development - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	37,231.80	6.16	0.44	37,497.34
Grader	49,267.99	8.15	0.58	49,619.37
Roller	85,087.30	14.08	1.00	85,694.15
Vibration Roller	86,777.78	14.36	1.02	87,396.68
Water Truck	39,444.44	6.53	0.47	39,725.76
Road Sweeper	35,687.83	5.91	0.42	35,942.36
Subtotal	333,497.14	55.19	3.93	335,875.66

Table A.1.1-Alt1-208. Total Construction GHG Emissions - Dredge to -55 ft - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	646,137.57	95.56	6.83	650,260.11
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.00	0.00	0.00
Tug Boat	1,092,063.49	150.69	10.84	1,098,587.09
Auxiliary Engine	120,211.64	17.35	1.23	120,956.61
Work Tug	255,952.38	35.32	2.54	257,481.35
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Crew/Survey Boat	81,904.76	11.30	0.81	82,394.03
Auxiliary Engine	24,042.33	4.11	0.30	24,220.40
Subtotal	2,265,391.53	321.78	23.07	2,279,300.47

Table A.1.1-Alt1-209. Total Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 2.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Demolish Existing Facilities				
Sheet Pile Bulkhead Demolition	487,536	73	5	490,662
Wharf Demolition Landside	710,367	105	7	714,878
Wharf Demolition Marine	1,063,590	157	11	1,070,371
Construct New Bulkhead				
Retaining Bulkhead Construction	38,031	6	0	38,282
Excavation Fronting E25 and Dispose Slip 1				
Clamshell Dredging	3,634,754	517	37	3,657,095
Construct New Armor Slope				
Rock Placement, Push Off & Tub & Orange Peels	2,526,889	356	26	2,542,266
Wharf Construction				
Drive 24-In Octagonal Piles - Land	464,268	70	5	467,268
Drive 24-In Octagonal Piles - Water	607,738	90	6	611,611
Drive Piles - Misc Activities	1,009,375	153	11	1,015,938
Reinforced Concrete Wharf	4,358,421	644	46	4,386,157
Container Yard Development				
New Container Yard Construction - Paving	333,497	55	4	335,876
Dredge to -55 ft				
Clamshell Dredging	2,265,392	322	23	2,279,300
Other Emissions				
Fugitive Emissions	-	-	-	-
Commuter Emissions	2	33	3	1,735.42
Total Emissions	17,499,860	2,581	185	17,611,438

Table A.1.1-AIt1-210. Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	67,198.31	11.12	0.79	67,677.57
Excavator	293,268.32	42.34	2.99	295,085.75
Flatbed Truck	165,892.06	27.45	1.96	167,075.21
End Dump Truck	894,374.60	129.12	9.13	899,917.21
Subtotal	1,420,733.29	210.03	14.88	1,429,755.74
WHARF DEMOLITION MARINE				
Derrick Barge	310,146.03	45.87	3.28	312,124.85
Auxiliary Engine	120,211.64	19.89	1.42	121,068.99
Work Tug	409,523.81	56.51	4.06	411,970.16
Auxiliary Engine	90,158.73	14.92	1.06	90,801.75
Hydra-Crane	67,198.31	11.12	0.79	67,677.57
Excavator	293,268.32	42.34	2.99	295,085.75
Flatbed Truck	165,892.06	27.45	1.96	167,075.21
End Dump Truck	670,780.95	96.84	6.85	674,937.90
Subtotal	2,127,179.85	314.94	22.41	2,140,742.19
SHEET PILE BULKHEAD DEMOLITION				
Crane - 100 Ton	173,164.87	25.00	1.77	174,238.00
Vibratory Hammer & Power Pack	315,555.56	45.56	3.22	317,511.11
Excavator	293,268.32	42.34	2.99	295,085.75
Flatbed Truck	165,892.06	27.45	1.96	167,075.21
Welding Machine	15,627.51	2.94	0.21	15,755.01
Generator	11,564.36	2.18	0.16	11,658.71
Subtotal	975,072.68	145.47	10.31	981,323.80

Table A.1.1-AIt1-211. Total Construction GHG Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	17,316.49	2.50	0.18	17,423.80
Vibratory Hammer & Power Pack	31,555.56	4.56	0.32	31,751.11
Flatbed Truck	16,589.21	2.75	0.20	16,707.52
Welding Machine	1,406.48	0.26	0.02	1,417.95
Generator	1,156.44	0.22	0.02	1,165.87
Subtotal	68,024.16	10.28	0.73	68,466.25

Table A.1.1-AIt1-212. Total Construction GHG Emissions - Excavation Fronting E26 and Dispose Slip 1 - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	872,285.71	129.00	9.21	877,851.14
Auxiliary Engine	202,857.14	29.29	2.07	204,114.29
Bottom Dump Scow	10,142.86	1.68	0.12	10,215.20
Tug Boat	1,474,285.71	203.43	14.63	1,483,092.57
Auxiliary Engine	129,828.57	18.74	1.33	130,633.14
Work Tug	345,535.71	47.68	3.43	347,599.82
Auxiliary Engine	60,857.14	10.07	0.72	61,291.18
Crew/Survey Boat	110,571.43	15.26	1.10	111,231.94
Auxiliary Engine	32,457.14	5.54	0.40	32,697.54
Subtotal	3,238,821.43	460.69	33.00	3,258,726.83

Table A.1.1-AIt1-213. Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	232,609.52	34.40	2.46	234,093.64
Auxiliary Engine	90,158.73	14.92	1.06	90,801.75
Front End Loader	245,231.75	35.40	2.50	246,751.49
Tug Boat	767,857.14	105.95	7.62	772,444.05
Auxiliary Engine	67,619.05	11.19	0.80	68,101.31
Tug Boat	2,047,619.05	282.54	20.32	2,059,850.79
Auxiliary Engine	180,317.46	26.03	1.84	181,434.92
Crew/Survey Boat	122,857.14	16.95	1.22	123,591.05
Auxiliary Engine	36,063.49	6.16	0.44	36,330.60
Subtotal	3,790,333.33	533.55	38.26	3,813,399.60

Table A.1.1-AIt1-214. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	43,650.18	7.22	0.51	43,961.50
Crane - 200 Ton	96,202.70	13.89	0.98	96,798.89
Drill/Power Pack HPSI	135,238.10	19.52	1.38	136,076.19
Piledriving Hammer	70,457.38	11.66	0.83	70,959.88
Loader-Wheel	136,239.86	19.67	1.39	137,084.16
Jet Pump	16,308.71	3.07	0.22	16,441.77
End Dump Truck	124,839.79	18.02	1.27	125,613.44
Truck-Flatbed	92,623.07	15.33	1.09	93,283.66
Truck-Lowboy	140,948.15	20.35	1.44	141,821.63
Subtotal	856,507.94	128.74	9.13	862,041.12
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	110,232.27	15.91	1.13	110,915.39
Derrick Barge	125,039.58	18.05	1.28	125,814.48
Auxiliary Engine	74,230.69	12.28	0.88	74,760.10
Piledriving Hammer	80,732.41	13.36	0.95	81,308.20
End Dump Truck	141,609.31	20.44	1.45	142,486.89
Tugboat	434,487.07	59.95	4.31	437,082.54
Auxiliary Engine	38,067.02	6.50	0.47	38,348.97
Truck-Flatbed	105,064.97	17.39	1.24	105,814.30
Subtotal	1,109,463.32	163.90	11.70	1,116,530.88
DRIVE PILES - MISC ACTIVITIES				
Excavator	598,756.15	86.44	6.11	602,466.75
Loader-Wheel	300,408.89	49.72	3.54	302,551.42
Hydraulic Crane	160,414.42	26.55	1.89	161,558.50
Crane - 150 Ton	353,544.94	51.04	3.61	355,735.92
Subtotal	1,413,124.40	213.74	15.16	1,422,312.59
REINFORCED CONCRETE WHARF				
Hydraulic Crane	160,414.42	26.55	1.89	161,558.50
Crane - 150 Ton	353,544.94	51.04	3.61	355,735.92
Crane Barge - 150 ton	353,544.94	51.04	3.61	355,735.92
Auxiliary Engine	131,306.17	22.42	1.62	132,278.72
Concrete Pump	381,401.48	63.12	4.50	384,121.65
Concrete Trucks	1,888,600.00	272.65	19.29	1,900,304.00
Sandblaster w/air compressor	92,037.04	17.34	1.25	92,787.92
Truck-Flatbed	338,696.30	56.05	4.00	341,111.89
Tugboat	1,393,518.52	192.28	13.83	1,401,842.90
Auxiliary Engine	122,716.05	20.96	1.51	123,624.97
Concrete Saw	8,590.12	1.62	0.12	8,660.21
Truck Crane - 65 ton	447,913.58	64.66	4.57	450,689.38
Boom Truck	429,506.17	62.01	4.39	432,167.90
Subtotal	6,101,789.73	901.74	64.17	6,140,619.88

Table A.1.1-AIt1-215. Total Construction GHG Emissions - Construct E27 Bulkhead - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	57,721.62	8.33	0.59	58,079.33
Vibratory Hammer & Power Pack	105,185.19	15.19	1.07	105,837.04
Flatbed Truck	55,297.35	9.15	0.65	55,691.74
Welding Machine	4,688.25	0.88	0.06	4,726.50
Generator	3,854.79	0.73	0.05	3,886.24
Subtotal	226,747.20	34.28	2.43	228,220.85

Table A.1.1-AIt1-216. Total Construction GHG Emissions - Container Yard Development - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	315,555.56	45.56	3.22	317,511.11
Auger	131,481.48	21.76	1.55	132,419.21
Crane	117,597.04	19.46	1.39	118,435.74
Grader	827,702.22	136.98	9.76	833,605.43
End Dump Truck	391,288.89	56.49	4.00	393,713.78
Flat Bed Truck	580,622.22	96.09	6.85	584,763.24
Concrete Truck	1,262,222.22	208.89	14.89	1,271,224.44
Front End Loader	1,144,414.81	165.21	11.69	1,151,506.96
Trencher	210,370.37	34.81	2.48	211,870.74
Subtotal	4,981,254.81	785.25	55.82	5,015,050.67
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	208,498.07	34.50	2.46	209,985.09
Grader	275,900.74	45.66	3.25	277,868.48
Roller	476,488.89	78.86	5.62	479,887.23
Vibration Roller	485,955.56	80.42	5.73	489,421.41
Water Truck	220,888.89	36.56	2.61	222,464.28
Road Sweeper	199,851.85	33.07	2.36	201,277.20
Subtotal	1,867,584.00	309.07	22.03	1,880,903.69
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	290,311.11	48.04	3.42	292,381.62
Truck Crane	117,597.04	19.46	1.39	118,435.74
Auger	131,481.48	21.76	1.55	132,419.21
Subtotal	539,389.63	89.27	6.36	543,236.58

Table A.1.1-AIt1-217. Total Construction GHG Emissions - Dredge to -55 ft - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	969,206.35	143.33	10.24	975,390.16
Auxiliary Engine	225,396.83	32.54	2.30	226,793.65
Bottom Dump Scow	11,269.84	1.87	0.13	11,350.22
Tug Boat	1,638,095.24	226.03	16.25	1,647,880.63
Auxiliary Engine	180,317.46	26.03	1.84	181,434.92
Work Tug	383,928.57	52.98	3.81	386,222.02
Auxiliary Engine	47,333.33	8.08	0.58	47,683.92
Crew/Survey Boat	122,857.14	16.95	1.22	123,591.05
Auxiliary Engine	21,638.10	3.70	0.27	21,798.36
Subtotal	3,600,042.86	511.51	36.65	3,622,144.93

Table A.1.1-Alt1-218. Total Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 3.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Demolish Existing Facilities				
Wharf Demolition Landside	1,420,733	210	15	1,429,756
Wharf Demolition Marine	2,127,180	315	22	2,140,742
Sheet Pile Bulkhead Demolition	975,073	145	10	981,324
Construct New Bulkhead				
Retaining Bulkhead Construction	68,024	10	1	68,466
Excavation Fronting E26 and Dispose Slip 1				
Clamshell Dredging	3,238,821	461	33	3,258,727
Construct New Armor Slope				
Rock Placement, Push Off & Tub & Orange Peels	3,790,333	534	38	3,813,400
Wharf Construction				
Drive 24-In Octagonal Piles - Land	856,508	129	9	862,041
Drive 24-In Octagonal Piles - Water	1,109,463	164	12	1,116,531
Drive Piles - Misc Activities	1,413,124	214	15	1,422,313
Reinforced Concrete Wharf	6,101,790	902	64	6,140,620
Construct E27 Bulkhead				
Retaining Bulkhead Construction	226,747	34	2	228,221
CY Development				
Vibratory Hammer & Power Pack	4,981,255	785	56	5,015,051
Flatbed Truck	1,867,584	309	22	1,880,904
Welding Machine	539,390	89	6	543,237
Dredge to -55 ft				
Clamshell Dredging	3,600,043	512	37	3,622,145
Other Emissions				
Fugitive Dust	-	-	-	-
Commuter Emissions	1	15	1	591.25
Total Emissions	32,316,069	4,827	344	32,524,067

Table A.1.1-AIt1-219. Total Construction GHG Emissions - Seaside Railyard Area Redevelopment - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	503,386.24	72.67	5.14	506,505.82
Auger	209,744.27	34.71	2.47	211,240.17
Crane	187,595.27	31.05	2.21	188,933.21
Grader	1,320,382.12	218.51	15.57	1,329,799.14
End Dump Truck	624,198.94	90.11	6.37	628,067.22
Flat Bed Truck	926,230.69	153.28	10.93	932,836.60
Concrete Truck	2,013,544.97	333.23	23.75	2,027,905.66
Front End Loader	1,825,614.11	263.56	18.64	1,836,927.77
Trencher	335,590.83	55.54	3.96	337,984.28
Subtotal	7,946,287.44	1,252.66	89.05	8,000,199.88
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	332,604.07	55.04	3.92	334,976.22
Grader	440,127.37	72.84	5.19	443,266.38
Roller	760,113.23	125.79	8.97	765,534.39
Vibration Roller	775,214.81	128.29	9.14	780,743.68
Water Truck	352,370.37	58.31	4.16	354,883.49
Road Sweeper	318,811.29	52.76	3.76	321,085.06
Subtotal	2,979,241.14	493.04	35.14	3,000,489.22
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	463,115.34	76.64	5.46	466,418.30
Truck Crane	187,595.27	31.05	2.21	188,933.21
Auger	209,744.27	34.71	2.47	211,240.17
Subtotal	860,454.89	142.40	10.15	866,591.69

Table A.1.1-AIt1-220. Total Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 4.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Seaside Railroad Area Redevelopment				
New Container Yard Utilities	7,946,287	1,253	89	8,000,200
New Container Yard Construction - Paving	2,979,241	493	35	3,000,489
New Container Yard Construction - Electrical	860,455	142	10	866,592
Other Emissions				
Fugitive Dust	-	-	-	-
Commuter Emissions	0	6	1	301.92
Total Emissions	11,785,984	1,894	135	11,867,583

Table A.1.1-AIt1-221. Total Construction GHG Emissions - Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	382,874.07	55.27	3.91	385,246.81
Auger	159,530.86	26.40	1.88	160,668.65
Crane	142,684.40	23.61	1.68	143,702.04
Grader	1,004,278.70	166.20	11.85	1,011,441.25
End Dump Truck	474,763.85	68.54	4.85	477,706.05
Flat Bed Truck	704,488.30	116.59	8.31	709,512.74
Concrete Truck	1,532,698.41	253.65	18.08	1,543,629.68
Front End Loader	1,388,556.64	200.46	14.18	1,397,161.78
Trencher	255,249.38	42.24	3.01	257,069.83
Subtotal	6,045,124.63	952.97	67.75	6,086,138.83
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	252,977.66	41.87	2.98	254,781.91
Grader	334,759.57	55.40	3.95	337,147.08
Roller	578,139.85	95.68	6.82	582,263.17
Vibration Roller	589,626.07	97.58	6.96	593,831.31
Water Truck	268,011.85	44.35	3.16	269,923.32
Road Sweeper	242,486.91	40.13	2.86	244,216.34
Subtotal	2,266,001.92	375.01	26.73	2,282,163.14
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	352,244.15	58.29	4.15	354,756.37
Truck Crane	142,684.40	23.61	1.68	143,702.04
Auger	159,530.86	26.40	1.88	160,668.65
Subtotal	654,459.42	108.31	7.72	659,127.05

Table A.1.1-AIt1-222. Total Emissions - POLB - MHTP - Alternative 1 - Phase 1 - Stage 5.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Construction				
New Container Yard Utilities	6,045,125	953	68	6,086,139
New Container Yard Construction - Paving	2,266,002	375	27	2,282,163
New Container Yard Construction - Electrical	654,459	108	8	659,127
Other Emissions				
Fugitive Dust	-	-	-	-
Commuter Emissions	1	24	2	996.25
Total Emissions	8,965,587	1,460	104	9,028,425

Table A.1.1-Alt1-223. Total Construction GHG Emissions - Demolition - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	78,398.02	12.97	0.92	78,957.16
Excavator	342,146.37	49.39	3.49	344,266.71
Flatbed Truck	193,540.74	32.03	2.28	194,921.08
End Dump Truck	1,043,437.04	150.64	10.65	1,049,903.41
Subtotal	1,657,522.17	245.04	17.36	1,668,048.37

Table A.1.1-Alt1-224. Total Construction GHG Emissions - Railyard - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
INTERMODAL YARD CONSTRUCTION				
Backhoe	183,464.00	31.33	2.26	184,822.86
Excavator	769,829.33	111.14	7.86	774,600.11
Ballast Spreader	157,777.78	26.94	1.94	158,946.39
Ballast Tamper	157,777.78	26.94	1.94	158,946.39
Generator Set	107,415.11	20.23	1.46	108,291.45
Roller	238,244.44	39.43	2.81	239,943.61
Grader	413,851.11	68.49	4.88	416,802.71
Truck Mounted Crane	176,395.56	29.19	2.08	177,653.62
Forklift	97,506.67	16.65	1.20	98,228.87
Flatbed Truck	870,933.33	144.13	10.27	877,144.87
End Dump Truck	1,173,866.67	173.60	12.40	1,181,356.27
Water Truck	397,600.00	65.80	4.69	400,435.70
Subtotal	4,744,661.78	753.89	53.80	4,777,172.84

Table A.1.1-AIt1-225. Total Construction GHG Emissions - Container Yard Development (F1 - F4)- POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	168,296.30	24.30	1.72	169,339.26
Auger	70,123.46	11.60	0.83	70,623.58
Crane	62,718.42	10.38	0.74	63,165.73
Grader	441,441.19	73.06	5.21	444,589.56
End Dump Truck	208,687.41	30.13	2.13	209,980.68
Flat Bed Truck	309,665.19	51.25	3.65	311,873.73
Concrete Truck	673,185.19	111.41	7.94	677,986.37
Front End Loader	610,354.57	88.11	6.23	614,137.05
Trencher	112,197.53	18.57	1.32	112,997.73
Subtotal	2,656,669.23	418.80	29.77	2,674,693.69
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	111,198.97	18.40	1.31	111,992.05
Grader	147,147.06	24.35	1.74	148,196.52
Roller	254,127.41	42.06	3.00	255,939.85
Vibration Roller	259,176.30	42.89	3.06	261,024.75
Water Truck	117,807.41	19.50	1.39	118,647.61
Road Sweeper	106,587.65	17.64	1.26	107,347.84
Subtotal	996,044.80	164.84	11.75	1,003,148.63
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	154,832.59	25.62	1.83	155,936.87
Truck Crane	62,718.42	10.38	0.74	63,165.73
Auger	70,123.46	11.60	0.83	70,623.58
Subtotal	287,674.47	47.61	3.39	289,726.18

Table A.1.1-Alt1-226. Total Construction GHG Emissions - Demo Existing F1-4, F6 Wharf - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	101,917.43	16.87	1.20	102,644.31
Excavator	444,790.28	64.21	4.54	447,546.73
Flatbed Truck	251,602.96	41.64	2.97	253,397.41
End Dump Truck	1,356,468.15	195.83	13.85	1,364,874.43
Subtotal	2,154,778.82	318.55	22.56	2,168,462.88
WHARF DEMOLITION MARINE				
Derrick Barge	470,388.15	69.56	4.97	473,389.36
Auxiliary Engine	182,320.99	30.17	2.15	183,621.31
Work Tug	621,111.11	85.70	6.16	624,821.41
Auxiliary Engine	136,740.74	22.63	1.61	137,715.98
Hydra-Crane	101,917.43	16.87	1.20	102,644.31
Excavator	444,790.28	64.21	4.54	447,546.73
Flatbed Truck	251,602.96	41.64	2.97	253,397.41
End Dump Truck	1,017,351.11	146.87	10.39	1,023,655.82
Subtotal	3,226,222.78	477.66	34.00	3,246,792.32

Table A.1.1-Alt1-227. Total Construction GHG Emissions - Construct East Basin Retaining Dike - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	232,609.52	34.40	2.46	234,093.64
Auxiliary Engine	90,158.73	14.92	1.06	90,801.75
Front End Loader	245,231.75	35.40	2.50	246,751.49
Tug Boat	767,857.14	105.95	7.62	772,444.05
Auxiliary Engine	67,619.05	11.19	0.80	68,101.31
Tug Boat	2,047,619.05	282.54	20.32	2,059,850.79
Auxiliary Engine	180,317.46	26.03	1.84	181,434.92
Crew/Survey Boat	122,857.14	16.95	1.22	123,591.05
Auxiliary Engine	36,063.49	6.16	0.44	36,330.60
Subtotal	3,790,333.33	533.55	38.26	3,813,399.60

Table A.1.1-AIt1-228. Total Construction GHG Emissions - Slip/Basin Fill & Surcharge East - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CUTTER SUCTION DREDGING- Spill Barge (no booster)				
Cutter Suction Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Work Tug	877,916.67	121.14	8.71	883,161.03
Auxiliary Engine	76,634.92	12.68	0.90	77,181.48
Derrick Barge	265,950.22	39.33	2.81	267,647.06
Auxiliary Engine	102,179.89	16.91	1.21	102,908.65
Spill Barge	61,848.89	8.93	0.63	62,232.18
Auxiliary Engine	25,544.97	4.81	0.35	25,753.38
Crew/Survey Boat	140,466.67	19.38	1.39	141,305.76
Auxiliary Engine	40,871.96	6.98	0.50	41,174.68
Subtotal	1,591,414.19	230.17	16.51	1,601,364.22
CUTTER SUCTION DREDGING- Land Disposal (no booster)				
Cutter Suction Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Work Tug	877,916.67	121.14	8.71	883,161.03
Auxiliary Engine	76,634.92	12.68	0.90	77,181.48
Derrick Barge	265,950.22	39.33	2.81	267,647.06
Auxiliary Engine	102,179.89	16.91	1.21	102,908.65
Hydra-crane	57,622.55	8.32	0.59	57,979.65
Dozer	564,061.87	106.26	7.65	568,663.74
Crew/Survey Boat	140,466.67	19.38	1.39	141,305.76
Auxiliary Engine	40,871.96	6.98	0.50	41,174.68
Subtotal	2,125,704.74	331.00	23.76	2,140,022.05
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	189,080.89	27.30	1.93	190,252.66
Subtotal	189,080.89	27.30	1.93	190,252.66

Table A.1.1-AIt1-229. Total Construction GHG Emissions - Roll Surcharge - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROLL SURCHARGE				
Scrapers	1,295,040.00	186.96	13.22	1,303,065.60
Dozers	153,486.22	22.16	1.57	154,437.40
Loader	145,912.89	24.15	1.72	146,953.55
End Dump Truck	469,546.67	67.79	4.79	472,456.53
Water Truck	78,257.78	11.30	0.80	78,742.76
Subtotal	2,142,243.56	312.35	22.11	2,155,655.84

Table A.1.1-Alt1-230. Total Emissions - POLB - MHTP -Alternative 1 - Phase 2 - Stage 1.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Demolition				
Wharf Demolition Landside	1,657,522	245	17	1,668,048
Railyard				
Intermodal Yard Construction	4,744,662	754	54	4,777,173
CY Development				
New Container Yard Utilities	2,656,669	419	30	2,674,694
New Container Yard Construction - Paving	996,045	165	12	1,003,149
New Container Yard Construction - Electrical	287,674	48	3	289,726
Demo Existing F1-4, F6 Wharf				
Wharf Demolition Landside	2,154,779	319	23	2,168,463
Wharf Demolition Marine	3,226,223	478	34	3,246,792
Construct East Basin Retaining Dike				
Rock Placement, Push Off & Tub & Orange Peels	3,790,333	534	38	3,813,400
Slip/Basin Fill & Surcharge East				
Cutter Suction Dredging- Spill Barge (No Booster)	1,591,414	230	17	1,601,364
Cutter Suction Dredging- Land Disposal (No Booster)	2,125,705	331	24	2,140,022
Wick Drains	189,081	27	2	190,253
Roll Surcharge				
Roll Surcharge	2,142,244	312	22	2,155,656
Other Emissions				
Fugitive Dust	-	-	-	-
Commuter Emissions	1	15	1	591.25
Total Emissions	25,562,352	3,875	276	25,729,331

Table A.1.1-Alt1-231. Total Construction GHG Emissions - Construction - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
Building Construction				
Auger	112,698.41	18.65	1.33	113,502.18
Crane	302,392.38	50.04	3.57	304,549.06
Grader	709,459.05	117.41	8.37	714,518.94
End Dump Truck	1,341,561.90	193.68	13.70	1,349,875.81
Flat Bed Truck	497,676.19	82.36	5.87	501,225.64
Concrete Truck	540,952.38	89.52	6.38	544,810.48
Front End Loader	980,926.98	141.61	10.02	987,005.97
Trencher	180,317.46	29.84	2.13	181,603.49
Subtotal	4,665,984.76	723.12	51.36	4,697,091.56

Table A.1.1-Alt1-232. Total Construction GHG Emissions - Dredge and Excavate at Quay Wall - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	2,713,777.78	401.33	28.67	2,731,092.44
Auxiliary Engine	631,111.11	91.11	6.44	635,022.22
Bottom Dump Scow	31,555.56	5.22	0.37	31,780.61
Tug Boat	4,586,666.67	632.89	45.51	4,614,065.78
Auxiliary Engine	504,888.89	72.89	5.16	508,017.78
Work Tug	1,075,000.00	148.33	10.67	1,081,421.67
Auxiliary Engine	189,333.33	31.33	2.23	190,683.67
Crew/Survey Boat	344,000.00	47.47	3.41	346,054.93
Auxiliary Engine	100,977.78	17.24	1.24	101,725.69
Subtotal	10,177,311.11	1,447.82	103.71	10,239,864.79

Table A.1.1-Alt1-233. Total Construction GHG Emissions - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	101,917.43	16.87	1.20	102,644.31
Excavator	444,790.28	64.21	4.54	447,546.73
Flatbed Truck	251,602.96	41.64	2.97	253,397.41
End Dump Truck	1,356,468.15	195.83	13.85	1,364,874.43
Subtotal	2,154,778.82	318.55	22.56	2,168,462.88
WHARF DEMOLITION MARINE				
Derrick Barge	470,388.15	69.56	4.97	473,389.36
Auxiliary Engine	182,320.99	30.17	2.15	183,621.31
Work Tug	621,111.11	85.70	6.16	624,821.41
Auxiliary Engine	136,740.74	22.63	1.61	137,715.98
Hydra-Crane	101,917.43	16.87	1.20	102,644.31
Excavator	444,790.28	64.21	4.54	447,546.73
Flatbed Truck	251,602.96	41.64	2.97	253,397.41
End Dump Truck	1,017,351.11	146.87	10.39	1,023,655.82
Subtotal	3,226,222.78	477.66	34.00	3,246,792.32

Table A.1.1-AIt1-234. Total Construction GHG Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 1 (1 of 2).

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
LAND EX				
Excavator	410,575.64	59.27	4.19	413,120.06
Loader	194,550.52	32.20	2.29	195,938.06
End Dump Truck	1,252,124.44	180.76	12.79	1,259,884.09
Subtotal	1,857,250.61	272.23	19.27	1,868,942.21
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	434,204.44	64.21	4.59	436,974.79
Auxiliary Engine	168,296.30	27.85	1.99	169,496.59
Front End Loader	457,765.93	66.09	4.67	460,602.79
Tug Boat	1,433,333.33	197.78	14.22	1,441,895.56
Auxiliary Engine	126,222.22	20.89	1.49	127,122.44
Tug Boat	3,822,222.22	527.41	37.93	3,845,054.81
Auxiliary Engine	336,592.59	48.59	3.44	338,678.52
Crew/Survey Boat	229,333.33	31.64	2.28	230,703.29
Auxiliary Engine	67,318.52	11.50	0.83	67,817.13
Subtotal	7,075,288.89	995.96	71.43	7,118,345.92
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	242,430.81	35.00	2.48	243,933.20
Vibratory Hammer & Power Pack	441,777.78	63.78	4.51	444,515.56
Flatbed Truck	232,248.89	38.44	2.74	233,905.30
Welding Machine	19,690.67	3.71	0.27	19,851.31
Generator	16,190.10	3.05	0.22	16,322.19
Subtotal	952,338.25	143.97	10.21	958,527.56
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	82,498.84	13.65	0.97	83,087.23
Crane - 200 Ton	181,823.11	26.25	1.86	182,949.90
Drill/Power Pack HPSI	255,600.00	36.90	2.61	257,184.00
Piledriving Hammer	133,164.44	22.04	1.57	134,114.18
Loader-Wheel	257,493.33	37.17	2.63	259,089.07
Jet Pump	30,823.47	5.81	0.42	31,074.94
End Dump Truck	234,773.33	33.89	2.40	236,228.27
Truck-Flatbed	174,186.67	28.83	2.05	175,428.97
Truck-Lowboy	265,066.67	38.27	2.71	266,709.33
Subtotal	1,615,429.87	242.81	17.22	1,625,865.89

Table A.1.1-AIt1-235. Total Construction GHG Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 1 (2 of 2).

DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	181,823.11	26.25	1.86	182,949.90
Derrick Barge	206,247.11	29.78	2.11	207,525.26
Auxiliary Engine	123,066.67	20.37	1.45	123,944.38
Piledriving Hammer	133,164.44	22.04	1.57	134,114.18
End Dump Truck	234,773.33	33.89	2.40	236,228.27
Tugboat	716,666.67	98.89	7.11	720,947.78
Auxiliary Engine	63,111.11	10.78	0.78	63,578.56
Truck-Flatbed	174,186.67	28.83	2.05	175,428.97
Subtotal	1,833,039.11	270.82	19.33	1,844,717.30
DRIVE PILES - MISC ACTIVITIES				
Excavator	307,931.73	44.45	3.14	309,840.04
Loader-Wheel	154,496.00	25.57	1.82	155,597.87
Hydraulic Crane	82,498.84	13.65	0.97	83,087.23
Crane - 150 Ton	181,823.11	26.25	1.86	182,949.90
Subtotal	726,749.69	109.93	7.80	731,475.05
REINFORCED CONCRETE WHARF				
Hydraulic Crane	137,498.07	22.75	1.62	138,478.72
Crane - 150 Ton	303,038.52	43.75	3.09	304,916.50
Crane Barge - 150 ton	303,038.52	43.75	3.09	304,916.50
Auxiliary Engine	112,548.15	19.22	1.39	113,381.76
Concrete Pump	326,915.56	54.10	3.86	329,247.13
Concrete Trucks	1,618,800.00	233.70	16.53	1,628,832.00
Sandblaster w/air compressor	78,888.89	14.86	1.07	79,532.50
Truck-Flatbed	290,311.11	48.04	3.42	292,381.62
Tugboat	1,194,444.44	164.81	11.85	1,201,579.63
Auxiliary Engine	105,185.19	17.96	1.30	105,964.26
Concrete Saw	7,362.96	1.39	0.10	7,423.03
Truck Crane - 65 ton	383,925.93	55.43	3.92	386,305.19
Boom Truck	368,148.15	53.15	3.76	370,429.63
Subtotal	2,428,266.67	355.64	25.42	2,443,615.86

Table A.1.1-AIt1-236. Total Construction GHG Emissions - Basin Fill and Surcharge West - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CUTTER SUCTION DREDGING- Spill Barge (no booster)				
Cutter Suction Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Work Tug	1,881,250.00	259.58	18.67	1,892,487.92
Auxiliary Engine	333,587.30	55.21	3.93	335,966.46
Derrick Barge	569,893.33	84.28	6.02	573,529.41
Auxiliary Engine	222,391.53	36.80	2.62	223,977.64
Spill Barge	132,533.33	19.13	1.35	133,354.67
Auxiliary Engine	55,597.88	10.47	0.75	56,051.48
Crew/Survey Boat	301,000.00	41.53	2.99	302,798.07
Auxiliary Engine	88,956.61	15.19	1.10	89,615.49
Subtotal	3,585,210.00	522.21	37.43	3,607,781.13
CUTTER SUCTION DREDGING- Land Disposal (no booster)				
Cutter Suction Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Work Tug	1,881,250.00	259.58	18.67	1,892,487.92
Auxiliary Engine	333,587.30	55.21	3.93	335,966.46
Derrick Barge	569,893.33	84.28	6.02	573,529.41
Auxiliary Engine	222,391.53	36.80	2.62	223,977.64
Hydra-crane	123,476.89	20.43	1.46	124,357.53
Dozer	1,208,704.00	174.50	12.34	1,216,194.56
Crew/Survey Boat	301,000.00	41.53	2.99	302,798.07
Auxiliary Engine	88,956.61	15.19	1.10	89,615.49
Subtotal	4,729,259.67	687.53	49.13	4,758,927.08
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	315,134.81	45.49	3.22	317,087.76
Subtotal	315,134.81	45.49	3.22	317,087.76

Table A.1.1-AIt1-237. Total Construction GHG Emissions - Settlement Period - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROLL SURCHARGE				
Scrapers	5,611,840.00	810.16	57.30	5,646,617.60
Dozers	665,106.96	96.02	6.79	669,228.75
Loader	632,289.19	104.64	7.46	636,798.70
End Dump Truck	2,034,702.22	293.74	20.78	2,047,311.64
Water Truck	339,117.04	48.96	3.46	341,218.61
Subtotal	9,283,055.41	1,353.52	95.79	9,341,175.30

Table A.1.1-AIt1-238. Total Emissions - POLB - MHTP -Alternative 1 - Phase 2 - Stage 2.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Construction				
Building Construction	4,665,985	723	51	4,697,092
Dredge and Excavate Quay Wall				
Clamshell Dredging	10,177,311	1,448	104	10,239,865
Demo Existing F8-10 Wharf				
Wharf Demolition Landside	2,154,779	319	23	2,168,463
Wharf Demolition Marine	3,226,223	478	34	3,246,792
Construct Wharf, Armor, Fill				
Land Ex	1,857,251	272	19	1,868,942
Rock Placement, Push Off & Tub & Orange Peels	7,075,289	996	71	7,118,346
Retaining Bulkhead Construction	952,338	144	10	958,528
Drive 24-In Octagonal Piles - Land	1,615,430	243	17	1,625,866
Drive 24-In Octagonal Piles - Water	1,833,039	271	19	1,844,717
Drive Piles - Misc Activities	726,750	110	8	731,475
Reinforced Concrete Wharf	2,428,267	356	25	2,443,616
Basin Fill and Surcharge West				
Cutter Suction Dredging- Spill Barge (No Booster)	3,585,210	522	37	3,607,781
Cutter Suction Dredging- Land Disposal (No Booster)	4,729,260	688	49	4,758,927
Wick Drains	315,135	45	3	317,088
Settlement Period				
Roll Surcharge	9,283,055	1,354	96	9,341,175
Other Emissions				
Fugitive Dust	-	-	-	-
Commuter Emissions	0	6	1	301.92
Total Emissions	54,625,321	7,973	568	54,968,975

Table A.1.1-AIt1-239. Total Construction GHG Emissions - Remove Surcharge - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROLL SURCHARGE				
Scrapers	2,805,920.00	405.08	28.65	2,823,308.80
Dozers	332,553.48	48.01	3.40	334,614.38
Loader	316,144.59	52.32	3.73	318,399.35
End Dump Truck	1,017,351.11	146.87	10.39	1,023,655.82
Water Truck	169,558.52	24.48	1.73	170,609.30
Subtotal	4,641,527.70	676.76	47.90	4,670,587.65

Table A.1.1-AIt1-240. Total Construction GHG Emissions - CY Development - POLB - MHTP - Alternative 1.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	357,629.63	51.63	3.65	359,845.93
Auger	149,012.35	24.66	1.76	150,075.11
Crane	133,276.64	22.06	1.57	134,227.18
Grader	938,062.52	155.24	11.07	944,752.82
End Dump Truck	443,460.74	64.02	4.53	446,208.95
Flat Bed Truck	658,038.52	108.90	7.76	662,731.68
Concrete Truck	1,430,518.52	236.74	16.87	1,440,721.04
Front End Loader	1,297,003.46	187.24	13.24	1,305,041.22
Trencher	238,419.75	39.46	2.81	240,120.17
Subtotal	5,645,422.12	889.95	63.27	5,683,724.09
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	236,297.82	39.11	2.79	237,983.10
Grader	312,687.51	51.75	3.69	314,917.61
Roller	540,020.74	89.37	6.37	543,872.19
Vibration Roller	550,749.63	91.15	6.50	554,677.60
Water Truck	250,340.74	41.43	2.95	252,126.18
Road Sweeper	226,498.77	37.48	2.67	228,114.16
Subtotal	2,116,595.20	350.28	24.97	2,131,690.85
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	329,019.26	54.45	3.88	331,365.84
Truck Crane	133,276.64	22.06	1.57	134,227.18
Auger	149,012.35	24.66	1.76	150,075.11
Subtotal	611,308.25	101.17	7.21	615,668.12

Table A.1.1-AIt1-241. Total Emissions - POLB - MHTP - Alternative 1 - Phase 2 - Stage 3.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Remove Surcharge				
Roll Surcharge	4,641,528	677	48	4,670,588
CY Development				
New Container Yard Utilities	5,645,422	890	63	5,683,724
New Container Yard Construction - Paving	2,116,595	350	25	2,131,691
New Container Yard Construction - Electrical	611,308	101	7	615,668
Other Emissions				
Fugitive Dust	-	-	-	-
Commuter Emissions	0	4	0	213.42
Total Emissions	13,014,854	2,022	144	13,101,884

This page intentionally left blank.

Table A.1.1-Alt2-143. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-144. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-145. Activity Data - Excavation Fronting E24 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-146. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-147. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-148. Activity Data - Utility Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-149. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-150. Activity Data - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-151. Activity Data - Prepare for Toe Dike / Construct Dike (1st Lift)- POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-152. Activity Data - Fill within Dike - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-153. Activity Data - Remaining Dike Lifts - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-154. Activity Data - Remaining Fill Lifts - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-155. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-156. Activity Data - Construct South Mooring Dolphin - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-157. Activity Data - Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-158. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-159. Activity Data - Utility Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-160. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-161. Activity Data - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-162. Activity Data - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-163. Activity Data - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-164. Activity Data - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-165. Activity Data - Remove Cellular Sheetpile - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-166. Activity Data - Rock Revetment - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-167. Activity Data - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-168. Activity Data - Ground Improvements Pier D - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-169. Activity Data - Demo - E12-13 Wharf - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-170. Activity Data - Lift #1 (~ -30) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-171. Activity Data - Lift #2 (~ -15) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-172. Activity Data - Lift #3 (~ 0) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-173. Activity Data - Lift #4 (~ +15) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-174. Activity Data - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-175. Activity Data - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-176. Activity Data - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-177. Activity Data - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-178. Activity Data - Remove Surcharge - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-179. Activity Data - Container Yard Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-180. Activity Data - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-181. Activity Data - Electrical Substation Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-182. Activity Data - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-183. Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-184. Total Construction GHG Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-185. Total Construction GHG Emissions - Excavation Fronting E24 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-186. Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-187. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-188. Total Construction GHG Emissions - Utility Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-189. Total Construction GHG Emissions - Paving - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-190. Total Construction GHG Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-191. Total Construction GHG Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-192. Total Construction GHG Emissions - Fill within Dike - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-193. Total Construction GHG Emissions - Remaining Dike Lifts - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-194. Total Construction GHG Emissions - Remaining Fill Lifts - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-195. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-196. Total Construction GHG Emissions - Construct South Mooring Dolphin - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-197. Total Construction GHG Emissions - Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-198. Total Construction GHG Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-199. Total Construction GHG Emissions - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-200. Total Construction GHG Emissions - Utility Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-201. Total Construction GHG Emissions - Paving - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-202. Total Construction GHG Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-203. Total Construction GHG Emissions - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-204. Total Construction GHG Emissions - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-205. Total Construction GHG Emissions - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-206. Total Construction GHG Emissions - Remove Cellular Sheetpile - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-207. Total Construction GHG Emissions - Rock Revetment - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-208. Total Construction GHG Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-209. Total Construction GHG Emissions - Ground Improvements Pier D - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-210. Total Construction GHG Emissions - Demo - E12-13 Wharf - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-211. Total Construction GHG Emissions - Lift #1 (~ -30) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-212. Total Construction GHG Emissions - Lift #2 (~ -15) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-213. Total Construction GHG Emissions - Lift #3 (~ 0) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-214. Total Construction GHG Emissions - Lift #4 (~ +15) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-215. Total Construction GHG Emissions - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-216. Total Construction GHG Emissions - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-217. Total Construction GHG Emissions - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-218. Total Construction GHG Emissions - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-219. Total Construction GHG Emissions - Remove Surcharge - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-220. Total Construction GHG Emissions - Container Yard Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-221. Total Construction GHG Emissions - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-222. Total Construction GHG Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-223. Total Construction GHG Emissions - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-224. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (1 of 3).

Table A.1.1-Alt2-224. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (2 of 3).

Table A.1.1-Alt2-224. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (3 of 3).

Table A.1.1-Alt2-225. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-226. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-227. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-228. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-229. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-230. Activity Data - CY Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-231. Activity Data - Dredge to -55 ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-232. Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-233. Total Construction GHG Emissions - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-234. Total Construction GHG Emissions - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-235. Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-236. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-237. Total Construction GHG Emissions - CY Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-238. Total Construction GHG Emissions - Dredge to -55 ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-239. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 2.

Table A.1.1-Alt2-240. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-241. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-242. Activity Data - Excavation Fronting E26 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-243. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-244. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-245. Activity Data - Construct E27 Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-246. Activity Data - CY Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-247. Activity Data - Hydraulic Dredge to -55ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-248. Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-249. Total Construction GHG Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-250. Total Construction GHG Emissions - Excavation Fronting E26 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-251. Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-252. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-253. Total Construction GHG Emissions - Construct E27 Bulkhead - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-254. Total Construction GHG Emissions - CY Development - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-255. Total Construction GHG Emissions - Hydraulic Dredge to -55ft - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-256. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 3.

Table A.1.1-Alt2-257. Activity Data - Seaside Railyard Area Redevelopment (not in schedule, added) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-258. Total Construction GHG Emissions - Seaside Railyard Area Redevelopment - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-259. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 4.

Table A.1.1-Alt2-260. Activity Data - Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-261. Total Construction GHG Emissions - Construction - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-262. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 5.

Table A.1.1-Alt2-263. Activity Data - Demolition - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-264. Activity Data - Railyard - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-265. Activity Data - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-266. Activity Data - Demo Existing F1-4, F6 Wharf - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-267. Activity Data - Construct East Basin Retaining Dike - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-268. Activity Data - Slip/Basin Fill & Surcharge East - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-267. Activity Data - Roll Surcharge - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-268. Total Construction GHG Emissions - Demolition - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-269. Total Construction GHG Emissions - Railyard - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-270. Total Construction GHG Emissions - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-271. Total Construction GHG Emissions - Roll Surcharge - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-272. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 2 - Stage 1.

Table A.1.1-Alt2-274. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2. (1 of 2)

Table A.1.1-Alt2-275. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2. (2 of 2)

Table A.1.1-Alt2-276. Total Construction GHG Emissions - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 2.

Table A.1.1-Alt2-277. Total Construction GHG Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2 (1 of 2).

Table A.1.1-Alt2-278. Total Construction GHG Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2 (2 of 2).

Table A.1.1-Alt2-143. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	82	36,670
Excavator	428	0.57	1	244	8	1,952	82	160,038
Flatbed Truck	230	0.60	1	138	8	1,104	82	90,528
End Dump Truck	310	0.60	4	744	8	5,952	82	488,064
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	82	169,042
Auxiliary Engine	200	0.50	1	100	8	800	82	65,600
Work Tug	750	0.40	1	300	8	2,400	82	196,560
Auxiliary Engine	150	0.50	1	75	8	600	82	49,200
Hydra-Crane	130	0.43	1	56	8	447	82	36,626
Excavator	428	0.57	1	244	8	1,952	82	159,843
Flatbed Truck	230	0.60	1	138	8	1,104	82	90,418
End Dump Truck	310	0.60	3	558	8	4,464	82	365,602
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	82	94,382
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	82	171,990
Excavator	428	0.57	1	244	8	1,952	82	159,843
Flatbed Truck	230	0.60	1	138	8	1,104	82	90,418
Welding Machine	26	0.50	1	13	8	104	82	8,518
Generator	13	0.74	1	10	8	77	82	6,303

Table A.1.1-Alt2-144. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	15	17,286
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	15	31,500
Flatbed Truck	230	0.60	1	138	8	1,104	15	16,560
Welding Machine	26	0.45	1	12	8	94	15	1,404
Generator	13	0.74	1	10	8	77	15	1,154

Table A.1.1-AIt2-145. Activity Data - Excavation Fronting E24 - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	70	0
Auxiliary Engine	500	0.00	1	0	24	0	70	0
Bottom Dump Scow	250	0.05	1	13	24	300	70	21,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	70	2,688,000
Auxiliary Engine	400	0.50	1	200	24	4,800	70	336,000
Work Tug	750	0.50	1	375	24	9,000	70	630,000
Auxiliary Engine	150	0.50	1	75	24	1,800	70	126,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	70	201,600
Auxiliary Engine	80	0.50	1	40	24	960	70	67,200
LAND EX								
Excavator	428	0.57	1	244	8	1,952	70	136,618
Loader	170	0.68	1	116	8	925	70	64,736
End Dump Truck	310	0.60	4	744	8	5,952	70	416,640

Table A.1.1-AIt2-146. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	50	103,200
Auxiliary Engine	200	0.50	1	100	8	800	50	40,000
Front End Loader	400	0.68	1	272	8	2,176	50	108,800
Tug Boat	1,500	0.50	1	750	8	6,000	50	300,000
Auxiliary Engine	150	0.50	1	75	8	600	50	30,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	50	800,000
Auxiliary Engine	400	0.50	1	200	8	1,600	50	80,000
Crew/Survey Boat	400	0.30	1	120	8	960	50	48,000
	80	0.50	1	40	8	320	50	16,000

Table A.1.1-AIt2-147. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	39	20,598
Crane - 200 Ton	335	0.43	1	144	8	1,152	39	45,398
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	39	63,818
Piledriving Hammer	211	0.50	1	106	8	844	39	33,248
Loader-Wheel	300	0.68	1	204	8	1,632	39	64,291
Jet Pump	33	0.74	1	24	8	195	39	7,696
End Dump Truck	310	0.60	1	186	8	1,488	39	58,032
Truck-Flatbed	230	0.60	1	138	8	1,104	39	43,056
Truck-Lowboy	350	0.60	1	210	8	1,680	39	65,520
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	45	52,018
Derrick Barge	380	0.43	1	163	8	1,307	45	59,006
Auxiliary Engine	195	0.50	1	98	8	780	45	35,100
Piledriving Hammer	211	0.50	1	106	8	844	45	38,097
End Dump Truck	310	0.60	1	186	8	1,488	45	66,960
Tugboat	1,000	0.50	1	500	8	4,000	45	180,556
Auxiliary Engine	100	0.50	1	50	8	400	45	18,000
Truck-Flatbed	230	0.60	1	138	8	1,104	45	49,680
DRIVE PILES - MISC ACTIVITIES								
Excavator	175	0.57	1	100	8	798	175	139,650
Loader-Wheel	175	0.68	1	119	8	952	175	166,600
Hydraulic Crane	175	0.43	1	75	8	602	175	105,350
Crane - 150 Ton	175	0.43	1	75	8	602	175	105,350
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	175	201,670
Auxiliary Engine	107	0.50	1	54	8	428	175	74,900
Concrete Pump	210	0.74	1	155	8	1,243	175	217,560
Concrete Trucks	285	0.60	4.5	770	8	6,156	175	1,077,300
Sandblaster w/air compressor	50		1	0	8	0	175	0
Truck-Flatbed	230	0.60	1	138	8	1,104	175	193,200
Tugboat	1,000	0.50	1	500	8	4,000	175	700,000
Auxiliary Engine	100	0.50	1	50	8	400	175	70,000
Concrete Saw	35	0.10	1	4	8	28	175	4,900
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	175	255,500
Boom Truck	350	0.50	1	175	8	1,400	175	245,000
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	88	100,835
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	88	183,750
Flatbed Truck	230	0.60	1	138	8	1,104	88	96,600
Welding Machine	26	0.45	1	12	8	94	88	8,190
Generator	13	0.74	1	10	8	77	88	6,734

Table A.1.1-Alt2-148. Activity Data - Utility Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	30	36,000
Auger	125	0.50	1	63	8	500	30	15,000
Crane	130	0.43	1	56	8	447	30	13,416
Grader	215	0.61	3	393	8	3,148	30	94,428
End Dump Truck	310	0.60	1	186	8	1,488	30	44,640
Flat Bed Truck	230	0.60	2	276	8	2,208	30	66,240
Concrete Truck	250	1	4	600	8	4,800	30	144,000
Front End Loader	400	0.68	2	544	8	4,352	30	130,560
Trencher	200	0.50	1	100	8	800	30	24,000

Table A.1.1-Alt2-149. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	20	15,858
Grader	215	0.61	1	131	8	1,049	20	20,984
Roller	151	0.50	3	227	8	1,812	20	36,240
Vibration Roller	154	0.50	3	231	8	1,848	20	36,960
Water Truck	210	0.50	1	105	8	840	20	16,800
Road Sweeper	190	0.50	1	95	8	760	20	15,200

Table A.1.1-Alt2-150. Activity Data - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	30	33,120
Truck Crane	130	0.43	1	56	8	447	30	13,416
Auger	125	0.50	1	63	8	500	30	15,000

Table A.1.1-AIt2-151. Activity Data - Prepare for Toe Dike / Construct Dike (1st Lift)- POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,500	0.50	1	750	8	6,000	60	360,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	60	960,000
Auxiliary Engine	400	0.50	1	200	8	1,600	60	96,000
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
Auxiliary Engine	80	0.50	1	40	8	320	60	19,200

Table A.1.1-AIt2-152. Activity Data - Fill within Dike - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	18	0
Auxiliary Engine	500	0.00	1	0	24	0	18	0
Bottom Dump Scow	250	0.05	1	13	24	300	18	5,400
Tug Boat	4,000	0.40	1	1,600	24	38,400	18	691,200
Auxiliary Engine	400	0.50	1	200	24	4,800	18	86,400
Work Tug	750	0.50	1	375	24	9,000	18	162,000
Auxiliary Engine	150	0.50	1	75	24	1,800	18	32,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	18	51,840
Auxiliary Engine	80	0.50	1	40	24	960	18	17,280

Table A.1.1-AIt2-153. Activity Data - Remaining Dike Lifts - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,500	0.50	1	750	8	6,000	60	360,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	60	960,000
Auxiliary Engine	400	0.50	1	200	8	1,600	60	96,000
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
Auxiliary Engine	80	0.50	1	40	8	320	60	19,200

Table A.1.1-AIt2-154. Activity Data - Remaining Fill Lifts - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	60	0
Auxiliary Engine	500	0.00	1	0	24	0	60	0
Bottom Dump Scow	250	0.05	1	13	24	300	60	18,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	60	2,304,000
Auxiliary Engine	400	0.50	1	200	24	4,800	60	288,000
Work Tug	750	0.50	1	375	24	9,000	60	540,000
Auxiliary Engine	150	0.50	1	75	24	1,800	60	108,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	60	172,800
Auxiliary Engine	80	0.50	1	40	24	960	60	57,600

Table A.1.1-AIt2-155. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	33	17,429
Crane - 200 Ton	335	0.43	1	144	8	1,152	33	38,413
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	33	54,000
Piledriving Hammer	211	0.50	1	106	8	844	33	28,133
Loader-Wheel	300	0.68	1	204	8	1,632	33	54,400
Jet Pump	33	0.74	1	24	8	195	33	6,512
End Dump Truck	310	0.60	1	186	8	1,488	33	49,104
Truck-Flatbed	230	0.60	1	138	8	1,104	33	36,432
Truck-Lowboy	350	0.60	1	210	8	1,680	33	55,440
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	38	44,015
Derrick Barge	380	0.43	1	163	8	1,307	38	49,928
Auxiliary Engine	195	0.50	1	98	8	780	38	29,640
Piledriving Hammer	211	0.50	1	106	8	844	38	32,236
End Dump Truck	310	0.60	1	186	8	1,488	38	56,544
Tugboat	1,000	0.50	1	500	8	4,000	38	152,778
Auxiliary Engine	100	0.50	1	50	8	400	38	15,200
Truck-Flatbed	230	0.60	1	138	8	1,104	38	41,952
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	126	245,912
Loader-Wheel	180	0.68	1	122	8	979	126	123,379
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	126	145,202
Auxiliary Engine	107	0.50	1	54	8	428	126	53,928
Concrete Pump	210	0.74	1	155	8	1,243	126	156,643
Concrete Trucks	285	0.60	5	770	8	6,156	126	775,656
Sandblaster w/air compressor	50	0.75	1	38	8	300	126	37,800
Truck-Flatbed	230	0.60	1	138	8	1,104	126	139,104
Tugboat	1,000	0.50	1	500	8	4,000	126	504,000
Auxiliary Engine	100	0.50	1	50	8	400	126	50,400
Concrete Saw	35	0.10	1	4	8	28	126	3,528
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	126	183,960
Boom Truck	350	0.50	1	175	8	1,400	126	176,400
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	38	43,561
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	38	79,380
Flatbed Truck	230	0.60	1	138	8	1,104	38	41,731
Welding Machine	26	0.45	1	12	8	94	38	3,538
Generator	13	0.74	1	10	8	77	38	2,909

Table A.1.1-Alt2-156. Activity Data - Construct South Mooring Dolphin - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	6	6,453
Derrick Barge	380	0.43	1	163	8	1,307	6	7,320
Auxiliary Engine	195	0.50	1	98	8	780	6	4,680
Piledriving Hammer	211	0.50	1	106	8	844	6	4,726
End Dump Truck	310	0.60	1	186	8	1,488	6	8,928
Tugboat	1,000	0.50	1	500	8	4,000	6	22,400
Auxiliary Engine	100	0.50	1	50	8	400	6	2,400
Truck-Flatbed	230	0.60	1	138	8	1,104	6	6,624

Table A.1.1-Alt2-157. Activity Data - Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	9	9,245
195 Surcharge (Initial Pump, Plus Clamshell or Truck)								
<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	8	196,992
Dozers	285	0.64	2	365	8	2,918	8	23,347
Loader	170	0.68	3	347	8	2,774	8	22,195
End Dump Truck	310	0.60	6	1,116	8	8,928	8	71,424
Water Truck	310	0.60	1	186	8	1,488	8	11,904

Table A.1.1-Alt2-158. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	4	98,496
Dozers	285	0.64	2	365	8	2,918	4	11,674
Loader	170	0.68	3	347	8	2,774	4	11,098
End Dump Truck	310	0.60	6	1,116	8	8,928	4	35,712
Water Truck	310	0.60	1	186	8	1,488	4	5,952

Table A.1.1-AIt2-159. Activity Data - Utility Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	60	72,000
Auger	125	0.50	1	63	8	500	60	30,000
Crane	130	0.43	1	56	8	447	60	26,832
Grader	215	0.61	3	393	8	3,148	60	188,856
End Dump Truck	310	0.60	1	186	8	1,488	60	89,280
Flat Bed Truck	230	0.60	2	276	8	2,208	60	132,480
Concrete Truck	250	0.60	4	600	8	4,800	60	288,000
Front End Loader	400	0.68	2	544	8	4,352	60	261,120
Trencher	200	0.50	1	100	8	800	60	48,000

Table A.1.1-AIt2-160. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	60	47,573
Grader	215	0.61	1	131	8	1,049	60	62,952
Roller	151	0.50	3	227	8	1,812	60	108,720
Vibration Roller	154	0.50	3	231	8	1,848	60	110,880
Water Truck	210	0.50	1	105	8	840	60	50,400
Road Sweeper	190	0.50	1	95	8	760	60	45,600

Table A.1.1-AIt2-161. Activity Data - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	60	66,240
Truck Crane	130	0.43	1	56	8	447	60	26,832
Auger	125	0.50	1	63	8	500	60	30,000

Table A.1.1-AIt2-162. Activity Data - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	16	18,876
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	16	34,398
Flatbed Truck	230	0.60	1	138	8	1,104	16	18,084
Welding Machine	26	0.45	1	12	8	94	16	1,533
Generator	13	0.74	1	10	8	77	16	1,261

Table A.1.1-AIt2-163. Activity Data - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	24	46,840
Loader	170	0.68	1	116	8	925	24	22,195
End Dump Truck	310	0.60	4	744	8	5,952	24	142,848

Table A.1.1-AIt2-164. Activity Data - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	39	76,116
Loader	170	0.68	1	116	8	925	39	36,067
End Dump Truck	310	0.60	4	744	8	5,952	39	232,128
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	65	0
Auxiliary Engine	500	0.00	1	0	24	0	65	0
Bottom Dump Scow	250	0.05	1	13	24	300	65	19,500
Tug Boat	4,000	0.40	1	1,600	24	38,400	65	2,496,000
Auxiliary Engine	400	0.50	1	200	24	4,800	65	312,000
Work Tug	750	0.50	1	375	24	9,000	65	585,000
Auxiliary Engine	150	0.50	1	75	24	1,800	65	117,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	65	187,200
Auxiliary Engine	80	0.50	1	40	24	960	65	62,400

Table A.1.1-AIt2-165. Activity Data - Remove Cellular Sheetpile - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	65	74,906
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	65	136,500
Excavator	428	0.57	1	244	8	1,952	65	126,859
Flatbed Truck	230	0.60	1	138	8	1,104	65	71,760
Welding Machine	26	0.50	1	13	8	104	65	6,760
Generator	13	0.74	1	10	8	77	65	5,002

Table A.1.1-AIt2-166. Activity Data - Rock Revetment - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	48	99,072
Auxiliary Engine	200	0.50	1	100	8	800	48	38,400
Front End Loader	400	0.68	1	272	8	2,176	48	104,448
Tug Boat	1,500	0.50	1	750	8	6,000	48	288,000
Auxiliary Engine	150	0.50	1	75	8	600	48	28,800
Tug Boat	4,000	0.50	1	2,000	8	16,000	48	768,000
Auxiliary Engine	400	0.50	1	200	8	1,600	48	76,800
Crew/Survey Boat	400	0.30	1	120	8	960	48	46,080
Auxiliary Engine	80	0.50	1	40	8	320	48	15,360

Table A.1.1-AIt2-167. Activity Data - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	18	0
Auxiliary Engine	500	0.00	1	0	24	0	18	0
Bottom Dump Scow	250	0.05	1	13	24	300	18	5,400
Tug Boat	4,000	0.40	1	1,600	24	38,400	18	691,200
Auxiliary Engine	400	0.50	1	200	24	4,800	18	86,400
Work Tug	750	0.50	1	375	24	9,000	18	162,000
Auxiliary Engine	150	0.50	1	75	24	1,800	18	32,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	18	51,840
Auxiliary Engine	80	0.50	1	40	24	960	18	17,280

Table A.1.1-AIt2-168. Activity Data - Ground Improvements Pier D - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
STONE COLUMN INSTALLATION EQ								
Stone Column Crane - 100 Ton	335	0.43	3	432	8	3,457	68	234,168
Vibratory Probe & Power Pack	350	0.75	3	788	8	6,300	68	426,720
Auger Crane - 100 Ton	335	0.43	1	144	8	1,152	68	78,056
Auger & Hydraulic Power Pack	350	0.75	1	263	8	2,100	68	142,240
Welding Machine	26	0.50	1	13	8	104	68	7,044
Generator	13	0.74	1	10	8	77	68	5,213
Excavator	428	0.57	1	244	8	1,952	68	132,194
Loader	170	0.68	4	462	8	3,699	68	250,559
End Dump Truck	310	0.60	4	744	8	5,952	68	403,149
MARINE ROCK DELIVERY EQ								
Derrick Barge	800	0.43	1	344	8	2,752	34	93,201
Front End Loader	400	0.68	1	272	8	2,176	34	73,694
Tug Boat	1,650	0.50	1	825	8	6,600	34	223,520
Tug Boat	4,400	0.50	1	2,200	8	17,600	34	596,053

Table A.1.1-Alt2-169. Activity Data - Demo - E12-13 Wharf - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	109	48,834
Excavator	428	0.57	1	244	8	1,952	109	213,123
Flatbed Truck	230	0.60	1	138	8	1,104	109	120,557
End Dump Truck	310	0.60	4	744	8	5,952	109	649,958
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	109	225,389
Auxiliary Engine	200	0.50	1	100	8	800	109	87,200
Work Tug	750	0.40	1	300	8	2,400	109	262,080
Auxiliary Engine	150	0.50	1	75	8	600	109	65,400
Hydra-Crane	130	0.43	1	56	8	447	109	48,834
Excavator	428	0.57	1	244	8	1,952	109	213,123
Flatbed Truck	230	0.60	1	138	8	1,104	109	120,557
End Dump Truck	310	0.60	3	558	8	4,464	109	487,469

Table A.1.1-Alt2-170. Activity Data - Lift #1 (~ -30) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	27	55,728
Auxiliary Engine	200	0.50	1	100	8	800	27	21,600
Front End Loader	400	0.68	1	272	8	2,176	27	58,752
Tug Boat	1,500	0.50	1	750	8	6,000	27	162,000
Auxiliary Engine	150	0.50	1	75	8	600	27	16,200
Tug Boat	4,000	0.50	1	2,000	8	16,000	27	432,000
Auxiliary Engine	400	0.50	1	200	8	1,600	27	43,200
Crew/Survey Boat	400	0.30	1	120	8	960	27	25,920
	80	0.50	1	40	8	320	27	8,640

Table A.1.1-Alt2-171. Activity Data - Lift #2 (~ -15) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	16	33,024
Auxiliary Engine	200	0.50	1	100	8	800	16	12,800
Front End Loader	400	0.68	1	272	8	2,176	16	34,816
Tug Boat	1,500	0.50	1	750	8	6,000	16	96,000
Auxiliary Engine	150	0.50	1	75	8	600	16	9,600
Tug Boat	4,000	0.50	1	2,000	8	16,000	16	256,000
Auxiliary Engine	400	0.50	1	200	8	1,600	16	25,600
Crew/Survey Boat	400	0.30	1	120	8	960	16	15,360
Auxiliary Engine	80	0.50	1	40	8	320	16	5,120

Table A.1.1-AIt2-172. Activity Data - Lift #3 (- 0) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	14	28,896
Auxiliary Engine	200	0.50	1	100	8	800	14	11,200
Front End Loader	400	0.68	1	272	8	2,176	14	30,464
Tug Boat	1,500	0.50	1	750	8	6,000	14	84,000
Auxiliary Engine	150	0.50	1	75	8	600	14	8,400
Tug Boat	4,000	0.50	1	2,000	8	16,000	14	224,000
Auxiliary Engine	400	0.50	1	200	8	1,600	14	22,400
Crew/Survey Boat	400	0.30	1	120	8	960	14	13,440
Auxiliary Engine	80	0.50	1	40	8	320	14	4,480

Table A.1.1-AIt2-173. Activity Data - Lift #4 (- +15) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	12	24,768
Auxiliary Engine	200	0.50	1	100	8	800	12	9,600
Front End Loader	400	0.68	1	272	8	2,176	12	26,112
Tug Boat	1,500	0.50	1	750	8	6,000	12	72,000
Auxiliary Engine	150	0.50	1	75	8	600	12	7,200
Tug Boat	4,000	0.50	1	2,000	8	16,000	12	192,000
Auxiliary Engine	400	0.50	1	200	8	1,600	12	19,200
Crew/Survey Boat	400	0.30	1	120	8	960	12	11,520
Auxiliary Engine	80	0.50	1	40	8	320	12	3,840

Table A.1.1-AIt2-174. Activity Data - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	12	12,326
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	12	295,488
Dozers	285	0.64	2	365	8	2,918	12	35,021
Loader	170	0.68	3	347	8	2,774	12	33,293
End Dump Truck	310	0.60	6	1,116	8	8,928	12	107,136
Water Truck	310	0.60	1	186	8	1,488	12	17,856

Table A.1.1-AIt2-175. Activity Data - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	30	30,816
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	18	443,232
Dozers	285	0.64	2	365	8	2,918	18	52,531
Loader	170	0.68	3	347	8	2,774	18	49,939
End Dump Truck	310	0.60	6	1,116	8	8,928	18	160,704
Water Truck	310	0.60	1	186	8	1,488	18	26,784

Table A.1.1-AIt2-176. Activity Data - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	30	30,816
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	24	590,976
Dozers	285	0.64	2	365	8	2,918	24	70,042
Loader	170	0.68	3	347	8	2,774	24	66,586
End Dump Truck	310	0.60	6	1,116	8	8,928	24	214,272
Water Truck	310	0.60	1	186	8	1,488	24	35,712

Table A.1.1-AIt2-177. Activity Data - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	27	27,734
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	45	1,108,080
Dozers	285	0.64	2	365	8	2,918	45	131,328
Loader	170	0.68	3	347	8	2,774	45	124,848
End Dump Truck	310	0.60	6	1,116	8	8,928	45	401,760
Water Truck	310	0.60	1	186	8	1,488	45	66,960

Table A.1.1-AIt2-178. Activity Data - Remove Surcharge - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	36	886,464
Dozers	285	0.64	2	365	8	2,918	36	105,062
Loader	170	0.68	3	347	8	2,774	36	99,878
End Dump Truck	310	0.60	6	1,116	8	8,928	36	321,408
Water Truck	310	0.60	1	186	8	1,488	36	53,568

Table A.1.1-AIt2-179. Activity Data - Container Yard Development - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	223	267,120
Auger	125	0.50	1	63	8	500	223	111,300
Crane	130	0.43	1	56	8	447	223	99,547
Grader	215	0.61	3	393	8	3,148	223	700,656
End Dump Truck	310	0.60	1	186	8	1,488	223	331,229
Flat Bed Truck	230	0.60	2	276	8	2,208	223	491,501
Concrete Truck	250	1	4	600	8	4,800	223	1,070,400
Front End Loader	400	0.68	2	544	8	4,352	223	968,755
Trencher	200	0.50	1	100	8	800	223	178,080
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	223	176,495
Grader	215	0.61	1	131	8	1,049	223	233,552
Roller	151	0.50	3	227	8	1,812	223	403,351
Vibration Roller	154	0.50	3	231	8	1,848	223	411,365
Water Truck	210	0.50	1	105	8	840	223	186,984
Road Sweeper	190	0.50	1	95	8	760	223	169,176
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	223	245,750
Truck Crane	130	0.43	1	56	8	447	223	99,547
Auger	125	0.50	1	63	8	500	223	111,300

Table A.1.1-AIt2-180. Activity Data - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
TRIPLE TRACK INSTALLATION DEMO EQ								
Track hoe with breaker and bucket (demo)	428	0.57	1	244	8	1,952	2	3,903
Front end loader	170	0.68	1	116	8	925	7	6,474
Backhoe or skiploader (as needed)	335			0		0	3	0
12 or 14 H Blade	350			0		0	7	0
Sheepsfoot vibratory roller	26			0		0	2	0
Water truck	13			0		0	7	0
Haul off dump trucks for spoil	310	0.60		0		0	4	0
TRIPLE TRACK UTILITY RELOCATION EQ								
Front end loader	170	0.68	1	116	8	925		0
Backhoe				0		0	14	0
Trench vibratory roller or jumping jack				0		0	14	0
Water truck				0		0	14	0
Haul off dump trucks for spoil	310	0.60		0		0	7	0
Concrete trucks				0		0	7	0
TRIPLE TRACK GRADING EQ								
Haul in dump trucks for subballast material	310	0.60		0		0	5	0
966 (or equivalent) Front end loader	170	0.68	1	116	8	925	5	4,624
Backhoe or skiploader (as needed)				0		0	2	0
12 or 14 G Blade	1,500			0		0	5	0
Auxiliary Engine	150			0		0		
Smooth drum vibratory roller	4,000			0		0	5	0
Auxiliary Engine	400			0		0		
Water truck				0		0	5	0
TRIPLE TRACK RETAINING WALL EQ								
Backhoe				0		0	15	0
Trench vibratory roller or jumping jack				0		0	7	0
Water truck				0		0	15	0
Extendable forklift				0		0	7	0
Concrete trucks if CIP walls				0		0	4	0
Form Truck				0		0	7	0
TRIPLE TRACK TRACKWORK EQ								
Ballast delivery dump trucks	310	0.60		0		0	96	0
Smooth drum vibratory roller				0		0	7	0
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	170	0.68	1	116	8	925	96	88,781
Swingmaster or Speedswing loader for rail handling				0		0	96	0
Ballast cars for initial and final ballast placement				0		0	14	0
16 head vibratory Tamper with full electronics for alignment and grade				0		0	96	0
Ballast regulator				0		0	96	0
Water truck				0		0	96	0
Rail vibrator				0		0	7	0
TRIPLE TRACK MISCELLANEOUS EQ								
Mechanic's truck				0		0	96	0
Tool truck with small hydraulic hand tools				0		0	96	0
Welding truck with hydraulic equipment				0		0	96	0
Fuel truck				0		0	33	0
Working Pickups				0		0	96	0
Generator	13	0.74		0		0	33	0

Table A.1.1-AIt2-181. Activity Data - Electrical Substation Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
Grading								
Water Trucks (Gasoline)	210	0.50	2	210	8	1,680	40	67,200
Truck for Soil Test Inspector (Gasoline)	210	0.50	1	105	8	840	40	33,600
980 Loader	318	0.50	1	159	8	1,272	40	50,880
Grader	215	0.61	1	131	8	1,049	40	41,968
Vibratory Compactor	130	0.61	1	79	6	476	20	9,516
Survey								
Survey Trucks (Gasoline)	210	0.50	2	210	8	1,680	45	75,600
Civil								
Crew Trucks	210	0.50	2	210	4	840	50	42,000
Dump Trucks	310	0.60	2	372	3	1,116	50	55,800
Stake Bed Truck (5-ton)	210	0.50	1	105	2	210	50	10,500
Trencher	200	0.50	1	100	8	800	30	24,000
Drill Rig	125	0.50	1	63	8	500	10	5,000
Tractor	210	0.50	1	105	7	735	50	36,750
Forklift	103	0.30	1	31	4	124	50	6,180
Electrical								
8-Ton Stake Truck	210	0.50	1	105	4	420	80	33,600
Crew Cab Trucks	210	0.50	2	210	6	1,260	80	100,800
Carryall Vehicles (Gasoline)	210	0.50	2	210	6	1,260	80	100,800
Cranes	130	0.43	2	112	4	447	80	35,776
Lift Truck	210	0.50	1	105	4	420	80	33,600
Pickups	210	0.50	2	210	4	840	80	67,200
Forklift	103	0.30	1	31	6	185	80	14,832
Manlifts	210	0.50	2	210	8	1,680	80	134,400
Support Trucks	210	0.50	2	210	4	840	80	67,200
Transformer Setup								
Carryall Vehicle (Gasoline)	210	0.50	1	105	2	210	20	4,200
Crew Truck	210	0.50	1	105	2	210	20	4,200
Crane	130	0.43	1	56	6	335	20	6,708
Forklift	103	0.30	1	31	6	185	20	3,708
Low Bed Truck	210	0.50	1	105	4	420	20	8,400
Test								
Test Truck	210	0.50	1	105	4	420	40	16,800
Paving								
Foreman Truck	210	0.50	1	105	6	630	5	3,150
2 Dump Trucks	310	0.60	2	372	6	2,232	5	11,160
2 Skip Loaders	170	0.68	2	231	6	1,387	5	6,936
Barbergreen	150	0.50	1	75	8	600	2	1,200
Fence Installation								
Foreman Truck	210	0.50	1	105	4	420	4	1,680
Crewcab	230	0.60	1	138	4	552	4	2,208
Bobcat (Gasoline)	100	0.50	1	50	8	400	4	1,600
3-Ton Flatbed Truck	230	0.60	1	138	2	276	2	552

Table A.1.1-AIt2-182. Activity Data - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
Installation of 160 LWS poles and removal of wood poles								
Heavy Line Truck	300	0.50	1	150	4	600	60	36,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	60	25,200
Light Material Truck	210	0.50	1	105	4	420	60	25,200
75' Bucket Truck	210	0.50	1	105	4	420	60	25,200
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	60	25,200
Wire Replacement/Attachment and Termination								
Heavy Line Truck	300	0.50	1	150	4	600	90	54,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	90	37,800
Light Material Truck	210	0.50	1	105	4	420	90	37,800
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	90	37,800
Final Connection of New Lines								
Heavy Line Truck	300	0.50	1	150	4	600	2	1,200
Carry-All (Gasoline)	210	0.50	1	105	4	420	2	840
Light Material Truck	210	0.50	1	105	4	420	2	840
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	2	840

Table A.1.1-Alt2-183. Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	45,918.84	7.60	0.54	46,246.34
Excavator	200,400.02	28.93	2.05	201,641.93
Flatbed Truck	113,359.58	18.76	1.34	114,168.06
End Dump Truck	611,155.98	88.23	6.24	614,943.42
Subtotal	970,834.42	143.52	10.17	976,999.76
WHARF DEMOLITION MARINE				
Derrick Barge	211,674.67	31.30	2.24	213,025.21
Auxiliary Engine	82,144.62	13.59	0.97	82,730.48
Work Tug	279,500.00	38.57	2.77	281,169.63
Auxiliary Engine	61,608.47	10.20	0.73	62,047.86
Hydra-Crane	45,862.84	7.59	0.54	46,189.94
Excavator	200,155.63	28.90	2.04	201,396.03
Flatbed Truck	113,221.33	18.74	1.34	114,028.83
End Dump Truck	457,808.00	66.09	4.67	460,645.12
Subtotal	1,451,975.56	214.98	15.30	1,461,233.10
SHEET PILE BULKHEAD DEMOLITION				
Crane - 100 Ton	118,185.02	17.06	1.21	118,917.44
Vibratory Hammer & Power Pack	215,366.67	31.09	2.20	216,701.33
Excavator	200,155.63	28.90	2.04	201,396.03
Flatbed Truck	113,221.33	18.74	1.34	114,028.83
Welding Machine	10,665.78	2.01	0.14	10,752.79
Generator	7,892.68	1.49	0.11	7,957.07
Subtotal	665,487.10	99.28	7.04	669,753.49

Table A.1.1-Alt2-184. Total Construction GHG Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	21,645.61	3.12	0.22	21,779.75
Vibratory Hammer & Power Pack	39,444.44	5.69	0.40	39,688.89
Flatbed Truck	20,736.51	3.43	0.24	20,884.40
Welding Machine	1,758.10	0.33	0.02	1,772.44
Generator	1,445.54	0.27	0.02	1,457.34
Subtotal	85,030.20	12.85	0.91	85,582.82

Table A.1.1-Alt2-185. Total Construction GHG Emissions - Excavation Fronting E24 - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	26,296.30	4.35	0.31	26,483.84
Tug Boat	3,822,222.22	527.41	37.93	3,845,054.81
Auxiliary Engine	420,740.74	60.74	4.30	423,348.15
Work Tug	895,833.33	123.61	8.89	901,184.72
Auxiliary Engine	157,777.78	26.11	1.86	158,903.06
Crew/Survey Boat	286,666.67	39.56	2.84	288,379.11
Auxiliary Engine	84,148.15	14.37	1.04	84,771.41
Subtotal	5,693,685.19	796.15	57.16	5,728,125.10
LAND EX				
Excavator	171,073.19	24.70	1.75	172,133.36
Loader	81,062.72	13.42	0.96	81,640.86
End Dump Truck	521,718.52	75.32	5.33	524,951.70
Subtotal	773,854.42	113.43	8.03	778,725.92

Table A.1.1-Alt2-186. Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	129,227.51	19.11	1.37	130,052.02
Auxiliary Engine	50,088.18	8.29	0.59	50,445.41
Front End Loader	136,239.86	19.67	1.39	137,084.16
Tug Boat	426,587.30	58.86	4.23	429,135.58
Auxiliary Engine	37,566.14	6.22	0.44	37,834.06
Tug Boat	1,137,566.14	156.97	11.29	1,144,361.55
Auxiliary Engine	100,176.37	14.46	1.02	100,797.18
Crew/Survey Boat	68,253.97	9.42	0.68	68,661.69
Auxiliary Engine	20,035.27	3.42	0.25	20,183.67
Subtotal	2,105,740.74	296.42	21.26	2,118,555.33

Table A.1.1-Alt2-187. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	25,793.29	4.27	0.30	25,977.25
Crane - 200 Ton	56,847.05	8.21	0.58	57,199.34
Drill/Power Pack HPSI	79,913.42	11.54	0.82	80,408.66
Piledriving Hammer	41,633.91	6.89	0.49	41,930.84
Loader-Wheel	80,505.37	11.62	0.82	81,004.28
Jet Pump	9,636.97	1.82	0.13	9,715.59
End Dump Truck	72,667.94	10.49	0.74	73,118.27
Truck-Flatbed	53,914.92	8.92	0.64	54,299.44
Truck-Lowboy	82,044.44	11.84	0.84	82,552.89
Subtotal	502,957.31	75.60	5.36	506,206.56
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	65,137.25	9.40	0.67	65,540.92
Derrick Barge	73,887.03	10.67	0.75	74,344.92
Auxiliary Engine	43,952.38	7.27	0.52	44,265.85
Piledriving Hammer	47,705.52	7.89	0.56	48,045.75
End Dump Truck	83,847.62	12.10	0.86	84,367.24
Tugboat	256,742.36	35.43	2.55	258,276.04
Auxiliary Engine	22,539.68	3.85	0.28	22,706.63
Truck-Flatbed	62,209.52	10.30	0.73	62,653.20
Subtotal	656,021.36	96.91	6.92	660,200.55
DRIVE PILES - MISC ACTIVITIES				
Excavator	174,870.37	28.94	2.06	176,117.55
Loader-Wheel	208,617.28	34.52	2.46	210,105.15
Hydraulic Crane	131,919.75	21.83	1.56	132,860.61
Crane - 150 Ton	131,919.75	21.83	1.56	132,860.61
Subtotal	647,327.16	107.13	7.64	651,943.93
REINFORCED CONCRETE WHARF				
Hydraulic Crane	114,581.73	41.79	2.98	116,382.80
Crane - 150 Ton	252,532.10	36.46	2.58	254,097.09
Crane Barge - 150 ton	252,532.10	36.46	2.58	254,097.09
Auxiliary Engine	93,790.12	16.02	1.16	94,484.80
Concrete Pump	272,429.63	45.09	3.21	274,372.61
Concrete Trucks	1,349,000.00	194.75	13.78	1,357,360.00
Sandblaster w/air compressor	0.00	0.00	0.00	0.00
Truck-Flatbed	241,925.93	40.04	2.85	243,651.35
Tugboat	995,370.37	137.35	9.88	1,001,316.36
Auxiliary Engine	87,654.32	14.97	1.08	88,303.55
Concrete Saw	6,135.80	1.16	0.08	6,185.86
Truck Crane - 65 ton	319,938.27	46.19	3.27	321,920.99
Boom Truck	306,790.12	44.29	3.13	308,691.36
Subtotal	4,292,680.49	654.54	46.57	4,320,863.84
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	126,266.05	18.23	1.29	127,048.54
Vibratory Hammer & Power Pack	230,092.59	33.22	2.35	231,518.52
Flatbed Truck	120,962.96	20.02	1.43	121,825.68
Welding Machine	10,255.56	1.93	0.14	10,339.23
Generator	8,432.35	1.59	0.11	8,501.14
Subtotal	496,009.51	74.99	5.32	499,233.10

Table A.1.1-Alt2-188. Total Construction GHG Emissions - Utility Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	45,079.37	6.51	0.46	45,358.73
Auger	18,783.07	3.11	0.22	18,917.03
Crane	16,799.58	2.78	0.20	16,919.39
Grader	118,243.17	19.57	1.39	119,086.49
End Dump Truck	55,898.41	8.07	0.57	56,244.83
Flat Bed Truck	82,946.03	13.73	0.98	83,537.61
Concrete Truck	180,317.46	29.84	2.13	181,603.49
Front End Loader	163,487.83	23.60	1.67	164,500.99
Trencher	30,052.91	4.97	0.35	30,267.25
Subtotal	711,607.83	112.18	7.97	716,435.81

Table A.1.1-Alt2-189. Total Construction GHG Emissions - Paving - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	19,856.96	3.29	0.23	19,998.58
Grader	26,276.26	4.35	0.31	26,463.66
Roller	45,379.89	7.51	0.54	45,703.55
Vibration Roller	46,281.48	7.66	0.55	46,611.56
Water Truck	21,037.04	3.48	0.25	21,187.07
Road Sweeper	19,033.51	3.15	0.22	19,169.26
Subtotal	177,865.14	29.44	2.10	179,133.68

Table A.1.1-Alt2-190. Total Construction GHG Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	41,473.02	6.86	0.49	41,768.80
Truck Crane	16,799.58	2.78	0.20	16,919.39
Auger	18,783.07	3.11	0.22	18,917.03
Subtotal	77,055.66	12.75	0.91	77,605.23

Table A.1.1-Alt2-191. Total Construction GHG Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	155,073.02	22.93	1.64	156,062.43
Auxiliary Engine	60,105.82	9.95	0.71	60,534.50
Front End Loader	163,487.83	23.60	1.67	164,500.99
Tug Boat	511,904.76	70.63	5.08	514,962.70
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Tug Boat	1,365,079.37	188.36	13.54	1,373,233.86
Auxiliary Engine	120,211.64	17.35	1.23	120,956.61
Crew/Survey Boat	81,904.76	11.30	0.81	82,394.03
	24,042.33	4.11	0.30	24,220.40
Subtotal	2,526,888.89	355.70	25.51	2,542,266.40

Table A.1.1-Alt2-192. Total Construction GHG Emissions - Fill within Dike - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	6,761.90	1.12	0.08	6,810.13
Tug Boat	982,857.14	135.62	9.75	988,728.38
Auxiliary Engine	108,190.48	15.62	1.10	108,860.95
Work Tug	230,357.14	31.79	2.29	231,733.21
	40,571.43	6.71	0.48	40,860.79
Crew/Survey Boat	73,714.29	10.17	0.73	74,154.63
	21,638.10	3.70	0.27	21,798.36
Subtotal	1,464,090.48	204.72	14.70	1,472,946.45

Table A.1.1-Alt2-193. Total Construction GHG Emissions - Remaining Dike Lifts - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	155,073.02	22.93	1.64	156,062.43
Auxiliary Engine	60,105.82	9.95	0.71	60,534.50
Front End Loader	163,487.83	23.60	1.67	164,500.99
Tug Boat	511,904.76	70.63	5.08	514,962.70
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Tug Boat	1,365,079.37	188.36	13.54	1,373,233.86
Auxiliary Engine	120,211.64	17.35	1.23	120,956.61
Crew/Survey Boat	81,904.76	11.30	0.81	82,394.03
Auxiliary Engine	24,042.33	4.11	0.30	24,220.40
Subtotal	2,526,888.89	355.70	25.51	2,542,266.40

Table A.1.1-Alt2-194. Total Construction GHG Emissions - Remaining Fill Lifts - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	22,539.68	3.73	0.27	22,700.44
Tug Boat	3,276,190.48	452.06	32.51	3,295,761.27
Auxiliary Engine	360,634.92	52.06	3.68	362,869.84
Work Tug	767,857.14	105.95	7.62	772,444.05
Auxiliary Engine	135,238.10	22.38	1.60	136,202.62
Crew/Survey Boat	245,714.29	33.90	2.44	247,182.10
Auxiliary Engine	72,126.98	12.32	0.89	72,661.21
Subtotal	4,880,301.59	682.41	49.00	4,909,821.52

Table A.1.1-Alt2-195. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	21,825.09	3.61	0.26	21,980.75
Crane - 200 Ton	48,101.35	6.94	0.49	48,399.45
Drill/Power Pack HPSI	67,619.05	9.76	0.69	68,038.10
Piledriving Hammer	35,228.69	5.83	0.42	35,479.94
Loader-Wheel	68,119.93	9.83	0.70	68,542.08
Jet Pump	8,154.36	1.54	0.11	8,220.88
End Dump Truck	61,488.25	8.88	0.63	61,869.31
Truck-Flatbed	45,620.32	7.55	0.54	45,945.68
Truck-Lowboy	69,422.22	10.02	0.71	69,852.44
Subtotal	425,579.26	63.97	4.54	428,328.63
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	55,116.13	7.96	0.56	55,457.70
Derrick Barge	62,519.79	9.03	0.64	62,907.24
Auxiliary Engine	37,115.34	6.14	0.44	37,380.05
Piledriving Hammer	40,366.21	6.68	0.48	40,654.10
End Dump Truck	70,804.66	10.22	0.72	71,243.45
Tugboat	217,243.53	29.98	2.16	218,541.27
Auxiliary Engine	19,033.51	3.25	0.23	19,174.49
Truck-Flatbed	52,532.49	8.69	0.62	52,907.15
Subtotal	554,731.66	81.95	5.85	558,265.44
DRIVE PILES - MISC ACTIVITIES				
Excavator	307,931.73	44.45	3.14	309,840.04
Loader-Wheel	154,496.00	25.57	1.82	155,597.87
Hydraulic Crane	82,498.84	13.65	0.97	83,087.23
Crane - 150 Ton	181,823.11	26.25	1.86	182,949.90
Subtotal	726,749.69	109.93	7.80	731,475.05
REINFORCED CONCRETE WHARF				
Hydraulic Crane	82,498.84	13.65	0.97	83,087.23
Crane - 150 Ton	181,823.11	26.25	1.86	182,949.90
Crane Barge - 150 ton	181,823.11	26.25	1.86	182,949.90
Auxiliary Engine	67,528.89	11.53	0.83	68,029.05
Concrete Pump	196,149.33	32.46	2.31	197,548.28
Concrete Trucks	971,280.00	140.22	9.92	977,299.20
Sandblaster w/air compressor	47,333.33	8.92	0.64	47,719.50
Truck-Flatbed	174,186.67	28.83	2.05	175,428.97
Tugboat	716,666.67	98.89	7.11	720,947.78
Auxiliary Engine	63,111.11	10.78	0.78	63,578.56
Concrete Saw	4,417.78	0.83	0.06	4,453.82
Truck Crane - 65 ton	230,355.56	33.26	2.35	231,783.11
Boom Truck	220,888.89	31.89	2.26	222,257.78
Subtotal	3,138,063.29	463.75	33.00	3,158,033.08
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	54,546.93	7.87	0.56	54,884.97
Vibratory Hammer & Power Pack	99,400.00	14.35	1.02	100,016.00
Flatbed Truck	52,256.00	8.65	0.62	52,628.69
Welding Machine	4,430.40	0.83	0.06	4,466.55
Generator	3,642.77	0.69	0.05	3,672.49
Subtotal	214,276.11	32.39	2.30	215,668.70

Table A.1.1-Alt2-196. Total Construction GHG Emissions - Construct South Mooring Dolphin - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	8,081.03	1.17	0.08	8,131.11
Derrick Barge	9,166.54	1.32	0.09	9,223.34
Auxiliary Engine	5,860.32	0.97	0.07	5,902.11
Piledriving Hammer	5,918.42	0.98	0.07	5,960.63
End Dump Truck	11,179.68	1.61	0.11	11,248.97
Tugboat	31,851.85	4.40	0.32	32,042.12
Auxiliary Engine	3,005.29	0.51	0.04	3,027.55
Truck-Flatbed	8,294.60	1.37	0.10	8,353.76
Subtotal	83,357.73	12.33	0.88	83,889.59

Table A.1.1-Alt2-197. Total Construction GHG Emissions - Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	11,576.38	1.67	0.12	11,648.12
Subtotal	11,576.38	1.67	0.12	11,648.12

Table A.1.1-Alt2-198. Total Construction GHG Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROLL SURCHARGE				
Scrapers	246,674.29	35.61	2.52	248,202.97
Dozers	29,235.47	4.22	0.30	29,416.65
Loader	27,792.93	4.60	0.33	27,991.15
End Dump Truck	89,437.46	12.91	0.91	89,991.72
Water Truck	14,906.24	2.15	0.15	14,998.62
Subtotal	408,046.39	59.50	4.21	410,601.11

Table A.1.1-Alt2-199. Total Construction GHG Emissions - Remove Surcharge to Slip 1 Fill Site - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROLL SURCHARGE				
Scrapers	123,337.14	17.81	1.26	124,101.49
Dozers	14,617.74	2.11	0.15	14,708.32
Loader	13,896.47	2.30	0.16	13,995.58
End Dump Truck	44,718.73	6.46	0.46	44,995.86
Water Truck	7,453.12	1.08	0.08	7,499.31
Subtotal	204,023.20	29.75	2.11	205,300.56

Table A.1.1-Alt2-200. Total Construction GHG Emissions - Utility Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	90,158.73	13.02	0.92	90,717.46
Auger	37,566.14	6.22	0.44	37,834.06
Crane	33,599.15	5.56	0.40	33,838.78
Grader	236,486.35	39.14	2.79	238,172.98
End Dump Truck	111,796.83	16.14	1.14	112,489.65
Flat Bed Truck	165,892.06	27.45	1.96	167,075.21
Concrete Truck	360,634.92	59.68	4.25	363,206.98
Front End Loader	326,975.66	47.20	3.34	329,001.99
Trencher	60,105.82	9.95	0.71	60,534.50
Subtotal	1,423,215.66	224.36	15.95	1,432,871.62

Table A.1.1-Alt2-201. Total Construction GHG Emissions - Paving - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	59,570.88	9.86	0.70	59,995.74
Grader	78,828.78	13.05	0.93	79,390.99
Roller	136,139.68	22.53	1.61	137,110.64
Vibration Roller	138,844.44	22.98	1.64	139,834.69
Water Truck	63,111.11	10.44	0.74	63,561.22
Road Sweeper	57,100.53	9.45	0.67	57,507.77
Subtotal	533,595.43	88.31	6.29	537,401.05

Table A.1.1-Alt2-202. Total Construction GHG Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	82,946.03	13.73	0.98	83,537.61
Truck Crane	33,599.15	5.56	0.40	33,838.78
Auger	37,566.14	6.22	0.44	37,834.06
Subtotal	154,111.32	25.50	1.82	155,210.45

Table A.1.1-Alt2-203. Total Construction GHG Emissions - Construct Retaining Structure at Pier D Oil Area - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	23,637.00	3.41	0.24	23,783.49
Vibratory Hammer & Power Pack	43,073.33	6.22	0.44	43,340.27
Flatbed Truck	22,644.27	3.75	0.27	22,805.77
Welding Machine	1,919.84	0.36	0.03	1,935.50
Generator	1,578.54	0.30	0.02	1,591.41
Subtotal	92,852.98	14.04	1.00	93,456.44

Table A.1.1-Alt2-204. Total Construction GHG Emissions - Excavate & Truck Material in Cell Bulkhead - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
LAND EX				
Excavator	58,653.66	8.47	0.60	59,017.15
Loader	27,792.93	4.60	0.33	27,991.15
End Dump Truck	178,874.92	25.82	1.83	179,983.44
Subtotal	265,321.52	38.89	2.75	266,991.74

Table A.1.1-Alt2-205. Total Construction GHG Emissions - Excavate Material Fronting Pier D - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
LAND EX				
Excavator	95,312.20	13.76	0.97	95,902.87
Loader	45,163.51	7.47	0.53	45,485.62
End Dump Truck	290,671.75	41.96	2.97	292,473.09
Subtotal	431,147.46	63.20	4.47	433,861.58
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	24,417.99	4.04	0.29	24,592.14
Tug Boat	3,549,206.35	489.74	35.22	3,570,408.04
Auxiliary Engine	390,687.83	56.40	3.99	393,108.99
Work Tug	831,845.24	114.78	8.25	836,814.38
Auxiliary Engine	146,507.94	24.25	1.73	147,552.84
Crew/Survey Boat	266,190.48	36.73	2.64	267,780.60
Auxiliary Engine	78,137.57	13.34	0.96	78,716.31
Subtotal	5,286,993.39	739.28	53.08	5,318,973.31

Table A.1.1-Alt2-206. Total Construction GHG Emissions - Remove Cellular Sheetpile - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
SHEET PILE BULKHEAD DEMOLITION				
Crane - 100 Ton	93,797.64	13.54	0.96	94,378.92
Vibratory Hammer & Power Pack	170,925.93	24.68	1.75	171,985.19
Excavator	158,853.67	22.93	1.62	159,838.12
Flatbed Truck	89,858.20	14.87	1.06	90,499.07
Welding Machine	8,464.90	1.59	0.11	8,533.96
Generator	6,264.03	1.18	0.08	6,315.13
Subtotal	528,164.37	78.80	5.58	531,550.39

Table A.1.1-Alt2-207. Total Construction GHG Emissions - Rock Revetment - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	124,058.41	18.35	1.31	124,849.94
Auxiliary Engine	48,084.66	7.96	0.57	48,427.60
Front End Loader	130,790.26	18.88	1.34	131,600.80
Tug Boat	409,523.81	56.51	4.06	411,970.16
Auxiliary Engine	36,063.49	5.97	0.43	36,320.70
Tug Boat	1,092,063.49	150.69	10.84	1,098,587.09
Auxiliary Engine	96,169.31	13.88	0.98	96,765.29
Crew/Survey Boat	65,523.81	9.04	0.65	65,915.23
Auxiliary Engine	19,233.86	3.28	0.24	19,376.32
Subtotal	2,021,511.11	284.56	20.41	2,033,813.12

Table A.1.1-Alt2-208. Total Construction GHG Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	6,761.90	1.12	0.08	6,810.13
Tug Boat	982,857.14	135.62	9.75	988,728.38
Auxiliary Engine	108,190.48	15.62	1.10	108,860.95
Work Tug	230,357.14	31.79	2.29	231,733.21
Auxiliary Engine	40,571.43	6.71	0.48	40,860.79
Crew/Survey Boat	73,714.29	10.17	0.73	74,154.63
Auxiliary Engine	21,638.10	3.70	0.27	21,798.36
Subtotal	1,464,090.48	204.72	14.70	1,472,946.45

Table A.1.1-Alt2-209. Total Construction GHG Emissions - Ground Improvements Pier D - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
STONE COLUMN INSTALLATION EQ				
Stone Column Crane - 100 Ton	293,225.84	42.33	2.99	295,043.02
Vibratory Probe & Power Pack	534,340.74	77.14	5.46	537,652.15
Auger Crane - 100 Ton	97,741.95	14.11	1.00	98,347.67
Auger & Hydraulic Power Pack	178,113.58	25.71	1.82	179,217.38
Welding Machine	8,820.86	1.66	0.12	8,892.83
Generator	6,527.44	1.23	0.09	6,580.69
Excavator	165,533.67	23.90	1.69	166,559.51
Loader	313,751.31	51.92	3.70	315,989.00
End Dump Truck	504,824.78	72.88	5.15	507,953.27
Subtotal	2,102,880.17	310.89	22.02	2,116,235.52
MARINE ROCK DELIVERY EQ				
Derrick Barge	116,706.80	17.26	1.23	117,451.43
Front End Loader	92,279.80	13.32	0.94	92,851.67
Tug Boat	317,835.98	43.86	3.15	319,734.62
Tug Boat	847,562.61	116.95	8.41	852,625.65
Subtotal	1,374,385.19	191.39	13.74	1,382,663.36

Table A.1.1-Alt2-210. Total Construction GHG Emissions - Demo - E12-13 Wharf - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	61,150.46	10.12	0.72	61,586.59
Excavator	266,874.17	38.53	2.73	268,528.04
Flatbed Truck	150,961.78	24.98	1.78	152,038.44
End Dump Truck	813,880.89	117.50	8.31	818,924.66
Subtotal	1,292,867.29	191.13	13.54	1,301,077.73
WHARF DEMOLITION MARINE				
Derrick Barge	282,232.89	41.74	2.98	284,033.61
Auxiliary Engine	109,192.24	18.07	1.29	109,971.00
Work Tug	372,666.67	51.42	3.70	374,892.84
Auxiliary Engine	81,894.18	13.55	0.97	82,478.25
Hydra-Crane	61,150.46	10.12	0.72	61,586.59
Excavator	266,874.17	38.53	2.73	268,528.04
Flatbed Truck	150,961.78	24.98	1.78	152,038.44
Auxiliary Engine				
End Dump Truck	610,410.67	88.12	6.23	614,193.49
Subtotal	1,935,383.05	286.54	20.39	1,947,722.28

Table A.1.1-Alt2-211. Total Construction GHG Emissions - Lift #1 (~ -30) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	69,782.86	10.32	0.74	70,228.09
Auxiliary Engine	27,047.62	4.48	0.32	27,240.52
Front End Loader	73,569.52	10.62	0.75	74,025.45
Tug Boat	230,357.14	31.79	2.29	231,733.21
Auxiliary Engine	20,285.71	3.36	0.24	20,430.39
Tug Boat	614,285.71	84.76	6.10	617,955.24
Auxiliary Engine	54,095.24	7.81	0.55	54,430.48
Crew/Survey Boat	36,857.14	5.09	0.37	37,077.31
Auxiliary Engine	10,819.05	1.85	0.13	10,899.18
Subtotal	1,137,100.00	160.06	11.48	1,144,019.88

Table A.1.1-Alt2-212. Total Construction GHG Emissions - Lift #2 (~ -15) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	41,352.80	6.12	0.44	41,616.65
Auxiliary Engine	16,028.22	2.65	0.19	16,142.53
Front End Loader	43,596.75	6.29	0.45	43,866.93
Tug Boat	136,507.94	18.84	1.35	137,323.39
Auxiliary Engine	12,021.16	1.99	0.14	12,106.90
Tug Boat	364,021.16	50.23	3.61	366,195.70
Auxiliary Engine	32,056.44	4.63	0.33	32,255.10
Crew/Survey Boat	21,841.27	3.01	0.22	21,971.74
Auxiliary Engine	6,411.29	1.09	0.08	6,458.77
Subtotal	673,837.04	94.85	6.80	677,937.71

Table A.1.1-Alt2-213. Total Construction GHG Emissions - Lift #3 (- 0) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	36,183.70	5.35	0.38	36,414.57
Auxiliary Engine	14,024.69	2.32	0.17	14,124.72
Front End Loader	38,147.16	5.51	0.39	38,383.57
Tug Boat	119,444.44	16.48	1.19	120,157.96
Auxiliary Engine	10,518.52	1.74	0.12	10,593.54
Tug Boat	318,518.52	43.95	3.16	320,421.23
Auxiliary Engine	28,049.38	4.05	0.29	28,223.21
Crew/Survey Boat	19,111.11	2.64	0.19	19,225.27
Auxiliary Engine	5,609.88	0.96	0.07	5,651.43
Subtotal	589,607.41	83.00	5.95	593,195.49

Table A.1.1-Alt2-214. Total Construction GHG Emissions - Lift #4 (- +15) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	31,014.60	4.59	0.33	31,212.49
Auxiliary Engine	12,021.16	1.99	0.14	12,106.90
Front End Loader	32,697.57	4.72	0.33	32,900.20
Tug Boat	102,380.95	14.13	1.02	102,992.54
Auxiliary Engine	9,015.87	1.49	0.11	9,080.17
Tug Boat	273,015.87	37.67	2.71	274,646.77
Auxiliary Engine	24,042.33	3.47	0.25	24,191.32
Crew/Survey Boat	16,380.95	2.26	0.16	16,478.81
Auxiliary Engine	4,808.47	0.82	0.06	4,844.08
Subtotal	505,377.78	71.14	5.10	508,453.28

Table A.1.1-Alt2-215. Total Construction GHG Emissions - Initial Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	15,435.17	2.23	0.16	15,530.83
Subtotal	15,435.17	2.23	0.16	15,530.83
ROLL SURCHARGE				
Scrapers	370,011.43	53.42	3.78	372,304.46
Dozers	43,853.21	6.33	0.45	44,124.97
Loader	41,689.40	6.90	0.49	41,986.73
End Dump Truck	134,156.19	19.37	1.37	134,987.58
Water Truck	22,359.37	3.23	0.23	22,497.93
Subtotal	612,069.59	89.24	6.32	615,901.67

Table A.1.1-Alt2-216. Total Construction GHG Emissions - 2nd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	38,587.94	5.57	0.39	38,827.07
Subtotal	38,587.94	5.57	0.39	38,827.07
ROLL SURCHARGE				
Scrapers	555,017.14	80.13	5.67	558,456.69
Dozers	65,779.81	9.50	0.67	66,187.46
Loader	62,534.10	10.35	0.74	62,980.09
End Dump Truck	201,234.29	29.05	2.05	202,481.37
Water Truck	33,539.05	4.84	0.34	33,746.90
Subtotal	918,104.38	133.86	9.47	923,852.50

Table A.1.1-Alt2-217. Total Construction GHG Emissions - 3rd Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	38,587.94	5.57	0.39	38,827.07
Subtotal	38,587.94	5.57	0.39	38,827.07
ROLL SURCHARGE				
Scrapers	740,022.86	106.83	7.56	744,608.91
Dozers	87,706.41	12.66	0.90	88,249.95
Loader	83,378.79	13.80	0.98	83,973.45
End Dump Truck	268,312.38	38.74	2.74	269,975.16
Water Truck	44,718.73	6.46	0.46	44,995.86
Subtotal	1,224,139.17	178.49	12.63	1,231,803.34

Table A.1.1-Alt2-218. Total Construction GHG Emissions - 4th Surcharge and Wick Drains - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WICK DRAINS				
Wick Drain Rig - Excavator Mounted	34,729.14	5.01	0.35	34,944.37
Subtotal	34,729.14	5.01	0.35	34,944.37
ROLL SURCHARGE				
Scrapers	1,387,542.86	200.31	14.17	1,396,141.71
Dozers	164,449.52	23.74	1.68	165,468.65
Loader	156,335.24	25.87	1.84	157,450.23
End Dump Truck	503,085.71	72.63	5.14	506,203.43
Water Truck	83,847.62	12.10	0.86	84,367.24
Subtotal	2,295,260.95	334.66	23.69	2,309,631.26

Table A.1.1-Alt2-219. Total Construction GHG Emissions - Remove Surcharge - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROLL SURCHARGE				
Scrapers	1,110,034.29	160.25	11.33	1,116,913.37
Dozers	131,559.62	18.99	1.34	132,374.92
Loader	125,068.19	20.70	1.48	125,960.18
End Dump Truck	402,468.57	58.10	4.11	404,962.74
Water Truck	67,078.10	9.68	0.68	67,493.79
Subtotal	1,836,208.76	267.73	18.95	1,847,705.00

Table A.1.1-Alt2-220. Total Construction GHG Emissions - Container Yard Development - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayar	334,488.89	48.29	3.42	336,561.78
Auger	139,370.37	23.06	1.64	140,364.37
Crane	124,652.86	20.63	1.47	125,541.89
Grader	877,364.36	145.20	10.35	883,621.76
End Dump Truck	414,766.22	59.88	4.24	417,336.60
Flat Bed Truck	615,459.56	101.85	7.26	619,849.04
Concrete Truck	1,340,359.79	221.82	15.81	1,349,919.29
Front End Loader	1,213,079.70	175.13	12.39	1,220,597.38
Trencher	222,992.59	36.90	2.63	224,582.99
Subtotal	5,282,534.34	832.76	59.20	5,318,375.09
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	221,007.96	36.58	2.61	222,584.20
Grader	292,454.79	48.40	3.45	294,540.59
Roller	505,078.22	83.59	5.96	508,680.46
Vibration Roller	515,112.89	85.25	6.08	518,786.70
Water Truck	234,142.22	38.75	2.76	235,812.13
Road Sweeper	211,842.96	35.06	2.50	213,353.84
Subtotal	1,979,639.04	327.62	23.35	1,993,757.91
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	307,729.78	50.93	3.63	309,924.52
Truck Crane	124,652.86	20.63	1.47	125,541.89
Auger	139,370.37	23.06	1.64	140,364.37
Subtotal	571,753.01	94.62	6.74	575,830.77

Table A.1.1-Alt2-221. Total Construction GHG Emissions - POLB Ocean Blvd Track Reconfiguration - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
TRIPLE TRACK INSTALLATION DEMO EQ				
Track hoe with breaker and bucket (demo)	4,887.81	0.71	0.05	4,918.10
Front end loader	8,106.27	1.17	0.08	8,156.51
Backhoe or skiploader (as needed)				
12 or 14 H Blade				
Sheepsfoot vibratory roller				
Water truck				
Haul off dump trucks for spoil				
Subtotal	12,994.08	1.88	0.13	13,074.60
TRIPLE TRACK UTILITY RELOCATION EQ				
Front end loader				
Backhoe				
Trench vibratory roller or jumping jack				
Water truck				
Haul off dump trucks for spoil				
Concrete trucks				
Subtotal	0.00	0.00	0.00	0.00
TRIPLE TRACK GRADING EQ				
Haul in dump trucks for subballast material				
966 (or equivalent) Front end loader	5,790.19	0.96	0.07	5,831.49
Backhoe or skiploader (as needed)				
12 or 14 G Blade				
Auxiliary Engine				
Smooth drum vibratory roller				
Auxiliary Engine				
Water truck				
Subtotal	5,790.19	0.96	0.07	5,831.49
TRIPLE TRACK RETAINING WALL EQ				
Backhoe				
Trench vibratory roller or jumping jack				
Water truck				
Extendable forklift				
Concrete trucks if CIP walls				
Form Truck				
Subtotal	0.00	0.00	0.00	0.00
TRIPLE TRACK TRACKWORK EQ				
Ballast delivery dump trucks				
Smooth drum vibratory roller				
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	111,171.72	18.40	1.31	111,964.61
Swingmaster or Speedswing loader for rail handling				
Ballast cars for initial and final ballast placement				
16 head vibratory Tamper with full electronics for alignment and grade				
Ballast regulator				
Water truck				
Rail vibrator				
Subtotal	111,171.72	18.40	1.31	111,964.61
TRIPLE TRACK MISCELLANEOUS EQ				
Mechanic's truck				
Tool truck with small hydraulic hand tools				
Welding truck with hydraulic equipment				
Fuel truck				
Working Pickups				
Generator				
Subtotal	0.00	0.00	0.00	0.00

Table A.1.1-Alt2-222. Total Construction GHG Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
Grading				
Water Trucks (Gasoline)				
Truck for Soil Test Inspector (Gasoline)				
980 Loader	63,712.17	9.20	0.65	64,107.01
Grader	52,552.52	8.70	0.62	52,927.33
Vibratory Compactor	11,915.98	1.97	0.14	12,000.96
Subtotal	128,180.67	19.87	1.41	129,035.30
Survey				
Survey Trucks (Gasoline)				
Civil				
Crew Trucks	52,592.59	8.70	0.62	52,967.69
Dump Trucks	69,873.02	10.09	0.71	70,306.03
Stake Bed Truck (5-ton)	13,148.15	2.18	0.16	13,241.92
Trencher	30,052.91	4.97	0.35	30,267.25
Drill Rig	6,261.02	1.04	0.07	6,305.68
Tractor	46,018.52	7.62	0.54	46,346.72
Forklift	7,738.62	1.32	0.10	7,795.94
Subtotal	225,684.83	35.91	2.56	227,231.23
Electrical				
8-Ton Stake Truck	42,074.07	6.96	0.50	42,374.15
Crew Cab Trucks	126,222.22	20.89	1.49	127,122.44
Carryall Vehicles (Gasoline)				0.00
Cranes	44,798.87	7.41	0.53	45,118.38
Lift Truck	42,074.07	6.96	0.50	42,374.15
Pickups	84,148.15	13.93	0.99	84,748.30
Forklift	18,572.70	3.17	0.23	18,710.26
Manlifts	168,296.30	27.85	1.99	169,496.59
Support Trucks	84,148.15	13.93	0.99	84,748.30
Subtotal	610,334.53	101.10	7.21	614,692.57
Transformer Setup				
Carryall Vehicle (Gasoline)				
Crew Truck	5,259.26	0.87	0.06	5,296.77
Crane	8,399.79	1.39	0.10	8,459.70
Forklift	4,643.17	0.79	0.06	4,677.57
Low Bed Truck	10,518.52	1.74	0.12	10,593.54
Subtotal	28,820.74	4.79	0.34	29,027.57
Test				
Test Truck	21,037.04	3.48	0.25	21,187.07
Paving				
Foreman Truck	3,944.44	0.65	0.05	3,972.58
2 Dump Trucks	13,974.60	2.02	0.14	14,061.21
2 Skip Loaders	8,685.29	1.44	0.10	8,747.23
Barbergreen	1,502.65	0.25	0.02	1,513.36
Subtotal	28,106.98	4.36	0.31	28,294.38
Fence Installation				
Foreman Truck	2,103.70	0.35	0.02	2,118.71
Crewcab	2,764.87	0.46	0.03	2,784.59
Bobcat (Gasoline)	2,003.53	0.33	0.02	2,017.82
3-Ton Flatbed Truck	691.22	0.11	0.01	696.15
Subtotal	7,563.32	1.25	0.09	7,617.26

Table A.1.1-Alt2-223. Total Construction GHG Emissions - Overhead Subtransmission Line Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
Installation of 160 LWS poles and removal of wood poles				
Heavy Line Truck	45,079.37	6.51	0.46	45,358.73
Carry-All (Gasoline)				
Light Material Truck	31,555.56	5.22	0.37	31,780.61
75' Bucket Truck	31,555.56	5.22	0.37	31,780.61
Pickup Truck (Gasoline)				
Subtotal	108,190.48	16.95	1.20	108,919.95
Wire Replacement/Attachment and Termination				
Heavy Line Truck	67,619.05	9.76	0.69	68,038.10
Carry-All (Gasoline)				
Light Material Truck	47,333.33	7.83	0.56	47,670.92
Pickup Truck (Gasoline)				
Subtotal	114,952.38	17.60	1.25	115,709.01
Final Connection of New Lines				
Heavy Line Truck	1,502.65	0.22	0.02	1,511.96
Carry-All (Gasoline)				
Light Material Truck	1,051.85	0.17	0.01	1,059.35
Pickup Truck (Gasoline)				
Subtotal	2,554.50	0.39	0.03	2,571.31

Table A.1.1-Alt2-224. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (1 of 3).

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Demolish Existing Facilities				
Wharf Demolition Landside	970,834	144	10	977,000
Wharf Demolition Marine	1,451,976	215	15	1,461,233
Sheet Pile Bulkhead Demolition	665,487	99	7	669,753
Construct New Bulkhead				
Retaining Bulkhead Construction	85,030	13	1	85,583
Excavation Fronting E24				
Clamshell Dredging	5,693,685	796	57	5,728,125
Land Ex	773,854	113	8	778,726
Construct New Armor Slope				
Rock Placement, Push Off & Tub & Orange Peels	2,105,741	296	21	2,118,555
Wharf Construction				
Drive 24-In Octagonal Piles - Land	568	76	5	506,207
Drive 24-In Octagonal Piles - Water	656,021	97	7	660,201
Drive Piles - Misc Activities	647,327	107	8	651,944
Reinforced Concrete Wharf	4,292,680	655	47	4,320,864
Retaining Bulkhead Construction	496,010	75	5	499,233
Utility Construction				
New Container Yard Utilities	711,608	112	8	716,436
Paving				
New Container Yard Construction - Paving	177,865	29	2	179,134
Lighting, Striping, Crane Power				
New Container Yard Construction - Electrical	77,056	13	1	77,605
Prepare for Toe Dike/ Construct Dike (1st Lift)				
Rock Placement, Push Off & Tub & Orange Peels	2,526,889	356	26	2,542,266
Fill within Dike				
Clamshell Dredging	1,464,090	205	15	1,472,946
Remaining Dike Lifts				
Rock Placement, Push Off & Tub & Orange Peels	2,526,889	356	26	2,542,266
Remaining Fill Lifts				
Clamshell Dredging	4,880,302	682	49	4,909,822
Wharf Construction				
Drive 24-In Octagonal Piles - Land	425,579	64	5	428,329
Drive 24-In Octagonal Piles - Water	554,732	82	6	558,265
Drive Piles - Misc Activities	726,750	110	8	731,475
Reinforced Concrete Wharf	3,138,063	464	33	3,158,033
Retaining Bulkhead Construction	214,276	32	2	215,669
Construct South Mooring Dolphin				
Drive 24-In Octagonal Piles - Water	83,358	12	1	83,890
Wick Drains				
Wick Drains	11,576	2	0	11,648
Surcharge (Initial Pump, Plus clamshell or Truck)				
Roll Surcharge	408,046	59	4	410,601
Remove Surcharge to Slip 1 Fill Site				
Roll Surcharge	204,023	30	2	205,301
Utility Construction				
New Container Yard Utilities	1,423,216	224	16	1,432,872

Table A.1.1-Alt2-224. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (2 of 3).

Paving				
New Container Yard Construction - Paving	533,595	88	6	537,401
Lighting, Fence, Striping, Crane Power				
New Container Yard Construction - Electrical	154,111	26	2	155,210
Construct Retaining Structure at Pier D Oil Area				
Retaining Bulkhead Construction	92,853	14	1	93,456
Excavate & Truck Material in Cell Bulkhead				
Land Ex	265,322	39	3	266,992
Excavate Material Fronting Pier D				
Land Ex	431,147	63	4	433,862
Clamshell Dredging	5,286,993	739	53	5,318,973
Remove Cellular Sheetpile				
Sheet Pile Bulkhead Demolition	528,164	79	6	531,550
Rock Revetment				
Rock Placement, Push Off & Tub & Orange Peels	2,021,511	285	20	2,033,813
Hydraulic or Clamshell Dredge to -55 ft				
Clamshell Dredging	1,464,090	205	15	1,472,946
Ground Improvements Pier D				
Stone Column Installation Eq	2,102,880	311	22	2,116,236
Marine Rock Delivery Eq	1,374,385	191	14	1,382,663
Demo - E12-13 Wharf				
Wharf Demolition Landside	1,292,867	191	14	1,301,078
Wharf Demolition Marine	1,935,383	287	20	1,947,722
Lift #1 (~ -30)				
Rock Placement, Push Off & Tub & Orange Peels	1,137,100	160	11	1,144,020
Lift #2 (~ -15)				
Rock Placement, Push Off & Tub & Orange Peels	673,837	95	7	677,938
Lift #3 (~ 0)				
Rock Placement, Push Off & Tub & Orange Peels	589,607	83	6	593,195
Lift #4 (~ +15)				
Rock Placement, Push Off & Tub & Orange Peels	505,378	71	5	508,453
Initial Surcharge and Wick Drains				
Wick Drains	15,435	2	0	15,531
Roll Surcharge	612,070	89	6	615,902
2nd Surcharge and Wick Drains				
Wick Drains	38,588	6	0	38,827
Roll Surcharge	918,104	134	9	923,853
3rd Surcharge and Wick Drains				
Wick Drains	38,588	6	0	38,827
Roll Surcharge	1,224,139	178	13	1,231,803
4th Surcharge and Wick Drains				
Wick Drains	34,729	5	0	34,944
Roll Surcharge	2,295,261	335	24	2,309,631
Remove Surcharge				
Roll Surcharge	1,836,209	268	19	1,847,705
Container Yard Development				
New Container Yard Utilities	5,282,534	833	59	5,318,375
New Container Yard Construction - Paving	1,979,639	328	23	1,993,758
New Container Yard Construction - Electrical	571,753	95	7	575,831

Table A.1.1-Alt2-224. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 1 (3 of 3).

POLB Ocean Blvd Track Reconfiguration				
Triple Track Installation Demo Eq	12,994	2	0	13,075
Triple Track Utility Relocation Eq	0	0	0	0
Triple Track Grading Eq	5,790	1	0	5,831
Triple Track Retaining Wall Eq	0	0	0	0
Triple Track Trackwork Eq	111,172	18	1	111,965
Triple Track Miscellaneous Eq	0	0	0	0
Grading				
Grading	128,181	20	1	129,035
Survey	0	0	0	0
Civil				
Civil	225,685	36	3	227,231
Electrical				
Electrical	610,335	101	7	614,693
Transformer Setup	28,821	5	0	29,028
Test	21,037	3	0	21,187
Paving	28,107	4	0	28,294
Fence Installation	7,563	1	0	7,617
Overhead Subtransmission Line Construction				
Installation of 160 LWS poles and removal of wood poles	108,190	17	1	108,920
Wire Replacement/Attachment and Termination	114,952	18	1	115,709
Final Connection of New Lines	2,554	0	0	2,571
Total Emissions	74,035,189	10,949	781	75,009,634

Table A.1.1-AIt2-225. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	60	69,144
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	60	126,000
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.60	1	138	8	1,104	60	66,240
Welding Machine	26	0.50	1	13	8	104	60	6,240
Generator	13	0.74	1	10	8	77	60	4,618
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	60	26,832
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.60	1	138	8	1,104	60	66,240
End Dump Truck	310	0.60	4	744	8	5,952	60	357,120
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Work Tug	750	0.40	1	300	8	2,400	60	144,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Hydra-Crane	130	0.43	1	56	8	447	60	26,832
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.60	1	138	8	1,104	60	66,240
End Dump Truck	310	0.60	3	558	8	4,464	60	267,840

Table A.1.1-AIt2-226. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	9	10,372
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	9	18,900
Flatbed Truck	230	0.60	1	138	8	1,104	9	9,936
Welding Machine	26	0.45	1	12	8	94	9	842
Generator	13	0.74	1	10	8	77	9	693

Table A.1.1-AIt2-227. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	30	0
Auxiliary Engine	500	0.00	1	0	24	0	30	0
Bottom Dump Scow	250	0.05	1	13	24	300	30	9,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	30	1,152,000
Auxiliary Engine	400	0.50	1	200	24	4,800	30	144,000
Work Tug	750	0.50	1	375	24	9,000	30	270,000
	150	0.50	1	75	24	1,800	30	54,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	30	86,400
	80	0.50	1	40	24	960	30	28,800

Table A.1.1-Alt2-228. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
Auxiliary Engine	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,500	0.50	1	750	8	6,000	60	360,000
Auxiliary Engine	150	0.50	1	75	8	600	60	36,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	60	960,000
Auxiliary Engine	400	0.50	1	200	8	1,600	60	96,000
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
Auxiliary Engine	80	0.50	1	40	8	320	60	19,200

Table A.1.1-Alt2-229. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	36	19,014
Crane - 200 Ton	335	0.43	1	144	8	1,152	36	41,905
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	36	58,909
Piledriving Hammer	211	0.50	1	106	8	844	36	30,691
Loader-Wheel	300	0.68	1	204	8	1,632	36	59,345
Jet Pump	33	0.74	1	24	8	195	36	7,104
End Dump Truck	310	0.60	1	186	8	1,488	36	53,568
Truck-Flatbed	230	0.60	1	138	8	1,104	36	39,744
Truck-Lowboy	350	0.60	1	210	8	1,680	36	60,480
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	42	48,017
Derrick Barge	380	0.43	1	163	8	1,307	42	54,467
Auxiliary Engine	195	0.50	1	98	8	780	42	32,760
Piledriving Hammer	211	0.50	1	106	8	844	42	35,167
End Dump Truck	310	0.60	1	186	8	1,488	42	62,496
Tugboat	1,000	0.50	1	500	8	4,000	42	166,667
Auxiliary Engine	100	0.50	1	50	8	400	42	16,800
Truck-Flatbed	230	0.60	1	138	8	1,104	42	46,368
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	175	341,544
Loader-Wheel	180	0.68	1	122	8	979	175	171,360
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	175	201,670
Auxiliary Engine	107	0.50	1	54	8	428	175	74,900
Concrete Pump	210	0.74	1	155	8	1,243	175	217,560
Concrete Trucks	285	0.60	5	770	8	6,156	175	1,077,300
Sandblaster w/air compressor	50	0.75	1	38	8	300	175	52,500
Truck-Flatbed	230	0.60	1	138	8	1,104	175	193,200
Tugboat	1,000	0.50	1	500	8	4,000	175	700,000
Auxiliary Engine	100	0.50	1	50	8	400	175	70,000
Concrete Saw	35	0.10	1	4	8	28	175	4,900
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	175	255,500
Boom Truck	350	0.50	1	175	8	1,400	175	245,000

Table A.1.1-Alt2-230. Activity Data - CY Development - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	38	29,733
Grader	215	0.61	1	131	8	1,049	38	39,345
Roller	151	0.50	3	227	8	1,812	38	67,950
Vibration Roller	154	0.50	3	231	8	1,848	38	69,300
Water Truck	210	0.50	1	105	8	840	38	31,500
Road Sweeper	190	0.50	1	95	8	760	38	28,500

Table A.1.1-Alt2-231. Activity Data - Dredge to -55 ft - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	20	0
Auxiliary Engine	500	0.00	1	0	24	0	20	0
Bottom Dump Scow	250	0.05	1	13	24	300	20	6,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	20	768,000
Auxiliary Engine	400	0.50	1	200	24	4,800	20	96,000
Work Tug	750	0.50	1	375	24	9,000	20	180,000
Auxiliary Engine	150	0.50	1	75	24	1,800	20	36,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	20	57,600
Auxiliary Engine	80	0.50	1	40	24	960	20	19,200

Table A.1.1-AIt2-232. Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
SHEET PILE BULKHEAD DEMOLITION				
Crane - 100 Ton	86,582.43	12.50	0.88	87,119.00
Vibratory Hammer & Power Pack	157,777.78	22.78	1.61	158,755.56
Excavator	146,634.16	21.17	1.50	147,542.88
Flatbed Truck	82,946.03	13.73	0.98	83,537.61
Welding Machine	7,813.76	1.47	0.11	7,877.50
Generator	5,782.18	1.09	0.08	5,829.35
Subtotal	487,536.34	72.73	5.16	490,661.90
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	33,599.15	5.56	0.40	33,838.78
Excavator	146,634.16	21.17	1.50	147,542.88
Flatbed Truck	82,946.03	13.73	0.98	83,537.61
End Dump Truck	447,187.30	64.56	4.57	449,958.60
Subtotal	710,366.65	105.02	7.44	714,877.87
WHARF DEMOLITION MARINE				
Derrick Barge	155,073.02	22.93	1.64	156,062.43
Auxiliary Engine	60,105.82	9.95	0.71	60,534.50
Work Tug	204,761.90	28.25	2.03	205,985.08
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Hydra-Crane	33,599.15	5.56	0.40	33,838.78
Excavator	146,634.16	21.17	1.50	147,542.88
Flatbed Truck	82,946.03	13.73	0.98	83,537.61
End Dump Truck	335,390.48	48.42	3.42	337,468.95
Subtotal	1,063,589.93	157.47	11.21	1,070,371.10

Table A.1.1-AIt2-233. Total Construction GHG Emissions - Construct New Bulkhead (Install Transition Bulkhead) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	12,987.37	1.87	0.13	13,067.85
Vibratory Hammer & Power Pack	23,666.67	3.42	0.24	23,813.33
Flatbed Truck	12,441.90	2.06	0.15	12,530.64
Welding Machine	1,054.86	0.20	0.01	1,063.46
Generator	867.33	0.16	0.01	874.40
Subtotal	51,018.12	7.71	0.55	51,349.69

Table A.1.1-AIt2-234. Total Construction GHG Emissions - Excavation Fronting E25 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	11,269.84	1.87	0.13	11,350.22
Tug Boat	1,638,095.24	226.03	16.25	1,647,880.63
Auxiliary Engine	180,317.46	26.03	1.84	181,434.92
Work Tug	383,928.57	52.98	3.81	386,222.02
Auxiliary Engine	67,619.05	11.19	0.80	68,101.31
Crew/Survey Boat	122,857.14	16.95	1.22	123,591.05
Auxiliary Engine	36,063.49	6.16	0.44	36,330.60
Subtotal	2,440,150.79	341.21	24.50	2,454,910.76

Table A.1.1-Alt2-235. Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	155,073.02	22.93	1.64	156,062.43
Auxiliary Engine	60,105.82	9.95	0.71	60,534.50
Front End Loader	163,487.83	23.60	1.67	164,500.99
Tug Boat	511,904.76	70.63	5.08	514,962.70
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Tug Boat	1,365,079.37	188.36	13.54	1,373,233.86
Auxiliary Engine	120,211.64	17.35	1.23	120,956.61
Crew/Survey Boat	81,904.76	11.30	0.81	82,394.03
Auxiliary Engine	24,042.33	4.11	0.30	24,220.40
Subtotal	2,526,888.89	355.70	25.51	2,542,266.40

Table A.1.1-Alt2-236. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	23,809.19	3.94	0.28	23,979.00
Crane - 200 Ton	52,474.20	7.58	0.54	52,799.39
Drill/Power Pack HPSI	73,766.23	10.65	0.75	74,223.38
Piledriving Hammer	38,431.30	6.36	0.45	38,705.39
Loader-Wheel	74,312.65	10.73	0.76	74,773.18
Jet Pump	8,895.66	1.68	0.12	8,968.24
End Dump Truck	67,078.10	9.68	0.68	67,493.79
Truck-Flatbed	49,767.62	8.24	0.59	50,122.56
Truck-Lowboy	75,733.33	10.93	0.77	76,202.67
Subtotal	464,268.28	69.78	4.95	467,267.60
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	60,126.69	8.68	0.61	60,499.31
Derrick Barge	68,203.41	9.85	0.70	68,626.08
Auxiliary Engine	41,022.22	6.79	0.48	41,314.79
Piledriving Hammer	44,035.86	7.29	0.52	44,349.93
End Dump Truck	78,257.78	11.30	0.80	78,742.76
Tugboat	236,992.95	32.70	2.35	238,408.66
Auxiliary Engine	21,037.04	3.59	0.26	21,192.85
Truck-Flatbed	58,062.22	9.61	0.68	58,476.32
Subtotal	607,738.17	89.80	6.41	611,610.69
DRIVE PILES - MISC ACTIVITIES				
Excavator	427,682.96	61.74	4.37	430,333.39
Loader-Wheel	214,577.78	35.51	2.53	216,108.16
Hydraulic Crane	114,581.73	18.96	1.35	115,398.93
Crane - 150 Ton	252,532.10	36.46	2.58	254,097.09
Subtotal	1,009,374.57	152.67	10.83	1,015,937.56
REINFORCED CONCRETE WHARF				
Hydraulic Crane	114,581.73	18.96	1.35	115,398.93
Crane - 150 Ton	252,532.10	36.46	2.58	254,097.09
Crane Barge - 150 ton	252,532.10	36.46	2.58	254,097.09
Auxiliary Engine	93,790.12	16.02	1.16	94,484.80
Concrete Pump	272,429.63	45.09	3.21	274,372.61
Concrete Trucks	1,349,000.00	194.75	13.78	1,357,360.00
Sandblaster w/air compressor	65,740.74	12.38	0.89	66,277.08
Truck-Flatbed	241,925.93	40.04	2.85	243,651.35
Tugboat	995,370.37	137.35	9.88	1,001,316.36
Auxiliary Engine	87,654.32	14.97	1.08	88,303.55
Concrete Saw	6,135.80	1.16	0.08	6,185.86
Truck Crane - 65 ton	319,938.27	46.19	3.27	321,920.99
Boom Truck	306,790.12	44.29	3.13	308,691.36
Subtotal	4,358,421.23	644.10	45.84	4,386,157.06

Table A.1.1-AIt2-237. Total Construction GHG Emissions - CY Development - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	37,231.80	6.16	0.44	37,497.34
Grader	49,267.99	8.15	0.58	49,619.37
Roller	85,087.30	14.08	1.00	85,694.15
Vibration Roller	86,777.78	14.36	1.02	87,396.68
Water Truck	39,444.44	6.53	0.47	39,725.76
Road Sweeper	35,687.83	5.91	0.42	35,942.36
Subtotal	333,497.14	55.19	3.93	335,875.66

Table A.1.1-AIt2-238. Total Construction GHG Emissions - Dredge to -55 ft - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	0.00	0.00	0.00	0.00
Auxiliary Engine	0.00	0.00	0.00	0.00
Bottom Dump Scow	7,513.23	1.24	0.09	7,566.81
Tug Boat	1,092,063.49	150.69	10.84	1,098,587.09
Auxiliary Engine	120,211.64	17.35	1.23	120,956.61
Work Tug	255,952.38	35.32	2.54	257,481.35
Auxiliary Engine	45,079.37	7.46	0.53	45,400.87
Crew/Survey Boat	81,904.76	11.30	0.81	82,394.03
Auxiliary Engine	24,042.33	4.11	0.30	24,220.40
Subtotal	1,626,767.20	227.47	16.33	1,636,607.17

Table A.1.1-Alt2-239. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 2.

<i>Activity</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
Demolish Existing Facilities				
Sheet Pile Bulkhead Demolition	487,536	73	5	490,662
Wharf Demolition Landside	710,367	105	7	714,878
Wharf Demolition Marine	1,063,590	157	11	1,070,371
Construct New Bulkhead (Install Transition Bulkhead)				
Retaining Bulkhead Construction	51,018	8	1	51,350
Excavation Fronting E25 and Dispose Slip 1				
Clamshell Dredging	2,440,151	341	24	2,454,911
Wharf Construction				
Rock Placement, Push Off & Tub & Orange Peels	2,526,889	356	26	2,542,266
CY Development				
Drive 24-In Octagonal Piles - Land	464,268	70	5	467,268
Drive 24-In Octagonal Piles - Water	607,738	90	6	611,611
Drive Piles - Misc Activities	1,009,375	153	11	1,015,938
Reinforced Concrete Wharf	4,358,421	644	46	4,386,157
CY Development				
New Container Yard Construction - Paving	333,497	55	4	335,876
Dredge to -55 ft				
Clamshell Dredging	1,626,767	227	16	1,636,607
Total Emissions	15,679,617	2,279	163	15,777,893

Table A.1.1-Alt2-240. Activity Data - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	120	53,664
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.60	1	138	8	1,104	120	132,480
End Dump Truck	310	0.60	4	744	8	5,952	120	714,240
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	120	247,680
Auxiliary Engine	200	0.50	1	100	8	800	120	96,000
Work Tug	750	0.40	1	300	8	2,400	120	288,000
Auxiliary Engine	150	0.50	1	75	8	600	120	72,000
Hydra-Crane	130	0.43	1	56	8	447	120	53,664
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.60	1	138	8	1,104	120	132,480
End Dump Truck	310	0.60	3	558	8	4,464	120	535,680
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	120	138,288
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	120	252,000
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.60	1	138	8	1,104	120	132,480
Welding Machine	26	0.50	1	13	8	104	120	12,480
Generator	13	0.74	1	10	8	77	120	9,235

Table A.1.1-Alt2-241. Activity Data - Construct New Bulkhead - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	12	13,829
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	12	25,200
Flatbed Truck	230	0.60	1	138	8	1,104	12	13,248
Welding Machine	26	0.45	1	12	8	94	12	1,123
Generator	13	0.74	1	10	8	77	12	924

Table A.1.1-Alt2-242. Activity Data - Excavation Fronting E26 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	27	0
Auxiliary Engine	500	0.00	1	0	24	0	27	0
Bottom Dump Scow	250	0.05	1	13	24	300	27	8,100
Tug Boat	4,000	0.40	1	1,600	24	38,400	27	1,036,800
Auxiliary Engine	400	0.40	1	160	24	3,840	27	103,680
Work Tug	750	0.50	1	375	24	9,000	27	243,000
Auxiliary Engine	150	0.50	1	75	24	1,800	27	48,600
Crew/Survey Boat	400	0.30	1	120	24	2,880	27	77,760
Auxiliary Engine	80	0.50	1	40	24	960	27	25,920

Table A.1.1-Alt2-243. Activity Data - Construct New Armor Slope - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	90	185,760
Auxiliary Engine	200	0.50	1	100	8	800	90	72,000
Front End Loader	400	0.68	1	272	8	2,176	90	195,840
Tug Boat	1,500	0.50	1	750	8	6,000	90	540,000
Auxiliary Engine	150	0.50	1	75	8	600	90	54,000
Tug Boat	4,000	0.50	1	2,000	8	16,000	90	1,440,000
Auxiliary Engine	400	0.50	1	200	8	1,600	90	144,000
Crew/Survey Boat	400	0.30	1	120	8	960	90	86,400
Auxiliary Engine	80	0.50	1	40	8	320	90	28,800

Table A.1.1-A12-244. Activity Data - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	67	34,859
Crane - 200 Ton	335	0.43	1	144	8	1,152	67	76,827
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	67	108,000
Piledriving Hammer	211	0.50	1	106	8	844	67	56,267
Loader-Wheel	300	0.68	1	204	8	1,632	67	108,800
Jet Pump	33	0.74	1	24	8	195	67	13,024
End Dump Truck	310	0.60	1	186	8	1,488	67	99,696
Truck-Flatbed	230	0.60	1	138	8	1,104	67	73,968
Truck-Lowboy	350	0.60	1	210	8	1,680	67	112,560
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	76	88,031
Derrick Barge	380	0.43	1	163	8	1,307	76	99,856
Auxiliary Engine	195	0.50	1	98	8	780	76	59,280
Piledriving Hammer	211	0.50	1	106	8	844	76	64,472
End Dump Truck	310	0.60	1	186	8	1,488	76	113,088
Tugboat	1,000	0.50	1	500	8	4,000	76	305,556
Auxiliary Engine	100	0.50	1	50	8	400	76	30,400
Truck-Flatbed	230	0.60	1	138	8	1,104	76	83,904
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	245	478,162
Loader-Wheel	180	0.68	1	122	8	979	245	239,904
Hydraulic Crane	152	0.43	1	65	8	523	245	128,106
Crane - 150 Ton	335	0.43	1	144	8	1,152	245	282,338
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	245	128,106
Crane - 150 Ton	335	0.43	1	144	8	1,152	245	282,338
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	245	282,338
	107	0.50	1	54	8	428	245	104,860
Concrete Pump	210	0.74	1	155	8	1,243	245	304,584
Concrete Trucks	285	0.60	5	770	8	6,156	245	1,508,220
Sandblaster w/air compressor	50	0.75	1	38	8	300	245	73,500
Truck-Flatbed	230	0.60	1	138	8	1,104	245	270,480
Tugboat	1,000	0.50	1	500	8	4,000	245	980,000
	100	0.50	1	50	8	400	245	98,000
Concrete Saw	35	0.10	1	4	8	28	245	6,860
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	245	357,700
Boom Truck	350	0.50	1	175	8	1,400	245	343,000

Table A.1.1-Alt2-245. Activity Data - Construct E27 Bulkhead - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	40	46,096
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	40	84,000
Flatbed Truck	230	0.60	1	138	8	1,104	40	44,160
Welding Machine	26	0.45	1	12	8	94	40	3,744
Generator	13	0.74	1	10	8	77	40	3,078

Table A.1.1-Alt2-246. Activity Data - CY Development - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	210	252,000
Auger	125	0.50	1	63	8	500	210	105,000
Crane	130	0.43	1	56	8	447	210	93,912
Grader	215	0.61	3	393	8	3,148	210	660,996
End Dump Truck	310	0.60	1	186	8	1,488	210	312,480
Flat Bed Truck	230	0.60	2	276	8	2,208	210	463,680
Concrete Truck	250	0.60	4	600	8	4,800	210	1,008,000
Front End Loader	400	0.68	2	544	8	4,352	210	913,920
Trencher	200	0.50	1	100	8	800	210	168,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	210	166,505
Grader	215	0.61	1	131	8	1,049	210	220,332
Roller	151	0.50	3	227	8	1,812	210	380,520
Vibration Roller	154	0.50	3	231	8	1,848	210	388,080
Water Truck	210	0.50	1	105	8	840	210	176,400
Road Sweeper	190	0.50	1	95	8	760	210	159,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	210	231,840
Truck Crane	130	0.43	1	56	8	447	210	93,912
Auger	125	0.50	1	63	8	500	210	105,000

Table A.1.1-Alt2-247. Activity Data - Hydraulic Dredge to -55ft - POLB - MHTP - Alternative 2.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	30	0
Auxiliary Engine	500	0.00	1	0	24	0	30	0
Bottom Dump Scow	250	0.05	1	13	24	300	30	9,000
Tug Boat	4,000	0.40	1	1,600	24	38,400	30	1,152,000
Auxiliary Engine	400	0.50	1	200	24	4,800	30	144,000
Work Tug	750	0.50	1	375	24	9,000	30	270,000
Auxiliary Engine	105	0.50	1	53	24	1,260	30	37,800
Crew/Survey Boat	400	0.30	1	120	24	2,880	30	86,400
Auxiliary Engine	80	0.30	1	24	24	576	30	17,280

Table A.1.1-AIt2-248. Total Construction GHG Emissions - Demolish Existing Facilities - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	67,198.31	11.12	0.79	67,677.57
Excavator	293,268.32	42.34	2.99	295,085.75
Flatbed Truck	165,892.06	27.45	1.96	167,075.21
End Dump Truck	894,374.60	129.12	9.13	899,917.21
Subtotal	1,420,733.29	210.03	14.88	1,429,755.74
WHARF DEMOLITION MARINE				
Derrick Barge	310,146.03	45.87	3.28	312,124.85
Auxiliary Engine	120,211.64	19.89	1.42	121,068.99
Work Tug	409,523.81	56.51	4.06	411,970.16
Auxiliary Engine	90,158.73	14.92	1.06	90,801.75
Hydra-Crane	67,198.31	11.12	0.79	67,677.57
Excavator	293,268.32	42.34	2.99	295,085.75
Flatbed Truck	165,892.06	27.45	1.96	167,075.21
End Dump Truck	670,780.95	96.84	6.85	674,937.90
Subtotal	2,127,179.85	314.94	22.41	2,140,742.19
SHEET PILE BULKHEAD DEMOLITION				
Crane - 100 Ton	173,164.87	25.00	1.77	174,238.00
Vibratory Hammer & Power Pack	315,555.56	45.56	3.22	317,511.11
Excavator	293,268.32	42.34	2.99	295,085.75
Flatbed Truck	165,892.06	27.45	1.96	167,075.21
Welding Machine	15,627.51	2.94	0.21	15,755.01
Generator	11,564.36	2.18	0.16	11,658.71
Subtotal	975,072.68	145.47	10.31	981,323.80

Table A.1.1-AIt2-249. Total Construction GHG Emissions - Construct New Bulkhead - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	17,316.49	2.50	0.18	17,423.80
Vibratory Hammer & Power Pack	31,555.56	4.56	0.32	31,751.11
Flatbed Truck	16,589.21	2.75	0.20	16,707.52
Welding Machine	1,406.48	0.26	0.02	1,417.95
Generator	1,156.44	0.22	0.02	1,165.87
Subtotal	68,024.16	10.28	0.73	68,466.25

Table A.1.1-AIt2-250. Total Construction GHG Emissions - Excavation Fronting E26 and Dispose Slip 1 - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	-	0.00	0.00	0.00
Auxiliary Engine	-	0.00	0.00	0.00
Bottom Dump Scow	10,142.86	1.68	0.12	10,215.20
Tug Boat	1,474,285.71	203.43	14.63	1,483,092.57
Auxiliary Engine	129,828.57	18.74	1.33	130,633.14
Work Tug	345,535.71	47.68	3.43	347,599.82
Auxiliary Engine	60,857.14	10.07	0.72	61,291.18
Crew/Survey Boat	110,571.43	15.26	1.10	111,231.94
Auxiliary Engine	32,457.14	5.54	0.40	32,697.54
Subtotal	2,163,678.57	302.40	21.72	2,176,761.40

Table A.1.1-Alt2-251. Total Construction GHG Emissions - Construct New Armor Slope - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	232,609.52	34.40	2.46	234,093.64
Auxiliary Engine	90,158.73	14.92	1.06	90,801.75
Front End Loader	245,231.75	35.40	2.50	246,751.49
Tug Boat	767,857.14	105.95	7.62	772,444.05
Auxiliary Engine	67,619.05	11.19	0.80	68,101.31
Tug Boat	2,047,619.05	282.54	20.32	2,059,850.79
Auxiliary Engine	180,317.46	26.03	1.84	181,434.92
Crew/Survey Boat	122,857.14	16.95	1.22	123,591.05
Auxiliary Engine	36,063.49	6.16	0.44	36,330.60
Subtotal	3,790,333.33	533.55	38.26	3,813,399.60

Table A.1.1-AIt2-252. Total Construction GHG Emissions - Wharf Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	43,650.18	7.22	0.51	43,961.50
Crane - 200 Ton	96,202.70	13.89	0.98	96,798.89
Drill/Power Pack HPSI	135,238.10	19.52	1.38	136,076.19
Piledriving Hammer	70,457.38	11.66	0.83	70,959.88
Loader-Wheel	136,239.86	19.67	1.39	137,084.16
Jet Pump	16,308.71	3.07	0.22	16,441.77
End Dump Truck	124,839.79	18.02	1.27	125,613.44
Truck-Flatbed	92,623.07	15.33	1.09	93,283.66
Truck-Lowboy	140,948.15	20.35	1.44	141,821.63
Subtotal	856,507.94	128.74	9.13	862,041.12
DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	110,232.27	15.91	1.13	110,915.39
Derrick Barge	125,039.58	18.05	1.28	125,814.48
Auxiliary Engine	74,230.69	12.28	0.88	74,760.10
Piledriving Hammer	80,732.41	13.36	0.95	81,308.20
End Dump Truck	141,609.31	20.44	1.45	142,486.89
Tugboat	434,487.07	59.95	4.31	437,082.54
Auxiliary Engine	38,067.02	6.50	0.47	38,348.97
Truck-Flatbed	105,064.97	17.39	1.24	105,814.30
Subtotal	1,109,463.32	163.90	11.70	1,116,530.88
DRIVE PILES - MISC ACTIVITIES				
Excavator	598,756.15	86.44	6.11	602,466.75
Loader-Wheel	300,408.89	49.72	3.54	302,551.42
Hydraulic Crane	160,414.42	26.55	1.89	161,558.50
Crane - 150 Ton	353,544.94	51.04	3.61	355,735.92
Subtotal	1,413,124.40	213.74	15.16	1,422,312.59
REINFORCED CONCRETE WHARF				
Hydraulic Crane	160,414.42	26.55	1.89	161,558.50
Crane - 150 Ton	353,544.94	51.04	3.61	355,735.92
Crane Barge - 150 ton	353,544.94	51.04	3.61	355,735.92
Auxiliary Engine	131,306.17	22.42	1.62	132,278.72
Concrete Pump	381,401.48	63.12	4.50	384,121.65
Concrete Trucks	1,888,600.00	272.65	19.29	1,900,304.00
Sandblaster w/air compressor	92,037.04	17.34	1.25	92,787.92
Truck-Flatbed	338,696.30	56.05	4.00	341,111.89
Tugboat	1,393,518.52	192.28	13.83	1,401,842.90
Auxiliary Engine	122,716.05	20.96	1.51	123,624.97
Concrete Saw	8,590.12	1.62	0.12	8,660.21
Truck Crane - 65 ton	447,913.58	64.66	4.57	450,689.38
Boom Truck	429,506.17	62.01	4.39	432,167.90
Subtotal	6,101,789.73	901.74	64.17	6,140,619.88

Table A.1.1-AIt2-253. Total Construction GHG Emissions - Construct E27 Bulkhead - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	57,721.62	8.33	0.59	58,079.33
Vibratory Hammer & Power Pack	105,185.19	15.19	1.07	105,837.04
Flatbed Truck	55,297.35	9.15	0.65	55,691.74
Welding Machine	4,688.25	0.88	0.06	4,726.50
Generator	3,854.79	0.73	0.05	3,886.24
Subtotal	226,747.20	34.28	2.43	228,220.85

Table A.1.1-AIt2-254. Total Construction GHG Emissions - CY Development - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelaye	315,555.56	45.56	3.22	317,511.11
Auger	131,481.48	21.76	1.55	132,419.21
Crane	117,597.04	19.46	1.39	118,435.74
Grader	827,702.22	136.98	9.76	833,605.43
End Dump Truck	391,288.89	56.49	4.00	393,713.78
Flat Bed Truck	580,622.22	96.09	6.85	584,763.24
Concrete Truck	1,262,222.22	208.89	14.89	1,271,224.44
Front End Loader	1,144,414.81	165.21	11.69	1,151,506.96
Trencher	210,370.37	34.81	2.48	211,870.74
Subtotal	4,981,254.81	785.25	55.82	5,015,050.67
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	208,498.07	34.50	2.46	209,985.09
Grader	275,900.74	45.66	3.25	277,868.48
Roller	476,488.89	78.86	5.62	479,887.23
Vibration Roller	485,955.56	80.42	5.73	489,421.41
Water Truck	220,888.89	36.56	2.61	222,464.28
Road Sweeper	199,851.85	33.07	2.36	201,277.20
Subtotal	1,867,584.00	309.07	22.03	1,880,903.69
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	290,311.11	48.04	3.42	292,381.62
Truck Crane	117,597.04	19.46	1.39	118,435.74
Auger	131,481.48	21.76	1.55	132,419.21
Subtotal	539,389.63	89.27	6.36	543,236.58

Table A.1.1-AIt2-255. Total Construction GHG Emissions - Hydraulic Dredge to -55ft - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
CLAMSHELL DREDGING				
Clamshell Dredge	-	0.00	0.00	0.00
Auxiliary Engine	-	0.00	0.00	0.00
Bottom Dump Scow	11,269.84	1.87	0.13	11,350.22
Tug Boat	1,638,095.24	226.03	16.25	1,647,880.63
Auxiliary Engine	180,317.46	26.03	1.84	181,434.92
Work Tug	383,928.57	52.98	3.81	386,222.02
Auxiliary Engine	47,333.33	8.08	0.58	47,683.92
Crew/Survey Boat	122,857.14	16.95	1.22	123,591.05
Auxiliary Engine	21,638.10	3.70	0.27	21,798.36
Subtotal	2,405,439.68	335.64	24.11	2,419,961.12

Table A.1.1-AIt2-256. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 3.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Demolish Existing Facilities				
Wharf Demolition Landside	1,420,733.29	210	15	1,429,756
Wharf Demolition Marine	2,127,179.85	315	22	2,140,742
Sheet Pile Bulkhead Demolition	975,072.68	145	10	981,324
Construct New Bulkhead				
Retaining Bulkhead Construction	68,024.16	10	1	68,466
Excavation Fronting E26 and Dispose Slip 1				
Clamshell Dredging	2,163,678.57	302	22	2,176,761
Construct New Armor Slope				
Rock Placement, Push Off & Tub & Orange Peels	3,790,333.33	534	38	3,813,400
Wharf Construction				
Drive 24-In Octagonal Piles - Land	856,507.94	129	9	862,041
Drive 24-In Octagonal Piles - Water	1,109,463.32	164	12	1,116,531
Drive Piles - Misc Activities	1,413,124.40	214	15	1,422,313
Reinforced Concrete Wharf	6,101,789.73	902	64	6,140,620
Construct E27 Bulkhead				
Retaining Bulkhead Construction	226,747.20	34	2	228,221
CY Development				
Vibratory Hammer & Power Pack	4,981,254.81	785	56	5,015,051
Flatbed Truck	1,867,584.00	309	22	1,880,904
Welding Machine	539,389.63	89	6	543,237
Hydraulic Dredge to -55ft				
Clamshell Dredging	2,405,439.68	336	24	2,419,961
Total Emissions	30,046,322.60	4,478	319	30,239,326

Table A.1.1-Alt2-257. Activity Data - Seaside Railyard Area Redevelopment (not in schedule, added) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	335	402,000
Auger	125	0.50	1	63	8	500	335	167,500
Crane	130	0.43	1	56	8	447	335	149,812
Grader	215	0.61	3	393	8	3,148	335	1,054,446
End Dump Truck	310	0.60	1	186	8	1,488	335	498,480
Flat Bed Truck	230	0.60	2	276	8	2,208	335	739,680
Concrete Truck	250	0.60	4	600	8	4,800	335	1,608,000
Front End Loader	400	0.68	2	544	8	4,352	335	1,457,920
Trencher	200	0.50	1	100	8	800	335	268,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	335	265,615
Grader	215	0.61	1	131	8	1,049	335	351,482
Roller	151	0.50	3	227	8	1,812	335	607,020
Vibration Roller	154	0.50	3	231	8	1,848	335	619,080
Water Truck	210	0.50	1	105	8	840	335	281,400
Road Sweeper	190	0.50	1	95	8	760	335	254,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	335	369,840
Truck Crane	130	0.43	1	56	8	447	335	149,812
Auger	125	0.50	1	63	8	500	335	167,500

Table A.1.1-AIt2-258. Total Construction GHG Emissions - Seaside Railyard Area Redevelopment - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	503,386.24	72.67	5.14	506,505.82
Auger	209,744.27	34.71	2.47	211,240.17
Crane	187,595.27	31.05	2.21	188,933.21
Grader	1,320,382.12	218.51	15.57	1,329,799.14
End Dump Truck	624,198.94	90.11	6.37	628,067.22
Flat Bed Truck	926,230.69	153.28	10.93	932,836.60
Concrete Truck	2,013,544.97	333.23	23.75	2,027,905.66
Front End Loader	1,825,614.11	263.56	18.64	1,836,927.77
Trencher	335,590.83	55.54	3.96	337,984.28
Subtotal	7,946,287.44	1,252.66	89.05	8,000,199.88
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	332,604.07	55.04	3.92	334,976.22
Grader	440,127.37	72.84	5.19	443,266.38
Roller	760,113.23	125.79	8.97	765,534.39
Vibration Roller	775,214.81	128.29	9.14	780,743.68
Water Truck	352,370.37	58.31	4.16	354,883.49
Road Sweeper	318,811.29	52.76	3.76	321,085.06
Subtotal	2,979,241.14	493.04	35.14	3,000,489.22
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	463,115.34	76.64	5.46	466,418.30
Truck Crane	187,595.27	31.05	2.21	188,933.21
Auger	209,744.27	34.71	2.47	211,240.17
Subtotal	860,454.89	142.40	10.15	866,591.69

Table A.1.1-AIt2-259. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 4.

<i>Activity</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
Seaside Railyard Area Redevelopment				
New Container Yard Utilities	7,946,287.4	1,253	89	8,000,200
New Container Yard Construction - Paving	2,979,241	493	35	3,000,489
New Container Yard Construction - Electrical	860,455	142	10	866,592
Total Emissions	11,785,983	1,888	134	11,867,281

Table A.1.1-AIt2-260. Activity Data - Construction - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	255	305,760
Auger	125	0.50	1	63	8	500	255	127,400
Crane	130	0.43	1	56	8	447	255	113,947
Grader	215	0.61	3	393	8	3,148	255	802,008
End Dump Truck	310	0.60	1	186	8	1,488	255	379,142
Flat Bed Truck	230	0.60	2	276	8	2,208	255	562,598
Concrete Truck	250	1	4	600	8	4,800	255	1,224,000
Front End Loader	400	0.68	2	544	8	4,352	255	1,108,890
Trencher	200	0.50	1	100	8	800	255	203,840
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	255	202,026
Grader	215	0.61	1	131	8	1,049	255	267,336
Roller	151	0.50	3	227	8	1,812	255	461,698
Vibration Roller	154	0.50	3	231	8	1,848	255	470,870
Water Truck	210	0.50	1	105	8	840	255	214,032
Road Sweeper	190	0.50	1	95	8	760	255	193,648
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	255	281,299
Truck Crane	130	0.43	1	56	8	447	255	113,947
Auger	125	0.50	1	63	8	500	255	127,400

Table A.1.1-AIt2-261. Total Construction GHG Emissions - Construction - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	382,874	55.27	3.91	385,247
Auger	159,531	26.40	1.88	160,669
Crane	142,684	23.61	1.68	143,702
Grader	1,004,279	166.20	11.85	1,011,441
End Dump Truck	474,764	68.54	4.85	477,706
Flat Bed Truck	704,488	116.59	8.31	709,513
Concrete Truck	1,532,698	253.65	18.08	1,543,630
Front End Loader	1,388,557	200.46	14.18	1,397,162
Trencher	255,249	42.24	3.01	257,070
Subtotal	6,045,125	952.97	67.75	6,086,139
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	252,978	41.87	2.98	254,782
Grader	334,760	55.40	3.95	337,147
Roller	578,140	95.68	6.82	582,263
Vibration Roller	589,626	97.58	6.96	593,831
Water Truck	268,012	44.35	3.16	269,923
Road Sweeper	242,487	40.13	2.86	244,216
Subtotal	2,266,002	375.01	26.73	2,282,163
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	352,244	58.29	4.15	354,756
Truck Crane	142,684	23.61	1.68	143,702
Auger	159,531	26.40	1.88	160,669
Subtotal	654,459	108.31	7.72	659,127

Table A.1.1-Alt2-262. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 1 - Stage 5.

<i>Activity</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
Construction				
New Container Yard Utilities	6,045,125	953	68	6,086,139
New Container Yard Construction - Paving	2,266,002	375	27	2,282,163
New Container Yard Construction - Electrical	654,459	108	8	659,127
Total Emissions	8,965,586	1,436	102	9,027,429

Table A.1.1-AIt2-263. Activity Data - Demolition - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	140	62,608
Excavator	428	0.57	1	244	8	1,952	140	273,235
Flatbed Truck	230	0.60	1	138	8	1,104	140	154,560
End Dump Truck	310	0.60	4	744	8	5,952	140	833,280

Table A.1.1-AIt2-264. Activity Data - Railyard - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
INTERMODAL YARD CONSTRUCTION								
Backhoe	102	0.57	1	58	8	465	315	146,513
Excavator	428	0.57	1	244	8	1,952	315	614,779
Ballast Spreader	100	0.50	1	50	8	400	315	126,000
Ballast Tamper	100	0.50	1	50	8	400	315	126,000
Generator Set	23	0.74	2	34	8	272	315	85,781
Roller	151	0.50	1	76	8	604	315	190,260
Grader	215	0.61	1	131	8	1,049	315	330,498
Truck Mounted Crane	130	0.43	1	56	8	447	315	140,868
Forklift	103	0.30	1	31	8	247	315	77,868
Flatbed Truck	230	0.60	2	276	8	2,208	315	695,520
End Dump Truck	310	0.60	2	372	8	2,976	315	937,440
Water Truck	210	0.60	1	126	8	1,008	315	317,520

Table A.1.1-Alt2-265. Activity Data - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	112	134,400
Auger	125	0.50	1	63	8	500	112	56,000
Crane	130	0.43	1	56	8	447	112	50,086
Grader	215	0.61	3	393	8	3,148	112	352,531
End Dump Truck	310	0.60	1	186	8	1,488	112	166,656
Flat Bed Truck	230	0.60	2	276	8	2,208	112	247,296
Concrete Truck	250	0.60	4	600	8	4,800	112	537,600
Front End Loader	400	0.68	2	544	8	4,352	112	487,424
Trencher	200	0.50	1	100	8	800	112	89,600
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	112	88,803
Grader	215	0.61	1	131	8	1,049	112	117,510
Roller	151	0.50	3	227	8	1,812	112	202,944
Vibration Roller	154	0.50	3	231	8	1,848	112	206,976
Water Truck	210	0.50	1	105	8	840	112	94,080
Road Sweeper	190	0.50	1	95	8	760	112	85,120
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	112	123,648
Truck Crane	130	0.43	1	56	8	447	112	50,086
Auger	125	0.50	1	63	8	500	112	56,000

Table A.1.1-Alt2-266. Activity Data - Demo Existing F1-4, F6 Wharf - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	4	744	8	5,952	182	1,083,264

Table A.1.1-Alt2-267. Activity Data - Roll Surcharge - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.72	9	3,078	8	24,624	42	1,034,208
Dozers	285	0.64	2	365	8	2,918	42	122,573
Loader	170	0.68	3	347	8	2,774	42	116,525
End Dump Truck	310	0.60	6	1,116	8	8,928	42	374,976
Water Truck	310	0.60	1	186	8	1,488	42	62,496

Table A.1.1-Alt2-268. Total Construction GHG Emissions - Demolition - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	78,398	12.97	0.92	78,957
Excavator	342,146	49.39	3.49	344,267
Flatbed Truck	193,541	32.03	2.28	194,921
End Dump Truck	1,043,437	150.64	10.65	1,049,903
Subtotal	1,657,522	245.04	17.36	1,668,048

Table A.1.1-Alt2-269. Total Construction GHG Emissions - Railyard - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
INTERMODAL YARD CONSTRUCTION				
Backhoe	183,464	31.33	2.26	184,823
Excavator	769,829	111.14	7.86	774,600
Ballast Spreader	157,778	26.94	1.94	158,946
Ballast Tamper	157,778	26.94	1.94	158,946
Generator Set	107,415	20.23	1.46	108,291
Roller	238,244	39.43	2.81	239,944
Grader	413,851	68.49	4.88	416,803
Truck Mounted Crane	176,396	29.19	2.08	177,654
Forklift	97,507	16.65	1.20	98,229
Flatbed Truck	870,933	144.13	10.27	877,145
End Dump Truck	1,173,867	173.60	12.40	1,181,356
Water Truck	397,600	65.80	4.69	400,436
Subtotal	4,744,662	753.89	53.80	4,777,173

Table A.1.1-AIt2-270. Total Construction GHG Emissions - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	168,296	24.30	1.72	169,339
Auger	70,123	11.60	0.83	70,624
Crane	62,718	10.38	0.74	63,166
Grader	441,441	73.06	5.21	444,590
End Dump Truck	208,687	30.13	2.13	209,981
Flat Bed Truck	309,665	51.25	3.65	311,874
Concrete Truck	673,185	111.41	7.94	677,986
Front End Loader	610,355	88.11	6.23	614,137
Trencher	112,198	18.57	1.32	112,998
Subtotal	2,656,669	418.80	29.77	2,674,694
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	111,199	18.40	1.31	111,992
Grader	147,147	24.35	1.74	148,197
Roller	254,127	42.06	3.00	255,940
Vibration Roller	259,176	42.89	3.06	261,025
Water Truck	117,807	19.50	1.39	118,648
Road Sweeper	106,588	17.64	1.26	107,348
Subtotal	996,045	164.84	11.75	1,003,149
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	154,833	25.62	1.83	155,937
Truck Crane	62,718	10.38	0.74	63,166
Auger	70,123	11.60	0.83	70,624
Subtotal	287,674	47.61	3.39	289,726

Table A.1.1-Alt2-271. Total Construction GHG Emissions - Roll Surcharge - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
ROLL SURCHARGE				
Scrapers	1,295,040	186.96	13.22	1,303,066
Dozers	153,486	22.16	1.57	154,437
Loader	145,913	24.15	1.72	146,954
End Dump Truck	469,547	67.79	4.79	472,457
Water Truck	78,258	11.30	0.80	78,743
Subtotal	2,142,244	312.35	22.11	2,155,656

Table A.1.1-Alt2-272. Total GHG Emissions - POLB - MHTP - Alternative 2 - Phase 2 - Stage 1.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Demolition				
Wharf Demolition Landside	1,657,522	245	17	1,668,048
Railyard				
Intermodal Yard Construction	4,744,662	754	54	4,777,173
Container Yard Development (F1 - F4)				
New Container Yard Utilities	2,656,669	419	30	2,674,694
New Container Yard Construction - Paving	996,045	165	12	1,003,149
New Container Yard Construction - Electrical	287,674	48	3	289,726
Demo Existing F1-4, F6 Wharf				
Wharf Demolition Landside	2,154,779	319	23	2,168,463
Roll Surcharge				
Roll Surcharge	2,142,244	312	22	2,155,656
Total Emissions	14,639,595	2,261	161	14,736,908

Table A.1.1-AIt2-273. Activity Data - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 2.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	4	744	8	5,952	182	1,083,264
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	182	375,648
	200	0.50	1	100	8	800	182	145,600
Work Tug	750	0.40	1	300	8	2,400	182	436,800
	150	0.50	1	75	8	600	182	109,200
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.60	1	138	8	1,104	182	200,928
End Dump Truck	310	0.60	3	558	8	4,464	182	812,448

Table A.1.1-Alt2-274. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2. (1 of 2)

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	168	327,882
Loader	170	0.68	1	116	8	925	168	155,366
End Dump Truck	310	0.60	4	744	8	5,952	168	999,936
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	168	346,752
	200	0.50	1	100	8	800	168	134,400
Front End Loader	400	0.68	1	272	8	2,176	168	365,568
Tug Boat	1,500	0.50	1	750	8	6,000	168	1,008,000
	150	0.50	1	75	8	600	168	100,800
Tug Boat	4,000	0.50	1	2,000	8	16,000	168	2,688,000
	400	0.50	1	200	8	1,600	168	268,800
Crew/Survey Boat	400	0.30	1	120	8	960	168	161,280
	80	0.50	1	40	8	320	168	53,760
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	168	193,603
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	168	352,800
Flatbed Truck	230	0.60	1	138	8	1,104	168	185,472
Welding Machine	26	0.45	1	12	8	94	168	15,725
Generator	13	0.74	1	10	8	77	168	12,929
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 200 Ton	335	0.43	1	144	8	1,152	126	145,202
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	126	204,120
Piledriving Hammer	211	0.50	1	106	8	844	126	106,344
Loader-Wheel	300	0.68	1	204	8	1,632	126	205,632
Jet Pump	33	0.74	1	24	8	195	126	24,615
End Dump Truck	310	0.60	1	186	8	1,488	126	187,488
Truck-Flatbed	230	0.60	1	138	8	1,104	126	139,104
Truck-Lowboy	350	0.60	1	210	8	1,680	126	211,680

Table A.1.1-Alt2-275. Activity Data - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2. (2 of 2)

DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	126	145,202
Derrick Barge	380	0.43	1	163	8	1,307	126	164,707
	195	0.50	1	98	8	780	126	98,280
Piledriving Hammer	211	0.50	1	106	8	844	126	106,344
End Dump Truck	310	0.60	1	186	8	1,488	126	187,488
Tugboat	1,000	0.50	1	500	8	4,000	126	504,000
	100	0.50	1	50	8	400	126	50,400
Truck-Flatbed	230	0.60	1	138	8	1,104	126	139,104
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	126	245,912
Loader-Wheel	180	0.68	1	122	8	979	126	123,379
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	210	109,805
Crane - 150 Ton	335	0.43	1	144	8	1,152	210	242,004
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	210	242,004
	107	0.50	1	54	8	428	210	89,880
Concrete Pump	210	0.74	1	155	8	1,243	210	261,072
Concrete Trucks	285	0.60	5	770	8	6,156	210	1,292,760
Sandblaster w/air compressor	50	0.75	1	38	8	300	210	63,000
Truck-Flatbed	230	0.60	1	138	8	1,104	210	231,840
Tugboat	1,000	0.50	1	500	8	4,000	210	840,000
	100	0.50	1	50	8	400	210	84,000
Concrete Saw	35	0.10	1	4	8	28	210	5,880
Truck Crane - 65 ton	365	0.50	1	183	8	1,460	210	306,600
Boom Truck	350	0.50	1	175	8	1,400	210	294,000

Table A.1.1-Alt2-276. Total Construction GHG Emissions - Demo Existing F8-10 Wharf - POLB - MHTP - Alternative 2.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
WHARF DEMOLITION LANDSIDE				
Hydra-Crane	101,917.43	16.87	1.20	102,644
Excavator	444,790.28	64.21	4.54	447,547
Flatbed Truck	251,602.96	41.64	2.97	253,397
End Dump Truck	1,356,468.15	195.83	13.85	1,364,874
Subtotal	2,154,778.82	318.55	22.56	2,168,462.88
WHARF DEMOLITION MARINE				
Derrick Barge	470,388.15	69.56	4.97	473,389
	182,320.99	30.17	2.15	183,621
Work Tug	621,111.11	85.70	6.16	624,821
	136,740.74	22.63	1.61	137,716
Hydra-Crane	101,917.43	16.87	1.20	102,644
Excavator	444,790.28	64.21	4.54	447,547
Flatbed Truck	251,602.96	41.64	2.97	253,397
End Dump Truck	1,017,351.11	146.87	10.39	1,023,656
Subtotal	3,226,222.78	477.66	34.00	3,246,792.32

Table A.1.1-AIt2-277. Total Construction GHG Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2 (1 of 2).

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
LAND EX				
Excavator	410,575.64	59.27	4.19	413,120
Loader	194,550.52	32.20	2.29	195,938
End Dump Truck	1,252,124.44	180.76	12.79	1,259,884
Subtotal	1,857,250.61	272.23	19.27	1,868,942.21
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS				
Derrick Barge	434,204.44	64.21	4.59	436,975
	168,296.30	27.85	1.99	169,497
Front End Loader	457,765.93	66.09	4.67	460,603
Tug Boat	1,433,333.33	197.78	14.22	1,441,896
	126,222.22	20.89	1.49	127,122
Tug Boat	3,822,222.22	527.41	37.93	3,845,055
	336,592.59	48.59	3.44	338,679
Crew/Survey Boat	229,333.33	31.64	2.28	230,703
	67,318.52	11.50	0.83	67,817
Subtotal	7,075,288.89	995.96	71.43	7,118,345.92
RETAINING BULKHEAD CONSTRUCTION				
Crane - 100 Ton	242,430.81	35.00	2.48	243,933
Vibratory Hammer & Power Pack	441,777.78	63.78	4.51	444,516
Flatbed Truck	232,248.89	38.44	2.74	233,905
Welding Machine	19,690.67	3.71	0.27	19,851
Generator	16,190.10	3.05	0.22	16,322
Subtotal	952,338.25	143.97	10.21	958,527.56
DRIVE 24-IN OCTAGONAL PILES - LAND				
Hydraulic Crane	82,498.84	13.65	0.97	83,087
Crane - 200 Ton	181,823.11	26.25	1.86	182,950
Drill/Power Pack HPSI	255,600.00	36.90	2.61	257,184
Piledriving Hammer	133,164.44	22.04	1.57	134,114
Loader-Wheel	257,493.33	37.17	2.63	259,089
Jet Pump	30,823.47	5.81	0.42	31,075
End Dump Truck	234,773.33	33.89	2.40	236,228
Truck-Flatbed	174,186.67	28.83	2.05	175,429
Truck-Lowboy	265,066.67	38.27	2.71	266,709
Subtotal	1,615,429.87	242.81	17.22	1,625,865.89

Table A.1.1-AIt2-278. Total Construction GHG Emissions - Construct Wharf, Armor, Fill - POLB - MHTP - Alternative 2 (2 of 2).

DRIVE 24-IN OCTAGONAL PILES - WATER				
Crane - 200 Ton	181,823.11	26.25	1.86	182,950
Derrick Barge	206,247.11	29.78	2.11	207,525
	123,066.67	20.37	1.45	123,944
Piledriving Hammer	133,164.44	22.04	1.57	134,114
End Dump Truck	234,773.33	33.89	2.40	236,228
Tugboat	716,666.67	98.89	7.11	720,948
	63,111.11	10.78	0.78	63,579
Truck-Flatbed	174,186.67	28.83	2.05	175,429
Subtotal	1,833,039.11	270.82	19.33	1,844,717.30
DRIVE PILES - MISC ACTIVITIES				
Excavator	307,931.73	44.45	3.14	309,840
Loader-Wheel	154,496.00	25.57	1.82	155,598
Hydraulic Crane	82,498.84	13.65	0.97	83,087
Crane - 150 Ton	181,823.11	26.25	1.86	182,950
Subtotal	726,749.69	109.93	7.80	731,475.05
REINFORCED CONCRETE WHARF				
Hydraulic Crane	137,498.07	22.75	1.62	138,479
Crane - 150 Ton	303,038.52	43.75	3.09	304,917
Crane Barge - 150 ton	303,038.52	43.75	3.09	304,917
	112,548.15	19.22	1.39	113,382
Concrete Pump	326,915.56	54.10	3.86	329,247
Concrete Trucks	1,618,800.00	233.70	16.53	1,628,832
Sandblaster w/air compressor	78,888.89	14.86	1.07	79,533
Truck-Flatbed	290,311.11	48.04	3.42	292,382
Tugboat	1,194,444.44	164.81	11.85	1,201,580
	105,185.19	17.96	1.30	105,964
Concrete Saw	7,362.96	1.39	0.10	7,423
Truck Crane - 65 ton	383,925.93	55.43	3.92	386,305
Boom Truck	368,148.15	53.15	3.76	370,430
Subtotal	2,428,266.67	355.64	25.42	2,443,615.86

Table A.1.1-ALT3-42. Activity Data - Utility Construction - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-43. Activity Data - Paving - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-44. Activity Data - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-45. Activity Data - Utility Construction - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-46. Activity Data - Paving - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-47. Activity Data - Lighting, Fence, Striping, Crane Power - MHTP - Alternative 3.
Table A.1.1-ALT3-48. Activity Data - Container Yard Development - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-49. Activity Data - POLB Ocean Blvd Track Reconfiguration - MHTP - Alternative 3.
Table A.1.1-ALT3-50. Activity Data - Electrical Substation Construction - MHTP - Alternative 3.
Table A.1.1-ALT3-51. Activity Data - Overhead Subtransmission Line Construction - Alternative 3.
Table A.1.1-ALT3-52. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-53. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-54. Daily Construction Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-55. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-56. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-57. Daily Construction Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-58. Daily Construction Emissions - Container Yard Development - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-59. Daily Construction Emissions - POLB Ocean Blvd Track Reconfiguration - MHTP - Alternative 3.
Table A.1.1-ALT3-60. Daily Construction Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-61. Daily Construction Emissions - Overhead Subtransmission Line Construction - MHTP - Alternative 3.
Table A.1.1-ALT3-62. Total GHG Emissions - MHTP - Alternative 3 - Phase 1 - Stage 1.
Table A.1.1-ALT3-63. Activity Data - CY Development - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-64. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-65. Total GHG Emissions - MHTP - Alternative 3 - Phase 1 - Stage 2.
Table A.1.1-ALT3-66. Activity Data - CY Development - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-67. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-68. Total GHG Emissions - MHTP - Alternative 3 - Phase 1 - Stage 3.
Table A.1.1-ALT3-69. Activity Data - Seaside Railyard Area Redevelopment (not in schedule, added) - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-70. Daily Construction Emissions - Seaside Railyard Area Redevelopment - Alternative 3.
Table A.1.1-ALT3-71. Total GHG Emissions - Alternative 3 - Phase 1 - Stage 4.
Table A.1.1-ALT3-72. Activity Data - Construction - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-73. Daily Construction Emissions - Construction - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-74. Total GHG Emissions - Alternative 3 - Phase 1 - Stage 5.
Table A.1.1-ALT3-75. Activity Data - Railyard - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-76. Activity Data - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-77. Daily Construction Emissions - Railyard - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-78. Daily Construction Emissions - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 3.
Table A.1.1-ALT3-79. Total GHG Emissions - MHTP - Alternative 3 - Phase 2 - Stage 1.

This page intentionally left blank.

Table A.1.1-ALT3-42. Activity Data - Utility Construction - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	30	36,000
Auger	125	0.50	1	63	8	500	30	15,000
Crane	130	0.43	1	56	8	447	30	13,416
Grader	215	0.61	3	393	8	3,148	30	94,428
End Dump Truck	310	0.60	1	186	8	1,488	30	44,640
Flat Bed Truck	230	0.60	2	276	8	2,208	30	66,240
Concrete Truck	250	1	4	600	8	4,800	30	144,000
Front End Loader	400	0.68	2	544	8	4,352	30	130,560
Trencher	200	0.50	1	100	8	800	30	24,000

Table A.1.1-ALT3-43. Activity Data - Paving - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	20	15,858
Grader	215	0.61	1	131	8	1,049	20	20,984
Roller	151	0.50	3	227	8	1,812	20	36,240
Vibration Roller	154	0.50	3	231	8	1,848	20	36,960
Water Truck	210	0.50	1	105	8	840	20	16,800
Road Sweeper	190	0.50	1	95	8	760	20	15,200

Table A.1.1-ALT3-44. Activity Data - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	30	33,120
Truck Crane	130	0.43	1	56	8	447	30	13,416
Auger	125	0.50	1	63	8	500	30	15,000

Table A.1.1-ALT3-45. Activity Data - Utility Construction - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	60	72,000
Auger	125	0.50	1	63	8	500	60	30,000
Crane	130	0.43	1	56	8	447	60	26,832
Grader	215	0.61	3	393	8	3,148	60	188,856
End Dump Truck	310	0.60	1	186	8	1,488	60	89,280
Flat Bed Truck	230	0.60	2	276	8	2,208	60	132,480
Concrete Truck	250	0.60	4	600	8	4,800	60	288,000
Front End Loader	400	0.68	2	544	8	4,352	60	261,120
Trencher	200	0.50	1	100	8	800	60	48,000

Table A.1.1-ALT3-46. Activity Data - Paving - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	60	47,573
Grader	215	0.61	1	131	8	1,049	60	62,952
Roller	151	0.50	3	227	8	1,812	60	108,720
Vibration Roller	154	0.50	3	231	8	1,848	60	110,880
Water Truck	210	0.50	1	105	8	840	60	50,400
Road Sweeper	190	0.50	1	95	8	760	60	45,600

Table A.1.1-ALT3-47. Activity Data - Lighting, Fence, Striping, Crane Power - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	60	66,240
Truck Crane	130	0.43	1	56	8	447	60	26,832
Auger	125	0.50	1	63	8	500	60	30,000

Table A.1.1-ALT3-48. Activity Data - Container Yard Development - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	223	267,120
Auger	125	0.50	1	63	8	500	223	111,300
Crane	130	0.43	1	56	8	447	223	99,547
Grader	215	0.61	3	393	8	3,148	223	700,656
End Dump Truck	310	0.60	1	186	8	1,488	223	331,229
Flat Bed Truck	230	0.60	2	276	8	2,208	223	491,501
Concrete Truck	250	1	4	600	8	4,800	223	1,070,400
Front End Loader	400	0.68	2	544	8	4,352	223	968,755
Trencher	200	0.50	1	100	8	800	223	178,080
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	223	176,495
Grader	215	0.61	1	131	8	1,049	223	233,552
Roller	151	0.50	3	227	8	1,812	223	403,351
Vibration Roller	154	0.50	3	231	8	1,848	223	411,365
Water Truck	210	0.50	1	105	8	840	223	186,984
Road Sweeper	190	0.50	1	95	8	760	223	169,176
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	223	245,750
Truck Crane	130	0.43	1	56	8	447	223	99,547
Auger	125	0.50	1	63	8	500	223	111,300

Table A.1.1-ALT3-49. Activity Data - POLB Ocean Blvd Track Reconfiguration - MHTP - Alternative 3.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
TRIPLE TRACK INSTALLATION DEMO EQ								
Track hoe with breaker and bucket (demo)	428	0.57	1	244	0	0	2	0
Front end loader	170	0.68	1	116	0	0	7	0
Backhoe or skiploader (as needed)	335			0		0	3	0
12 or 14 H Blade	350			0		0	7	0
Sheepsfoot vibratory roller	26			0		0	2	0
Water truck	13			0		0	7	0
Haul off dump trucks for spoil	310	0.60		0		0	4	0
TRIPLE TRACK UTILITY RELOCATION EQ								
Front end loader	170	0.68	1	116	8	925		0
Backhoe				0		0	14	0
Trench vibratory roller or jumping jack				0		0	14	0
Water truck				0		0	14	0
Haul off dump trucks for spoil	310	0.60		0		0	7	0
Concrete trucks				0		0	7	0
TRIPLE TRACK GRADING EQ								
Haul in dump trucks for subballast material	310	0.60		0		0	5	0
966 (or equivalent) Front end loader	170	0.68	1	116	8	925	5	4,624
Backhoe or skiploader (as needed)				0		0	2	0
12 or 14 G Blade	1,500			0		0	5	0
	150			0		0		
Smooth drum vibratory roller	4,000			0		0	5	0
	400			0		0		
Water truck				0		0	5	0
TRIPLE TRACK RETAINING WALL EQ								
Backhoe				0		0	15	0
Trench vibratory roller or jumping jack				0		0	7	0
Water truck				0		0	15	0
Extendable forklift				0		0	7	0
Concrete trucks if CIP walls				0		0	4	0
Form Truck				0		0	7	0
TRIPLE TRACK TRACKWORK EQ								
Ballast delivery dump trucks	310	0.60		0		0	96	0
Smooth drum vibratory roller				0		0	7	0
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	170	0.68	1	116	8	925	96	88,781
Swingmaster or Speedswing loader for rail handling				0		0	96	0
Ballast cars for initial and final ballast placement				0		0	14	0
16 head vibratory Tamper with full electronics for alignment and grade				0		0	96	0
Ballast regulator				0		0	96	0
Water truck				0		0	96	0
Rail vibrator				0		0	7	0
TRIPLE TRACK MISCELLANEOUS EQ								
Mechanic's truck				0		0	96	0
Tool truck with small hydraulic hand tools				0		0	96	0
Welding truck with hydraulic equipment				0		0	96	0
Fuel truck				0		0	33	0
Working Pickups				0		0	96	0
Generator	13	0.74		0		0	33	0

Table A.1.1-ALT3-50. Activity Data - Electrical Substation Construction - MHTP - Alternative 3.

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
Grading								
Water Trucks (Gasoline)	210	0.50	2	210	8	1,680	40	67,200
Truck for Soil Test Inspector (Gasoline)	210	0.50	1	105	8	840	40	33,600
980 Loader	318	0.50	1	159	8	1,272	40	50,880
Grader	215	0.61	1	131	8	1,049	40	41,968
Vibratory Compactor	130	0.61	1	79	6	476	20	9,516
Survey								
Survey Trucks (Gasoline)	210	0.50	2	210	8	1,680	45	75,600
Civil								
Crew Trucks	210	0.50	2	210	4	840	50	42,000
Dump Trucks	310	0.60	2	372	3	1,116	50	55,800
Stake Bed Truck (5-ton)	210	0.50	1	105	2	210	50	10,500
Trencher	200	0.50	1	100	8	800	30	24,000
Drill Rig	125	0.50	1	63	8	500	10	5,000
Tractor	210	0.50	1	105	7	735	50	36,750
Forklift	103	0.30	1	31	4	124	50	6,180
Electrical								
8-Ton Stake Truck	210	0.50	1	105	4	420	80	33,600
Crew Cab Trucks	210	0.50	2	210	6	1,260	80	100,800
Carryall Vehicles (Gasoline)	210	0.50	2	210	6	1,260	80	100,800
Cranes	130	0.43	2	112	4	447	80	35,776
Lift Truck	210	0.50	1	105	4	420	80	33,600
Pickups	210	0.50	2	210	4	840	80	67,200
Forklift	103	0.30	1	31	6	185	80	14,832
Manlifts	210	0.50	2	210	8	1,680	80	134,400
Support Trucks	210	0.50	2	210	4	840	80	67,200
Transformer Setup								
Carryall Vehicle (Gasoline)	210	0.50	1	105	2	210	20	4,200
Crew Truck	210	0.50	1	105	2	210	20	4,200
Crane	130	0.43	1	56	6	335	20	6,708
Forklift	103	0.30	1	31	6	185	20	3,708
Low Bed Truck	210	0.50	1	105	4	420	20	8,400
Test								
Test Truck	210	0.50	1	105	4	420	40	16,800
Paving								
Foreman Truck	210	0.50	1	105	6	630	5	3,150
2 Dump Trucks	310	0.60	2	372	6	2,232	5	11,160
2 Skip Loaders	170	0.68	2	231	6	1,387	5	6,936
Barbergreen	150	0.50	1	75	8	600	2	1,200
Fence Installation								
Foreman Truck	210	0.50	1	105	4	420	4	1,680
Crewcab	230	0.60	1	138	4	552	4	2,208
Bobcat (Gasoline)	100	0.50	1	50	8	400	4	1,600
3-Ton Flatbed Truck	230	0.60	1	138	2	276	2	552

Table A.1.1-ALT3-51. Activity Data - Overhead Subtransmission Line Construction - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
Installation of 160 LWS poles and removal of wood poles								
Heavy Line Truck	300	0.50	1	150	4	600	60	36,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	60	25,200
Light Material Truck	210	0.50	1	105	4	420	60	25,200
75' Bucket Truck	210	0.50	1	105	4	420	60	25,200
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	60	25,200
Wire Replacement/Attachment and Termination								
Heavy Line Truck	300	0.50	1	150	4	600	90	54,000
Carry-All (Gasoline)	210	0.50	1	105	4	420	90	37,800
Light Material Truck	210	0.50	1	105	4	420	90	37,800
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	90	37,800
Final Connection of New Lines								
Heavy Line Truck	300	0.50	1	150	4	600	2	1,200
Carry-All (Gasoline)	210	0.50	1	105	4	420	2	840
Light Material Truck	210	0.50	1	105	4	420	2	840
Pickup Truck (Gasoline)	210	0.50	1	105	4	420	2	840

Table A.1.1-ALT3-52. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	45,079.37	6.51	0.46	45,358.73
Auger	18,783.07	3.11	0.22	18,917.03
Crane	16,799.58	2.78	0.20	16,919.39
Grader	118,243.17	19.57	1.39	119,086.49
End Dump Truck	55,898.41	8.07	0.57	56,244.83
Flat Bed Truck	82,946.03	13.73	0.98	83,537.61
Concrete Truck	180,317.46	29.84	2.13	181,603.49
Front End Loader	163,487.83	23.60	1.67	164,500.99
Trencher	30,052.91	4.97	0.35	30,267.25
Subtotal	711,607.83	112.18	7.97	716,435.81

Table A.1.1-ALT3-53. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	19,856.96	3.29	0.23	19,998.58
Grader	26,276.26	4.35	0.31	26,463.66
Roller	45,379.89	7.51	0.54	45,703.55
Vibration Roller	46,281.48	7.66	0.55	46,611.56
Water Truck	21,037.04	3.48	0.25	21,187.07
Road Sweeper	19,033.51	3.15	0.22	19,169.26
Subtotal	177,865.14	29.44	2.10	179,133.68

Table A.1.1-ALT3-54. Daily Construction Emissions - Lighting, Striping, Crane Power - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	41,473.02	6.86	0.49	41,768.80
Truck Crane	16,799.58	2.78	0.20	16,919.39
Auger	18,783.07	3.11	0.22	18,917.03
Subtotal	77,055.66	12.75	0.91	77,605.23

Table A.1.1-ALT3-55. Daily Construction Emissions - Utility Construction - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	90,158.73	13.02	0.92	90,717.46
Auger	37,566.14	6.22	0.44	37,834.06
Crane	33,599.15	5.56	0.40	33,838.78
Grader	236,486.35	39.14	2.79	238,172.98
End Dump Truck	111,796.83	16.14	1.14	112,489.65
Flat Bed Truck	165,892.06	27.45	1.96	167,075.21
Concrete Truck	360,634.92	59.68	4.25	363,206.98
Front End Loader	326,975.66	47.20	3.34	329,001.99
Trencher	60,105.82	9.95	0.71	60,534.50
Subtotal	1,423,215.66	224.36	15.95	1,432,871.62

Table A.1.1-ALT3-56. Daily Construction Emissions - Paving - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	59,570.88	9.86	0.70	59,995.74
Grader	78,828.78	13.05	0.93	79,390.99
Roller	136,139.68	22.53	1.61	137,110.64
Vibration Roller	138,844.44	22.98	1.64	139,834.69
Water Truck	63,111.11	10.44	0.74	63,561.22
Road Sweeper	57,100.53	9.45	0.67	57,507.77
Subtotal	533,595.43	88.31	6.29	537,401.05

Table A.1.1-ALT3-57. Daily Construction Emissions - Lighting, Fence, Striping, Crane Power - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	82,946.03	13.73	0.98	83,537.61
Truck Crane	33,599.15	5.56	0.40	33,838.78
Auger	37,566.14	6.22	0.44	37,834.06
Subtotal	154,111.32	25.50	1.82	155,210.45

Table A.1.1-ALT3-58. Daily Construction Emissions - Container Yard Development - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	334,488.89	48.29	3.42	336,561.78
Auger	139,370.37	23.06	1.64	140,364.37
Crane	124,652.86	20.63	1.47	125,541.89
Grader	877,364.36	145.20	10.35	883,621.76
End Dump Truck	414,766.22	59.88	4.24	417,336.60
Flat Bed Truck	615,459.56	101.85	7.26	619,849.04
Concrete Truck	1,340,359.79	221.82	15.81	1,349,919.29
Front End Loader	1,213,079.70	175.13	12.39	1,220,597.38
Trencher	222,992.59	36.90	2.63	224,582.99
Subtotal	5,282,534.34	832.76	59.20	5,318,375.09
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	221,007.96	36.58	2.61	222,584.20
Grader	292,454.79	48.40	3.45	294,540.59
Roller	505,078.22	83.59	5.96	508,680.46
Vibration Roller	515,112.89	85.25	6.08	518,786.70
Water Truck	234,142.22	38.75	2.76	235,812.13
Road Sweeper	211,842.96	35.06	2.50	213,353.84
Subtotal	1,979,639.04	327.62	23.35	1,993,757.91
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	307,729.78	50.93	3.63	309,924.52
Truck Crane	124,652.86	20.63	1.47	125,541.89
Auger	139,370.37	23.06	1.64	140,364.37
Subtotal	571,753.01	94.62	6.74	575,830.77

Table A.1.1-ALT3-59. Daily Construction Emissions - POLB Ocean Blvd Track Reconfiguration - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
TRIPLE TRACK INSTALLATION DEMO EQ				
Track hoe with breaker and bucket (demo)	0.00	0.00	0.00	0.00
Front end loader	0.00	0.00	0.00	0.00
Backhoe or skid loader (as needed)				
12 or 14 H Blade				
Sheepsfoot vibratory roller				
Water truck				
Haul off dump trucks for spoil				
Subtotal	0.00	0.00	0.00	0.00
TRIPLE TRACK UTILITY RELOCATION EQ				
Front end loader				
Backhoe				
Trench vibratory roller or jumping jack				
Water truck				
Haul off dump trucks for spoil				
Concrete trucks				
Subtotal	0.00	0.00	0.00	0.00
TRIPLE TRACK GRADING EQ				
Haul in dump trucks for subballast material				
966 (or equivalent) Front end loader	5,790.19	0.96	0.07	5,831.49
Backhoe or skid loader (as needed)				
12 or 14 G Blade				
Smooth drum vibratory roller				
Water truck				
Subtotal	5,790.19	0.96	0.07	5,831.49
TRIPLE TRACK RETAINING WALL EQ				
Backhoe				
Trench vibratory roller or jumping jack				
Water truck				
Extendable forklift				
Concrete trucks if CIP walls				
Form Truck				
Subtotal	0.00	0.00	0.00	0.00
TRIPLE TRACK TRACKWORK EQ				
Ballast delivery dump trucks				
Smooth drum vibratory roller				
Extendable forklift, or 966 (or equivalent) Front end loader to set ties on ballast mat	111,171.72	18.40	1.31	111,964.61
Swingmaster or Speedswing loader for rail handling				
Ballast cars for initial and final ballast placement				
16 head vibratory Tamper with full electronics for alignment and grade				
Ballast regulator				
Water truck				
Rail vibrator				
Subtotal	111,171.72	18.40	1.31	111,964.61
TRIPLE TRACK MISCELLANEOUS EQ				
Mechanic's truck				
Tool truck with small hydraulic hand tools				
Welding truck with hydraulic equipment				
Fuel truck				
Working Pickups				
Generator				
Subtotal	0.00	0.00	0.00	0.00

Table A.1.1-ALT3-60. Daily Construction Emissions - Electrical Substation Construction - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
Grading				
Water Trucks (Gasoline)				
Truck for Soil Test Inspector (Gasoline)				
980 Loader	63,712.17	9.20	0.65	64,107.01
Grader	52,552.52	8.70	0.62	52,927.33
Vibratory Compactor	11,915.98	1.97	0.14	12,000.96
Subtotal	128,180.67	19.87	1.41	129,035.30
Survey				
Survey Trucks (Gasoline)				
Civil				
Crew Trucks	52,592.59	8.70	0.62	52,967.69
Dump Trucks	69,873.02	10.09	0.71	70,306.03
Stake Bed Truck (5-ton)	13,148.15	2.18	0.16	13,241.92
Trencher	30,052.91	4.97	0.35	30,267.25
Drill Rig	6,261.02	1.04	0.07	6,305.68
Tractor	46,018.52	7.62	0.54	46,346.72
Forklift	7,738.62	1.32	0.10	7,795.94
Subtotal	225,684.83	35.91	2.56	227,231.23
Electrical				
8-Ton Stake Truck	42,074.07	6.96	0.50	42,374.15
Crew Cab Trucks	126,222.22	20.89	1.49	127,122.44
Carryall Vehicles (Gasoline)				0.00
Cranes	44,798.87	7.41	0.53	45,118.38
Lift Truck	42,074.07	6.96	0.50	42,374.15
Pickups	84,148.15	13.93	0.99	84,748.30
Forklift	18,572.70	3.17	0.23	18,710.26
Manlifts	168,296.30	27.85	1.99	169,496.59
Support Trucks	84,148.15	13.93	0.99	84,748.30
Subtotal	610,334.53	101.10	7.21	614,692.57
Transformer Setup				
Carryall Vehicle (Gasoline)				
Crew Truck	5,259.26	0.87	0.06	5,296.77
Crane	8,399.79	1.39	0.10	8,459.70
Forklift	4,643.17	0.79	0.06	4,677.57
Low Bed Truck	10,518.52	1.74	0.12	10,593.54
Subtotal	28,820.74	4.79	0.34	29,027.57
Test				
Test Truck	21,037.04	3.48	0.25	21,187.07
Paving				
Foreman Truck	3,944.44	0.65	0.05	3,972.58
2 Dump Trucks	13,974.60	2.02	0.14	14,061.21
2 Skip Loaders	8,685.29	1.44	0.10	8,747.23
Barbergreen	1,502.65	0.25	0.02	1,513.36
Subtotal	28,106.98	4.36	0.31	28,294.38
Fence Installation				
Foreman Truck	2,103.70	0.35	0.02	2,118.71
Crewcab	2,764.87	0.46	0.03	2,784.59
Bobcat (Gasoline)	2,003.53	0.33	0.02	2,017.82
3-Ton Flatbed Truck	691.22	0.11	0.01	696.15
Subtotal	7,563.32	1.25	0.09	7,617.26

Table A.1.1-ALT3-61. Daily Construction Emissions - Overhead Subtransmission Line Construction - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO ₂	CH ₄	N ₂ O	CO _{2e}
Installation of 160 LWS poles and removal of wood poles				
Heavy Line Truck	45,079.37	6.51	0.46	45,358.73
Carry-All (Gasoline)				
Light Material Truck	31,555.56	5.22	0.37	31,780.61
75' Bucket Truck	31,555.56	5.22	0.37	31,780.61
Pickup Truck (Gasoline)				
Subtotal	108,190.48	16.95	1.20	108,919.95
Wire Replacement/Attachment and Termination				
Heavy Line Truck	67,619.05	9.76	0.69	68,038.10
Carry-All (Gasoline)				
Light Material Truck	47,333.33	7.83	0.56	47,670.92
Pickup Truck (Gasoline)				
Subtotal	114,952.38	17.60	1.25	115,709.01
Final Connection of New Lines				
Heavy Line Truck	1,502.65	0.22	0.02	1,511.96
Carry-All (Gasoline)				
Light Material Truck	1,051.85	0.17	0.01	1,059.35
Pickup Truck (Gasoline)				
Subtotal	2,554.50	0.39	0.03	2,571.31

Table A.1.1-ALT3-62. Total GHG Emissions - MHTP - Alternative 3 - Phase 1 - Stage 1.

Activity	Total Pounds			
	CO2	CH4	N2O	CO2e
Utility Construction				
New Container Yard Utilities	711,608	112	8	716,436
Paving				
New Container Yard Construction - Paving	177,865	29	2	179,134
Lighting, Striping, Crane Power				
New Container Yard Construction - Electrical	77,056	13	1	77,605
Utility Construction				
New Container Yard Utilities	1,423,216	224	16	1,432,872
Paving				
New Container Yard Construction - Paving	533,595	88	6	537,401
Lighting, Striping, Crane Power				
New Container Yard Construction - Electrical	154,111	26	2	155,210
Container Yard Development				
New Container Yard Utilities	5,282,534	833	59	5,318,375
New Container Yard Construction - Paving	1,979,639	328	23	1,993,758
New Container Yard Construction - Electrical	571,753	95	7	575,831
POLB Ocean Blvd Track Reconfiguration				
Triple Track Installation Demo Eq	0	0	0	0
Triple Track Utility Relocation Eq	0	0	0	0
Triple Track Grading Eq	5,790	1	0	5,831
Triple Track Retaining Wall Eq	0	0	0	0
Triple Track Trackwork Eq	111,172	18	1	111,965
Triple Track Miscellaneous Eq	0	0	0	0
Electrical Substation Construction				
Grading	128,181	20	1	129,035
Survey	0	0	0	0
Civil	225,685	36	3	227,231
Electrical	610,335	101	7	614,693
Transformer Setup	28,821	5	0	29,028
Test	21,037	3	0	21,187
Paving	28,107	4	0	28,294
Fence Installation	7,563	1	0	7,617
Overhead Subtransmission Line Construction				
Installation of 160 LWS poles and removal of wood poles	108,190	17	1	108,920
Wire Replacement/Attachment and Termination	114,952	18	1	115,709
Final Connection of New Lines	2,554	0	0	2,571
Total Emissions	12,304,333	1,973	140	12,388,703

Table A.1.1-ALT3-63. Activity Data - CY Development - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	38	29,733
Grader	215	0.61	1	131	8	1,049	38	39,345
Roller	151	0.50	3	227	8	1,812	38	67,950
Vibration Roller	154	0.50	3	231	8	1,848	38	69,300
Water Truck	210	0.50	1	105	8	840	38	31,500
Road Sweeper	190	0.50	1	95	8	760	38	28,500

Table A.1.1-ALT3-64. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	37,231.80	6.16	0.44	37,497.34
Grader	49,267.99	8.15	0.58	49,619.37
Roller	85,087.30	14.08	1.00	85,694.15
Vibration Roller	86,777.78	14.36	1.02	87,396.68
Water Truck	39,444.44	6.53	0.47	39,725.76
Road Sweeper	35,687.83	5.91	0.42	35,942.36
Subtotal	333,497.14	55.19	3.93	335,875.66

Table A.1.1-ALT3-65. Total GHG Emissions - MHTP - Alternative 3 - Phase 1 - Stage 2.

<i>Activity</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
CY Development				
New Container Yard Construction - Paving	333,497	55	4	335,876
Total Emissions	333,497	55	4	335,876

Table A.1.1-ALT3-66. Activity Data - CY Development - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	210	252,000
Auger	125	0.50	1	63	8	500	210	105,000
Crane	130	0.43	1	56	8	447	210	93,912
Grader	215	0.61	3	393	8	3,148	210	660,996
End Dump Truck	310	0.60	1	186	8	1,488	210	312,480
Flat Bed Truck	230	0.60	2	276	8	2,208	210	463,680
Concrete Truck	250	0.60	4	600	8	4,800	210	1,008,000
Front End Loader	400	0.68	2	544	8	4,352	210	913,920
Trencher	200	0.50	1	100	8	800	210	168,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	210	166,505
Grader	215	0.61	1	131	8	1,049	210	220,332
Roller	151	0.50	3	227	8	1,812	210	380,520
Vibration Roller	154	0.50	3	231	8	1,848	210	388,080
Water Truck	210	0.50	1	105	8	840	210	176,400
Road Sweeper	190	0.50	1	95	8	760	210	159,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	210	231,840
Truck Crane	130	0.43	1	56	8	447	210	93,912
Auger	125	0.50	1	63	8	500	210	105,000

Table A.1.1-ALT3-67. Daily Construction Emissions - CY Development - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	315,555.56	45.56	3.22	317,511.11
Auger	131,481.48	21.76	1.55	132,419.21
Crane	117,597.04	19.46	1.39	118,435.74
Grader	827,702.22	136.98	9.76	833,605.43
End Dump Truck	391,288.89	56.49	4.00	393,713.78
Flat Bed Truck	580,622.22	96.09	6.85	584,763.24
Concrete Truck	1,262,222.22	208.89	14.89	1,271,224.44
Front End Loader	1,144,414.81	165.21	11.69	1,151,506.96
Trencher	210,370.37	34.81	2.48	211,870.74
Subtotal	4,981,254.81	785.25	55.82	5,015,050.67
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	208,498.07	34.50	2.46	209,985.09
Grader	275,900.74	45.66	3.25	277,868.48
Roller	476,488.89	78.86	5.62	479,887.23
Vibration Roller	485,955.56	80.42	5.73	489,421.41
Water Truck	220,888.89	36.56	2.61	222,464.28
Road Sweeper	199,851.85	33.07	2.36	201,277.20
Subtotal	1,867,584.00	309.07	22.03	1,880,903.69
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	290,311.11	48.04	3.42	292,381.62
Truck Crane	117,597.04	19.46	1.39	118,435.74
Auger	131,481.48	21.76	1.55	132,419.21
Subtotal	539,389.63	89.27	6.36	543,236.58

Table A.1.1-ALT3-68. Total GHG Emissions - MHTP - Alternative 3 - Phase 1 - Stage 3.

<i>Activity</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
CY Development				
Vibratory Hammer & Power Pack	4,981,254.81	785	56	5,015,051
Flatbed Truck	1,867,584.00	309	22	1,880,904
Welding Machine	539,389.63	89	6	543,237
Total Emissions	7,388,228.44	1,184	84	7,439,191

Table A.1.1-ALT3-69. Activity Data - Seaside Railyard Area Redevelopment (not in schedule, added) - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	335	402,000
Auger	125	0.50	1	63	8	500	335	167,500
Crane	130	0.43	1	56	8	447	335	149,812
Grader	215	0.61	3	393	8	3,148	335	1,054,446
End Dump Truck	310	0.60	1	186	8	1,488	335	498,480
Flat Bed Truck	230	0.60	2	276	8	2,208	335	739,680
Concrete Truck	250	0.60	4	600	8	4,800	335	1,608,000
Front End Loader	400	0.68	2	544	8	4,352	335	1,457,920
Trencher	200	0.50	1	100	8	800	335	268,000
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	335	265,615
Grader	215	0.61	1	131	8	1,049	335	351,482
Roller	151	0.50	3	227	8	1,812	335	607,020
Vibration Roller	154	0.50	3	231	8	1,848	335	619,080
Water Truck	210	0.50	1	105	8	840	335	281,400
Road Sweeper	190	0.50	1	95	8	760	335	254,600
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	335	369,840
Truck Crane	130	0.43	1	56	8	447	335	149,812
Auger	125	0.50	1	63	8	500	335	167,500

Table A.1.1-ALT3-70. Daily Construction Emissions - Seaside Railyard Area Redevelopment - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	503,386.24	72.67	5.14	506,505.82
Auger	209,744.27	34.71	2.47	211,240.17
Crane	187,595.27	31.05	2.21	188,933.21
Grader	1,320,382.12	218.51	15.57	1,329,799.14
End Dump Truck	624,198.94	90.11	6.37	628,067.22
Flat Bed Truck	926,230.69	153.28	10.93	932,836.60
Concrete Truck	2,013,544.97	333.23	23.75	2,027,905.66
Front End Loader	1,825,614.11	263.56	18.64	1,836,927.77
Trencher	335,590.83	55.54	3.96	337,984.28
Subtotal	7,946,287.44	1,252.66	89.05	8,000,199.88
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	332,604.07	55.04	3.92	334,976.22
Grader	440,127.37	72.84	5.19	443,266.38
Roller	760,113.23	125.79	8.97	765,534.39
Vibration Roller	775,214.81	128.29	9.14	780,743.68
Water Truck	352,370.37	58.31	4.16	354,883.49
Road Sweeper	318,811.29	52.76	3.76	321,085.06
Subtotal	2,979,241.14	493.04	35.14	3,000,489.22
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	463,115.34	76.64	5.46	466,418.30
Truck Crane	187,595.27	31.05	2.21	188,933.21
Auger	209,744.27	34.71	2.47	211,240.17
Subtotal	860,454.89	142.40	10.15	866,591.69

Table A.1.1-ALT3-71. Total GHG Emissions - Alternative 3 - Phase 1 - Stage 4.

<i>Activity</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
Seaside Railyard Area Redevelopment				
New Container Yard Utilities	7,946,287.4	1,253	89	8,000,200
New Container Yard Construction - Paving	2,979,241	493	35	3,000,489
New Container Yard Construction - Electrical	860,455	142	10	866,592
Total Emissions	11,785,983	1,888	134	11,867,281

Table A.1.1-ALT3-72. Activity Data - Construction - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	255	305,760
Auger	125	0.50	1	63	8	500	255	127,400
Crane	130	0.43	1	56	8	447	255	113,947
Grader	215	0.61	3	393	8	3,148	255	802,008
End Dump Truck	310	0.60	1	186	8	1,488	255	379,142
Flat Bed Truck	230	0.60	2	276	8	2,208	255	562,598
Concrete Truck	250	1	4	600	8	4,800	255	1,224,000
Front End Loader	400	0.68	2	544	8	4,352	255	1,108,890
Trencher	200	0.50	1	100	8	800	255	203,840
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	255	202,026
Grader	215	0.61	1	131	8	1,049	255	267,336
Roller	151	0.50	3	227	8	1,812	255	461,698
Vibration Roller	154	0.50	3	231	8	1,848	255	470,870
Water Truck	210	0.50	1	105	8	840	255	214,032
Road Sweeper	190	0.50	1	95	8	760	255	193,648
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	255	281,299
Truck Crane	130	0.43	1	56	8	447	255	113,947
Auger	125	0.50	1	63	8	500	255	127,400

Table A.1.1-ALT3-73. Daily Construction Emissions - Construction - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	382,874	55.27	3.91	385,247
Auger	159,531	26.40	1.88	160,669
Crane	142,684	23.61	1.68	143,702
Grader	1,004,279	166.20	11.85	1,011,441
End Dump Truck	474,764	68.54	4.85	477,706
Flat Bed Truck	704,488	116.59	8.31	709,513
Concrete Truck	1,532,698	253.65	18.08	1,543,630
Front End Loader	1,388,557	200.46	14.18	1,397,162
Trencher	255,249	42.24	3.01	257,070
Subtotal	6,045,125	952.97	67.75	6,086,139
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	252,978	41.87	2.98	254,782
Grader	334,760	55.40	3.95	337,147
Roller	578,140	95.68	6.82	582,263
Vibration Roller	589,626	97.58	6.96	593,831
Water Truck	268,012	44.35	3.16	269,923
Road Sweeper	242,487	40.13	2.86	244,216
Subtotal	2,266,002	375.01	26.73	2,282,163
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	352,244	58.29	4.15	354,756
Truck Crane	142,684	23.61	1.68	143,702
Auger	159,531	26.40	1.88	160,669
Subtotal	654,459	108.31	7.72	659,127

Table A.1.1-ALT3-74. Total GHG Emissions - Alternative 3 - Phase 1 - Stage 5.

<i>Activity</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
Construction				
New Container Yard Utilities	6,045,125	953	68	6,086,139
New Container Yard Construction - Paving	2,266,002	375	27	2,282,163
New Container Yard Construction - Electrical	654,459	108	8	659,127
Total Emissions	8,965,586	1,436	102	9,027,429

Table A.1.1-ALT3-75. Activity Data - Railyard - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
INTERMODAL YARD CONSTRUCTION								
Backhoe	102	0.57	1	58	8	465	105	49,050
Excavator	428	0.57	1	244	8	1,952	105	205,817
Ballast Spreader	100	0.50	1	50	8	400	105	42,183
Ballast Tamper	100	0.50	1	50	8	400	105	42,183
Generator Set	23	0.74	2	34	8	272	105	28,718
Roller	151	0.50	1	76	8	604	105	63,696
Grader	215	0.61	1	131	8	1,049	105	110,645
Truck Mounted Crane	130	0.43	1	56	8	447	105	47,160
Forklift	103	0.30	1	31	8	247	105	26,069
Flatbed Truck	230	0.60	2	276	8	2,208	105	232,848
End Dump Truck	310	0.60	2	372	8	2,976	105	313,839
Water Truck	210	0.60	1	126	8	1,008	105	106,300

Table A.1.1-ALT3-76. Activity Data - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 3.

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200	112	134,400
Auger	125	0.50	1	63	8	500	112	56,000
Crane	130	0.43	1	56	8	447	112	50,086
Grader	215	0.61	3	393	8	3,148	112	352,531
End Dump Truck	310	0.60	1	186	8	1,488	112	166,656
Flat Bed Truck	230	0.60	2	276	8	2,208	112	247,296
Concrete Truck	250	0.60	4	600	8	4,800	112	537,600
Front End Loader	400	0.68	2	544	8	4,352	112	487,424
Trencher	200	0.50	1	100	8	800	112	89,600
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.53	1	99	8	793	112	88,803
Grader	215	0.61	1	131	8	1,049	112	117,510
Roller	151	0.50	3	227	8	1,812	112	202,944
Vibration Roller	154	0.50	3	231	8	1,848	112	206,976
Water Truck	210	0.50	1	105	8	840	112	94,080
Road Sweeper	190	0.50	1	95	8	760	112	85,120
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.60	1	138	8	1,104	112	123,648
Truck Crane	130	0.43	1	56	8	447	112	50,086
Auger	125	0.50	1	63	8	500	112	56,000

Table A.1.1-ALT3-77. Daily Construction Emissions - Railyard - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
INTERMODAL YARD CONSTRUCTION				
Backhoe	61,421	10.49	0.76	61,875
Excavator	257,725	37.21	2.63	259,323
Ballast Spreader	52,821	9.02	0.65	53,212
Ballast Tamper	52,821	9.02	0.65	53,212
Generator Set	35,961	6.77	0.49	36,254
Roller	79,760	13.20	0.94	80,329
Grader	138,550	22.93	1.63	139,538
Truck Mounted Crane	59,054	9.77	0.70	59,475
Forklift	32,644	5.57	0.40	32,885
Flatbed Truck	291,573	48.25	3.44	293,653
End Dump Truck	392,990	58.12	4.15	395,498
Water Truck	133,110	22.03	1.57	134,059
Subtotal	1,588,430	252.39	18.01	1,599,314

Table A.1.1-ALT3-78. Daily Construction Emissions - Container Yard Development (F1 - F4) - POLB - MHTP - Alternative 3.

Location/Equipment Type	Total Pounds			
	CO2	CH4	N2O	CO2e
NEW CONTAINER YARD UTILITIES				
Pipelayer	168,296	24.30	1.72	169,339
Auger	70,123	11.60	0.83	70,624
Crane	62,718	10.38	0.74	63,166
Grader	441,441	73.06	5.21	444,590
End Dump Truck	208,687	30.13	2.13	209,981
Flat Bed Truck	309,665	51.25	3.65	311,874
Concrete Truck	673,185	111.41	7.94	677,986
Front End Loader	610,355	88.11	6.23	614,137
Trencher	112,198	18.57	1.32	112,998
Subtotal	2,656,669	418.80	29.77	2,674,694
NEW CONTAINER YARD CONSTRUCTION - PAVING				
AC Paver	111,199	18.40	1.31	111,992
Grader	147,147	24.35	1.74	148,197
Roller	254,127	42.06	3.00	255,940
Vibration Roller	259,176	42.89	3.06	261,025
Water Truck	117,807	19.50	1.39	118,648
Road Sweeper	106,588	17.64	1.26	107,348
Subtotal	996,045	164.84	11.75	1,003,149
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL				
Flat Bed Truck	154,833	25.62	1.83	155,937
Truck Crane	62,718	10.38	0.74	63,166
Auger	70,123	11.60	0.83	70,624
Subtotal	287,674	47.61	3.39	289,726

Table A.1.1-ALT3-79. Total GHG Emissions - MHTP - Alternative 3 - Phase 2 - Stage 1.

<i>Activity</i>	<i>Total Pounds</i>			
	<i>CO2</i>	<i>CH4</i>	<i>N2O</i>	<i>CO2e</i>
Railyard				
Intermodal Yard Construction	1,588,430	252	18	1,599,314
Container Yard Development (F1 - F4)				
New Container Yard Utilities	2,656,669	419	30	2,674,694
New Container Yard Construction - Paving	996,045	165	12	1,003,149
New Container Yard Construction - Electrical	287,674	48	3	289,726
Total Emissions	5,528,819	884	63	5,566,883

This page intentionally left blank.

Attachment A.1.2

Operations Emission Calculation Tables

This page intentionally left blank.

Operations Average Daily Criteria Pollutant Emissions Tables

This page intentionally left blank.

Table A.1.2-CB-1. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 - Route outside of VSRP Zone - no shifted vessels.

Table A.1.2-CB-2. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 - Route inside VSRP Zone - no shifted vessels.

Table A.1.2-CB-3. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Fairway - Non-Shifted Vessels Only Baseline Year 2005

Table A.1.2-CB-4. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit in the SPBP Precautionary Area - Baseline Year 2005.

Table A.1.2-CB-5. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Precautionary Area - Baseline Year 2005 - HFO and MGO.

Table A.1.2-CB-6. Cargo Vessel Auxiliary Boiler Usage within the Precautionary Area per Ship Visit - Baseline Year 2005.

Table A.1.2-CB-7. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater - All Vessels - Baseline Year 2005.

Table A.1.2-CB-8. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater - No Shifted Vessels - Baseline Year 2005.

Table A.1.2-CB-9. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - All Vessels Baseline Year 2005 - HFO and MGO.

Table A.1.2-CB-10. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - No Shifted Vessels - Baseline Year 2005 - HFO and MGO.

Table A.1.2-CB-11. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater - All Vessels - Baseline Year 2005.

Table A.1.2-CB-12. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater - No Shifted Vessels - Baseline Year 2005.

Table A.1.2-CB-13. Cargo Vessel Tugboat Assist Usage - POLB Middle Harbor Container Terminal Project - Baseline Year 2005.

Table A.1.2-CB-14. Tugboat Aux. Generator Usage during Cargo Vessel Assists -

Table A.1.2-CB-15a. Annual Tugboat Emissions for Cargo Vessel Assists -

Table A.1.2-CB-15b. Tugboat Emissions Factors

Table A.1.2-CB-15c. Cargo Vessel Auxiliary Generator Usage during Hoteling - Baseline Year 2005 - HFO.

Table A.1.2-CB-15d. Cargo Vessel Auxiliary Boiler Usage per Ship Visit - Baseline Year 2005.

This page intentionally left blank.

Table A.1.2-CB-1. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 - Route outside of VSRP Zone - no shifted vessels.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)							
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
1	Bulk	27,259	9,028	12,102	14.52	13.65	0.83	17.9	1.3	9,834														
2	Bulk	28,503	6,895	9,243	14.52	13.65	0.83	17.9	1.3	7,511														
3	Bulk	32,400	9,028	12,102	14.52	13.65	0.83	17.9	1.3	9,834														
4	Bulk	48,661	9,028	12,102	14.52	13.65	0.83	17.9	1.3	9,834														
5	Bulk/Container	23,736	9,028	12,102	14.52	13.65	0.83	17.9	1.3	9,834														
6	Bulk/Container	23,736	9,028	12,102	14.52	13.65	0.83	17.9	1.3	9,834														
7	Bulk/Container	23,736	9,028	12,102	14.52	13.65	0.83	17.9	1.3	9,834														
8	Chemical Oil	11,668	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
9	Chemical Oil	14,003	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
10	Chemical Oil	19,365	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
11	Chemical Oil	19,386	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
12	Chemical Oil	19,997	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
13	Chemical Oil	19,998	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
14	Chemical Oil	19,998	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
15	Chemical Tanker	7,930	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
16	Chemical Tanker	15,247	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
17	Chemical Tanker	15,247	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
18	Chemical Tanker	15,265	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
19	Chemical Tanker	17,845	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
20	Chemical Tanker	19,997	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
21	Chemical Tanker	19,999	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
22	Chemical Tanker	19,999	13,196	17,689	14.34	13.48	0.83	17.9	1.3	14,555														
23	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
24	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
25	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
26	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
27	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
28	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
29	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
30	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
31	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
32	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
33	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
34	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
35	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
36	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
37	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
38	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
39	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
40	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
41	Container	60,494	38,543	51,666	23.90	22.47	0.83	17.9	0.8	25,507														
42	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939														
43	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939														
44	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939														
45	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939														
46	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939														
47	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939														

Table A.1.2-CB-1. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 -
Route outside of VSRP Zone - no shifted vessels.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)						
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
48	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
49	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
50	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
51	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
52	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
53	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
54	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
55	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
56	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
57	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
58	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
59	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
60	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
61	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
62	Container	80,551	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
63	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
64	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
65	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
66	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
67	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
68	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
69	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
70	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
71	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
72	Container	80,596	65,149	87,331	25.80	24.25	0.83	17.9	0.7	39,939													
73	General Cargo	23,731	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
74	General Cargo	23,731	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
75	General Cargo	23,731	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
76	General Cargo	23,737	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
77	General Cargo	23,737	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
78	General Cargo	29,152	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
79	General Cargo	29,152	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
80	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
81	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
82	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
83	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
84	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
85	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
86	General Cargo	29,512	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
87	General Cargo	29,512	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
88	General Cargo	29,512	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
89	General Cargo	29,516	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
90	General Cargo	29,516	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
91	General Cargo	29,516	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
92	General Cargo	29,516	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
93	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													

Table A.1.2-CB-1. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 - Route outside of VSRP Zone - no shifted vessels.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)						
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
94	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
95	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
96	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
97	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
98	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
99	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
100	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
101	General Cargo	29,912	8,473	11,358	15.70	14.76	0.83	17.9	1.2	8,536													
102	Product Tanker	17,485	5,700	7,641	14.34	13.48	0.83	17.9	1.3	6,287													
103	Product Tanker		13,196	17,689	14.81	13.92	0.83	17.9	1.3	14,093													
104	Container	85,810	64,655	86,669	25.50	23.97	0.83	17.9	0.7	40,102													
105	Container	88,669	64,200	86,059	25.40	23.88	0.83	17.9	0.7	39,977													
106	Container	88,669	64,200	86,059	25.40	23.88	0.83	17.9	0.7	39,977													
107	Container	88,669	64,200	86,059	25.40	23.88	0.83	17.9	0.7	39,977													
108	Container	88,700	64,200	86,059	25.40	23.88	0.83	17.9	0.7	39,977													
109	Container	88,700	64,200	86,059	25.40	23.88	0.83	17.9	0.7	39,977													
110	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
111	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
112	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
113	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
114	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
115	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
116	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
117	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
118	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
119	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
120	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
121	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
122	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
123	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
124	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
125	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
126	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
127	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
128	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
129	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
130	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
131	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
132	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
133	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
134	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
135	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
136	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
137	Container	99,500	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
138	Container	99,508	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													
139	Container	99,508	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613													

Table A.1.2-CB-1. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 - Route outside of VSRP Zone - no shifted vessels.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)																								
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5																			
140	Container	99,508	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
141	Container	99,508	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
142	Container	99,508	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
143	Container	99,508	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
144	Container	99,518	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
145	Container	99,518	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
146	Container	99,518	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
147	Container	99,518	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
148	Container	99,518	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
149	Container	99,518	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
150	Container	99,518	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
151	Container	99,518	64,194	86,051	25.00	23.50	0.83	17.9	0.8	40,613																															
Total kW-Hrs										4,221,217	0.60	1.40	18.10	10.50	1.50	1.41	3	7	84	49	7	7																			

Table A.1.2-CB-2. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 - Route inside VSRP Zone - no shifted vessels.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
1	Bulk	27,259	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343	0.60	1.40	18.10	10.50	1.50	1.41	0.01	0.01	0.19	0.11	0.02	0.01
2	Bulk	28,503	6,895	9,243	14.52	12.00	0.56	22.0	1.8	7,135							0.00	0.01	0.14	0.08	0.01	0.01
3	Bulk	32,400	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343							0.01	0.01	0.19	0.11	0.02	0.01
4	Bulk	48,661	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343							0.01	0.01	0.19	0.11	0.02	0.01
5	Bulk/Container	23,736	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343							0.01	0.01	0.19	0.11	0.02	0.01
6	Bulk/Container	23,736	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343							0.01	0.01	0.19	0.11	0.02	0.01
7	Bulk/Container	23,736	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343							0.01	0.01	0.19	0.11	0.02	0.01
8	Chemical Oil	11,668	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
9	Chemical Oil	14,003	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
10	Chemical Oil	19,365	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
11	Chemical Oil	19,386	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
12	Chemical Oil	19,997	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
13	Chemical Oil	19,998	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
14	Chemical Oil	19,998	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
15	Chemical Tanker	7,930	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
16	Chemical Tanker	15,247	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
17	Chemical Tanker	15,247	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
18	Chemical Tanker	15,265	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
19	Chemical Tanker	17,845	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
20	Chemical Tanker	19,997	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
21	Chemical Tanker	19,999	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
22	Chemical Tanker	19,999	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177							0.01	0.02	0.28	0.16	0.02	0.02
23	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944	0.96	2.13	20.09	10.50	1.79	1.67	0.01	0.02	0.20	0.10	0.02	0.02
24	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
25	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
26	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
27	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
28	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
29	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
30	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
31	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
32	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
33	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
34	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
35	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
36	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
37	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
38	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
39	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
40	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
41	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944							0.01	0.02	0.20	0.10	0.02	0.02
42	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018	1.32	2.74	22.08	10.50	2.07	1.94	0.02	0.04	0.29	0.14	0.03	0.03
43	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
44	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
45	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
46	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
47	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
48	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03

Table A.1.2-CB-2. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 -
Route inside VSRP Zone - no shifted vessels.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
49	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
50	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
51	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
52	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
53	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
54	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
55	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
56	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
57	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
58	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
59	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
60	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
61	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
62	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
63	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
64	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
65	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
66	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
67	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
68	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
69	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
70	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
71	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
72	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018							0.02	0.04	0.29	0.14	0.03	0.03
73	General Cargo	23,731	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936	0.60	1.40	18.10	10.50	1.50	1.41	0.00	0.01	0.14	0.08	0.01	0.01
74	General Cargo	23,731	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
75	General Cargo	23,731	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
76	General Cargo	23,737	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
77	General Cargo	23,737	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
78	General Cargo	29,152	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
79	General Cargo	29,152	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
80	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
81	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
82	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
83	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
84	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
85	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
86	General Cargo	29,512	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
87	General Cargo	29,512	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
88	General Cargo	29,512	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
89	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
90	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
91	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
92	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
93	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
94	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
95	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01

Table A.1.2-CB-2. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 -
Route inside VSRP Zone - no shifted vessels.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
96	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
97	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
98	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
99	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
100	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
101	General Cargo	29,912	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936							0.00	0.01	0.14	0.08	0.01	0.01
102	Product Tanker	17,485	5,700	7,641	14.34	12.00	0.59	22.0	1.8	6,124							0.00	0.01	0.12	0.07	0.01	0.01
103	Product Tanker		13,196	17,689	14.81	12.00	0.53	22.0	1.8	12,870							0.01	0.02	0.26	0.15	0.02	0.02
104	Container	85,810	64,655	86,669	25.50	12.00	0.10	22.0	1.8	12,353	1.32	2.74	22.08	10.50	2.07	1.94	0.02	0.04	0.30	0.14	0.03	0.03
105	Container	88,669	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411	1.18	2.51	21.18	10.50	1.95	1.83	0.02	0.03	0.29	0.14	0.03	0.02
106	Container	88,669	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411							0.02	0.03	0.29	0.14	0.03	0.02
107	Container	88,669	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411							0.02	0.03	0.29	0.14	0.03	0.02
108	Container	88,700	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411							0.02	0.03	0.29	0.14	0.03	0.02
109	Container	88,700	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411							0.02	0.03	0.29	0.14	0.03	0.02
110	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
111	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
112	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
113	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
114	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
115	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
116	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
117	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
118	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
119	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
120	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
121	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
122	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
123	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
124	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
125	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
126	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
127	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
128	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
129	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
130	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
131	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
132	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
133	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
134	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
135	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
136	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
137	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
138	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
139	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
140	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
141	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03
142	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015							0.02	0.04	0.30	0.15	0.03	0.03

Table A.1.2-CB-2. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the SPBP Fairway - Baseline Year 2005 -

Route inside VSRP Zone - no shifted vessels.																	
143	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015		0.02	0.04	0.30	0.15	0.03	0.03
144	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015		0.02	0.04	0.30	0.15	0.03	0.03
145	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015		0.02	0.04	0.30	0.15	0.03	0.03
146	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015		0.02	0.04	0.30	0.15	0.03	0.03
147	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015		0.02	0.04	0.30	0.15	0.03	0.03
148	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015		0.02	0.04	0.30	0.15	0.03	0.03
149	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015		0.02	0.04	0.30	0.15	0.03	0.03
150	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015		0.02	0.04	0.30	0.15	0.03	0.03
151	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015		0.02	0.04	0.30	0.15	0.03	0.03
Note: (1) Assumes all non-shifted vessels comply with the VSRP.																	
											Main Engines within Fairway VSRP Zone - 1-way						
											Main Engines outside of Fairway VSRP Zone - 1-way						
											Main Engines Total Fairway - 1-way Trip						
											Main Engines Total Fairway - Round Trip						

Table A.1.2-CB-3. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Fairway - Non-Shifted Vessels Only Baseline Year 2005

#	Vessel Type	DWT	Aux. Power Rating kW	Total Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)								
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
1	Bulk	27,259	1,776	0.17		3.1	949														
2	Bulk	28,503	1,776	0.17		3.1	949														
3	Bulk	32,400	1,776	0.17		3.1	949														
4	Bulk	48,661	1,776	0.17		3.1	949														
5	Bulk/Container	23,736	1,776	0.17		3.2	954														
6	Bulk/Container	23,736	1,776	0.17		3.2	954														
7	Bulk/Container	23,736	1,776	0.17		3.2	954														
8	Chemical Oil	11,668	1,985	0.24		3.2	1,506														
9	Chemical Oil	14,003	1,985	0.24		3.2	1,506														
10	Chemical Oil	19,365	1,985	0.24		3.2	1,506														
11	Chemical Oil	19,386	1,985	0.24		3.2	1,506														
12	Chemical Oil	19,997	1,985	0.24		3.2	1,506														
13	Chemical Oil	19,998	1,985	0.24		3.2	1,506														
14	Chemical Oil	19,998	1,985	0.24		3.2	1,506														
15	Chemical Tanker	7,930	1,985	0.24		3.2	1,506														
16	Chemical Tanker	15,247	1,985	0.24		3.2	1,506														
17	Chemical Tanker	15,247	1,985	0.24		3.2	1,506														
18	Chemical Tanker	15,265	1,985	0.24		3.2	1,506														
19	Chemical Tanker	17,845	1,985	0.24		3.2	1,506														
20	Chemical Tanker	19,997	1,985	0.24		2.6	1,253														
21	Chemical Tanker	19,999	1,985	0.24		2.6	1,253														
22	Chemical Tanker	19,999	1,985	0.24		2.6	1,253														
23	Container	60,494	12,853	0.13		2.6	4,395														
24	Container	60,494	12,853	0.13		2.6	4,395														
25	Container	60,494	12,853	0.13		2.6	4,395														
26	Container	60,494	12,853	0.13		2.6	4,395														
27	Container	60,494	12,853	0.13		2.6	4,395														
28	Container	60,494	12,853	0.13		2.6	4,395														
29	Container	60,494	12,853	0.13		2.6	4,395														
30	Container	60,494	12,853	0.13		2.6	4,395														
31	Container	60,494	12,853	0.13		2.6	4,395														
32	Container	60,494	12,853	0.13		2.6	4,395														
33	Container	60,494	12,853	0.13		2.6	4,395														
34	Container	60,494	12,853	0.13		2.6	4,395														
35	Container	60,494	12,853	0.13		2.6	4,395														
36	Container	60,494	12,853	0.13		2.6	4,395														
37	Container	60,494	12,853	0.13		2.6	4,395														
38	Container	60,494	12,853	0.13		2.6	4,395														

Table A.1.2-CB-3. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Fairway - Non-Shifted Vessels Only Baseline Year 2005

#	Vessel Type	DWT	Aux. Power Rating kW	Total Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
39	Container	60,494	12,853	0.13	2.6	4,297														
40	Container	60,494	12,853	0.13	2.6	4,297														
41	Container	60,494	12,853	0.13	2.6	4,297														
42	Container	80,551	6,800	0.13	2.6	2,273														
43	Container	80,551	6,800	0.13	2.6	2,273														
44	Container	80,551	6,800	0.13	2.6	2,273														
45	Container	80,551	6,800	0.13	2.6	2,273														
46	Container	80,551	6,800	0.13	2.6	2,273														
47	Container	80,551	6,800	0.13	2.6	2,273														
48	Container	80,551	6,800	0.13	2.6	2,273														
49	Container	80,551	6,800	0.13	2.6	2,273														
50	Container	80,551	6,800	0.13	2.6	2,273														
51	Container	80,551	6,800	0.13	2.6	2,273														
52	Container	80,551	6,800	0.13	2.6	2,273														
53	Container	80,551	12,853	0.13	2.6	4,297														
54	Container	80,551	12,853	0.13	2.6	4,297														
55	Container	80,551	12,853	0.13	2.6	4,297														
56	Container	80,551	12,853	0.13	2.6	4,297														
57	Container	80,551	12,853	0.13	2.6	4,297														
58	Container	80,551	12,853	0.13	2.6	4,297														
59	Container	80,551	12,853	0.13	2.6	4,297														
60	Container	80,551	12,853	0.13	2.6	4,297														
61	Container	80,551	12,853	0.13	2.6	4,297														
62	Container	80,551	12,853	0.13	2.6	4,297														
63	Container	80,596	6,800	0.13	2.6	2,273														
64	Container	80,596	6,800	0.13	2.6	2,273														
65	Container	80,596	6,800	0.13	2.6	2,273														
66	Container	80,596	6,800	0.13	2.6	2,273														
67	Container	80,596	6,800	0.13	2.6	2,273														
68	Container	80,596	6,800	0.13	2.6	2,273														
69	Container	80,596	6,800	0.13	2.6	2,273														
70	Container	80,596	6,800	0.13	3.0	2,693														
71	Container	80,596	6,800	0.13	3.0	2,693														
72	Container	80,596	6,800	0.13	3.0	2,693														
73	General Cargo	23,731	1,776	0.17	3.0	920														
74	General Cargo	23,731	1,776	0.17	3.0	920														
75	General Cargo	23,731	1,776	0.17	3.0	920														

Table A.1.2-CB-3. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Fairway - Non-Shifted Vessels Only Baseline Year 2005

#	Vessel Type	DWT	Aux. Power Rating kW	Total Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
76	General Cargo	23,737	3,379	0.17		3.0														
77	General Cargo	23,737	3,379	0.17		3.0														
78	General Cargo	29,152	1,776	0.17		3.0														
79	General Cargo	29,152	1,776	0.17		3.0														
80	General Cargo	29,500	1,776	0.17		3.0														
81	General Cargo	29,500	1,776	0.17		3.0														
82	General Cargo	29,500	1,776	0.17		3.0														
83	General Cargo	29,500	1,776	0.17		3.0														
84	General Cargo	29,500	1,776	0.17		3.0														
85	General Cargo	29,500	1,776	0.17		3.0														
86	General Cargo	29,512	1,776	0.17		3.0														
87	General Cargo	29,512	1,776	0.17		3.0														
88	General Cargo	29,512	1,776	0.17		3.0														
89	General Cargo	29,516	1,776	0.17		3.0														
90	General Cargo	29,516	1,776	0.17		3.0														
91	General Cargo	29,516	1,776	0.17		3.0														
92	General Cargo	29,516	1,776	0.17		3.0														
93	General Cargo	29,538	1,776	0.17		3.0														
94	General Cargo	29,538	1,776	0.17		3.0														
95	General Cargo	29,538	1,776	0.17		3.0														
96	General Cargo	29,538	1,776	0.17		3.0														
97	General Cargo	29,538	1,776	0.17		3.0														
98	General Cargo	29,538	1,776	0.17		3.0														
99	General Cargo	29,538	1,776	0.17		3.2														
100	General Cargo	29,538	1,776	0.17		3.1														
101	General Cargo	29,912	1,776	0.17		2.6														
102	Product Tanker	17,485	1,985	0.24		2.6														
103	Product Tanker		1,985	0.24		2.6														
104	Container	85,810	6,800	0.13		2.6														
105	Container	88,669	15,725	0.13		2.6														
106	Container	88,669	15,725	0.13		2.6														
107	Container	88,669	15,725	0.13		2.6														
108	Container	88,700	11,830	0.13		2.6														
109	Container	88,700	11,830	0.13		2.6														
110	Container	99,500	6,800	0.13		2.6														
111	Container	99,500	6,800	0.13		2.6														
112	Container	99,500	6,800	0.13		2.6														

Table A.1.2-CB-3. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Fairway - Non-Shifted Vessels Only Baseline Year 2005

#	Vessel Type	DWT	Aux. Power Rating kW	Total Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)					
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
113	Container	99,500	6,800	0.13		2.6												
114	Container	99,500	6,800	0.13		2.6												
115	Container	99,500	6,800	0.13		2.6												
116	Container	99,500	6,800	0.13		2.6												
117	Container	99,500	6,800	0.13		2.6												
118	Container	99,500	6,800	0.13		2.6												
119	Container	99,500	6,800	0.13		2.6												
120	Container	99,500	6,800	0.13		2.6												
121	Container	99,500	6,800	0.13		2.6												
122	Container	99,500	6,800	0.13		2.6												
123	Container	99,500	6,800	0.13		2.6												
124	Container	99,500	6,800	0.13		2.6												
125	Container	99,500	6,800	0.13		2.6												
126	Container	99,500	6,800	0.13		2.6												
127	Container	99,500	6,800	0.13		2.6												
128	Container	99,500	6,800	0.13		2.6												
129	Container	99,500	6,800	0.13		2.6												
130	Container	99,500	6,800	0.13		2.6												
131	Container	99,500	6,800	0.13		2.6												
132	Container	99,500	6,800	0.13		2.6												
133	Container	99,500	6,800	0.13		2.6												
134	Container	99,500	6,800	0.13		2.6												
135	Container	99,500	6,800	0.13		2.6												
136	Container	99,500	6,800	0.13		2.6												
137	Container	99,500	6,800	0.13		2.6												
138	Container	99,508	6,800	0.13		2.6												
139	Container	99,508	6,800	0.13		2.6												
140	Container	99,508	6,800	0.13		2.6												
141	Container	99,508	6,800	0.13		2.6												
142	Container	99,508	6,800	0.13		2.6												
143	Container	99,508	6,800	0.13		2.6												
144	Container	99,518	6,800	0.13		2.6												
145	Container	99,518	6,800	0.13		2.6												
146	Container	99,518	6,800	0.13		2.6												
147	Container	99,518	6,800	0.13		2.6												
148	Container	99,518	6,800	0.13		2.6												
149	Container	99,518	6,800	0.13		1.8												

Table A.1.2-CB-3. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Fairway -
Non-Shifted Vessels Only Baseline Year 2005

#	Vessel Type	DWT	Aux. Power Rating kW	Total Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)						
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
150	Container	99,518	6,800	0.13	1.8	1,621													
151	Container	99,518	6,800	0.13	1.8	1,621													
Total kW-Hrs - HFO (2)						354,825	0.4	1	15	12	2	1	0.16	0.43	6	5	0.59	0.55	
Total kW-Hrs - MGO (2)							0.4	1	14	1	0.3	0.3	-	-	-	-	-	-	-
Note: (1) 2005 PEI Table 2.12.							Fairway Aux Gen. Emissions - 1-way Transit						0.16	0.43	6	5	0.59	0.55	
(2) Assumes 100% HFO fuel usage (Per.comm. with Starcrest 6/07).							Fairway Aux Gen. Emissions - Round Trip						0.31	0.86	11	10	1	1	

Table A.1.2-CB-4. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit in the SPBP Precautionary Area - Baseline Year 2005.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
1	Bulk	27,259	9,028	12,102	14.52	9.00	0.24	11.0	1.2	2,628	0.60	1.40	18.10	10.50	1.50	1.41	0.00	0.00	0.05	0.03	0.00	0.00
2	Bulk	28,503	6,895	9,243	14.52	9.00	0.24	11.0	1.2	2,007							0.00	0.00	0.04	0.02	0.00	0.00
3	Bulk	32,400	9,028	12,102	14.52	9.00	0.24	11.0	1.2	2,628							0.00	0.00	0.05	0.03	0.00	0.00
4	Bulk	48,661	9,028	12,102	14.52	9.00	0.24	11.0	1.2	2,628							0.00	0.00	0.05	0.03	0.00	0.00
5	Bulk/Container	23,736	9,028	12,102	14.52	9.00	0.24	11.0	1.2	2,628							0.00	0.00	0.05	0.03	0.00	0.00
6	Bulk/Container	23,736	9,028	12,102	14.52	9.00	0.24	11.0	1.2	2,628							0.00	0.00	0.05	0.03	0.00	0.00
7	Bulk/Container	23,736	9,028	12,102	14.52	9.00	0.24	11.0	1.2	2,628							0.00	0.00	0.05	0.03	0.00	0.00
8	Chemical Oil	11,668	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
9	Chemical Oil	14,003	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
10	Chemical Oil	19,365	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
11	Chemical Oil	19,386	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
12	Chemical Oil	19,997	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
13	Chemical Oil	19,998	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
14	Chemical Oil	19,998	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
15	Chemical Tanker	7,930	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
16	Chemical Tanker	15,247	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
17	Chemical Tanker	15,247	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
18	Chemical Tanker	15,265	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
19	Chemical Tanker	17,845	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
20	Chemical Tanker	19,997	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
21	Chemical Tanker	19,999	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
22	Chemical Tanker	19,999	13,196	17,689	14.34	9.00	0.25	11.0	1.2	3,987							0.00	0.01	0.08	0.05	0.01	0.01
23	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758	1.32	2.74	22.08	10.50	2.07	1.94	0.01	0.01	0.09	0.04	0.01	0.01
24	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
25	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
26	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
27	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
28	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
29	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
30	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
31	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
32	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
33	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
34	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
35	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
36	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
37	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
38	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
39	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
40	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
41	Container	60,494	38,543	51,666	23.90	11.00	0.10	11.0	1.0	3,758							0.01	0.01	0.09	0.04	0.01	0.01
42	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049	1.77	3.43	24.44	10.50	2.42	2.26	0.01	0.02	0.14	0.06	0.01	0.01
43	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01

Table A.1.2-CB-4. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit in the SPBP Precautionary Area -
Baseline Year 2005.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
44	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
45	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
46	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
47	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
48	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
49	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
50	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
51	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
52	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
53	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
54	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
55	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
56	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
57	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
58	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
59	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
60	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
61	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
62	Container	80,551	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
63	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
64	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
65	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
66	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
67	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
68	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
69	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
70	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
71	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
72	Container	80,596	65,149	87,331	25.80	11.00	0.08	11.0	1.0	5,049							0.01	0.02	0.14	0.06	0.01	0.01
73	General Cargo	23,731	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951	0.63	1.47	18.28	10.50	1.53	1.43	0.00	0.00	0.04	0.02	0.00	0.00
74	General Cargo	23,731	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
75	General Cargo	23,731	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
76	General Cargo	23,737	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
77	General Cargo	23,737	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
78	General Cargo	29,152	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
79	General Cargo	29,152	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
80	General Cargo	29,500	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
81	General Cargo	29,500	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
82	General Cargo	29,500	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
83	General Cargo	29,500	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
84	General Cargo	29,500	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
85	General Cargo	29,500	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00

Table A.1.2-CB-4. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit in the SPBP Precautionary Area -
Baseline Year 2005.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
86	General Cargo	29,512	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
87	General Cargo	29,512	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
88	General Cargo	29,512	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
89	General Cargo	29,516	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
90	General Cargo	29,516	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
91	General Cargo	29,516	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
92	General Cargo	29,516	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
93	General Cargo	29,538	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
94	General Cargo	29,538	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
95	General Cargo	29,538	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
96	General Cargo	29,538	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
97	General Cargo	29,538	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
98	General Cargo	29,538	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
99	General Cargo	29,538	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
100	General Cargo	29,538	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
101	General Cargo	29,912	8,473	11,358	15.70	9.00	0.19	11.0	1.2	1,951							0.00	0.00	0.04	0.02	0.00	0.00
102	Product Tanker	17,485	5,700	7,641	14.34	9.00	0.25	11.0	1.2	1,722							0.00	0.00	0.03	0.02	0.00	0.00
103	Product Tanker		13,196	17,689	14.81	9.00	0.22	11.0	1.2	3,620							0.00	0.01	0.07	0.04	0.01	0.01
104	Container	85,810	64,655	86,669	25.50	11.00	0.08	11.0	1.0	5,190	1.77	3.43	24.44	10.50	2.42	2.26	0.01	0.02	0.14	0.06	0.01	0.01
105	Container	88,669	64,200	86,059	25.40	11.00	0.08	11.0	1.0	5,214							0.01	0.02	0.14	0.06	0.01	0.01
106	Container	88,669	64,200	86,059	25.40	11.00	0.08	11.0	1.0	5,214							0.01	0.02	0.14	0.06	0.01	0.01
107	Container	88,669	64,200	86,059	25.40	11.00	0.08	11.0	1.0	5,214							0.01	0.02	0.14	0.06	0.01	0.01
108	Container	88,700	64,200	86,059	25.40	11.00	0.08	11.0	1.0	5,214							0.01	0.02	0.14	0.06	0.01	0.01
109	Container	88,700	64,200	86,059	25.40	11.00	0.08	11.0	1.0	5,214							0.01	0.02	0.14	0.06	0.01	0.01
110	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468	1.51	3.05	22.99	10.50	2.22	2.08	0.01	0.02	0.14	0.06	0.01	0.01
111	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
112	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
113	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
114	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
115	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
116	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
117	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
118	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
119	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
120	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
121	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
122	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
123	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
124	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
125	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
126	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
127	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01

Table A.1.2-CB-4. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit in the SPBP Precautionary Area -
Baseline Year 2005.

#	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Max Speed (Kts)	Speed (Kts)	Main Engine Load Factor	Distance (NM)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)					Main Engine Emissions (Tons)						
											ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
128	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
129	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
130	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
131	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
132	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
133	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
134	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
135	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
136	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
137	Container	99,500	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
138	Container	99,508	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
139	Container	99,508	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
140	Container	99,508	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
141	Container	99,508	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
142	Container	99,508	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
143	Container	99,508	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
144	Container	99,518	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
145	Container	99,518	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
146	Container	99,518	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
147	Container	99,518	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
148	Container	99,518	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
149	Container	99,518	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
150	Container	99,518	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
151	Container	99,518	64,194	86,051	25.00	11.00	0.09	11.0	1.0	5,468							0.01	0.02	0.14	0.06	0.01	0.01
											Precautionary Area Emissions - One Way (1)					0.95	1.91	15.40	7.27	1.46	1.36	
											Precautionary Area Emissions - Round Trips (1)					1.89	3.83	30.80	14.55	2.91	2.73	

Note: (1) Does not include shifted vessel trips

Table A.1.2-CB-5. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Precautionary Area -
Baseline Year 2005 - HFO and MGO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)								
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
1	Bulk	27,259	1,776	0.27	1.2	586															
2	Bulk	28,503	1,776	0.27	1.2	586															
3	Bulk	32,400	1,776	0.27	1.2	586															
4	Bulk	48,661	1,776	0.27	1.2	586															
5	Bulk/Container	23,736	1,776	0.27	1.2	586															
6	Bulk/Container	23,736	1,776	0.27	1.2	586															
7	Bulk/Container	23,736	1,776	0.27	1.2	586															
8	Chemical Oil	11,668	1,985	0.27	1.2	655															
9	Chemical Oil	14,003	1,985	0.27	1.2	655															
10	Chemical Oil	19,365	1,985	0.27	1.2	655															
11	Chemical Oil	19,386	1,985	0.27	1.2	655															
12	Chemical Oil	19,997	1,985	0.27	1.2	655															
13	Chemical Oil	19,998	1,985	0.27	1.2	655															
14	Chemical Oil	19,998	1,985	0.27	1.2	655															
15	Chemical Tanker	7,930	1,985	0.27	1.2	655															
16	Chemical Tanker	15,247	1,985	0.27	1.2	655															
17	Chemical Tanker	15,247	1,985	0.27	1.2	655															
18	Chemical Tanker	15,265	1,985	0.27	1.2	655															
19	Chemical Tanker	17,845	1,985	0.27	1.2	655															
20	Chemical Tanker	19,997	1,985	0.27	1.2	655															
21	Chemical Tanker	19,999	1,985	0.27	1.2	655															
22	Chemical Tanker	19,999	1,985	0.27	1.2	655															
23	Container	60,494	12,853	0.25	1.0	3,213															
24	Container	60,494	12,853	0.25	1.0	3,213															
25	Container	60,494	12,853	0.25	1.0	3,213															
26	Container	60,494	12,853	0.25	1.0	3,213															
27	Container	60,494	12,853	0.25	1.0	3,213															
28	Container	60,494	12,853	0.25	1.0	3,213															
29	Container	60,494	12,853	0.25	1.0	3,213															
30	Container	60,494	12,853	0.25	1.0	3,213															
31	Container	60,494	12,853	0.25	1.0	3,213															
32	Container	60,494	12,853	0.25	1.0	3,213															
33	Container	60,494	12,853	0.25	1.0	3,213															
34	Container	60,494	12,853	0.25	1.0	3,213															
35	Container	60,494	12,853	0.25	1.0	3,213															

Table A.1.2-CB-5. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Precautionary Area -
Baseline Year 2005 - HFO and MGO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)						
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
36	Container	60,494	12,853	0.25	1.0	3,213													
37	Container	60,494	12,853	0.25	1.0	3,213													
38	Container	60,494	12,853	0.25	1.0	3,213													
39	Container	60,494	12,853	0.25	1.0	3,213													
40	Container	60,494	12,853	0.25	1.0	3,213													
41	Container	60,494	12,853	0.25	1.0	3,213													
42	Container	80,551	6,800	0.25	1.0	1,700													
43	Container	80,551	6,800	0.25	1.0	1,700													
44	Container	80,551	6,800	0.25	1.0	1,700													
45	Container	80,551	6,800	0.25	1.0	1,700													
46	Container	80,551	6,800	0.25	1.0	1,700													
47	Container	80,551	6,800	0.25	1.0	1,700													
48	Container	80,551	6,800	0.25	1.0	1,700													
49	Container	80,551	6,800	0.25	1.0	1,700													
50	Container	80,551	6,800	0.25	1.0	1,700													
51	Container	80,551	6,800	0.25	1.0	1,700													
52	Container	80,551	6,800	0.25	1.0	1,700													
53	Container	80,551	12,853	0.25	1.0	3,213													
54	Container	80,551	12,853	0.25	1.0	3,213													
55	Container	80,551	12,853	0.25	1.0	3,213													
56	Container	80,551	12,853	0.25	1.0	3,213													
57	Container	80,551	12,853	0.25	1.0	3,213													
58	Container	80,551	12,853	0.25	1.0	3,213													
59	Container	80,551	12,853	0.25	1.0	3,213													
60	Container	80,551	12,853	0.25	1.0	3,213													
61	Container	80,551	12,853	0.25	1.0	3,213													
62	Container	80,551	12,853	0.25	1.0	3,213													
63	Container	80,596	6,800	0.25	1.0	1,700													
64	Container	80,596	6,800	0.25	1.0	1,700													
65	Container	80,596	6,800	0.25	1.0	1,700													
66	Container	80,596	6,800	0.25	1.0	1,700													
67	Container	80,596	6,800	0.25	1.0	1,700													
68	Container	80,596	6,800	0.25	1.0	1,700													
69	Container	80,596	6,800	0.25	1.0	1,700													

Table A.1.2-CB-5. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Precautionary Area -
Baseline Year 2005 - HFO and MGO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
70	Container	80,596	6,800	0.25	1.0	1,700														
71	Container	80,596	6,800	0.25	1.0	1,700														
72	Container	80,596	6,800	0.25	1.0	1,700														
73	General Cargo	23,731	1,776	0.27	1.2	586														
74	General Cargo	23,731	1,776	0.27	1.2	586														
75	General Cargo	23,731	1,776	0.27	1.2	586														
76	General Cargo	23,737	3,379	0.27	1.2	1,115														
77	General Cargo	23,737	3,379	0.27	1.2	1,115														
78	General Cargo	29,152	1,776	0.27	1.2	586														
79	General Cargo	29,152	1,776	0.27	1.2	586														
80	General Cargo	29,500	1,776	0.27	1.2	586														
81	General Cargo	29,500	1,776	0.27	1.2	586														
82	General Cargo	29,500	1,776	0.27	1.2	586														
83	General Cargo	29,500	1,776	0.27	1.2	586														
84	General Cargo	29,500	1,776	0.27	1.2	586														
85	General Cargo	29,500	1,776	0.27	1.2	586														
86	General Cargo	29,512	1,776	0.27	1.2	586														
87	General Cargo	29,512	1,776	0.27	1.2	586														
88	General Cargo	29,512	1,776	0.27	1.2	586														
89	General Cargo	29,516	1,776	0.27	1.2	586														
90	General Cargo	29,516	1,776	0.27	1.2	586														
91	General Cargo	29,516	1,776	0.27	1.2	586														
92	General Cargo	29,516	1,776	0.27	1.2	586														
93	General Cargo	29,538	1,776	0.27	1.2	586														
94	General Cargo	29,538	1,776	0.27	1.2	586														
95	General Cargo	29,538	1,776	0.27	1.2	586														
96	General Cargo	29,538	1,776	0.27	1.2	586														
97	General Cargo	29,538	1,776	0.27	1.2	586														
98	General Cargo	29,538	1,776	0.27	1.2	586														
99	General Cargo	29,538	1,776	0.27	1.2	586														
100	General Cargo	29,538	1,776	0.27	1.2	586														
101	General Cargo	29,912	1,776	0.27	1.2	586														
102	Product Tanker	17,485	1,985	0.27	1.2	655														
103	Product Tanker		1,985	0.27	1.2	655														

Table A.1.2-CB-5. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Precautionary Area -
Baseline Year 2005 - HFO and MGO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
104	Container	85,810	6,800	0.25	1.0	1,700														
105	Container	88,669	15,725	0.25	1.0	3,931														
106	Container	88,669	15,725	0.25	1.0	3,931														
107	Container	88,669	15,725	0.25	1.0	3,931														
108	Container	88,700	11,830	0.25	1.0	2,958														
109	Container	88,700	11,830	0.25	1.0	2,958														
110	Container	99,500	6,800	0.25	1.0	1,700														
111	Container	99,500	6,800	0.25	1.0	1,700														
112	Container	99,500	6,800	0.25	1.0	1,700														
113	Container	99,500	6,800	0.25	1.0	1,700														
114	Container	99,500	6,800	0.25	1.0	1,700														
115	Container	99,500	6,800	0.25	1.0	1,700														
116	Container	99,500	6,800	0.25	1.0	1,700														
117	Container	99,500	6,800	0.25	1.0	1,700														
118	Container	99,500	6,800	0.25	1.0	1,700														
119	Container	99,500	6,800	0.25	1.0	1,700														
120	Container	99,500	6,800	0.25	1.0	1,700														
121	Container	99,500	6,800	0.25	1.0	1,700														
122	Container	99,500	6,800	0.25	1.0	1,700														
123	Container	99,500	6,800	0.25	1.0	1,700														
124	Container	99,500	6,800	0.25	1.0	1,700														
125	Container	99,500	6,800	0.25	1.0	1,700														
126	Container	99,500	6,800	0.25	1.0	1,700														
127	Container	99,500	6,800	0.25	1.0	1,700														
128	Container	99,500	6,800	0.25	1.0	1,700														
129	Container	99,500	6,800	0.25	1.0	1,700														
130	Container	99,500	6,800	0.25	1.0	1,700														
131	Container	99,500	6,800	0.25	1.0	1,700														
132	Container	99,500	6,800	0.25	1.0	1,700														
133	Container	99,500	6,800	0.25	1.0	1,700														
134	Container	99,500	6,800	0.25	1.0	1,700														
135	Container	99,500	6,800	0.25	1.0	1,700														
136	Container	99,500	6,800	0.25	1.0	1,700														
137	Container	99,500	6,800	0.25	1.0	1,700														

Table A.1.2-CB-5. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the Precautionary Area -
Baseline Year 2005 - HFO and MGO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW-Hrs)	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)					
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
138	Container	99,508	6,800	0.25	1.0	1,700												
139	Container	99,508	6,800	0.25	1.0	1,700												
140	Container	99,508	6,800	0.25	1.0	1,700												
141	Container	99,508	6,800	0.25	1.0	1,700												
142	Container	99,508	6,800	0.25	1.0	1,700												
143	Container	99,508	6,800	0.25	1.0	1,700												
144	Container	99,518	6,800	0.25	1.0	1,700												
145	Container	99,518	6,800	0.25	1.0	1,700												
146	Container	99,518	6,800	0.25	1.0	1,700												
147	Container	99,518	6,800	0.25	1.0	1,700												
148	Container	99,518	6,800	0.25	1.0	1,700												
149	Container	99,518	6,800	0.25	1.0	1,700												
150	Container	99,518	6,800	0.25	1.0	1,700												
151	Container	99,518	6,800	0.25	1.0	1,700												
Total kW-Hrs						252,986												
Total kW-Hrs - HFO 2.7% S(2)						179,620	0.40	1.10	14.70	12.30	1.50	1.41	0.08	0.22	2.91	2.44	0.30	0.28
Total kW-Hrs - MGO 0.5% S (2)						73,366	0.40	1.10	13.90	1.10	0.30	0.28	0.03	0.09	1.12	0.09	0.02	0.02
Note: (1) 2001 PEI Table 2.19.							Precau. Area Aux Gen. Emissions - 1-way Transit						0.11	0.31	4.03	2.52	0.32	0.30
(2) Assumes 71/29% residual/diesel fuel usage (2005 PEI page 72).							Precau. Area Aux Gen. Emissions - Round Trip						0.22	0.61	8.07	5.05	0.64	0.60

Table A.1.2-CB-6. Cargo Vessel Auxiliary Boiler Usage within the Precautionary Area per Ship Visit - Baseline Year 2005.

#	Vessel Type	DWT		Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)								
						ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
1	Bulk	27,259			1.2	0.037														
2	Bulk	28,503			1.2	0.037														
3	Bulk	32,400			1.2	0.037														
4	Bulk	48,661			1.2	0.037														
5	Bulk/Container	23,736			1.2	0.037														
6	Bulk/Container	23,736			1.2	0.037														
7	Bulk/Container	23,736			1.2	0.037														
8	Chemical Oil	11,668			1.2	0.125														
9	Chemical Oil	14,003			1.2	0.125														
10	Chemical Oil	19,365			1.2	0.125														
11	Chemical Oil	19,386			1.2	0.125														
12	Chemical Oil	19,997			1.2	0.125														
13	Chemical Oil	19,998			1.2	0.125														
14	Chemical Oil	19,998			1.2	0.125														
15	Chemical Tanker	7,930			1.2	0.125														
16	Chemical Tanker	15,247			1.2	0.125														
17	Chemical Tanker	15,247			1.2	0.125														
18	Chemical Tanker	15,265			1.2	0.125														
19	Chemical Tanker	17,845			1.2	0.125														
20	Chemical Tanker	19,997			1.2	0.125														
21	Chemical Tanker	19,999			1.2	0.125														
22	Chemical Tanker	19,999			1.2	0.125														
23	Container	60,494			1.0	0.170														
24	Container	60,494			1.0	0.170														
25	Container	60,494			1.0	0.170														
26	Container	60,494			1.0	0.170														
27	Container	60,494			1.0	0.170														
28	Container	60,494			1.0	0.170														
29	Container	60,494			1.0	0.170														
30	Container	60,494			1.0	0.170														
31	Container	60,494			1.0	0.170														
32	Container	60,494			1.0	0.170														
33	Container	60,494			1.0	0.170														
34	Container	60,494			1.0	0.170														
35	Container	60,494			1.0	0.170														
36	Container	60,494			1.0	0.170														

Table A.1.2-CB-6. Cargo Vessel Auxiliary Boiler Usage within the Precautionary Area per Ship Visit - Baseline Year 2005.

#	Vessel Type	DWT		Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)								
						ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
37	Container	60,494			1.0	0.170														
38	Container	60,494			1.0	0.170														
39	Container	60,494			1.0	0.170														
40	Container	60,494			1.0	0.170														
41	Container	60,494			1.0	0.170														
42	Container	80,551			1.0	0.170														
43	Container	80,551			1.0	0.170														
44	Container	80,551			1.0	0.170														
45	Container	80,551			1.0	0.170														
46	Container	80,551			1.0	0.170														
47	Container	80,551			1.0	0.170														
48	Container	80,551			1.0	0.170														
49	Container	80,551			1.0	0.170														
50	Container	80,551			1.0	0.170														
51	Container	80,551			1.0	0.170														
52	Container	80,551			1.0	0.170														
53	Container	80,551			1.0	0.170														
54	Container	80,551			1.0	0.170														
55	Container	80,551			1.0	0.170														
56	Container	80,551			1.0	0.170														
57	Container	80,551			1.0	0.170														
58	Container	80,551			1.0	0.170														
59	Container	80,551			1.0	0.170														
60	Container	80,551			1.0	0.170														
61	Container	80,551			1.0	0.170														
62	Container	80,551			1.0	0.170														
63	Container	80,596			1.0	0.170														
64	Container	80,596			1.0	0.170														
65	Container	80,596			1.0	0.170														
66	Container	80,596			1.0	0.170														
67	Container	80,596			1.0	0.170														
68	Container	80,596			1.0	0.170														
69	Container	80,596			1.0	0.170														
70	Container	80,596			1.0	0.170														
71	Container	80,596			1.0	0.170														

Table A.1.2-CB-6. Cargo Vessel Auxiliary Boiler Usage within the Precautionary Area per Ship Visit - Baseline Year 2005.

#	Vessel Type	DWT		Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)					
						ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
72	Container	80,596		1.0	0.170												
73	General Cargo	23,731		1.2	0.036												
74	General Cargo	23,731		1.2	0.036												
75	General Cargo	23,731		1.2	0.036												
76	General Cargo	23,737		1.2	0.036												
77	General Cargo	23,737		1.2	0.036												
78	General Cargo	29,152		1.2	0.036												
79	General Cargo	29,152		1.2	0.036												
80	General Cargo	29,500		1.2	0.036												
81	General Cargo	29,500		1.2	0.036												
82	General Cargo	29,500		1.2	0.036												
83	General Cargo	29,500		1.2	0.036												
84	General Cargo	29,500		1.2	0.036												
85	General Cargo	29,500		1.2	0.036												
86	General Cargo	29,512		1.2	0.036												
87	General Cargo	29,512		1.2	0.036												
88	General Cargo	29,512		1.2	0.036												
89	General Cargo	29,516		1.2	0.036												
90	General Cargo	29,516		1.2	0.036												
91	General Cargo	29,516		1.2	0.036												
92	General Cargo	29,516		1.2	0.036												
93	General Cargo	29,538		1.2	0.036												
94	General Cargo	29,538		1.2	0.036												
95	General Cargo	29,538		1.2	0.036												
96	General Cargo	29,538		1.2	0.036												
97	General Cargo	29,538		1.2	0.036												
98	General Cargo	29,538		1.2	0.036												
99	General Cargo	29,538		1.2	0.036												
100	General Cargo	29,538		1.2	0.036												
101	General Cargo	29,912		1.2	0.036												
102	Product Tanker	17,485		1.2	0.036												
103	Product Tanker			1.2	0.036												
104	Container	85,810		1.0	0.170												
105	Container	88,669		1.0	0.170												
106	Container	88,669		1.0	0.170												

Table A.1.2-CB-6. Cargo Vessel Auxiliary Boiler Usage within the Precautionary Area per Ship Visit - Baseline Year 2005.

#	Vessel Type	DWT	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)									
					ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5				
107	Container	88,669		1.0	0.170															
108	Container	88,700		1.0	0.170															
109	Container	88,700		1.0	0.170															
110	Container	99,500		1.0	0.170															
111	Container	99,500		1.0	0.170															
112	Container	99,500		1.0	0.170															
113	Container	99,500		1.0	0.170															
114	Container	99,500		1.0	0.170															
115	Container	99,500		1.0	0.170															
116	Container	99,500		1.0	0.170															
117	Container	99,500		1.0	0.170															
118	Container	99,500		1.0	0.170															
119	Container	99,500		1.0	0.170															
120	Container	99,500		1.0	0.170															
121	Container	99,500		1.0	0.170															
122	Container	99,500		1.0	0.170															
123	Container	99,500		1.0	0.170															
124	Container	99,500		1.0	0.170															
125	Container	99,500		1.0	0.170															
126	Container	99,500		1.0	0.170															
127	Container	99,500		1.0	0.170															
128	Container	99,500		1.0	0.170															
129	Container	99,500		1.0	0.170															
130	Container	99,500		1.0	0.170															
131	Container	99,500		1.0	0.170															
132	Container	99,500		1.0	0.170															
133	Container	99,500		1.0	0.170															
134	Container	99,500		1.0	0.170															
135	Container	99,500		1.0	0.170															
136	Container	99,500		1.0	0.170															
137	Container	99,500		1.0	0.170															
138	Container	99,508		1.0	0.170															
139	Container	99,508		1.0	0.170															
140	Container	99,508		1.0	0.170															
141	Container	99,508		1.0	0.170															

Table A.1.2-CB-6. Cargo Vessel Auxiliary Boiler Usage within the Precautionary Area per Ship Visit - Baseline Year 2005.

#	Vessel Type	DWT	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)							
					ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
142	Container	99,508		1.0	0.170													
143	Container	99,508		1.0	0.170													
144	Container	99,518		1.0	0.170													
145	Container	99,518		1.0	0.170													
146	Container	99,518		1.0	0.170													
147	Container	99,518		1.0	0.170													
148	Container	99,518		1.0	0.170													
149	Container	99,518		1.0	0.170													
150	Container	99,518		1.0	0.170													
151	Container	99,518		1.0	0.170													
Totals - Tons						0.76	9.20	24.60	108.00	3.02	2.92	0.01	0.09	0.25	1.11	0.03	0.03	
Note: (1) 2005 PEI Table 2.13. HFO SFC = 305 grams/kW-Hr						Aux. Boilers within Precau. Area - Round Trip						0.02	0.19	0.51	2.23	0.06	0.06	

Table A.1.2-CB-7. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater -
All Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Factor (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
1	Anc shift to LB	CUT	Bulk	23,564	9,028	12,102	0.08	1.2	808	1.77	3.43	24.44	10.50	2.42	2.26	0.00	0.00	0.02	0.01	0.00	0.00
2	Anc shift to LB	CUT	Bulk	24,086	9,028	12,102	0.08	1.1	748							0.00	0.00	0.02	0.01	0.00	0.00
3	Anc shift to LB	CUT	Bulk	26,583	9,028	12,102	0.08	1.3	863							0.00	0.00	0.02	0.01	0.00	0.00
4	Inbound to LB	CUT	Bulk	27,259	9,028	12,102	0.08	1.4	978							0.00	0.00	0.03	0.01	0.00	0.00
5	Inbound to LB	CUT	Bulk	28,503	6,895	9,243	0.08	1.3	712							0.00	0.00	0.02	0.01	0.00	0.00
6	Anc shift to LB	CUT	Bulk	31,350	9,028	12,102	0.08	1.5	1,059							0.00	0.00	0.03	0.01	0.00	0.00
7	Anc shift to LB	CUT	Bulk	31,642	9,028	12,102	0.08	1.1	760							0.00	0.00	0.02	0.01	0.00	0.00
8	Anc shift to LB	CUT	Bulk	31,651	9,028	12,102	0.08	1.2	829							0.00	0.00	0.02	0.01	0.00	0.00
9	Anc shift to LB	CUT	Bulk	31,962	9,028	12,102	0.08	1.3	875							0.00	0.00	0.02	0.01	0.00	0.00
10	Inbound to LB	CUT	Bulk	32,400	9,028	12,102	0.08	1.1	748							0.00	0.00	0.02	0.01	0.00	0.00
11	Anc shift to LB	CUT	Bulk	32,474	9,028	12,102	0.08	1.0	691							0.00	0.00	0.02	0.01	0.00	0.00
12	Anc shift to LB	CUT	Bulk	34,750	8,017	10,747	0.08	1.3	767							0.00	0.00	0.02	0.01	0.00	0.00
13	LB harbor shift	CUT	Bulk	42,529	9,028	12,102	0.08	0.4	299							0.00	0.00	0.01	0.00	0.00	0.00
14	LA to LB shift	CUT	Bulk	46,604	9,028	12,102	0.08	1.6	1,094							0.00	0.00	0.03	0.01	0.00	0.00
15	LA to LB shift	CUT	Bulk	46,604	9,028	12,102	0.08	1.3	898							0.00	0.00	0.02	0.01	0.00	0.00
16	Inbound to LB	CUT	Bulk	48,661	9,028	12,102	0.08	1.2	817							0.00	0.00	0.02	0.01	0.00	0.00
17	Inbound to LB	CUT	Bulk/Container	23,736	9,028	12,102	0.08	1.6	1,128							0.00	0.00	0.03	0.01	0.00	0.00
18	Inbound to LB	CUT	Bulk/Container	23,736	9,028	12,102	0.08	0.8	587							0.00	0.00	0.02	0.01	0.00	0.00
19	Inbound to LB	CUT	Bulk/Container	23,736	9,028	12,102	0.08	1.0	668							0.00	0.00	0.02	0.01	0.00	0.00
20	LB harbor shift	CUT	Bulk/Container	23,736	9,028	12,102	0.08	2.5	1,727							0.00	0.01	0.05	0.02	0.00	0.00
21	LB harbor shift	CUT	Bulk/Container	29,319	9,540	12,788	0.08	0.4	292							0.00	0.00	0.01	0.00	0.00	0.00
22	Anc shift to LB	CUT	Bulk/Container	29,319	9,540	12,788	0.08	1.0	730							0.00	0.00	0.02	0.01	0.00	0.00
23	Anc shift to LB	CUT	Bulk/Oil	70,731	9,028	12,102	0.07	0.9	601	2.11	3.91	26.25	10.50	2.69	2.52	0.00	0.00	0.02	0.01	0.00	0.00
24	Anc shift to LB	CUT	Chemical Oil	10,331	13,196	17,689	0.07	1.1	1,058							0.00	0.00	0.03	0.01	0.00	0.00
25	Inbound to LB	CUT	Chemical Oil	11,668	13,196	17,689	0.07	1.1	1,058							0.00	0.00	0.03	0.01	0.00	0.00
26	Inbound to LB	CUT	Chemical Oil	14,003	13,196	17,689	0.07	1.1	1,107							0.00	0.00	0.03	0.01	0.00	0.00
27	LA to LB shift	CUT	Chemical Oil	17,712	13,196	17,689	0.07	1.3	1,221							0.00	0.01	0.04	0.01	0.00	0.00
28	Inbound to LB	CUT	Chemical Oil	19,365	13,196	17,689	0.07	1.4	1,383							0.00	0.01	0.04	0.02	0.00	0.00
29	Inbound to LB	CUT	Chemical Oil	19,386	13,196	17,689	0.07	1.2	1,133							0.00	0.00	0.03	0.01	0.00	0.00
30	Anc shift to LB	CUT	Chemical Oil	19,500	13,196	17,689	0.07	1.3	1,302							0.00	0.01	0.04	0.02	0.00	0.00
31	LA to LB shift	CUT	Chemical Oil	19,997	13,196	17,689	0.07	1.2	1,143							0.00	0.00	0.03	0.01	0.00	0.00
32	Inbound to LB	CUT	Chemical Oil	19,997	13,196	17,689	0.07	1.2	1,133							0.00	0.00	0.03	0.01	0.00	0.00
33	Inbound to LB	CUT	Chemical Oil	19,998	13,196	17,689	0.07	1.2	1,139							0.00	0.00	0.03	0.01	0.00	0.00
34	Inbound to LB	CUT	Chemical Oil	19,998	13,196	17,689	0.07	0.8	814							0.00	0.00	0.02	0.01	0.00	0.00
35	Inbound to LB	CUT	Chemical Tanker	7,930	13,196	17,689	0.07	0.9	846							0.00	0.00	0.02	0.01	0.00	0.00
36	Inbound to LB	CUT	Chemical Tanker	15,247	13,196	17,689	0.07	1.1	1,058							0.00	0.00	0.03	0.01	0.00	0.00
37	LA to LB shift	CUT	Chemical Tanker	15,247	13,196	17,689	0.07	1.1	1,058							0.00	0.00	0.03	0.01	0.00	0.00
38	Inbound to LB	CUT	Chemical Tanker	15,247	13,196	17,689	0.07	1.0	977							0.00	0.00	0.03	0.01	0.00	0.00
39	LA to LB shift	CUT	Chemical Tanker	15,247	13,196	17,689	0.07	1.3	1,302							0.00	0.01	0.04	0.02	0.00	0.00
40	Inbound to LB	CUT	Chemical Tanker	15,265	13,196	17,689	0.07	1.2	1,139							0.00	0.00	0.03	0.01	0.00	0.00
41	LA to LB shift	CUT	Chemical Tanker	17,585	13,196	17,689	0.07	1.6	1,546							0.00	0.01	0.04	0.02	0.00	0.00
42	Anc shift to LB	CUT	Chemical Tanker	17,845	13,196	17,689	0.07	1.3	1,302							0.00	0.01	0.04	0.02	0.00	0.00
43	Inbound to LB	CUT	Chemical Tanker	17,845	13,196	17,689	0.07	1.2	1,139							0.00	0.00	0.03	0.01	0.00	0.00

Table A.1.2-CB-7. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater -
All Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Factor (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
44	Inbound to LB	CUT	Chemical Tanker	19,997	13,196	17,689	0.07	0.9	895							0.00	0.00	0.03	0.01	0.00	0.00
45	LB harbor shift	CUT	Chemical Tanker	19,997	13,196	17,689	0.07	1.2	1,139							0.00	0.00	0.03	0.01	0.00	0.00
46	LA to LB shift	CUT	Chemical Tanker	19,997	13,196	17,689	0.07	1.3	1,221							0.00	0.01	0.04	0.01	0.00	0.00
47	LA to LB shift	CUT	Chemical Tanker	19,999	13,196	17,689	0.07	1.0	977							0.00	0.00	0.03	0.01	0.00	0.00
48	Inbound to LB	CUT	Chemical Tanker	19,999	13,196	17,689	0.07	1.1	1,058							0.00	0.00	0.03	0.01	0.00	0.00
49	Inbound to LB	CUT	Chemical Tanker	19,999	13,196	17,689	0.07	0.9	895							0.00	0.00	0.03	0.01	0.00	0.00
50	LA to LB shift	CUT	Chemical Tanker	19,999	13,196	17,689	0.07	1.3	1,302							0.00	0.01	0.04	0.02	0.00	0.00
51	LB harbor shift	CUT	Container	14,174	10,030	13,445	0.05	0.9	411	3.37	5.45	33.12	10.50	3.66	3.43	0.00	0.00	0.01	0.00	0.00	0.00
52	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,958							0.01	0.01	0.07	0.02	0.01	0.01
53	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,871							0.01	0.01	0.07	0.02	0.01	0.01
54	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.0	1,754							0.01	0.01	0.06	0.02	0.01	0.01
55	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,988							0.01	0.01	0.07	0.02	0.01	0.01
56	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.0	1,812							0.01	0.01	0.07	0.02	0.01	0.01
57	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,929							0.01	0.01	0.07	0.02	0.01	0.01
58	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.3	2,280							0.01	0.01	0.08	0.03	0.01	0.01
59	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.2	2,104							0.01	0.01	0.08	0.02	0.01	0.01
60	Anc shift to LB	CUT	Container	60,494	38,543	51,666	0.05	1.2	2,046							0.01	0.01	0.07	0.02	0.01	0.01
61	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,929							0.01	0.01	0.07	0.02	0.01	0.01
62	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,929							0.01	0.01	0.07	0.02	0.01	0.01
63	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.4	2,455							0.01	0.01	0.09	0.03	0.01	0.01
64	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,958							0.01	0.01	0.07	0.02	0.01	0.01
65	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,929							0.01	0.01	0.07	0.02	0.01	0.01
66	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,929							0.01	0.01	0.07	0.02	0.01	0.01
67	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.3	2,280							0.01	0.01	0.08	0.03	0.01	0.01
68	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	0.8	1,461							0.01	0.01	0.05	0.02	0.01	0.01
69	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.1	1,871							0.01	0.01	0.07	0.02	0.01	0.01
70	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.2	2,046							0.01	0.01	0.07	0.02	0.01	0.01
71	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.05	1.0	1,754							0.01	0.01	0.06	0.02	0.01	0.01
72	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.1	3,261							0.01	0.02	0.12	0.04	0.01	0.01
73	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.0	3,112							0.01	0.02	0.11	0.04	0.01	0.01
74	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.1	3,162							0.01	0.02	0.12	0.04	0.01	0.01
75	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	0.8	2,470							0.01	0.01	0.09	0.03	0.01	0.01
76	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,508							0.01	0.02	0.13	0.04	0.01	0.01
77	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.0	2,964							0.01	0.02	0.11	0.03	0.01	0.01
78	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,557							0.01	0.02	0.13	0.04	0.01	0.01
79	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.1	3,310							0.01	0.02	0.12	0.04	0.01	0.01
80	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.0	2,964							0.01	0.02	0.11	0.03	0.01	0.01
81	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.3	3,705							0.01	0.02	0.14	0.04	0.01	0.01
82	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	0.8	2,371							0.01	0.01	0.09	0.03	0.01	0.01
83	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01
84	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01
85	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01

Table A.1.2-CB-7. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater -
All Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Factor (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
86	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01
87	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01
88	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01
89	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01
90	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01
91	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01
92	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.05	1.2	3,439							0.01	0.02	0.13	0.04	0.01	0.01
93	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	0.9	2,668							0.01	0.02	0.10	0.03	0.01	0.01
94	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	1.2	3,607							0.01	0.02	0.13	0.04	0.01	0.01
95	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	1.1	3,261							0.01	0.02	0.12	0.04	0.01	0.01
96	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	1.2	3,557							0.01	0.02	0.13	0.04	0.01	0.01
97	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	1.0	2,865							0.01	0.02	0.10	0.03	0.01	0.01
98	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	1.3	3,755							0.01	0.02	0.14	0.04	0.02	0.01
99	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	1.0	3,112							0.01	0.02	0.11	0.04	0.01	0.01
100	Anc shift to LB	CUT	Container	80,596	65,149	87,331	0.05	1.2	3,468							0.01	0.02	0.13	0.04	0.01	0.01
101	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	1.4	4,150							0.02	0.02	0.15	0.05	0.02	0.02
102	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	1.1	3,211							0.01	0.02	0.12	0.04	0.01	0.01
103	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.05	1.3	3,854							0.01	0.02	0.14	0.04	0.02	0.01
104	Anc shift to LB	CUT	General Cargo	7,443	5,400	7,239	0.06	1.2	398	2.61	4.55	28.96	10.50	3.06	2.87	0.00	0.00	0.01	0.00	0.00	0.00
105	Inbound to LB	CUT	General Cargo	23,731	8,473	11,358	0.06	0.9	463							0.00	0.00	0.01	0.01	0.00	0.00
106	LB harbor shift	CUT	General Cargo	23,731	8,473	11,358	0.06	0.6	320							0.00	0.00	0.01	0.00	0.00	0.00
107	LB harbor shift	CUT	General Cargo	23,731	8,473	11,358	0.06	0.4	196							0.00	0.00	0.01	0.00	0.00	0.00
108	Inbound to LB	CUT	General Cargo	23,731	8,473	11,358	0.06	1.3	667							0.00	0.00	0.02	0.01	0.00	0.00
109	Inbound to LB	CUT	General Cargo	23,731	8,473	11,358	0.06	0.9	489							0.00	0.00	0.02	0.01	0.00	0.00
110	Inbound to LB	CUT	General Cargo	23,737	8,473	11,358	0.06	1.0	534							0.00	0.00	0.02	0.01	0.00	0.00
111	LB harbor shift	CUT	General Cargo	23,737	8,473	11,358	0.06	0.2	107							0.00	0.00	0.00	0.00	0.00	0.00
112	Inbound to LB	CUT	General Cargo	23,737	8,473	11,358	0.06	1.4	756							0.00	0.00	0.02	0.01	0.00	0.00
113	LB harbor shift	CUT	General Cargo	23,737	8,473	11,358	0.06	0.2	107							0.00	0.00	0.00	0.00	0.00	0.00
114	LB harbor shift	CUT	General Cargo	29,152	8,473	11,358	0.06	0.2	107							0.00	0.00	0.00	0.00	0.00	0.00
115	LB harbor shift	CUT	General Cargo	29,152	8,473	11,358	0.06	0.4	214							0.00	0.00	0.01	0.00	0.00	0.00
116	Inbound to LB	CUT	General Cargo	29,152	8,473	11,358	0.06	1.2	649							0.00	0.00	0.02	0.01	0.00	0.00
117	LB harbor shift	CUT	General Cargo	29,152	8,473	11,358	0.06	0.4	214							0.00	0.00	0.01	0.00	0.00	0.00
118	LB harbor shift	CUT	General Cargo	29,152	8,473	11,358	0.06	0.7	374							0.00	0.00	0.01	0.00	0.00	0.00
119	LB harbor shift	CUT	General Cargo	29,152	8,473	11,358	0.06	0.5	267							0.00	0.00	0.01	0.00	0.00	0.00
120	Inbound to LB	CUT	General Cargo	29,152	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
121	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.0	534							0.00	0.00	0.02	0.01	0.00	0.00
122	Anc shift to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.1	569							0.00	0.00	0.02	0.01	0.00	0.00
123	Anc shift to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.6	845							0.00	0.00	0.03	0.01	0.00	0.00
124	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.1	578							0.00	0.00	0.02	0.01	0.00	0.00
125	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.3	676							0.00	0.00	0.02	0.01	0.00	0.00
126	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
127	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.2	614							0.00	0.00	0.02	0.01	0.00	0.00

Table A.1.2-CB-7. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater -
All Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Factor (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
128	LB harbor shift	CUT	General Cargo	29,500	8,473	11,358	0.06	1.2	614							0.00	0.00	0.02	0.01	0.00	0.00
129	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.2	667							0.00	0.00	0.02	0.01	0.00	0.00
130	LB harbor shift	CUT	General Cargo	29,512	8,473	11,358	0.06	1.0	534							0.00	0.00	0.02	0.01	0.00	0.00
131	Inbound to LB	CUT	General Cargo	29,512	8,473	11,358	0.06	1.4	747							0.00	0.00	0.02	0.01	0.00	0.00
132	Anc shift to LB	CUT	General Cargo	29,512	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
133	Anc shift to LB	CUT	General Cargo	29,512	8,473	11,358	0.06	1.2	625							0.00	0.00	0.02	0.01	0.00	0.00
134	Inbound to LB	CUT	General Cargo	29,512	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
135	Inbound to LB	CUT	General Cargo	29,512	8,473	11,358	0.06	1.1	614							0.00	0.00	0.02	0.01	0.00	0.00
136	Inbound to LB	CUT	General Cargo	29,516	8,473	11,358	0.06	1.1	587							0.00	0.00	0.02	0.01	0.00	0.00
137	Anc shift to LB	CUT	General Cargo	29,516	8,473	11,358	0.06	1.1	587							0.00	0.00	0.02	0.01	0.00	0.00
138	Inbound to LB	CUT	General Cargo	29,516	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
139	Inbound to LB	CUT	General Cargo	29,516	8,473	11,358	0.06	0.9	498							0.00	0.00	0.02	0.01	0.00	0.00
140	Inbound to LB	CUT	General Cargo	29,516	8,473	11,358	0.06	1.4	747							0.00	0.00	0.02	0.01	0.00	0.00
141	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.4	765							0.00	0.00	0.02	0.01	0.00	0.00
142	LB harbor shift	CUT	General Cargo	29,538	8,473	11,358	0.06	0.6	294							0.00	0.00	0.01	0.00	0.00	0.00
143	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	0.9	480							0.00	0.00	0.02	0.01	0.00	0.00
144	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.5	801							0.00	0.00	0.03	0.01	0.00	0.00
145	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	0.9	489							0.00	0.00	0.02	0.01	0.00	0.00
146	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
147	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.1	587							0.00	0.00	0.02	0.01	0.00	0.00
148	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.0	560							0.00	0.00	0.02	0.01	0.00	0.00
149	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
150	Inbound to LB	CUT	General Cargo	29,912	8,473	11,358	0.06	1.4	747							0.00	0.00	0.02	0.01	0.00	0.00
151	LB harbor shift	CUT	General Cargo	30,035	8,473	11,358	0.06	0.5	267							0.00	0.00	0.01	0.00	0.00	0.00
152	LB harbor shift	CUT	General Cargo	30,490	8,473	11,358	0.06	1.0	534							0.00	0.00	0.02	0.01	0.00	0.00
153	LA to LB shift	CUT	General Cargo	39,749	8,473	11,358	0.06	1.8	961							0.00	0.00	0.03	0.01	0.00	0.00
154	LA to LB shift	CUT	General Cargo	43,712	8,473	11,358	0.06	2.0	1,068							0.00	0.01	0.03	0.01	0.00	0.00
155	LA to LB shift	CUT	General Cargo	46,547	8,473	11,358	0.06	2.1	1,121							0.00	0.01	0.04	0.01	0.00	0.00
156	Inbound to LB	CUT	Product Tanker	17,485	5,700	7,641	0.07	0.8	352	2.11	3.91	26.25	10.50	2.69	2.52	0.00	0.00	0.01	0.00	0.00	0.00
157	LA to LB shift	CUT	Product Tanker	17,485	5,700	7,641	0.07	1.0	422							0.00	0.00	0.01	0.00	0.00	0.00
158	Inbound to LB	CUT	Product Tanker		13,196	17,689	0.07	0.8	765							0.00	0.00	0.02	0.01	0.00	0.00
159	Inbound to LB	LBCT	Container	85,810	64,655	86,669	0.02	0.9	1,505	12.71	13.55	83.80	10.50	10.94	10.25	0.02	0.02	0.14	0.02	0.02	0.02
160	Inbound to LB	LBCT	Container	88,669	64,200	86,059	0.02	1.0	1,652							0.02	0.02	0.15	0.02	0.02	0.02
161	Inbound to LB	LBCT	Container	88,669	64,200	86,059	0.02	1.2	1,835							0.03	0.03	0.17	0.02	0.02	0.02
162	Inbound to LB	LBCT	Container	88,669	64,200	86,059	0.02	1.0	1,520							0.02	0.02	0.14	0.02	0.02	0.02
163	Inbound to LB	LBCT	Container	88,700	64,200	86,059	0.02	1.2	1,887							0.03	0.03	0.17	0.02	0.02	0.02
164	Inbound to LB	LBCT	Container	88,700	64,200	86,059	0.02	1.2	1,835							0.03	0.03	0.17	0.02	0.02	0.02
165	Anc shift to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.1	1,855	7.01	9.04	52.85	10.50	6.50	6.09	0.01	0.02	0.11	0.02	0.01	0.01
166	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.2	1,964							0.02	0.02	0.11	0.02	0.01	0.01
167	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
168	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.3	2,128							0.02	0.02	0.12	0.02	0.02	0.01
169	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.1	1,773							0.01	0.02	0.10	0.02	0.01	0.01

Table A.1.2-CB-7. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater -
All Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Factor (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
170	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.1	1,801							0.01	0.02	0.10	0.02	0.01	0.01
171	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,501							0.01	0.01	0.09	0.02	0.01	0.01
172	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,637							0.01	0.02	0.10	0.02	0.01	0.01
173	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,637							0.01	0.02	0.10	0.02	0.01	0.01
174	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.8	1,310							0.01	0.01	0.08	0.02	0.01	0.01
175	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,419							0.01	0.01	0.08	0.02	0.01	0.01
176	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.8	1,282							0.01	0.01	0.07	0.01	0.01	0.01
177	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.8	1,228							0.01	0.01	0.07	0.01	0.01	0.01
178	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,528							0.01	0.02	0.09	0.02	0.01	0.01
179	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.2	1,964							0.02	0.02	0.11	0.02	0.01	0.01
180	Anc shift to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.7	1,064							0.01	0.01	0.06	0.01	0.01	0.01
181	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,419							0.01	0.01	0.08	0.02	0.01	0.01
182	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,582							0.01	0.02	0.09	0.02	0.01	0.01
183	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,555							0.01	0.02	0.09	0.02	0.01	0.01
184	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
185	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,582							0.01	0.02	0.09	0.02	0.01	0.01
186	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,555							0.01	0.02	0.09	0.02	0.01	0.01
187	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,637							0.01	0.02	0.10	0.02	0.01	0.01
188	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.1	1,801							0.01	0.02	0.10	0.02	0.01	0.01
189	Anc shift to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,719							0.01	0.02	0.10	0.02	0.01	0.01
190	Anc shift to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,692							0.01	0.02	0.10	0.02	0.01	0.01
191	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
192	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,555							0.01	0.02	0.09	0.02	0.01	0.01
193	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,501							0.01	0.01	0.09	0.02	0.01	0.01
194	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
195	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
196	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,719							0.01	0.02	0.10	0.02	0.01	0.01
197	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	1.1	1,801							0.01	0.02	0.10	0.02	0.01	0.01
198	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	0.8	1,364							0.01	0.01	0.08	0.02	0.01	0.01
199	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	0.9	1,446							0.01	0.01	0.08	0.02	0.01	0.01
200	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	1.0	1,692							0.01	0.02	0.10	0.02	0.01	0.01

Table A.1.2-CB-7. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater - All Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Factor (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
201	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	0.9	1,473							0.01	0.01	0.09	0.02	0.01	0.01
202	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	1.3	2,073							0.02	0.02	0.12	0.02	0.01	0.01
203	Anc shift to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.2	1,915							0.01	0.02	0.11	0.02	0.01	0.01
204	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.0	1,692							0.01	0.02	0.10	0.02	0.01	0.01
205	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.0	1,637							0.01	0.02	0.10	0.02	0.01	0.01
206	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.1	1,855							0.01	0.02	0.11	0.02	0.01	0.01
207	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.0	1,582							0.01	0.02	0.09	0.02	0.01	0.01
208	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
209	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	0.9	1,528							0.01	0.02	0.09	0.02	0.01	0.01
210	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	0.8	1,228							0.01	0.01	0.07	0.01	0.01	0.01
211	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	0.8	1,228							0.01	0.01	0.07	0.01	0.01	0.01
212	Anc shift to LB	LBCT	Semi-Submersible	26,082	14,790	19,826	0.06	1.7	1,589	2.61	4.55	28.96	10.50	3.06	2.87	0.00	0.01	0.05	0.02	0.01	0.01
Notes: (1) Transit load factors based upon the average of inbound and outbound load factors in 2005 PEI Table 2.9.										Main Engine Harbor Transit - All Vessels 1-Way						1.47	2.14	13.08	3.62	1.50	1.41

Table A.1.2-CB-8. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater -
No Shifted Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Fac (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
1	Inbound to LB	CUT	Bulk	27,259	9,028	12,102	0.08	1.4	978	1.77	3.43	24.44	10.50	2.42	2.26	0.00	0.00	0.03	0.01	0.00	0.00
2	Inbound to LB	CUT	Bulk	28,503	6,895	9,243	0.08	1.3	712							0.00	0.00	0.02	0.01	0.00	0.00
3	Inbound to LB	CUT	Bulk	32,400	9,028	12,102	0.08	1.1	748							0.00	0.00	0.02	0.01	0.00	0.00
4	Inbound to LB	CUT	Bulk	48,661	9,028	12,102	0.08	1.2	817							0.00	0.00	0.02	0.01	0.00	0.00
5	Inbound to LB	CUT	Bulk/Container	23,736	9,028	12,102	0.08	1.6	1,128							0.00	0.00	0.03	0.01	0.00	0.00
6	Inbound to LB	CUT	Bulk/Container	23,736	9,028	12,102	0.08	0.8	587							0.00	0.00	0.02	0.01	0.00	0.00
7	Inbound to LB	CUT	Bulk/Container	23,736	9,028	12,102	0.08	1.0	668							0.00	0.00	0.02	0.01	0.00	0.00
8	Inbound to LB	CUT	Chemical Oil	11,668	13,196	17,689	0.07	1.1	1,058	2.11	3.91	26.25	10.50	2.69	2.52	0.00	0.00	0.03	0.01	0.00	0.00
9	Inbound to LB	CUT	Chemical Oil	14,003	13,196	17,689	0.07	1.1	1,107							0.00	0.00	0.03	0.01	0.00	0.00
10	Inbound to LB	CUT	Chemical Oil	19,365	13,196	17,689	0.07	1.4	1,383							0.00	0.01	0.04	0.02	0.00	0.00
11	Inbound to LB	CUT	Chemical Oil	19,386	13,196	17,689	0.07	1.2	1,133							0.00	0.00	0.03	0.01	0.00	0.00
12	Inbound to LB	CUT	Chemical Oil	19,997	13,196	17,689	0.07	1.2	1,133							0.00	0.00	0.03	0.01	0.00	0.00
13	Inbound to LB	CUT	Chemical Oil	19,998	13,196	17,689	0.07	1.2	1,139							0.00	0.00	0.03	0.01	0.00	0.00
14	Inbound to LB	CUT	Chemical Oil	19,998	13,196	17,689	0.07	0.8	814							0.00	0.00	0.02	0.01	0.00	0.00
15	Inbound to LB	CUT	Chemical Tanker	7,930	13,196	17,689	0.07	0.9	846							0.00	0.00	0.02	0.01	0.00	0.00
16	Inbound to LB	CUT	Chemical Tanker	15,247	13,196	17,689	0.07	1.1	1,058							0.00	0.00	0.03	0.01	0.00	0.00
17	Inbound to LB	CUT	Chemical Tanker	15,247	13,196	17,689	0.07	1.0	977							0.00	0.00	0.03	0.01	0.00	0.00
18	Inbound to LB	CUT	Chemical Tanker	15,265	13,196	17,689	0.07	1.2	1,139							0.00	0.00	0.03	0.01	0.00	0.00
19	Inbound to LB	CUT	Chemical Tanker	17,845	13,196	17,689	0.07	1.2	1,139							0.00	0.00	0.03	0.01	0.00	0.00
20	Inbound to LB	CUT	Chemical Tanker	19,997	13,196	17,689	0.07	0.9	895							0.00	0.00	0.03	0.01	0.00	0.00
21	Inbound to LB	CUT	Chemical Tanker	19,999	13,196	17,689	0.07	1.1	1,058							0.00	0.00	0.03	0.01	0.00	0.00
22	Inbound to LB	CUT	Chemical Tanker	19,999	13,196	17,689	0.07	0.9	895							0.00	0.00	0.03	0.01	0.00	0.00
23	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,162	7.01	9.04	52.85	10.50	6.50	6.09	0.01	0.01	0.07	0.01	0.01	0.01
24	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,110							0.01	0.01	0.06	0.01	0.01	0.01
25	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.0	1,041							0.01	0.01	0.06	0.01	0.01	0.01
26	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,179							0.01	0.01	0.07	0.01	0.01	0.01
27	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.0	1,075							0.01	0.01	0.06	0.01	0.01	0.01
28	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,145							0.01	0.01	0.07	0.01	0.01	0.01
29	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.3	1,353							0.01	0.01	0.08	0.02	0.01	0.01
30	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.2	1,249							0.01	0.01	0.07	0.01	0.01	0.01
31	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,145							0.01	0.01	0.07	0.01	0.01	0.01
32	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,145							0.01	0.01	0.07	0.01	0.01	0.01
33	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.4	1,457							0.01	0.01	0.08	0.02	0.01	0.01
34	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,162							0.01	0.01	0.07	0.01	0.01	0.01
35	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,145							0.01	0.01	0.07	0.01	0.01	0.01
36	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,145							0.01	0.01	0.07	0.01	0.01	0.01
37	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.3	1,353							0.01	0.01	0.08	0.02	0.01	0.01
38	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	0.8	867							0.01	0.01	0.05	0.01	0.01	0.01
39	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.1	1,110							0.01	0.01	0.06	0.01	0.01	0.01
40	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.2	1,214							0.01	0.01	0.07	0.01	0.01	0.01
41	Inbound to LB	CUT	Container	60,494	38,543	51,666	0.03	1.0	1,041							0.01	0.01	0.06	0.01	0.01	0.01
42	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.1	1,756	12.71	13.55	83.80	10.50	10.94	10.25	0.02	0.03	0.16	0.02	0.02	0.02
43	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.0	1,676							0.02	0.03	0.15	0.02	0.02	0.02

Table A.1.2-CB-8. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater -
No Shifted Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Fac (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
44	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.1	1,703							0.02	0.03	0.16	0.02	0.02	0.02
45	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	0.8	1,330							0.02	0.02	0.12	0.02	0.02	0.02
46	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,889							0.03	0.03	0.17	0.02	0.02	0.02
47	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.0	1,596							0.02	0.02	0.15	0.02	0.02	0.02
48	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,915							0.03	0.03	0.18	0.02	0.02	0.02
49	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.1	1,782							0.02	0.03	0.16	0.02	0.02	0.02
50	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.0	1,596							0.02	0.02	0.15	0.02	0.02	0.02
51	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.3	1,995							0.03	0.03	0.18	0.02	0.02	0.02
52	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	0.8	1,277							0.02	0.02	0.12	0.01	0.02	0.01
53	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
54	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
55	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
56	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
57	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
58	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
59	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
60	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
61	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
62	Inbound to LB	CUT	Container	80,551	65,149	87,331	0.02	1.2	1,852							0.03	0.03	0.17	0.02	0.02	0.02
63	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	0.9	1,437							0.02	0.02	0.13	0.02	0.02	0.02
64	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	1.2	1,942							0.03	0.03	0.18	0.02	0.02	0.02
65	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	1.1	1,756							0.02	0.03	0.16	0.02	0.02	0.02
66	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	1.2	1,915							0.03	0.03	0.18	0.02	0.02	0.02
67	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	1.0	1,543							0.02	0.02	0.14	0.02	0.02	0.02
68	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	1.3	2,022							0.03	0.03	0.19	0.02	0.02	0.02
69	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	1.0	1,676							0.02	0.03	0.15	0.02	0.02	0.02
70	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	1.4	2,235							0.03	0.03	0.21	0.03	0.03	0.03
71	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	1.1	1,729							0.02	0.03	0.16	0.02	0.02	0.02
72	Inbound to LB	CUT	Container	80,596	65,149	87,331	0.02	1.3	2,075							0.03	0.03	0.19	0.02	0.03	0.02
73	Inbound to LB	CUT	General Cargo	23,731	8,473	11,358	0.06	0.9	463	2.61	4.55	28.96	10.50	3.06	2.87	0.00	0.00	0.01	0.01	0.00	0.00
74	Inbound to LB	CUT	General Cargo	23,731	8,473	11,358	0.06	1.3	667							0.00	0.00	0.02	0.01	0.00	0.00
75	Inbound to LB	CUT	General Cargo	23,731	8,473	11,358	0.06	0.9	489							0.00	0.00	0.02	0.01	0.00	0.00
76	Inbound to LB	CUT	General Cargo	23,737	8,473	11,358	0.06	1.0	534							0.00	0.00	0.02	0.01	0.00	0.00
77	Inbound to LB	CUT	General Cargo	23,737	8,473	11,358	0.06	1.4	756							0.00	0.00	0.02	0.01	0.00	0.00
78	Inbound to LB	CUT	General Cargo	29,152	8,473	11,358	0.06	1.2	649							0.00	0.00	0.02	0.01	0.00	0.00
79	Inbound to LB	CUT	General Cargo	29,152	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
80	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.0	534							0.00	0.00	0.02	0.01	0.00	0.00
81	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.1	578							0.00	0.00	0.02	0.01	0.00	0.00
82	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.3	676							0.00	0.00	0.02	0.01	0.00	0.00
83	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
84	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.2	614							0.00	0.00	0.02	0.01	0.00	0.00
85	Inbound to LB	CUT	General Cargo	29,500	8,473	11,358	0.06	1.2	667							0.00	0.00	0.02	0.01	0.00	0.00
86	Inbound to LB	CUT	General Cargo	29,512	8,473	11,358	0.06	1.4	747							0.00	0.00	0.02	0.01	0.00	0.00

Table A.1.2-CB-8. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater -
No Shifted Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Fac (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
87	Inbound to LB	CUT	General Cargo	29,512	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
88	Inbound to LB	CUT	General Cargo	29,512	8,473	11,358	0.06	1.1	614							0.00	0.00	0.02	0.01	0.00	0.00
89	Inbound to LB	CUT	General Cargo	29,516	8,473	11,358	0.06	1.1	587							0.00	0.00	0.02	0.01	0.00	0.00
90	Inbound to LB	CUT	General Cargo	29,516	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
91	Inbound to LB	CUT	General Cargo	29,516	8,473	11,358	0.06	0.9	498							0.00	0.00	0.02	0.01	0.00	0.00
92	Inbound to LB	CUT	General Cargo	29,516	8,473	11,358	0.06	1.4	747							0.00	0.00	0.02	0.01	0.00	0.00
93	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.4	765							0.00	0.00	0.02	0.01	0.00	0.00
94	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	0.9	480							0.00	0.00	0.02	0.01	0.00	0.00
95	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.5	801							0.00	0.00	0.03	0.01	0.00	0.00
96	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	0.9	489							0.00	0.00	0.02	0.01	0.00	0.00
97	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
98	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.1	587							0.00	0.00	0.02	0.01	0.00	0.00
99	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.0	560							0.00	0.00	0.02	0.01	0.00	0.00
100	Inbound to LB	CUT	General Cargo	29,538	8,473	11,358	0.06	1.2	641							0.00	0.00	0.02	0.01	0.00	0.00
101	Inbound to LB	CUT	General Cargo	29,912	8,473	11,358	0.06	1.4	747							0.00	0.00	0.02	0.01	0.00	0.00
102	Inbound to LB	CUT	Product Tanker	17,485	5,700	7,641	0.07	0.8	352	2.11	3.91	26.25	10.50	2.69	2.52	0.00	0.00	0.01	0.00	0.00	0.00
103	Inbound to LB	CUT	Product Tanker		13,196	17,689	0.07	0.8	765							0.00	0.00	0.02	0.01	0.00	0.00
104	Inbound to LB	LBCT	Container	85,810	64,655	86,669	0.02	0.9	1,505	12.71	13.55	83.80	10.50	10.94	10.25	0.02	0.02	0.14	0.02	0.02	0.02
105	Inbound to LB	LBCT	Container	88,669	64,200	86,059	0.02	1.0	1,652							0.02	0.02	0.15	0.02	0.02	0.02
106	Inbound to LB	LBCT	Container	88,669	64,200	86,059	0.02	1.2	1,835							0.03	0.03	0.17	0.02	0.02	0.02
107	Inbound to LB	LBCT	Container	88,669	64,200	86,059	0.02	1.0	1,520							0.02	0.02	0.14	0.02	0.02	0.02
108	Inbound to LB	LBCT	Container	88,700	64,200	86,059	0.02	1.2	1,887							0.03	0.03	0.17	0.02	0.02	0.02
109	Inbound to LB	LBCT	Container	88,700	64,200	86,059	0.02	1.2	1,835							0.03	0.03	0.17	0.02	0.02	0.02
110	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.2	1,964	7.01	9.04	52.85	10.50	6.50	6.09	0.02	0.02	0.11	0.02	0.01	0.01
111	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
112	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.3	2,128							0.02	0.02	0.12	0.02	0.02	0.01
113	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.1	1,773							0.01	0.02	0.10	0.02	0.01	0.01
114	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.1	1,801							0.01	0.02	0.10	0.02	0.01	0.01
115	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,501							0.01	0.01	0.09	0.02	0.01	0.01
116	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,637							0.01	0.02	0.10	0.02	0.01	0.01
117	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,637							0.01	0.02	0.10	0.02	0.01	0.01
118	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.8	1,310							0.01	0.01	0.08	0.02	0.01	0.01
119	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,419							0.01	0.01	0.08	0.02	0.01	0.01
120	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.8	1,282							0.01	0.01	0.07	0.01	0.01	0.01
121	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.8	1,228							0.01	0.01	0.07	0.01	0.01	0.01
122	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,528							0.01	0.02	0.09	0.02	0.01	0.01
123	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.2	1,964							0.02	0.02	0.11	0.02	0.01	0.01
124	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,419							0.01	0.01	0.08	0.02	0.01	0.01
125	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,582							0.01	0.02	0.09	0.02	0.01	0.01
126	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,555							0.01	0.02	0.09	0.02	0.01	0.01
127	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
128	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,582							0.01	0.02	0.09	0.02	0.01	0.01
129	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,555							0.01	0.02	0.09	0.02	0.01	0.01

Table A.1.2-CB-8. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit within the POLB Breakwater -
No Shifted Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	DWT	Main Engine kW	Main Engine Hp	Main Engine Load Fac (1)	Hours/Trip	kW-Hrs/Trip	Main Engine EFs (Gm/kW-Hr)						Main Engine Emissions (Tons)					
										ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
130	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,637							0.01	0.02	0.10	0.02	0.01	0.01
131	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.1	1,801							0.01	0.02	0.10	0.02	0.01	0.01
132	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
133	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,555							0.01	0.02	0.09	0.02	0.01	0.01
134	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	0.9	1,501							0.01	0.01	0.09	0.02	0.01	0.01
135	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
136	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
137	Inbound to LB	LBCT	Container	99,500	64,194	86,051	0.03	1.0	1,719							0.01	0.02	0.10	0.02	0.01	0.01
138	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	1.1	1,801							0.01	0.02	0.10	0.02	0.01	0.01
139	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	0.8	1,364							0.01	0.01	0.08	0.02	0.01	0.01
140	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	0.9	1,446							0.01	0.01	0.08	0.02	0.01	0.01
141	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	1.0	1,692							0.01	0.02	0.10	0.02	0.01	0.01
142	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	0.9	1,473							0.01	0.01	0.09	0.02	0.01	0.01
143	Inbound to LB	LBCT	Container	99,508	64,194	86,051	0.03	1.3	2,073							0.02	0.02	0.12	0.02	0.01	0.01
144	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.0	1,692							0.01	0.02	0.10	0.02	0.01	0.01
145	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.0	1,637							0.01	0.02	0.10	0.02	0.01	0.01
146	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.1	1,855							0.01	0.02	0.11	0.02	0.01	0.01
147	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.0	1,582							0.01	0.02	0.09	0.02	0.01	0.01
148	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	1.0	1,610							0.01	0.02	0.09	0.02	0.01	0.01
149	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	0.9	1,528							0.01	0.02	0.09	0.02	0.01	0.01
150	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	0.8	1,228							0.01	0.01	0.07	0.01	0.01	0.01
151	Inbound to LB	LBCT	Container	99,518	64,194	86,051	0.03	0.8	1,228							0.01	0.01	0.07	0.01	0.01	0.01
Notes: (1) Transit load factors based upon the average of inbound and outbound load factors in 2005 PEI Table 2.9.										Main Engine Harbor Transit - 1-Way Non-Shifters						1.71	2.06	12.49	2.26	1.56	1.46
										Total Main Engine Harbor Transit Emissions						3.18	4.20	25.57	5.89	3.06	2.87

Table A.1.2-CB-9. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - All Vessels Baseline Year 2005 - HFO and MGO.

#	Trip Type	Terminal	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW)	Aux Gen EFs (Gm/kW-Hr)						Aux Gen Emissions (Tons)					
									ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5
42	Anc shift to LB	CUT	Chemical Tanker	17,845	1,985	0.33	1.3	873												
43	Inbound to LB	CUT	Chemical Tanker	17,845	1,985	0.33	1.2	764												
44	Inbound to LB	CUT	Chemical Tanker	19,997	1,985	0.33	0.9	600												
45	LB harbor shift	CUT	Chemical Tanker	19,997	1,985	0.33	1.2	764												
46	LA to LB shift	CUT	Chemical Tanker	19,997	1,985	0.33	1.3	819												
47	LA to LB shift	CUT	Chemical Tanker	19,999	1,985	0.33	1.0	655												
48	Inbound to LB	CUT	Chemical Tanker	19,999	1,985	0.33	1.1	710												
49	Inbound to LB	CUT	Chemical Tanker	19,999	1,985	0.33	0.9	600												
50	LA to LB shift	CUT	Chemical Tanker	19,999	1,985	0.33	1.3	873												
51	LB harbor shift	CUT	Container	14,174	6,800	0.50	0.9	3,060												
52	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,176												
53	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	6,855												
54	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.0	6,426												
55	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,283												
56	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.0	6,641												
57	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069												
58	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.3	8,354												
59	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.2	7,712												
60	Anc shift to LB	CUT	Container	60,494	12,853	0.50	1.2	7,498												
61	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069												
62	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069												
63	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.4	8,997												
64	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,176												
65	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069												
66	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069												
67	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.3	8,354												
68	Inbound to LB	CUT	Container	60,494	12,853	0.50	0.8	5,355												
69	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	6,855												
70	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.2	7,498												
71	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.0	6,426												
72	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.1	3,740												
73	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.0	3,570												
74	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.1	3,627												
75	Inbound to LB	CUT	Container	80,551	6,800	0.50	0.8	2,833												
76	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.2	4,023												
77	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.0	3,400												
78	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.2	4,080												
79	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.1	3,797												
80	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.0	3,400												
81	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.3	4,250												
82	Inbound to LB	CUT	Container	80,551	6,800	0.50	0.8	2,720												

Table A.1.2-CB-9. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - All Vessels Baseline Year 2005 - HFO and MGO.

#	Trip Type	Terminal	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW)	Aux Gen EFs (Gm/kW-Hr)						Aux Gen Emissions (Tons)							
									ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
83	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
84	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
85	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
86	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
87	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
88	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
89	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
90	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
91	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
92	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
93	Inbound to LB	CUT	Container	80,596	6,800	0.50	0.9	3,060														
94	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.2	4,137														
95	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.1	3,740														
96	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.2	4,080														
97	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.0	3,287														
98	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.3	4,307														
99	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.0	3,570														
100	Anc shift to LB	CUT	Container	80,596	6,800	0.50	1.2	3,978														
101	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.4	4,760														
102	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.1	3,683														
103	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.3	4,420														
104	Anc shift to LB	CUT	General Cargo	7,443	1,776	0.45	1.2	935														
105	Inbound to LB	CUT	General Cargo	23,731	1,776	0.45	0.9	693														
106	LB harbor shift	CUT	General Cargo	23,731	1,776	0.45	0.6	480														
107	LB harbor shift	CUT	General Cargo	23,731	1,776	0.45	0.4	293														
108	Inbound to LB	CUT	General Cargo	23,731	1,776	0.45	1.3	999														
109	Inbound to LB	CUT	General Cargo	23,731	1,776	0.45	0.9	733														
110	Inbound to LB	CUT	General Cargo	23,737	3,379	0.45	1.0	1,521														
111	LB harbor shift	CUT	General Cargo	23,737	3,379	0.45	0.2	304														
112	Inbound to LB	CUT	General Cargo	23,737	3,379	0.45	1.4	2,154														
113	LB harbor shift	CUT	General Cargo	23,737	3,379	0.45	0.2	304														
114	LB harbor shift	CUT	General Cargo	29,152	1,776	0.45	0.2	160														
115	LB harbor shift	CUT	General Cargo	29,152	1,776	0.45	0.4	320														
116	Inbound to LB	CUT	General Cargo	29,152	1,776	0.45	1.2	972														
117	LB harbor shift	CUT	General Cargo	29,152	1,776	0.45	0.4	320														
118	LB harbor shift	CUT	General Cargo	29,152	1,776	0.45	0.7	559														
119	LB harbor shift	CUT	General Cargo	29,152	1,776	0.45	0.5	400														
120	Inbound to LB	CUT	General Cargo	29,152	1,776	0.45	1.2	959														
121	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.0	799														
122	Anc shift to LB	CUT	General Cargo	29,500	1,776	0.45	1.1	852														
123	Anc shift to LB	CUT	General Cargo	29,500	1,776	0.45	1.6	1,265														

Table A.1.2-CB-9. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - All Vessels Baseline Year 2005 - HFO and MGO.

#	Trip Type	Terminal	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW)	Aux Gen EFs (Gm/kW-Hr)						Aux Gen Emissions (Tons)						
									ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
124	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.1	866													
125	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.3	1,012													
126	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.2	959													
127	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.2	919													
128	LB harbor shift	CUT	General Cargo	29,500	1,776	0.45	1.2	919													
129	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.2	999													
130	LB harbor shift	CUT	General Cargo	29,512	1,776	0.45	1.0	799													
131	Inbound to LB	CUT	General Cargo	29,512	1,776	0.45	1.4	1,119													
132	Anc shift to LB	CUT	General Cargo	29,512	1,776	0.45	1.2	959													
133	Anc shift to LB	CUT	General Cargo	29,512	1,776	0.45	1.2	935													
134	Inbound to LB	CUT	General Cargo	29,512	1,776	0.45	1.2	959													
135	Inbound to LB	CUT	General Cargo	29,512	1,776	0.45	1.1	919													
136	Inbound to LB	CUT	General Cargo	29,516	1,776	0.45	1.1	879													
137	Anc shift to LB	CUT	General Cargo	29,516	1,776	0.45	1.1	879													
138	Inbound to LB	CUT	General Cargo	29,516	1,776	0.45	1.2	959													
139	Inbound to LB	CUT	General Cargo	29,516	1,776	0.45	0.9	746													
140	Inbound to LB	CUT	General Cargo	29,516	1,776	0.45	1.4	1,119													
141	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.4	1,146													
142	LB harbor shift	CUT	General Cargo	29,538	1,776	0.45	0.6	440													
143	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	0.9	719													
144	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.5	1,199													
145	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	0.9	733													
146	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.2	959													
147	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.1	879													
148	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.0	839													
149	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.2	959													
150	Inbound to LB	CUT	General Cargo	29,912	1,776	0.45	1.4	1,119													
151	LB harbor shift	CUT	General Cargo	30,035	1,776	0.45	0.5	400													
152	LB harbor shift	CUT	General Cargo	30,490	1,776	0.45	1.0	799													
153	LA to LB shift	CUT	General Cargo	39,749	1,776	0.45	1.8	1,439													
154	LA to LB shift	CUT	General Cargo	43,712	1,776	0.45	2.0	1,598													
155	LA to LB shift	CUT	General Cargo	46,547	1,776	0.45	2.1	1,678													
156	Inbound to LB	CUT	Product Tanker	17,485	1,985	0.45	0.8	744													
157	LA to LB shift	CUT	Product Tanker	17,485	1,985	0.45	1.0	893													
158	Inbound to LB	CUT	Product Tanker		1,985	0.45	0.8	700													
159	Inbound to LB	LBCT	Container	85,810	6,800	0.50	0.9	3,230													
160	Inbound to LB	LBCT	Container	88,669	15,725	0.50	1.0	8,256													
161	Inbound to LB	LBCT	Container	88,669	15,725	0.50	1.2	9,173													
162	Inbound to LB	LBCT	Container	88,669	15,725	0.50	1.0	7,600													
163	Inbound to LB	LBCT	Container	88,700	11,830	0.50	1.2	7,098													
164	Inbound to LB	LBCT	Container	88,700	11,830	0.50	1.2	6,901													

Table A.1.2-CB-9. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - All Vessels Baseline Year 2005 - HFO and MGO.

#	Trip Type	Terminal	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW)	Aux Gen EFs (Gm/kW-Hr)						Aux Gen Emissions (Tons)																								
									ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5																			
165	Anc shift to LB	LBCT	Container	99,500	6,800	0.50	1.1	3,853																															
166	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.2	4,080																															
167	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343																															
168	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.3	4,420																															
169	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.1	3,683																															
170	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.1	3,740																															
171	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,117																															
172	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,400																															
173	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,400																															
174	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.8	2,720																															
175	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	2,947																															
176	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.8	2,663																															
177	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.8	2,550																															
178	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,173																															
179	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.2	4,080																															
180	Anc shift to LB	LBCT	Container	99,500	6,800	0.50	0.7	2,210																															
181	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	2,947																															
182	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,287																															
183	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,230																															
184	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343																															
185	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,287																															
186	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,230																															
187	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,400																															
188	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.1	3,740																															
189	Anc shift to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,570																															
190	Anc shift to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,513																															
191	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343																															
192	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,230																															
193	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,117																															
194	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343																															
195	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343																															
196	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,570																															
197	Inbound to LB	LBCT	Container	99,508	6,800	0.50	1.1	3,740																															
198	Inbound to LB	LBCT	Container	99,508	6,800	0.50	0.8	2,833																															
199	Inbound to LB	LBCT	Container	99,508	6,800	0.50	0.9	3,003																															
200	Inbound to LB	LBCT	Container	99,508	6,800	0.50	1.0	3,513																															
201	Inbound to LB	LBCT	Container	99,508	6,800	0.50	0.9	3,060																															
202	Inbound to LB	LBCT	Container	99,508	6,800	0.50	1.3	4,307																															
203	Anc shift to LB	LBCT	Container	99,518	6,800	0.50	1.2	3,978																															
204	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.0	3,513																															
205	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.0	3,400																															

Table A.1.2-CB-9. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - All Vessels Baseline Year 2005 - HFO and MGO.

#	Trip Type	Terminal	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW)	Aux Gen EFs (Gm/kW-Hr)						Aux Gen Emissions (Tons)							
									ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
206	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.1	3,853														
207	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.0	3,287														
208	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.0	3,343														
209	Inbound to LB	LBCT	Container	99,518	6,800	0.50	0.9	3,173														
210	Inbound to LB	LBCT	Container	99,518	6,800	0.50	0.8	2,550														
211	Inbound to LB	LBCT	Container	99,518	6,800	0.50	0.8	2,550														
212	Anc shift to LB	LBCT	Semi-Submersible	26,082	1,776	0.45	1.7	1,385														
Total kW-Hrs								594,890														
Total kW-Hrs - HFO 2.7% S(2)								422,372	0.40	1.10	14.70	12.30	1.50	1.41	0.19	0.51	6.84	5.73	0.70	0.65		
Total kW-Hrs - MGO 0.5% S (2)								172,518	0.40	1.10	13.90	1.10	0.30	0.28	0.08	0.21	2.64	0.21	0.06	0.05		
All Vessels Harbor Transit Aux Gens. - 1-way									0.26	0.72	9.49	5.94	0.76	0.71								

Note: (1) 2005 PEI Table 2.12.

(2) Assumes 71/29% residual/diesel fuel usage (2005 PEI page 72).

Table A.1.2-CB-10. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - No Shifted Vessels - Baseline Year 2005 - HFO and MGO.

#	Trip Type	Terminal	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW)	Aux Gen EFs (Gm/kW-Hr)						Aux Gen Emissions (Tons)											
									ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5						
1	Inbound to LB	CUT	Bulk	27,259	1,776	0.45	1.4	1,132																		
2	Inbound to LB	CUT	Bulk	28,503	1,776	0.45	1.3	1,079																		
3	Inbound to LB	CUT	Bulk	32,400	1,776	0.45	1.1	866																		
4	Inbound to LB	CUT	Bulk	48,661	1,776	0.45	1.2	946																		
5	Inbound to LB	CUT	Bulk/Container	23,736	1,776	0.45	1.6	1,305																		
6	Inbound to LB	CUT	Bulk/Container	23,736	1,776	0.45	0.8	679																		
7	Inbound to LB	CUT	Bulk/Container	23,736	1,776	0.45	1.0	773																		
8	Inbound to LB	CUT	Chemical Oil	11,668	1,985	0.33	1.1	710																		
9	Inbound to LB	CUT	Chemical Oil	14,003	1,985	0.33	1.1	742																		
10	Inbound to LB	CUT	Chemical Oil	19,365	1,985	0.33	1.4	928																		
11	Inbound to LB	CUT	Chemical Oil	19,386	1,985	0.33	1.2	760																		
12	Inbound to LB	CUT	Chemical Oil	19,997	1,985	0.33	1.2	760																		
13	Inbound to LB	CUT	Chemical Oil	19,998	1,985	0.33	1.2	764																		
14	Inbound to LB	CUT	Chemical Oil	19,998	1,985	0.33	0.8	546																		
15	Inbound to LB	CUT	Chemical Tanker	7,930	1,985	0.33	0.9	568																		
16	Inbound to LB	CUT	Chemical Tanker	15,247	1,985	0.33	1.1	710																		
17	Inbound to LB	CUT	Chemical Tanker	15,247	1,985	0.33	1.0	655																		
18	Inbound to LB	CUT	Chemical Tanker	15,265	1,985	0.33	1.2	764																		
19	Inbound to LB	CUT	Chemical Tanker	17,845	1,985	0.33	1.2	764																		
20	Inbound to LB	CUT	Chemical Tanker	19,997	1,985	0.33	0.9	600																		
21	Inbound to LB	CUT	Chemical Tanker	19,999	1,985	0.33	1.1	710																		
22	Inbound to LB	CUT	Chemical Tanker	19,999	1,985	0.33	0.9	600																		
23	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,176																		
24	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	6,855																		
25	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.0	6,426																		
26	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,283																		
27	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.0	6,641																		
28	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069																		
29	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.3	8,354																		
30	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.2	7,712																		
31	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069																		
32	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069																		
33	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.4	8,997																		
34	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,176																		
35	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069																		
36	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	7,069																		
37	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.3	8,354																		
38	Inbound to LB	CUT	Container	60,494	12,853	0.50	0.8	5,355																		
39	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.1	6,855																		
40	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.2	7,498																		
41	Inbound to LB	CUT	Container	60,494	12,853	0.50	1.0	6,426																		
42	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.1	3,740																		
43	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.0	3,570																		

Table A.1.2-CB-10. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - No Shifted Vessels - Baseline Year 2005 - HFO and MGO.

#	Trip Type	Terminal	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW)	Aux Gen EFs (Gm/kW-Hr)						Aux Gen Emissions (Tons)							
									ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
44	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.1	3,627														
45	Inbound to LB	CUT	Container	80,551	6,800	0.50	0.8	2,833														
46	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.2	4,023														
47	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.0	3,400														
48	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.2	4,080														
49	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.1	3,797														
50	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.0	3,400														
51	Inbound to LB	CUT	Container	80,551	6,800	0.50	1.3	4,250														
52	Inbound to LB	CUT	Container	80,551	6,800	0.50	0.8	2,720														
53	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
54	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
55	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
56	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
57	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
58	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
59	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
60	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
61	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
62	Inbound to LB	CUT	Container	80,551	12,853	0.50	1.2	7,455														
63	Inbound to LB	CUT	Container	80,596	6,800	0.50	0.9	3,060														
64	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.2	4,137														
65	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.1	3,740														
66	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.2	4,080														
67	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.0	3,287														
68	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.3	4,307														
69	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.0	3,570														
70	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.4	4,760														
71	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.1	3,683														
72	Inbound to LB	CUT	Container	80,596	6,800	0.50	1.3	4,420														
73	Inbound to LB	CUT	General Cargo	23,731	1,776	0.45	0.9	693														
74	Inbound to LB	CUT	General Cargo	23,731	1,776	0.45	1.3	999														
75	Inbound to LB	CUT	General Cargo	23,731	1,776	0.45	0.9	733														
76	Inbound to LB	CUT	General Cargo	23,737	3,379	0.45	1.0	1,521														
77	Inbound to LB	CUT	General Cargo	23,737	3,379	0.45	1.4	2,154														
78	Inbound to LB	CUT	General Cargo	29,152	1,776	0.45	1.2	972														
79	Inbound to LB	CUT	General Cargo	29,152	1,776	0.45	1.2	959														
80	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.0	799														
81	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.1	866														
82	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.3	1,012														
83	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.2	959														
84	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.2	919														
85	Inbound to LB	CUT	General Cargo	29,500	1,776	0.45	1.2	999														
86	Inbound to LB	CUT	General Cargo	29,512	1,776	0.45	1.4	1,119														

Table A.1.2-CB-10. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - No Shifted Vessels - Baseline Year 2005 - HFO and MGO.

#	Trip Type	Terminal	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW)	Aux Gen EFs (Gm/kW-Hr)						Aux Gen Emissions (Tons)								
									ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
87	Inbound to LB	CUT	General Cargo	29,512	1,776	0.45	1.2	959															
88	Inbound to LB	CUT	General Cargo	29,512	1,776	0.45	1.1	919															
89	Inbound to LB	CUT	General Cargo	29,516	1,776	0.45	1.1	879															
90	Inbound to LB	CUT	General Cargo	29,516	1,776	0.45	1.2	959															
91	Inbound to LB	CUT	General Cargo	29,516	1,776	0.45	0.9	746															
92	Inbound to LB	CUT	General Cargo	29,516	1,776	0.45	1.4	1,119															
93	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.4	1,146															
94	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	0.9	719															
95	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.5	1,199															
96	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	0.9	733															
97	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.2	959															
98	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.1	879															
99	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.0	839															
100	Inbound to LB	CUT	General Cargo	29,538	1,776	0.45	1.2	959															
101	Inbound to LB	CUT	General Cargo	29,912	1,776	0.45	1.4	1,119															
102	Inbound to LB	CUT	Product Tanker	17,485	1,985	0.33	0.8	546															
103	Inbound to LB	CUT	Product Tanker		1,985	0.33	0.8	513															
104	Inbound to LB	LBCT	Container	85,810	6,800	0.50	0.9	3,230															
105	Inbound to LB	LBCT	Container	88,669	15,725	0.50	1.0	8,256															
106	Inbound to LB	LBCT	Container	88,669	15,725	0.50	1.2	9,173															
107	Inbound to LB	LBCT	Container	88,669	15,725	0.50	1.0	7,600															
108	Inbound to LB	LBCT	Container	88,700	11,830	0.50	1.2	7,098															
109	Inbound to LB	LBCT	Container	88,700	11,830	0.50	1.2	6,901															
110	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.2	4,080															
111	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343															
112	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.3	4,420															
113	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.1	3,683															
114	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.1	3,740															
115	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,117															
116	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,400															
117	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,400															
118	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.8	2,720															
119	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	2,947															
120	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.8	2,663															
121	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.8	2,550															
122	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,173															
123	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.2	4,080															
124	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	2,947															
125	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,287															
126	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,230															
127	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343															
128	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,287															
129	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,230															

Table A.1.2-CB-10. Cargo Vessel Auxiliary Generator Usage per One-Way Ship Transit within the POLB Breakwater - No Shifted Vessels - Baseline Year 2005 - HFO and MGO.

#	Trip Type	Terminal	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Transit Time (Hrs)	Aux. Gen. Output (kW)	Aux Gen EFs (Gm/kW-Hr)						Aux Gen Emissions (Tons)													
									ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5								
130	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,400																				
131	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.1	3,740																				
132	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343																				
133	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,230																				
134	Inbound to LB	LBCT	Container	99,500	6,800	0.50	0.9	3,117																				
135	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343																				
136	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,343																				
137	Inbound to LB	LBCT	Container	99,500	6,800	0.50	1.0	3,570																				
138	Inbound to LB	LBCT	Container	99,508	6,800	0.50	1.1	3,740																				
139	Inbound to LB	LBCT	Container	99,508	6,800	0.50	0.8	2,833																				
140	Inbound to LB	LBCT	Container	99,508	6,800	0.50	0.9	3,003																				
141	Inbound to LB	LBCT	Container	99,508	6,800	0.50	1.0	3,513																				
142	Inbound to LB	LBCT	Container	99,508	6,800	0.50	0.9	3,060																				
143	Inbound to LB	LBCT	Container	99,508	6,800	0.50	1.3	4,307																				
144	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.0	3,513																				
145	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.0	3,400																				
146	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.1	3,853																				
147	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.0	3,287																				
148	Inbound to LB	LBCT	Container	99,518	6,800	0.50	1.0	3,343																				
149	Inbound to LB	LBCT	Container	99,518	6,800	0.50	0.9	3,173																				
150	Inbound to LB	LBCT	Container	99,518	6,800	0.50	0.8	2,550																				
151	Inbound to LB	LBCT	Container	99,518	6,800	0.50	0.8	2,550																				
Total kW-Hrs								518,854																				
Total kW-Hrs - HFO 2.7% S(2)								368,386	0.40	1.10	14.70	12.30	1.50	1.41	0.16	0.45	5.97	4.99	0.61	0.57								
Total kW-Hrs - MGO 0.5% S (2)								150,468	0.40	1.10	13.90	1.10	0.30	0.28	0.07	0.18	2.31	0.18	0.05	0.05								
									No Shifters Harbor Transit Aux Gens. - 1-way						0.23	0.63	8.27	5.18	0.66	0.62								
									Total Annual Aux Gens - Harbor Transit						0.49	1.35	17.76	11.11	1.41	1.33								

Note: (1) 2005 PEI Table 2.12.

(2) Assumes 71/29% residual/diesel fuel usage (2005 PEI page 72).

Table A.1.2-CB-11. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater - All Vessels -
Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
1	Anc shift to LB	CUT	Bulk	1.2	0.037	0.04														
2	Anc shift to LB	CUT	Bulk	1.1	0.037	0.04														
3	Anc shift to LB	CUT	Bulk	1.3	0.037	0.05														
4	Inbound to LB	CUT	Bulk	1.4	0.037	0.05														
5	Inbound to LB	CUT	Bulk	1.3	0.037	0.05														
6	Anc shift to LB	CUT	Bulk	1.5	0.037	0.06														
7	Anc shift to LB	CUT	Bulk	1.1	0.037	0.04														
8	Anc shift to LB	CUT	Bulk	1.2	0.037	0.04														
9	Anc shift to LB	CUT	Bulk	1.3	0.037	0.05														
10	Inbound to LB	CUT	Bulk	1.1	0.037	0.04														
11	Anc shift to LB	CUT	Bulk	1.0	0.037	0.04														
12	Anc shift to LB	CUT	Bulk	1.3	0.037	0.05														
13	LB harbor shift	CUT	Bulk	0.4	0.037	0.02														
14	LA to LB shift	CUT	Bulk	1.6	0.037	0.06														
15	LA to LB shift	CUT	Bulk	1.3	0.037	0.05														
16	Inbound to LB	CUT	Bulk	1.2	0.037	0.04														
17	Inbound to LB	CUT	Bulk/Container	1.6	0.037	0.06														
18	Inbound to LB	CUT	Bulk/Container	0.8	0.037	0.03														
19	Inbound to LB	CUT	Bulk/Container	1.0	0.037	0.04														
20	LB harbor shift	CUT	Bulk/Container	2.5	0.037	0.09														
21	LB harbor shift	CUT	Bulk/Container	0.4	0.037	0.01														
22	Anc shift to LB	CUT	Bulk/Container	1.0	0.037	0.04														
23	Anc shift to LB	CUT	Bulk/Oil	0.9	0.125	0.11														
24	Anc shift to LB	CUT	Chemical Oil	1.1	0.125	0.14														
25	Inbound to LB	CUT	Chemical Oil	1.1	0.125	0.14														
26	Inbound to LB	CUT	Chemical Oil	1.1	0.125	0.14														
27	LA to LB shift	CUT	Chemical Oil	1.3	0.125	0.16														
28	Inbound to LB	CUT	Chemical Oil	1.4	0.125	0.18														
29	Inbound to LB	CUT	Chemical Oil	1.2	0.125	0.14														
30	Anc shift to LB	CUT	Chemical Oil	1.3	0.125	0.17														
31	LA to LB shift	CUT	Chemical Oil	1.2	0.125	0.15														
32	Inbound to LB	CUT	Chemical Oil	1.2	0.125	0.14														
33	Inbound to LB	CUT	Chemical Oil	1.2	0.125	0.15														
34	Inbound to LB	CUT	Chemical Oil	0.8	0.125	0.10														
35	Inbound to LB	CUT	Chemical Tanker	0.9	0.125	0.11														
36	Inbound to LB	CUT	Chemical Tanker	1.1	0.125	0.14														
37	LA to LB shift	CUT	Chemical Tanker	1.1	0.125	0.14														
38	Inbound to LB	CUT	Chemical Tanker	1.0	0.125	0.12														
39	LA to LB shift	CUT	Chemical Tanker	1.3	0.125	0.17														
40	Inbound to LB	CUT	Chemical Tanker	1.2	0.125	0.15														
41	LA to LB shift	CUT	Chemical Tanker	1.6	0.125	0.20														
42	Anc shift to LB	CUT	Chemical Tanker	1.3	0.125	0.17														
43	Inbound to LB	CUT	Chemical Tanker	1.2	0.125	0.15														

Table A.1.2-CB-11. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater - All Vessels -
Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
44	Inbound to LB	CUT	Chemical Tanker	0.9	0.125	0.11														
45	LB harbor shift	CUT	Chemical Tanker	1.2	0.125	0.15														
46	LA to LB shift	CUT	Chemical Tanker	1.3	0.125	0.16														
47	LA to LB shift	CUT	Chemical Tanker	1.0	0.125	0.12														
48	Inbound to LB	CUT	Chemical Tanker	1.1	0.125	0.14														
49	Inbound to LB	CUT	Chemical Tanker	0.9	0.125	0.11														
50	LA to LB shift	CUT	Chemical Tanker	1.3	0.125	0.17														
51	LB harbor shift	CUT	Container	0.9	0.170	0.15														
52	Inbound to LB	CUT	Container	1.1	0.170	0.19														
53	Inbound to LB	CUT	Container	1.1	0.170	0.18														
54	Inbound to LB	CUT	Container	1.0	0.170	0.17														
55	Inbound to LB	CUT	Container	1.1	0.170	0.19														
56	Inbound to LB	CUT	Container	1.0	0.170	0.18														
57	Inbound to LB	CUT	Container	1.1	0.170	0.19														
58	Inbound to LB	CUT	Container	1.3	0.170	0.22														
59	Inbound to LB	CUT	Container	1.2	0.170	0.20														
60	Anc shift to LB	CUT	Container	1.2	0.170	0.20														
61	Inbound to LB	CUT	Container	1.1	0.170	0.19														
62	Inbound to LB	CUT	Container	1.1	0.170	0.19														
63	Inbound to LB	CUT	Container	1.4	0.170	0.24														
64	Inbound to LB	CUT	Container	1.1	0.170	0.19														
65	Inbound to LB	CUT	Container	1.1	0.170	0.19														
66	Inbound to LB	CUT	Container	1.1	0.170	0.19														
67	Inbound to LB	CUT	Container	1.3	0.170	0.22														
68	Inbound to LB	CUT	Container	0.8	0.170	0.14														
69	Inbound to LB	CUT	Container	1.1	0.170	0.18														
70	Inbound to LB	CUT	Container	1.2	0.170	0.20														
71	Inbound to LB	CUT	Container	1.0	0.170	0.17														
72	Inbound to LB	CUT	Container	1.1	0.170	0.19														
73	Inbound to LB	CUT	Container	1.0	0.170	0.18														
74	Inbound to LB	CUT	Container	1.1	0.170	0.18														
75	Inbound to LB	CUT	Container	0.8	0.170	0.14														
76	Inbound to LB	CUT	Container	1.2	0.170	0.20														
77	Inbound to LB	CUT	Container	1.0	0.170	0.17														
78	Inbound to LB	CUT	Container	1.2	0.170	0.20														
79	Inbound to LB	CUT	Container	1.1	0.170	0.19														
80	Inbound to LB	CUT	Container	1.0	0.170	0.17														
81	Inbound to LB	CUT	Container	1.3	0.170	0.21														
82	Inbound to LB	CUT	Container	0.8	0.170	0.14														
83	Inbound to LB	CUT	Container	1.2	0.170	0.20														
84	Inbound to LB	CUT	Container	1.2	0.170	0.20														
85	Inbound to LB	CUT	Container	1.2	0.170	0.20														
86	Inbound to LB	CUT	Container	1.2	0.170	0.20														

Table A.1.2-CB-11. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater - All Vessels -
Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
87	Inbound to LB	CUT	Container	1.2	0.170	0.20														
88	Inbound to LB	CUT	Container	1.2	0.170	0.20														
89	Inbound to LB	CUT	Container	1.2	0.170	0.20														
90	Inbound to LB	CUT	Container	1.2	0.170	0.20														
91	Inbound to LB	CUT	Container	1.2	0.170	0.20														
92	Inbound to LB	CUT	Container	1.2	0.170	0.20														
93	Inbound to LB	CUT	Container	0.9	0.170	0.15														
94	Inbound to LB	CUT	Container	1.2	0.170	0.21														
95	Inbound to LB	CUT	Container	1.1	0.170	0.19														
96	Inbound to LB	CUT	Container	1.2	0.170	0.20														
97	Inbound to LB	CUT	Container	1.0	0.170	0.16														
98	Inbound to LB	CUT	Container	1.3	0.170	0.22														
99	Inbound to LB	CUT	Container	1.0	0.170	0.18														
100	Anc shift to LB	CUT	Container	1.2	0.170	0.20														
101	Inbound to LB	CUT	Container	1.4	0.170	0.24														
102	Inbound to LB	CUT	Container	1.1	0.170	0.18														
103	Inbound to LB	CUT	Container	1.3	0.170	0.22														
104	Anc shift to LB	CUT	General Cargo	1.2	0.036	0.04														
105	Inbound to LB	CUT	General Cargo	0.9	0.036	0.03														
106	LB harbor shift	CUT	General Cargo	0.6	0.036	0.02														
107	LB harbor shift	CUT	General Cargo	0.4	0.036	0.01														
108	Inbound to LB	CUT	General Cargo	1.3	0.036	0.04														
109	Inbound to LB	CUT	General Cargo	0.9	0.036	0.03														
110	Inbound to LB	CUT	General Cargo	1.0	0.036	0.04														
111	LB harbor shift	CUT	General Cargo	0.2	0.036	0.01														
112	Inbound to LB	CUT	General Cargo	1.4	0.036	0.05														
113	LB harbor shift	CUT	General Cargo	0.2	0.036	0.01														
114	LB harbor shift	CUT	General Cargo	0.2	0.036	0.01														
115	LB harbor shift	CUT	General Cargo	0.4	0.036	0.01														
116	Inbound to LB	CUT	General Cargo	1.2	0.036	0.04														
117	LB harbor shift	CUT	General Cargo	0.4	0.036	0.01														
118	LB harbor shift	CUT	General Cargo	0.7	0.036	0.02														
119	LB harbor shift	CUT	General Cargo	0.5	0.036	0.02														
120	Inbound to LB	CUT	General Cargo	1.2	0.036	0.04														
121	Inbound to LB	CUT	General Cargo	1.0	0.036	0.04														
122	Anc shift to LB	CUT	General Cargo	1.1	0.036	0.04														
123	Anc shift to LB	CUT	General Cargo	1.6	0.036	0.06														
124	Inbound to LB	CUT	General Cargo	1.1	0.036	0.04														
125	Inbound to LB	CUT	General Cargo	1.3	0.036	0.05														
126	Inbound to LB	CUT	General Cargo	1.2	0.036	0.04														
127	Inbound to LB	CUT	General Cargo	1.2	0.036	0.04														
128	LB harbor shift	CUT	General Cargo	1.2	0.036	0.04														
129	Inbound to LB	CUT	General Cargo	1.2	0.036	0.04														

Table A.1.2-CB-11. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater - All Vessels -
Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)						
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
130	LB harbor shift	CUT	General Cargo	1.0	0.036	0.04													
131	Inbound to LB	CUT	General Cargo	1.4	0.036	0.05													
132	Anc shift to LB	CUT	General Cargo	1.2	0.036	0.04													
133	Anc shift to LB	CUT	General Cargo	1.2	0.036	0.04													
134	Inbound to LB	CUT	General Cargo	1.2	0.036	0.04													
135	Inbound to LB	CUT	General Cargo	1.1	0.036	0.04													
136	Inbound to LB	CUT	General Cargo	1.1	0.036	0.04													
137	Anc shift to LB	CUT	General Cargo	1.1	0.036	0.04													
138	Inbound to LB	CUT	General Cargo	1.2	0.036	0.04													
139	Inbound to LB	CUT	General Cargo	0.9	0.036	0.03													
140	Inbound to LB	CUT	General Cargo	1.4	0.036	0.05													
141	Inbound to LB	CUT	General Cargo	1.4	0.036	0.05													
142	LB harbor shift	CUT	General Cargo	0.6	0.036	0.02													
143	Inbound to LB	CUT	General Cargo	0.9	0.036	0.03													
144	Inbound to LB	CUT	General Cargo	1.5	0.036	0.05													
145	Inbound to LB	CUT	General Cargo	0.9	0.036	0.03													
146	Inbound to LB	CUT	General Cargo	1.2	0.036	0.04													
147	Inbound to LB	CUT	General Cargo	1.1	0.036	0.04													
148	Inbound to LB	CUT	General Cargo	1.0	0.036	0.04													
149	Inbound to LB	CUT	General Cargo	1.2	0.036	0.04													
150	Inbound to LB	CUT	General Cargo	1.4	0.036	0.05													
151	LB harbor shift	CUT	General Cargo	0.5	0.036	0.02													
152	LB harbor shift	CUT	General Cargo	1.0	0.036	0.04													
153	LA to LB shift	CUT	General Cargo	1.8	0.036	0.06													
154	LA to LB shift	CUT	General Cargo	2.0	0.036	0.07													
155	LA to LB shift	CUT	General Cargo	2.1	0.036	0.07													
156	Inbound to LB	CUT	Product Tanker	0.8	0.125	0.10													
157	LA to LB shift	CUT	Product Tanker	1.0	0.125	0.12													
158	Inbound to LB	CUT	Product Tanker	0.8	0.125	0.10													
159	Inbound to LB	LBCT	Container	0.9	0.170	0.16													
160	Inbound to LB	LBCT	Container	1.0	0.170	0.18													
161	Inbound to LB	LBCT	Container	1.2	0.170	0.20													
162	Inbound to LB	LBCT	Container	1.0	0.170	0.16													
163	Inbound to LB	LBCT	Container	1.2	0.170	0.20													
164	Inbound to LB	LBCT	Container	1.2	0.170	0.20													
165	Anc shift to LB	LBCT	Container	1.1	0.170	0.19													
166	Inbound to LB	LBCT	Container	1.2	0.170	0.20													
167	Inbound to LB	LBCT	Container	1.0	0.170	0.17													
168	Inbound to LB	LBCT	Container	1.3	0.170	0.22													
169	Inbound to LB	LBCT	Container	1.1	0.170	0.18													
170	Inbound to LB	LBCT	Container	1.1	0.170	0.19													
171	Inbound to LB	LBCT	Container	0.9	0.170	0.16													
172	Inbound to LB	LBCT	Container	1.0	0.170	0.17													

Table A.1.2-CB-11. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater - All Vessels -
 Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)								
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
173	Inbound to LB	LBCT	Container	1.0	0.170	0.17															
174	Inbound to LB	LBCT	Container	0.8	0.170	0.14															
175	Inbound to LB	LBCT	Container	0.9	0.170	0.15															
176	Inbound to LB	LBCT	Container	0.8	0.170	0.13															
177	Inbound to LB	LBCT	Container	0.8	0.170	0.13															
178	Inbound to LB	LBCT	Container	0.9	0.170	0.16															
179	Inbound to LB	LBCT	Container	1.2	0.170	0.20															
180	Anc shift to LB	LBCT	Container	0.7	0.170	0.11															
181	Inbound to LB	LBCT	Container	0.9	0.170	0.15															
182	Inbound to LB	LBCT	Container	1.0	0.170	0.16															
183	Inbound to LB	LBCT	Container	0.9	0.170	0.16															
184	Inbound to LB	LBCT	Container	1.0	0.170	0.17															
185	Inbound to LB	LBCT	Container	1.0	0.170	0.16															
186	Inbound to LB	LBCT	Container	1.0	0.170	0.16															
187	Inbound to LB	LBCT	Container	1.0	0.170	0.17															
188	Inbound to LB	LBCT	Container	1.1	0.170	0.19															
189	Anc shift to LB	LBCT	Container	1.0	0.170	0.18															
190	Anc shift to LB	LBCT	Container	1.0	0.170	0.18															
191	Inbound to LB	LBCT	Container	1.0	0.170	0.17															
192	Inbound to LB	LBCT	Container	0.9	0.170	0.16															
193	Inbound to LB	LBCT	Container	0.9	0.170	0.16															
194	Inbound to LB	LBCT	Container	1.0	0.170	0.17															
195	Inbound to LB	LBCT	Container	1.0	0.170	0.17															
196	Inbound to LB	LBCT	Container	1.0	0.170	0.18															
197	Inbound to LB	LBCT	Container	1.1	0.170	0.19															
198	Inbound to LB	LBCT	Container	0.8	0.170	0.14															
199	Inbound to LB	LBCT	Container	0.9	0.170	0.15															
200	Inbound to LB	LBCT	Container	1.0	0.170	0.18															
201	Inbound to LB	LBCT	Container	0.9	0.170	0.15															
202	Inbound to LB	LBCT	Container	1.3	0.170	0.22															
203	Anc shift to LB	LBCT	Container	1.2	0.170	0.20															
204	Inbound to LB	LBCT	Container	1.0	0.170	0.18															
205	Inbound to LB	LBCT	Container	1.0	0.170	0.17															
206	Inbound to LB	LBCT	Container	1.1	0.170	0.19															
207	Inbound to LB	LBCT	Container	1.0	0.170	0.16															
208	Inbound to LB	LBCT	Container	1.0	0.170	0.17															
209	Inbound to LB	LBCT	Container	0.9	0.170	0.16															
210	Inbound to LB	LBCT	Container	0.8	0.170	0.13															
211	Inbound to LB	LBCT	Container	0.8	0.170	0.13															
212	Anc shift to LB	LBCT	Semi-Submersible	1.7	0.125	0.22															
Total Tons - All Vessels						26.48	0.76	9.20	24.60	108.00	3.02	2.92	0.01	0.12	0.33	1.43	0.04	0.04			

Note: (1) 2005 PEI Table 2.13. HFO SFC = 305 grams/kW-Hr

Table A.1.2-CB-12. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater -
No Shifted Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
1	Inbound to LB	CUT	Bulk	1.4	0.014	0.02														
2	Inbound to LB	CUT	Bulk	1.3	0.014	0.02														
3	Inbound to LB	CUT	Bulk	1.1	0.014	0.02														
4	Inbound to LB	CUT	Bulk	1.2	0.014	0.02														
5	Inbound to LB	CUT	Bulk/Container	1.6	0.014	0.02														
6	Inbound to LB	CUT	Bulk/Container	0.8	0.014	0.01														
7	Inbound to LB	CUT	Bulk/Container	1.0	0.014	0.01														
8	Inbound to LB	CUT	Chemical Oil	1.1	0.014	0.02														
9	Inbound to LB	CUT	Chemical Oil	1.1	0.014	0.02														
10	Inbound to LB	CUT	Chemical Oil	1.4	0.014	0.02														
11	Inbound to LB	CUT	Chemical Oil	1.2	0.014	0.02														
12	Inbound to LB	CUT	Chemical Oil	1.2	0.014	0.02														
13	Inbound to LB	CUT	Chemical Oil	1.2	0.014	0.02														
14	Inbound to LB	CUT	Chemical Oil	0.8	0.014	0.01														
15	Inbound to LB	CUT	Chemical Tanker	0.9	0.014	0.01														
16	Inbound to LB	CUT	Chemical Tanker	1.1	0.014	0.02														
17	Inbound to LB	CUT	Chemical Tanker	1.0	0.014	0.01														
18	Inbound to LB	CUT	Chemical Tanker	1.2	0.014	0.02														
19	Inbound to LB	CUT	Chemical Tanker	1.2	0.014	0.02														
20	Inbound to LB	CUT	Chemical Tanker	0.9	0.014	0.01														
21	Inbound to LB	CUT	Chemical Tanker	1.1	0.014	0.02														
22	Inbound to LB	CUT	Chemical Tanker	0.9	0.014	0.01														
23	Inbound to LB	CUT	Container	1.1	0.014	0.02														
24	Inbound to LB	CUT	Container	1.1	0.014	0.01														
25	Inbound to LB	CUT	Container	1.0	0.014	0.01														
26	Inbound to LB	CUT	Container	1.1	0.014	0.02														
27	Inbound to LB	CUT	Container	1.0	0.014	0.01														
28	Inbound to LB	CUT	Container	1.1	0.014	0.02														
29	Inbound to LB	CUT	Container	1.3	0.014	0.02														
30	Inbound to LB	CUT	Container	1.2	0.014	0.02														
31	Inbound to LB	CUT	Container	1.1	0.014	0.02														
32	Inbound to LB	CUT	Container	1.1	0.014	0.02														
33	Inbound to LB	CUT	Container	1.4	0.014	0.02														
34	Inbound to LB	CUT	Container	1.1	0.014	0.02														
35	Inbound to LB	CUT	Container	1.1	0.014	0.02														
36	Inbound to LB	CUT	Container	1.1	0.014	0.02														
37	Inbound to LB	CUT	Container	1.3	0.014	0.02														
38	Inbound to LB	CUT	Container	0.8	0.014	0.01														
39	Inbound to LB	CUT	Container	1.1	0.014	0.01														
40	Inbound to LB	CUT	Container	1.2	0.014	0.02														
41	Inbound to LB	CUT	Container	1.0	0.014	0.01														
42	Inbound to LB	CUT	Container	1.1	0.014	0.02														
43	Inbound to LB	CUT	Container	1.0	0.014	0.01														

Table A.1.2-CB-12. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater -
No Shifted Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
44	Inbound to LB	CUT	Container	1.1	0.014	0.01														
45	Inbound to LB	CUT	Container	0.8	0.014	0.01														
46	Inbound to LB	CUT	Container	1.2	0.014	0.02														
47	Inbound to LB	CUT	Container	1.0	0.014	0.01														
48	Inbound to LB	CUT	Container	1.2	0.014	0.02														
49	Inbound to LB	CUT	Container	1.1	0.014	0.02														
50	Inbound to LB	CUT	Container	1.0	0.014	0.01														
51	Inbound to LB	CUT	Container	1.3	0.014	0.02														
52	Inbound to LB	CUT	Container	0.8	0.014	0.01														
53	Inbound to LB	CUT	Container	1.2	0.014	0.02														
54	Inbound to LB	CUT	Container	1.2	0.014	0.02														
55	Inbound to LB	CUT	Container	1.2	0.014	0.02														
56	Inbound to LB	CUT	Container	1.2	0.014	0.02														
57	Inbound to LB	CUT	Container	1.2	0.014	0.02														
58	Inbound to LB	CUT	Container	1.2	0.014	0.02														
59	Inbound to LB	CUT	Container	1.2	0.014	0.02														
60	Inbound to LB	CUT	Container	1.2	0.014	0.02														
61	Inbound to LB	CUT	Container	1.2	0.014	0.02														
62	Inbound to LB	CUT	Container	1.2	0.014	0.02														
63	Inbound to LB	CUT	Container	0.9	0.014	0.01														
64	Inbound to LB	CUT	Container	1.2	0.014	0.02														
65	Inbound to LB	CUT	Container	1.1	0.014	0.02														
66	Inbound to LB	CUT	Container	1.2	0.014	0.02														
67	Inbound to LB	CUT	Container	1.0	0.014	0.01														
68	Inbound to LB	CUT	Container	1.3	0.014	0.02														
69	Inbound to LB	CUT	Container	1.0	0.014	0.01														
70	Inbound to LB	CUT	Container	1.4	0.014	0.02														
71	Inbound to LB	CUT	Container	1.1	0.014	0.02														
72	Inbound to LB	CUT	Container	1.3	0.014	0.02														
73	Inbound to LB	CUT	General Cargo	0.9	0.014	0.01														
74	Inbound to LB	CUT	General Cargo	1.3	0.014	0.02														
75	Inbound to LB	CUT	General Cargo	0.9	0.014	0.01														
76	Inbound to LB	CUT	General Cargo	1.0	0.014	0.01														
77	Inbound to LB	CUT	General Cargo	1.4	0.014	0.02														
78	Inbound to LB	CUT	General Cargo	1.2	0.014	0.02														
79	Inbound to LB	CUT	General Cargo	1.2	0.014	0.02														
80	Inbound to LB	CUT	General Cargo	1.0	0.014	0.01														
81	Inbound to LB	CUT	General Cargo	1.1	0.014	0.02														
82	Inbound to LB	CUT	General Cargo	1.3	0.014	0.02														
83	Inbound to LB	CUT	General Cargo	1.2	0.014	0.02														
84	Inbound to LB	CUT	General Cargo	1.2	0.014	0.02														
85	Inbound to LB	CUT	General Cargo	1.2	0.014	0.02														
86	Inbound to LB	CUT	General Cargo	1.4	0.014	0.02														

Table A.1.2-CB-12. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater -
 No Shifted Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)						
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
87	Inbound to LB	CUT	General Cargo	1.2	0.014	0.02													
88	Inbound to LB	CUT	General Cargo	1.1	0.014	0.02													
89	Inbound to LB	CUT	General Cargo	1.1	0.014	0.02													
90	Inbound to LB	CUT	General Cargo	1.2	0.014	0.02													
91	Inbound to LB	CUT	General Cargo	0.9	0.014	0.01													
92	Inbound to LB	CUT	General Cargo	1.4	0.014	0.02													
93	Inbound to LB	CUT	General Cargo	1.4	0.014	0.02													
94	Inbound to LB	CUT	General Cargo	0.9	0.014	0.01													
95	Inbound to LB	CUT	General Cargo	1.5	0.014	0.02													
96	Inbound to LB	CUT	General Cargo	0.9	0.014	0.01													
97	Inbound to LB	CUT	General Cargo	1.2	0.014	0.02													
98	Inbound to LB	CUT	General Cargo	1.1	0.014	0.02													
99	Inbound to LB	CUT	General Cargo	1.0	0.014	0.01													
100	Inbound to LB	CUT	General Cargo	1.2	0.014	0.02													
101	Inbound to LB	CUT	General Cargo	1.4	0.014	0.02													
102	Inbound to LB	CUT	Product Tanker	0.8	0.014	0.01													
103	Inbound to LB	CUT	Product Tanker	0.8	0.014	0.01													
104	Inbound to LB	LBCT	Container	0.9	0.014	0.01													
105	Inbound to LB	LBCT	Container	1.0	0.014	0.01													
106	Inbound to LB	LBCT	Container	1.2	0.014	0.02													
107	Inbound to LB	LBCT	Container	1.0	0.014	0.01													
108	Inbound to LB	LBCT	Container	1.2	0.014	0.02													
109	Inbound to LB	LBCT	Container	1.2	0.014	0.02													
110	Inbound to LB	LBCT	Container	1.2	0.014	0.02													
111	Inbound to LB	LBCT	Container	1.0	0.014	0.01													
112	Inbound to LB	LBCT	Container	1.3	0.014	0.02													
113	Inbound to LB	LBCT	Container	1.1	0.014	0.02													
114	Inbound to LB	LBCT	Container	1.1	0.014	0.02													
115	Inbound to LB	LBCT	Container	0.9	0.014	0.01													
116	Inbound to LB	LBCT	Container	1.0	0.014	0.01													
117	Inbound to LB	LBCT	Container	1.0	0.014	0.01													
118	Inbound to LB	LBCT	Container	0.8	0.014	0.01													
119	Inbound to LB	LBCT	Container	0.9	0.014	0.01													
120	Inbound to LB	LBCT	Container	0.8	0.014	0.01													
121	Inbound to LB	LBCT	Container	0.8	0.014	0.01													
122	Inbound to LB	LBCT	Container	0.9	0.014	0.01													
123	Inbound to LB	LBCT	Container	1.2	0.014	0.02													
124	Inbound to LB	LBCT	Container	0.9	0.014	0.01													
125	Inbound to LB	LBCT	Container	1.0	0.014	0.01													
126	Inbound to LB	LBCT	Container	0.9	0.014	0.01													
127	Inbound to LB	LBCT	Container	1.0	0.014	0.01													
128	Inbound to LB	LBCT	Container	1.0	0.014	0.01													
129	Inbound to LB	LBCT	Container	1.0	0.014	0.01													

Table A.1.2-CB-12. Cargo Vessel Auxiliary Boiler Usage within the POLB Breakwater -
No Shifted Vessels - Baseline Year 2005.

#	Trip Type	Terminal	Vessel Type	Transit Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
130	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
131	Inbound to LB	LBCT	Container	1.1	0.014	0.02														
132	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
133	Inbound to LB	LBCT	Container	0.9	0.014	0.01														
134	Inbound to LB	LBCT	Container	0.9	0.014	0.01														
135	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
136	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
137	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
138	Inbound to LB	LBCT	Container	1.1	0.014	0.02														
139	Inbound to LB	LBCT	Container	0.8	0.014	0.01														
140	Inbound to LB	LBCT	Container	0.9	0.014	0.01														
141	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
142	Inbound to LB	LBCT	Container	0.9	0.014	0.01														
143	Inbound to LB	LBCT	Container	1.3	0.014	0.02														
144	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
145	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
146	Inbound to LB	LBCT	Container	1.1	0.014	0.02														
147	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
148	Inbound to LB	LBCT	Container	1.0	0.014	0.01														
149	Inbound to LB	LBCT	Container	0.9	0.014	0.01														
150	Inbound to LB	LBCT	Container	0.8	0.014	0.01														
151	Inbound to LB	LBCT	Container	0.8	0.014	0.01														
Totals - No Shifted Vessels						2.29	0.76	9.20	24.60	108.00	3.02	2.92	0.00	0.01	0.03	0.12	0.00	0.00	0.00	
Note: (1) 2005 PEI Table 2.13. HFO SFC = 305 grams/kW-Hr							Aux Boilers - All Vessels						0.01	0.12	0.33	1.43	0.04	0.04		
							Harbor Transit - Total Aux Boilers						0.01	0.13	0.35	1.55	0.04	0.04		

Table A.1.2-CB-13. Cargo Vessel Tugboat Assist Usage - POLB - MHTP - Baseline Year 2005.

<i>Vessel Trip Type</i>	<i># of Ship Visits</i>	<i>Total Maneuv. Time (Hrs) (1)</i>	<i># of Assists/ Ship Visit (2)</i>	<i>Total Tug Assist Hours (3)</i>	<i>Tugboat Max Hp (4)</i>	<i>Load Factor (5)</i>	<i>Annual Hp-Hrs</i>	<i>Annual kW-Hrs</i>
Shift	61	65.9	1.5	128.4	4,100	0.31	163,214	121,758
Round Trip	151	163.7	3.0	638.4	4,100	0.31	811,461	605,350
Totals							974,675	727,108

Notes: (1) Total maneuvering times for shifted/inbound vessel trips in 2005 (Starcrest 2006).

(2) Assumes 3 tugs would assist each vessel round trip and an average of 1.5 tugs per individual vessel shift.

(3) = Total maneuvering time * # of assists * 1.3 to account for tug travel to/from berth and idle mode.

(4) = Total tug Hp rating (2005 PEI Table 3.1).

(5) 2005 PEI Table 3.9.

Table A.1.2-CB-14. Tugboat Aux. Generator Usage during Cargo Vessel Assists -
POLB - MHTP - Baseline Year 2005.

<i>Vessel Trip Type</i>	<i>Aux. Engine Hp (1)</i>	<i>Load Factor (2)</i>	<i>Total Assist Hours (3)</i>	<i>Annual Hp-Hrs</i>	<i>Annual kW-Hrs</i>
Shift	260	0.43	166.9	18,664	13,923
Round Trip	260	0.43	830.0	92,791	69,222
Totals				111,455	83,145

Notes: (1) = Total tug aux. gen. Hp rating (2005 PEI Table 3.1).

(2) 2005 PEI Table 3.9.

(3) Duration = 1.3 times tug assist time in Table ____, which accounts for usage when tug main engines are shut down in stand-by mode.

Table A.1.2-CB-15a. Annual Tugboat Emissions for Cargo Vessel Assists -
POLB - MHTP - Baseline Year 2005.

Source/Vessel Trip Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Tugboat Main Engines</i>						
Shift	0.05	0.25	1.63	0.11	0.07	0.06
Round Trip	0.25	1.25	8.13	0.54	0.33	0.31
Subtotal	0.30	1.50	9.76	0.64	0.39	0.37
<i>Tugboat Aux. Gens.</i>						
Shift	0.00	0.03	0.15	0.01	0.01	0.01
Round Trip	0.02	0.13	0.75	0.06	0.04	0.03
Subtotal	0.02	0.15	0.90	0.07	0.04	0.04
Total Tugboat Emissions	0.32	1.65	10.66	0.72	0.43	0.41

Table A.1.2-CB-15b. Tugboat Emissions Factors

	<i>Emission Factors (Gm/kW-Hr)</i>					
Tugboats - Diesel Main Engines Year 2005	0.37	1.87	12.18	0.80	0.49	0.46
Tugboats - High Speed Diesel - Year 2005	0.27	1.67	9.82	0.80	0.46	0.43

Table A.1.2-CB-15c. Cargo Vessel Auxiliary Generator Usage during Hoteling - Baseline Year 2005 - HFO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)		Hoteling Time (Hrs)	Total Hoteling kW-Hrs
1	Bulk	23,564	1,776	0.22		48.0	19,010
2	Bulk	24,086	1,776	0.22		73.6	29,144
3	Bulk	26,583	1,776	0.22		73.9	29,276
4	Bulk	27,259	1,776	0.22		13.2	5,213
5	Bulk	28,503	1,776	0.22		44.6	17,652
6	Bulk	31,350	1,776	0.22		59.3	23,484
7	Bulk	31,642	1,776	0.22		68.2	27,022
8	Bulk	31,651	1,776	0.22		91.1	36,060
9	Bulk	31,962	1,776	0.22		66.7	26,398
10	Bulk	32,400	1,776	0.22		53.2	21,057
11	Bulk	32,474	1,776	0.22		85.0	33,664
12	Bulk	34,750	1,656	0.22		93.7	34,621
13	Bulk	42,529	1,776	0.22		33.1	13,096
14	Bulk	46,604	1,776	0.22		39.3	15,579
15	Bulk	46,604	1,776	0.22		33.4	13,248
16	Bulk	48,661	1,776	0.22		36.9	14,613
17	Bulk/Container	23,736	1,776	0.22		10.9	4,304
18	Bulk/Container	23,736	1,776	0.22		63.7	25,208
19	Bulk/Container	23,736	1,776	0.22		9.5	3,776
20	Bulk/Container	23,736	1,776	0.22		22.2	8,812
21	Bulk/Container	29,319	1,776	0.22		28.3	11,196
22	Bulk/Container	29,319	1,776	0.22		47.8	18,943
23	Bulk/Oil	70,731	1,776	0.22		221.9	87,863
24	Chemical Oil	10,331	1,985	0.26		11.7	6,062
25	Chemical Oil	11,668	1,985	0.26		19.1	9,851
26	Chemical Oil	14,003	1,985	0.26		25.7	13,262
27	Chemical Oil	17,712	1,985	0.26		4.8	2,493
28	Chemical Oil	19,365	1,985	0.26		13.5	6,969
29	Chemical Oil	19,386	1,985	0.26		19.1	9,852
30	Chemical Oil	19,500	1,985	0.26		10.0	5,159
31	Chemical Oil	19,997	1,985	0.26		29.8	15,395
32	Chemical Oil	19,997	1,985	0.26		9.3	4,779
33	Chemical Oil	19,998	1,985	0.26		20.0	10,324
34	Chemical Oil	19,998	1,985	0.26		16.0	8,256
35	Chemical Tanker	7,930	1,985	0.26		15.7	8,110
36	Chemical Tanker	15,247	1,985	0.26		34.7	17,933
37	Chemical Tanker	15,247	1,985	0.26		17.2	8,901

Table A.1.2-CB-15c. Cargo Vessel Auxiliary Generator Usage during Hoteling - Baseline Year 2005 - HFO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Hoteling Time (Hrs)	Total Hoteling kW-Hrs	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
38	Chemical Tanker	15,247	1,985	0.26	3.8	1,977														
39	Chemical Tanker	15,247	1,985	0.26	5.0	2,579														
40	Chemical Tanker	15,265	1,985	0.26	15.7	8,084														
41	Chemical Tanker	17,585	1,985	0.26	13.5	6,966														
42	Chemical Tanker	17,845	1,985	0.26	14.6	7,528														
43	Chemical Tanker	17,845	1,985	0.26	9.9	5,116														
44	Chemical Tanker	19,997	1,985	0.26	12.1	6,236														
45	Chemical Tanker	19,997	1,985	0.26	14.8	7,614														
46	Chemical Tanker	19,997	1,985	0.26	17.1	8,815														
47	Chemical Tanker	19,999	1,985	0.26	23.2	11,958														
48	Chemical Tanker	19,999	1,985	0.26	12.7	6,579														
49	Chemical Tanker	19,999	1,985	0.26	8.8	4,518														
50	Chemical Tanker	19,999	1,985	0.26	11.2	5,763														
51	Container	14,174	6,800	0.18	47.5	58,164														
52	Container	60,494	12,853	0.18	103.4	239,181														
53	Container	60,494	12,853	0.18	110.1	254,728														
54	Container	60,494	12,853	0.18	105.3	243,500														
55	Container	60,494	12,853	0.18	98.3	227,390														
56	Container	60,494	12,853	0.18	103.6	239,768														
57	Container	60,494	12,853	0.18	108.6	251,181														
58	Container	60,494	12,853	0.18	90.0	208,103														
59	Container	60,494	12,853	0.18	105.7	244,587														
60	Container	60,494	12,853	0.18	103.8	240,037														
61	Container	60,494	12,853	0.18	103.7	239,984														
62	Container	60,494	12,853	0.18	106.4	246,161														
63	Container	60,494	12,853	0.18	109.7	253,749														
64	Container	60,494	12,853	0.18	110.0	254,405														
65	Container	60,494	12,853	0.18	103.9	240,377														
66	Container	60,494	12,853	0.18	99.2	229,573														
67	Container	60,494	12,853	0.18	112.2	259,579														
68	Container	60,494	12,853	0.18	106.6	246,593														
69	Container	60,494	12,853	0.18	103.9	240,269														
70	Container	60,494	12,853	0.18	109.5	253,340														
71	Container	60,494	12,853	0.18	104.3	241,372														
72	Container	80,551	6,800	0.18	104.4	127,786														
73	Container	80,551	6,800	0.18	109.3	133,759														
74	Container	80,551	6,800	0.18	109.8	134,350														

Table A.1.2-CB-15c. Cargo Vessel Auxiliary Generator Usage during Hoteling - Baseline Year 2005 - HFO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Hoteling Time (Hrs)	Total Hoteling kW-Hrs	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)						
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
75	Container	80,551	6,800	0.18	110.7	135,456													
76	Container	80,551	6,800	0.18	110.2	134,930													
77	Container	80,551	6,800	0.18	100.9	123,526													
78	Container	80,551	6,800	0.18	96.5	118,079													
79	Container	80,551	6,800	0.18	80.8	98,903													
80	Container	80,551	6,800	0.18	106.4	130,258													
81	Container	80,551	6,800	0.18	90.8	111,176													
82	Container	80,551	6,800	0.18	133.9	163,857													
83	Container	80,551	12,853	0.18	105.1	243,130													
84	Container	80,551	12,853	0.18	105.6	244,287													
85	Container	80,551	12,853	0.18	96.0	222,123													
86	Container	80,551	12,853	0.18	109.4	253,148													
87	Container	80,551	12,853	0.18	103.2	238,688													
88	Container	80,551	12,853	0.18	105.2	243,315													
89	Container	80,551	12,853	0.18	99.1	229,249													
90	Container	80,551	12,853	0.18	97.5	225,593													
91	Container	80,551	12,853	0.18	105.5	244,102													
92	Container	80,551	12,853	0.18	95.6	221,151													
93	Container	80,596	6,800	0.18	99.4	121,604													
94	Container	80,596	6,800	0.18	108.1	132,331													
95	Container	80,596	6,800	0.18	107.5	131,556													
96	Container	80,596	6,800	0.18	104.0	127,259													
97	Container	80,596	6,800	0.18	89.0	108,879													
98	Container	80,596	6,800	0.18	100.3	122,784													
99	Container	80,596	6,800	0.18	106.7	130,601													
100	Container	80,596	6,800	0.18	103.4	126,574													
101	Container	80,596	6,800	0.18	105.5	129,156													
102	Container	80,596	6,800	0.18	104.7	128,210													
103	Container	80,596	6,800	0.18	122.0	149,365													
104	General Cargo	7,443	1,776	0.22	67.2	26,599													
105	General Cargo	23,731	1,776	0.22	11.1	4,409													
106	General Cargo	23,731	1,776	0.22	16.1	6,364													
107	General Cargo	23,731	1,776	0.22	35.7	14,144													
108	General Cargo	23,731	1,776	0.22	10.7	4,258													
109	General Cargo	23,731	1,776	0.22	63.3	25,083													
110	General Cargo	23,737	3,379	0.22	10.6	7,972													
111	General Cargo	23,737	3,379	0.22	12.3	9,268													

Table A.1.2-CB-15c. Cargo Vessel Auxiliary Generator Usage during Hoteling - Baseline Year 2005 - HFO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Hoteling Time (Hrs)	Total Hoteling kW-Hrs	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)							
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
112	General Cargo	23,737	3,379	0.22	23.4	17,642														
113	General Cargo	23,737	3,379	0.22	24.3	18,310														
114	General Cargo	29,152	1,776	0.22	28.2	11,176														
115	General Cargo	29,152	1,776	0.22	12.9	5,089														
116	General Cargo	29,152	1,776	0.22	39.3	15,558														
117	General Cargo	29,152	1,776	0.22	36.6	14,495														
118	General Cargo	29,152	1,776	0.22	23.5	9,295														
119	General Cargo	29,152	1,776	0.22	23.8	9,406														
120	General Cargo	29,152	1,776	0.22	32.3	12,792														
121	General Cargo	29,500	1,776	0.22	77.3	30,595														
122	General Cargo	29,500	1,776	0.22	14.3	5,649														
123	General Cargo	29,500	1,776	0.22	35.5	14,058														
124	General Cargo	29,500	1,776	0.22	30.7	12,177														
125	General Cargo	29,500	1,776	0.22	77.1	30,521														
126	General Cargo	29,500	1,776	0.22	13.3	5,267														
127	General Cargo	29,500	1,776	0.22	31.5	12,483														
128	General Cargo	29,500	1,776	0.22	12.4	4,923														
129	General Cargo	29,500	1,776	0.22	35.3	13,961														
130	General Cargo	29,512	1,776	0.22	12.7	5,018														
131	General Cargo	29,512	1,776	0.22	31.8	12,582														
132	General Cargo	29,512	1,776	0.22	37.6	14,872														
133	General Cargo	29,512	1,776	0.22	47.4	18,777														
134	General Cargo	29,512	1,776	0.22	23.2	9,196														
135	General Cargo	29,512	1,776	0.22	42.8	16,939														
136	General Cargo	29,516	1,776	0.22	26.1	10,325														
137	General Cargo	29,516	1,776	0.22	30.2	11,973														
138	General Cargo	29,516	1,776	0.22	22.3	8,832														
139	General Cargo	29,516	1,776	0.22	43.8	17,354														
140	General Cargo	29,516	1,776	0.22	16.2	6,408														
141	General Cargo	29,538	1,776	0.22	12.4	4,910														
142	General Cargo	29,538	1,776	0.22	22.5	8,923														
143	General Cargo	29,538	1,776	0.22	15.8	6,246														
144	General Cargo	29,538	1,776	0.22	52.2	20,662														
145	General Cargo	29,538	1,776	0.22	18.7	7,392														
146	General Cargo	29,538	1,776	0.22	43.1	17,050														
147	General Cargo	29,538	1,776	0.22	15.6	6,166														
148	General Cargo	29,538	1,776	0.22	69.2	27,407														

Table A.1.2-CB-15c. Cargo Vessel Auxiliary Generator Usage during Hoteling - Baseline Year 2005 - HFO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Hoteling Time (Hrs)	Total Hoteling kW-Hrs	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)						
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
149	General Cargo	29,538	1,776	0.22	79.9	31,636													
150	General Cargo	29,912	1,776	0.22	41.0	16,246													
151	General Cargo	30,035	1,776	0.22	35.2	13,961													
152	General Cargo	30,490	1,776	0.22	91.3	36,171													
153	General Cargo	39,749	1,776	0.22	36.0	14,270													
154	General Cargo	43,712	1,776	0.22	51.9	20,563													
155	General Cargo	46,547	1,776	0.22	65.8	26,068													
156	Product Tanker	17,485	1,985	0.26	16.6	8,560													
157	Product Tanker	17,485	1,985	0.26	9.9	5,120													
158	Product Tanker		1,985	0.26	12.1	6,264													
159	Container	85,810	6,800	0.18	120.6	147,651													
160	Container	88,669	15,725	0.18	118.3	334,792													
161	Container	88,669	15,725	0.18	121.1	342,726													
162	Container	88,669	15,725	0.18	102.5	290,221													
163	Container	88,700	11,830	0.18	109.6	233,446													
164	Container	88,700	11,830	0.18	120.7	256,941													
165	Container	99,500	6,800	0.18	121.5	148,761													
166	Container	99,500	6,800	0.18	106.0	129,805													
167	Container	99,500	6,800	0.18	115.5	141,392													
168	Container	99,500	6,800	0.18	124.4	152,229													
169	Container	99,500	6,800	0.18	120.3	147,292													
170	Container	99,500	6,800	0.18	120.2	147,064													
171	Container	99,500	6,800	0.18	122.5	149,944													
172	Container	99,500	6,800	0.18	121.2	148,312													
173	Container	99,500	6,800	0.18	123.1	150,650													
174	Container	99,500	6,800	0.18	109.2	133,661													
175	Container	99,500	6,800	0.18	122.3	149,699													
176	Container	99,500	6,800	0.18	133.0	162,751													
177	Container	99,500	6,800	0.18	121.3	148,410													
178	Container	99,500	6,800	0.18	120.6	147,672													
179	Container	99,500	6,800	0.18	120.2	147,149													
180	Container	99,500	6,800	0.18	122.8	150,270													
181	Container	99,500	6,800	0.18	130.1	159,283													
182	Container	99,500	6,800	0.18	120.5	147,435													
183	Container	99,500	6,800	0.18	116.5	142,559													
184	Container	99,500	6,800	0.18	121.5	148,736													
185	Container	99,500	6,800	0.18	122.9	150,385													
186	Container	99,500	6,800	0.18	123.5	151,225													

Table A.1.2-CB-15c. Cargo Vessel Auxiliary Generator Usage during Hoteling - Baseline Year 2005 - HFO.

#	Vessel Type	DWT	Aux. Power Rating kW	Aux. Gen. Load Factor (1)	Hoteling Time (Hrs)	Total Hoteling kW-Hrs	Aux. Gen. EFs (Gm/kW-Hr)						Aux. Gen. Emissions (Tons)								
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
187	Container	99,500	6,800	0.18	121.9	149,230															
188	Container	99,500	6,800	0.18	123.4	151,042															
189	Container	99,500	6,800	0.18	120.9	147,945															
190	Container	99,500	6,800	0.18	100.0	122,359															
191	Container	99,500	6,800	0.18	106.8	130,682															
192	Container	99,500	6,800	0.18	119.9	146,733															
193	Container	99,500	6,800	0.18	120.8	147,900															
194	Container	99,500	6,800	0.18	120.1	146,998															
195	Container	99,500	6,800	0.18	121.2	148,332															
196	Container	99,500	6,800	0.18	140.5	171,911															
197	Container	99,508	6,800	0.18	123.5	151,140															
198	Container	99,508	6,800	0.18	98.0	119,948															
199	Container	99,508	6,800	0.18	121.9	149,263															
200	Container	99,508	6,800	0.18	121.7	148,981															
201	Container	99,508	6,800	0.18	121.0	148,128															
202	Container	99,508	6,800	0.18	142.5	174,400															
203	Container	99,518	6,800	0.18	132.5	162,180															
204	Container	99,518	6,800	0.18	120.4	147,353															
205	Container	99,518	6,800	0.18	109.8	134,432															
206	Container	99,518	6,800	0.18	123.6	151,307															
207	Container	99,518	6,800	0.18	104.7	128,157															
208	Container	99,518	6,800	0.18	122.7	150,168															
209	Container	99,518	6,800	0.18	120.8	147,880															
210	Container	99,518	6,800	0.18	120.0	146,880															
211	Container	99,518	6,800	0.18	116.5	142,596															
212	Semi-Submersible	26,082	1,776	0.22	104.8	41,524															
Total kW-Hrs						20,146,858															
Total kW-Hrs - HFO 2.7% S(2)						14,304,269	0.40	1.10	14.70	12.30	0.80	0.75	6.31	17.34	231.78	193.94	12.61	11.82			
Total kW-Hrs - MGO 0.5% S (2)						5,842,589	0.40	1.10	13.90	1.10	0.30	0.28	2.58	7.08	89.52	7.08	1.93	1.81			
							Hoteling Aux Gen. Total Annual Emissions						8.88	24.43	321.30	201.02	14.55	13.63			

Note: (1) 2005 PEI Table 2.12.

(2) Assumes 71/29% residual/diesel fuel usage (2005 PEI page 72).

Table A.1.2-CB-15d. Cargo Vessel Auxiliary Boiler Usage per Ship Visit - Baseline Year 2005.

#	Vessel Type	Hoteling Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)								
					ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
1	Bulk	48.0	0.037	1.76															
2	Bulk	73.6	0.037	2.70															
3	Bulk	73.9	0.037	2.71															
4	Bulk	13.2	0.037	0.48															
5	Bulk	44.6	0.037	1.63															
6	Bulk	59.3	0.037	2.17															
7	Bulk	68.2	0.037	2.50															
8	Bulk	91.1	0.037	3.34															
9	Bulk	66.7	0.037	2.44															
10	Bulk	53.2	0.037	1.95															
11	Bulk	85.0	0.037	3.11															
12	Bulk	93.7	0.037	3.44															
13	Bulk	33.1	0.037	1.21															
14	Bulk	39.3	0.037	1.44															
15	Bulk	33.4	0.037	1.23															
16	Bulk	36.9	0.037	1.35															
17	Bulk/Container	10.9	0.037	0.40															
18	Bulk/Container	63.7	0.037	2.33															
19	Bulk/Container	9.5	0.037	0.35															
20	Bulk/Container	22.2	0.037	0.82															
21	Bulk/Container	28.3	0.037	1.04															
22	Bulk/Container	47.8	0.037	1.75															
23	Bulk/Oil	221.9	0.125	27.67															
24	Chemical Oil	11.7	0.125	1.47															
25	Chemical Oil	19.1	0.125	2.38															
26	Chemical Oil	25.7	0.125	3.21															
27	Chemical Oil	4.8	0.125	0.60															
28	Chemical Oil	13.5	0.125	1.68															
29	Chemical Oil	19.1	0.125	2.38															
30	Chemical Oil	10.0	0.125	1.25															
31	Chemical Oil	29.8	0.125	3.72															
32	Chemical Oil	9.3	0.125	1.15															
33	Chemical Oil	20.0	0.125	2.50															
34	Chemical Oil	16.0	0.125	2.00															
35	Chemical Tanker	15.7	0.125	1.96															
36	Chemical Tanker	34.7	0.125	4.33															
37	Chemical Tanker	17.2	0.125	2.15															

Table A.1.2-CB-15d. Cargo Vessel Auxiliary Boiler Usage per Ship Visit - Baseline Year 2005.

#	Vessel Type	Hoteling Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)							
					ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
38	Chemical Tanker	3.8	0.125	0.48														
39	Chemical Tanker	5.0	0.125	0.62														
40	Chemical Tanker	15.7	0.125	1.95														
41	Chemical Tanker	13.5	0.125	1.68														
42	Chemical Tanker	14.6	0.125	1.82														
43	Chemical Tanker	9.9	0.125	1.24														
44	Chemical Tanker	12.1	0.125	1.51														
45	Chemical Tanker	14.8	0.125	1.84														
46	Chemical Tanker	17.1	0.125	2.13														
47	Chemical Tanker	23.2	0.125	2.89														
48	Chemical Tanker	12.7	0.125	1.59														
49	Chemical Tanker	8.8	0.125	1.09														
50	Chemical Tanker	11.2	0.125	1.39														
51	Container	47.5	0.170	8.08														
52	Container	103.4	0.170	17.59														
53	Container	110.1	0.170	18.73														
54	Container	105.3	0.170	17.90														
55	Container	98.3	0.170	16.72														
56	Container	103.6	0.170	17.63														
57	Container	108.6	0.170	18.47														
58	Container	90.0	0.170	15.30														
59	Container	105.7	0.170	17.98														
60	Container	103.8	0.170	17.65														
61	Container	103.7	0.170	17.65														
62	Container	106.4	0.170	18.10														
63	Container	109.7	0.170	18.66														
64	Container	110.0	0.170	18.71														
65	Container	103.9	0.170	17.68														
66	Container	99.2	0.170	16.88														
67	Container	112.2	0.170	19.09														
68	Container	106.6	0.170	18.13														
69	Container	103.9	0.170	17.67														
70	Container	109.5	0.170	18.63														
71	Container	104.3	0.170	17.75														
72	Container	104.4	0.170	17.76														
73	Container	109.3	0.170	18.59														
74	Container	109.8	0.170	18.67														

Table A.1.2-CB-15d. Cargo Vessel Auxiliary Boiler Usage per Ship Visit - Baseline Year 2005.

#	Vessel Type			Hoteling Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)						
							ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5	
75	Container			110.7	0.170	18.83													
76	Container			110.2	0.170	18.75													
77	Container			100.9	0.170	17.17													
78	Container			96.5	0.170	16.41													
79	Container			80.8	0.170	13.75													
80	Container			106.4	0.170	18.10													
81	Container			90.8	0.170	15.45													
82	Container			133.9	0.170	22.77													
83	Container			105.1	0.170	17.88													
84	Container			105.6	0.170	17.96													
85	Container			96.0	0.170	16.33													
86	Container			109.4	0.170	18.61													
87	Container			103.2	0.170	17.55													
88	Container			105.2	0.170	17.89													
89	Container			99.1	0.170	16.86													
90	Container			97.5	0.170	16.59													
91	Container			105.5	0.170	17.95													
92	Container			95.6	0.170	16.26													
93	Container			99.4	0.170	16.90													
94	Container			108.1	0.170	18.39													
95	Container			107.5	0.170	18.28													
96	Container			104.0	0.170	17.69													
97	Container			89.0	0.170	15.13													
98	Container			100.3	0.170	17.06													
99	Container			106.7	0.170	18.15													
100	Container			103.4	0.170	17.59													
101	Container			105.5	0.170	17.95													
102	Container			104.7	0.170	17.82													
103	Container			122.0	0.170	20.76													
104	General Cargo			67.2	0.036	2.39													
105	General Cargo			11.1	0.036	0.40													
106	General Cargo			16.1	0.036	0.57													
107	General Cargo			35.7	0.036	1.27													
108	General Cargo			10.7	0.036	0.38													
109	General Cargo			63.3	0.036	2.26													
110	General Cargo			10.6	0.036	0.38													
111	General Cargo			12.3	0.036	0.44													

Table A.1.2-CB-15d. Cargo Vessel Auxiliary Boiler Usage per Ship Visit - Baseline Year 2005.

#	Vessel Type	Hoteling Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)							
					ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5		
112	General Cargo	23.4	0.036	0.83														
113	General Cargo	24.3	0.036	0.87														
114	General Cargo	28.2	0.036	1.01														
115	General Cargo	12.9	0.036	0.46														
116	General Cargo	39.3	0.036	1.40														
117	General Cargo	36.6	0.036	1.30														
118	General Cargo	23.5	0.036	0.84														
119	General Cargo	23.8	0.036	0.85														
120	General Cargo	32.3	0.036	1.15														
121	General Cargo	77.3	0.036	2.75														
122	General Cargo	14.3	0.036	0.51														
123	General Cargo	35.5	0.036	1.26														
124	General Cargo	30.7	0.036	1.10														
125	General Cargo	77.1	0.036	2.75														
126	General Cargo	13.3	0.036	0.47														
127	General Cargo	31.5	0.036	1.12														
128	General Cargo	12.4	0.036	0.44														
129	General Cargo	35.3	0.036	1.26														
130	General Cargo	12.7	0.036	0.45														
131	General Cargo	31.8	0.036	1.13														
132	General Cargo	37.6	0.036	1.34														
133	General Cargo	47.4	0.036	1.69														
134	General Cargo	23.2	0.036	0.83														
135	General Cargo	42.8	0.036	1.52														
136	General Cargo	26.1	0.036	0.93														
137	General Cargo	30.2	0.036	1.08														
138	General Cargo	22.3	0.036	0.79														
139	General Cargo	43.8	0.036	1.56														
140	General Cargo	16.2	0.036	0.58														
141	General Cargo	12.4	0.036	0.44														
142	General Cargo	22.5	0.036	0.80														
143	General Cargo	15.8	0.036	0.56														
144	General Cargo	52.2	0.036	1.86														
145	General Cargo	18.7	0.036	0.67														
146	General Cargo	43.1	0.036	1.53														
147	General Cargo	15.6	0.036	0.55														
148	General Cargo	69.2	0.036	2.47														

Table A.1.2-CB-15d. Cargo Vessel Auxiliary Boiler Usage per Ship Visit - Baseline Year 2005.

#	Vessel Type	Hoteling Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)								
					ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
149	General Cargo	79.9	0.036	2.85															
150	General Cargo	41.0	0.036	1.46															
151	General Cargo	35.2	0.036	1.26															
152	General Cargo	91.3	0.036	3.25															
153	General Cargo	36.0	0.036	1.28															
154	General Cargo	51.9	0.036	1.85															
155	General Cargo	65.8	0.036	2.35															
156	Product Tanker	16.6	0.125	2.07															
157	Product Tanker	9.9	0.125	1.24															
158	Product Tanker	12.1	0.125	1.51															
159	Container	120.6	0.170	20.52															
160	Container	118.3	0.170	20.12															
161	Container	121.1	0.170	20.60															
162	Container	102.5	0.170	17.44															
163	Container	109.6	0.170	18.65															
164	Container	120.7	0.170	20.53															
165	Container	121.5	0.170	20.68															
166	Container	106.0	0.170	18.04															
167	Container	115.5	0.170	19.65															
168	Container	124.4	0.170	21.16															
169	Container	120.3	0.170	20.47															
170	Container	120.2	0.170	20.44															
171	Container	122.5	0.170	20.84															
172	Container	121.2	0.170	20.61															
173	Container	123.1	0.170	20.94															
174	Container	109.2	0.170	18.58															
175	Container	122.3	0.170	20.81															
176	Container	133.0	0.170	22.62															
177	Container	121.3	0.170	20.63															
178	Container	120.6	0.170	20.52															
179	Container	120.2	0.170	20.45															
180	Container	122.8	0.170	20.89															
181	Container	130.1	0.170	22.14															
182	Container	120.5	0.170	20.49															
183	Container	116.5	0.170	19.81															
184	Container	121.5	0.170	20.67															
185	Container	122.9	0.170	20.90															

Table A.1.2-CB-15d. Cargo Vessel Auxiliary Boiler Usage per Ship Visit - Baseline Year 2005.

#	Vessel Type	Hoteling Time (Hrs)	Hourly Fuel Usage (1) (Tons)	Total Fuel Usage (Tons)	Aux. Boiler EFs (Lb/Ton)						Aux. Boiler Emissions (Tons)								
					ROG	CO	NOx	SOx	PM10	PM2.5	ROG	CO	NOx	SOx	PM10	PM2.5			
186	Container	123.5	0.170	21.02															
187	Container	121.9	0.170	20.74															
188	Container	123.4	0.170	20.99															
189	Container	120.9	0.170	20.56															
190	Container	100.0	0.170	17.01															
191	Container	106.8	0.170	18.16															
192	Container	119.9	0.170	20.39															
193	Container	120.8	0.170	20.56															
194	Container	120.1	0.170	20.43															
195	Container	121.2	0.170	20.62															
196	Container	140.5	0.170	23.89															
197	Container	123.5	0.170	21.01															
198	Container	98.0	0.170	16.67															
199	Container	121.9	0.170	20.75															
200	Container	121.7	0.170	20.71															
201	Container	121.0	0.170	20.59															
202	Container	142.5	0.170	24.24															
203	Container	132.5	0.170	22.54															
204	Container	120.4	0.170	20.48															
205	Container	109.8	0.170	18.68															
206	Container	123.6	0.170	21.03															
207	Container	104.7	0.170	17.81															
208	Container	122.7	0.170	20.87															
209	Container	120.8	0.170	20.55															
210	Container	120.0	0.170	20.41															
211	Container	116.5	0.170	19.82															
212	Semi-Submersible	104.8	0.125	13.08															
Total Tons - All Vessels				2,210.86	0.76	9.20	24.60	108.00	3.02	2.92	0.84	10.17	27.19	119.39	3.34	3.23			
					Total Hoteling Emissions						9.72	34.60	348.50	320.41	17.89	16.86			

Note: (1) 2005 PEI Table 2.13. HFO SFC = 305 grams/kW-Hr

Table A.1.2-Alt1U-1. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-2. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Fairway Zone -

Table A.1.2-Alt1U-3. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Precautionary Area -

Table A.1.2-Alt1U-4. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip within the POLB Breakwater -

Table A.1.2-Alt1U-5. Cargo Vessel Transit Distances within the Fairway and

Table A.1.2-Alt1U-6. Cargo Vessel Auxiliary Generator Usage per One-Way Fairway Transit -

Table A.1.2-Alt1U-7. Cargo Vessel Auxiliary Generator Usage per One-Way Precautionary

Table A.1.2-Alt1U-7a. Cargo Vessel Auxiliary Generator Usage per One-Way Transit and Docking

Table A.1.2-Alt1U-8. Cargo Vessel Hoteling Auxiliary Generator Usage per Ship Visit -

Table A.1.2-Alt1U-9. Cargo Vessel Auxiliary Generator Usage per Shift within the POLB

Table A.1.2-Alt1U-9a. Cargo Vessel Auxiliary Generator Usage during Hoteling per Shift -

Table A.1.2-Alt1U-9b. Cargo Vessel Auxiliary Boiler Usage per Ship Visit -

Table A.1.2-Alt1U-10. Cargo Vessel Tugboat Assist Usage - POLB - MHTP Alternatives.

Table A.1.2-Alt1U-10a. Tugboat Aux. Generator Usage during Cargo Vessel Assists - POLB - MHTP Alternatives.

Table A.1.2-Alt1U-11. Emissions Factors for Vessels - Middle Harbor Project Alternatives.

Table A.1.2-Alt1U-12. 1.5% S Diesel Emissions Factors for OGVs - Middle Harbor Project Alternatives.

Table A.1.2-Alt1U-13. Annual Cargo Vessel Emissions (POLB Fairway Zone) - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-14. Annual Cargo Vessel Emissions (POLB Precautionary Area) - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-15. Annual Cargo Vessel Emissions (Transit, POLB Breakwater) - MHTP - Alternative 1.

Table A.1.2-Alt1U-16. Annual Cargo Vessel Emissions (Docking Activities) - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-17. Annual Aux. Gen. Emissions (Cargo Vessel Transit, Fairway Zone) - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-18. Annual Aux. Gen. Emissions (Cargo Vessel Transit, Precautionary Area) - Unmitigated Alternative 1.

Table A.1.2-Alt1U-19. Annual Aux. Gen. Emissions (Cargo Vessel Transit, POLB Breakwater) - Unmitigated Alternative 1.

Table A.1.2-Alt1U-20. Annual Aux. Gen. Emissions (Cargo Vessel Docking, POLB Breakwater) - Unmitigated Alternative 1.

Table A.1.2-Alt1U-21. Annual Aux. Gen. Emissions (Cargo Vessel Hoteling) - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-22. Annual Aux. Boiler Emissions (Cargo Vessel Transit, the Precautionary Area) - Unmitigated Alternative 1.

Table A.1.2-Alt1U-23. Annual Aux. Boiler Emissions (Cargo Vessel Transit, POLB Breakwater) - Unmitigated Alternative 1.

Table A.1.2-Alt1U-24. Annual Aux. Boiler Emissions (Cargo Vessel Docking, POLB Breakwater) - Unmitigated Alternative 1.

Table A.1.2-Alt1U-25. Annual Aux. Boiler Emissions (Cargo Vessel Hoteling) - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-26. Annual Tugboat Emissions (Cargo Vessel Assists) - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-27. Annual Aux. Gen. Emissions (Tugboats during Cargo Vessel Assists) - Unmitigated Alternative 1.

Table A.1.2-Alt1U-28. Annual Vessel Emissions - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-29. Daily Vessel Emissions - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-30. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-30a. Equipment Usage Associated with One Inbound Train Trip at the Middle Harbor Railyard -

Table A.1.2-Alt1U30b. Unmitigated Emission Factors for Rail Equipment - POLB Middle Harbor Project Alternatives.

Table A.1.2-Alt1U-30c. Train Trip Generation Rates - Unmitigated Alternative 1.

Table A.1.2-Alt1U30d. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 Baseline Year 2005.

Table A.1.2-Alt1U30e. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 Baseline Year 2005.

Table A.1.2-Alt1U-31. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2010.

Table A.1.2-Alt1U-32. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2010.

Table A.1.2-Alt1U-33. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2015.

Table A.1.2-Alt1U-34. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2015.

Table A.1.2-Alt1U-35. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2020.

Table A.1.2-Alt1U-36. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2020.

Table A.1.2-Alt1U-37. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2030.

Table A.1.2-Alt1U-38. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2030.

Table A.1.2-Alt1U-39. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-40. Annual Truck Emissions for the MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-41. Unmitigated Emission Factors for Terminal Equipment - POLB MHTP Alternatives.

Table A.1.2-Alt1U-41a. Terminal Equipment Annual Emissions - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-42. Annual Operational Emissions - POLB - MHTP - Unmitigated Alternative 1.

Table A.1.2-Alt1U-43. Annual Average Daily Operational Emissions - POLB - MHTP - Unmitigated Alternative 1.

This page intentionally left blank.

Table A.1.2-Alt1U-1. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 1.

<i>Project Scenario/Ship Type</i>	<i>Annual Ship Visits</i>	<i>Annual Shifts</i>	<i>TEU Moves/ Ship Visit (1)</i>	<i>Hoteling Time/ Visit (Hours) (2)</i>	<i>Annual TEU Movements</i>
Baseline - Year 2005					
Subtotal					
Project Year 2010					
Containerships 8,000 - 9,999 TEU	52		12,719	42.10	661,375
Containerships 6,000 - 6,999 TEU	52		10,175	42.10	529,100
Containerships 4,000 - 4,999 TEU	104		4,163	42.10	432,900
Subtotal	208				1,623,375
Project Year 2015					
Containerships 8,000 - 9,999 TEU	52		12,580	39.71	654,160
Containerships 7,000 - 7,999 TEU	52		11,285	39.71	586,820
Containerships 6,000 - 6,999 TEU	52		10,175	39.71	529,100
Containerships 4,000 - 4,999 TEU	52		3,793	39.71	197,210
Containerships 3,000 - 3,999 TEU	52		4,070	39.71	211,640
Subtotal	260				2,178,930
Project Year 2020					
Containerships 10,000 - 11,999 TEU	52		15,818	38.63	822,510
Containerships 8,000 - 9,999 TEU	52		12,617	38.63	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	38.63	596,440
Containerships 6,000 - 6,999 TEU	52		9,805	38.63	509,860
Containerships 4,000 - 4,999 TEU	104		3,330	38.63	346,320
Subtotal	312				2,931,214
Project Year 2030					
Containerships 10,000 - 11,999 TEU	52		15,818	38.63	822,510
Containerships 8,000 - 9,999 TEU	52		12,617	38.63	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	38.63	596,440
Containerships 6,000 - 6,999 TEU	52		9,805	38.63	509,860
Containerships 5,000 - 5,999 TEU	52		7,400	38.63	384,800
Containerships 4,000 - 4,999 TEU	104		3,330	38.63	346,320
Subtotal	364				3,316,014

Notes: (1) Source: Middle Harbor Vessel Allocation102406.xls (POLB 2006) Throughputs for vessels <3,000 and 3,000-5,000 TEUs based upon current and Middle Harbor. Thrgpht for 5,000-6,000 TEU vessels based upon average throughput of vessels >5000
(2) Source: Vessel Dwell Times 103106.xls (POLB 2006)

Table A.1.2-Alt1U-2. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Fairway Zone - POLB - MHTP Alternatives.

Vessel Type	Propulsion Max Hp (2)	Fairway (1)							
		Load Factor (3)	Modal Hp	Distance (NM)	Max Speed (kts)	Speed (Kts) (4)	Hours Per Trip	Hp-Hrs/ Trip	kW-Hrs/ Trip (5)
<i>Non-Compliance with VSRP (6)</i>									
Containerships 10,000 - 11,999 TEU	93,120	0.83	77,383	39.9	26.8	25.2	1.58	122,562	91,431
Containerships 8,000 - 9,999 TEU	93,120	0.83	77,383	39.9	26.6	25.0	1.60	123,530	92,153
Containerships 7,000 - 7,999 TEU	85,623	0.83	71,153	39.9	26.8	25.2	1.58	112,695	84,070
Containerships 6,000 - 6,999 TEU	85,623	0.83	71,153	39.9	27.1	25.5	1.57	111,365	83,078
Containerships 5,000 - 5,999 TEU	74,016	0.83	61,507	39.9	27.2	25.5	1.56	96,056	71,658
Containerships 4,000 - 4,999 TEU	57,396	0.83	47,696	39.9	26.2	24.6	1.62	77,361	57,711
Containerships 3,000 - 3,999 TEU	44,746	0.83	37,184	39.9	24.6	23.1	1.72	64,108	47,825
<i>Compliance with VSRP (7)</i>									
Containership 10,000 - 11,999 TEU - Outside VSRPZ	93,120	0.09	8,360	17.9	26.8	12.0	1.49	12,470	9,302
Containership 10,000 - 11,999 TEU - In VSRPZ	93,120	0.09	8,360	22.0		12.0	1.83	15,326	11,433
Containership 10,000 - 11,999 TEU - Total kW-Hrs									20,735
Containership 8,000 - 9,999 TEU - Outside VSRPZ	93,120	0.09	8,559	17.9	26.6	12.0	1.49	12,767	9,525
Containership 8,000 - 9,999 TEU - In VSRPZ	93,120	0.09	8,559	22.0		12.0	1.83	15,692	11,706
Containership 8,000 - 9,999 TEU - Total kW-Hrs									21,231
Containership 7,000 - 7,999 TEU - Outside VSRPZ	85,623	0.09	7,687	17.9	26.8	12.0	1.49	11,466	8,553
Containership 7,000 - 7,999 TEU - In VSRPZ	85,623	0.09	7,687	22.0		12.0	1.83	14,092	10,513
Containership 7,000 - 7,999 TEU - Total kW-Hrs									19,066
Containership 6,000 - 6,999 TEU - Outside VSRPZ	85,623	0.09	7,418	17.9	27.1	12.0	1.49	11,065	8,254
Containership 6,000 - 6,999 TEU - In VSRPZ	85,623	0.09	7,418	22.0		12.0	1.83	13,599	10,145
Containership 6,000 - 6,999 TEU - Total kW-Hrs									18,399
Containership 5,000 - 5,999 TEU - Outside VSRPZ	74,016	0.09	6,370	17.9	27.2	12.0	1.49	9,502	7,088
Containership 5,000 - 5,999 TEU - In VSRPZ	74,016	0.09	6,370	22.0		12.0	1.83	11,678	8,712
Containership 5,000 - 5,999 TEU - Total kW-Hrs									15,800
Containership 4,000 - 4,999 TEU - Outside VSRPZ	57,396	0.10	5,534	17.9	26.2	12.0	1.49	8,254	6,158
Containership 4,000 - 4,999 TEU - In VSRPZ	57,396	0.10	5,534	22.0		12.0	1.83	10,145	7,568
Containership 4,000 - 4,999 TEU - Total kW-Hrs									13,726
Containership 3,000 - 3,999 TEU - Outside VSRPZ	44,746	0.12	5,181	17.9	24.6	12.0	1.49	7,729	5,766
Containership 3,000 - 3,999 TEU - In VSRPZ	44,746	0.12	5,181	22.0		12.0	1.83	9,499	7,086
Containership 3,000 - 3,999 TEU - Total kW-Hrs									12,852

Notes: (1) Vessel route between the boundary of the SCAQMD waters and the Precautionary Area. Based upon data from the Port of Los Angeles Baseline Air Emissions Inventory (PEI) (Starcrest 2005) Table 2.8 and expected usage of fairway routes for each vessel type (see Table5a).

(2) Samsung Heavy Industries (2003) and 2005 PEI Table 2.19.

(3) POLA 2001 PEI page 68.

(4) Represents service speed, which is 94% of maximum speed (2005 PEI Table 2.19).

(5) 1 kW-Hr = 0.746 Hp-Hrs.

(6) Length of fairway within the Vessel Speed Reduction Program (VSRP) Zone (VSRPZ) = 22 nautical miles (NM).

(7) Applies to route within 20 nm of Pt. Fermin. Load factor derived from Propeller Law, where load factor = (actual speed/max. speed)³ (2005 PEI page 61).

Table A.1.2-Alt1U-3. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Precautionary Area - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Precautionary Area (1)</i>								
	<i>Propulsion Max Hp</i>	<i>Load Factor (2)</i>	<i>Modal Hp</i>	<i>Distance (NM)</i>	<i>Max Speed (kts)</i>	<i>Speed (Kts) (3)</i>	<i>Hours</i>	<i>Hp-Hrs/Trip</i>	<i>kW-Hrs/Trip</i>
Containerships 10,000 - 11,999 TEU	93,120	0.07	6,439	10.5	26.8	11.0	0.95	6,146	4,585
Containerships 8,000 - 9,999 TEU	93,120	0.07	6,593	10.5	26.6	11.0	0.95	6,293	4,695
Containerships 7,000 - 7,999 TEU	85,623	0.07	5,921	10.5	26.8	11.0	0.95	5,651	4,216
Containerships 6,000 - 6,999 TEU	85,623	0.07	5,713	10.5	27.1	11.0	0.95	5,454	4,069
Containerships 5,000 - 5,999 TEU	74,016	0.07	4,906	10.5	27.2	11.0	0.95	4,683	3,494
Containerships 4,000 - 4,999 TEU	57,396	0.07	4,262	10.5	26.2	11.0	0.95	4,069	3,035
Containerships 3,000 - 3,999 TEU	44,746	0.09	3,991	10.5	24.6	11.0	0.95	3,809	2,842

Notes: (1) Portion of the trip between the fairway and POLB breakwater.

(2) Load factor derived from Propeller Law, where load factor = (actual speed/max. speed)³ (2005 PEI page 61).

(3) Average transit speeds obtained from the POLB Air Emissions Inventory - 2005 (AEI), Table 2.4 (Starcrest 2007).

Table A.1.2-Alt1U-4. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip within the POLB Breakwater
POLB - MHTP Alternatives.

<i>Operational Mode/Vessel Type</i>	<i>Propulsion Max Hp</i>	<i>Load Factor (2)</i>	<i>Modal Hp</i>	<i>Hours/ Mode (3)</i>	<i>Hp-Hrs/ Trip</i>	<i>kW-Hrs/ Trip</i>
<i>Transit (1)</i>						
Containerships 10,000 - 11,999 TEU	93,120	0.03	2,375	0.72	1,710	1,275
Containerships 8,000 - 9,999 TEU	93,120	0.03	2,375	0.72	1,710	1,275
Containerships 7,000 - 7,999 TEU	85,623	0.03	2,141	0.72	1,541	1,150
Containerships 6,000 - 6,999 TEU	85,623	0.02	2,098	0.72	1,510	1,127
Containerships 5,000 - 5,999 TEU	74,016	0.02	1,813	0.72	1,306	974
Containerships 4,000 - 4,999 TEU	57,396	0.03	1,478	0.72	1,064	794
Containerships 3,000 - 3,999 TEU	44,746	0.03	1,365	0.72	983	733
<i>Docking</i>						
Containerships 10,000 - 11,999 TEU	93,120	0.02	1,862	0.25	466	347
Containerships 8,000 - 9,999 TEU	93,120	0.02	1,862	0.25	466	347
Containerships 7,000 - 7,999 TEU	85,623	0.02	1,712	0.25	428	319
Containerships 6,000 - 6,999 TEU	85,623	0.02	1,712	0.25	428	319
Containerships 5,000 - 5,999 TEU	74,016	0.02	1,480	0.25	370	276
Containerships 4,000 - 4,999 TEU	57,396	0.02	1,148	0.25	287	214
Containerships 3,000 - 3,999 TEU	44,746	0.02	895	0.25	224	167

Notes: (1) Average one-way transit operations between the POLB breakwater and the Middle Harbor Terminal.

(2) Transit load factors based upon the average of inbound and outbound load factors in 2005 AEI Table 2.9. Docking load factors obtained from AEI page 68.

(3) One-way transit durations = 3.6 nm @ 5 kts. Docking durations obtained from AEI page 68.

Table A.1.2-Alt1U-5. Cargo Vessel Transit Distances within the Fairway and Precautionary Areas - POLB - MHTP Alternatives.

<i>Fairway 1-way Route Length (1)/ Percent in Route (2)</i>				
Vessel Type	<i>North</i>	<i>West</i>	<i>South</i>	<i>Ave. Length</i>
Container	39.5	43.5	36.0	39.9
General Cargo	60.0	10.0	30.0	38.9
Auto	80.0	10.0	10.0	39.6
<i>VSRP Zone 1-way Distance within Fairway/Percent in Route (2)</i>				
Vessel Type	<i>North</i>	<i>West</i>	<i>South</i>	<i>Ave. Length</i>
Container	22.4	19.2	13.6	22.1
General Cargo	90.0	10.0	-	19.4
Auto	60.0	10.0	30.0	21.2
<i>Precautionary Area 1-way Route Length (1)/Percent in Route (2)</i>				
Vessel Type	<i>North (3)</i>	<i>West (3)</i>	<i>South (3)</i>	<i>Ave. Length</i>
Container	10.5	10.5	7.5	10.5
General Cargo	90.0	10.0	-	9.6
Auto	60.0	10.0	30.0	10.2

Notes: (1) Route lengths in units of nautical miles (nm) (from PEI Table 2.8).

(2) Based upon expected transit distribution patterns

(3) Revised from PEI Table 2.8 values, based upon review of nautical chart 18740, 40th edition (US Dept. of Comm)

Table A.1.2-Alt1U-6. Cargo Vessel Auxiliary Generator Usage per One-Way Fairway Transit - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel (1)</i>	<i>Load Factor (2)</i>	<i>Hours/ Transit</i>	<i>kW-Hrs/ Transit</i>
<i>Non-Compliance with VSRP (3)</i>				
Containerships 10,000 - 11,999 TEU	18,000	0.13	1.58	3,706
Containerships 8,000 - 9,999 TEU	15,000	0.13	1.60	3,113
Containerships 7,000 - 7,999 TEU	13,501	0.13	1.58	2,780
Containerships 6,000 - 6,999 TEU	13,501	0.13	1.57	2,747
Containerships 5,000 - 5,999 TEU	10,366	0.13	1.56	2,105
Containerships 4,000 - 4,999 TEU	7,347	0.13	1.62	1,549
Containerships 3,000 - 3,999 TEU	5,298	0.13	1.72	1,187
<i>Compliance with VSRP (3)</i>				
Containerships 10,000 - 11,999 TEU	18,000	0.13	3.33	7,781
Containerships 8,000 - 9,999 TEU	15,000	0.13	3.33	6,484
Containerships 7,000 - 7,999 TEU	13,501	0.13	3.33	5,836
Containerships 6,000 - 6,999 TEU	13,501	0.13	3.33	5,836
Containerships 5,000 - 5,999 TEU	10,366	0.13	3.33	4,481
Containerships 4,000 - 4,999 TEU	7,347	0.13	3.33	3,176
Containerships 3,000 - 3,999 TEU	5,298	0.13	3.33	2,290

Notes: (1) Extrapolated from 2005 PEI Table 2.12.

(2) 2005 PEI Table 2.12.

(3) See Table for estimated vessel transit durations within the fairway for each mode of operation.

Table A.1.2-Alt1U-7. Cargo Vessel Auxiliary Generator Usage per One-Way Precautionary Area Transit - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel</i>	<i>Load Factor (1)</i>	<i>Hours/ Transit</i>	<i>kW-Hrs/ Transit</i>
Containerships 10,000 - 11,999 TEU	18,000	0.25	0.95	4,295
Containerships 8,000 - 9,999 TEU	15,000	0.25	0.95	3,580
Containerships 7,000 - 7,999 TEU	13,501	0.25	0.95	3,222
Containerships 6,000 - 6,999 TEU	13,501	0.25	0.95	3,222
Containerships 5,000 - 5,999 TEU	10,366	0.25	0.95	2,474
Containerships 4,000 - 4,999 TEU	7,347	0.25	0.95	1,753
Containerships 3,000 - 3,999 TEU	5,298	0.25	0.95	1,264

Notes: (1) POLA 2001 PEI Table 2.19.

Table A.1.2-Alt1U-7a. Cargo Vessel Auxiliary Generator Usage per One-Way Transit and Dock within the POLB Breakwater - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel</i>	<i>Load Factor (1)</i>	<i>Hours/ Mode (2)</i>	<i>kW-Hrs/ Transit</i>
<i>Transit (1)</i>				
Containerships 10,000 - 11,999 TEU	18,000	0.50	0.72	6,480
Containerships 8,000 - 9,999 TEU	15,000	0.50	0.72	5,400
Containerships 7,000 - 7,999 TEU	13,501	0.50	0.72	4,860
Containerships 6,000 - 6,999 TEU	13,501	0.50	0.72	4,860
Containerships 5,000 - 5,999 TEU	10,366	0.50	0.72	3,732
Containerships 4,000 - 4,999 TEU	7,347	0.50	0.72	2,645
Containerships 3,000 - 3,999 TEU	5,298	0.47	0.72	1,774
<i>Docking</i>				
Containerships 10,000 - 11,999 TEU	18,000	0.50	0.25	2,250
Containerships 8,000 - 9,999 TEU	15,000	0.50	0.25	1,875
Containerships 7,000 - 7,999 TEU	13,501	0.50	0.25	1,688
Containerships 6,000 - 6,999 TEU	13,501	0.50	0.25	1,688
Containerships 5,000 - 5,999 TEU	10,366	0.50	0.25	1,296
Containerships 4,000 - 4,999 TEU	7,347	0.50	0.25	918
Containerships 3,000 - 3,999 TEU	5,298	0.47	0.25	616

Notes: (1) 2005 PEI Table 2.12.

(2) See Table for estimated vessel transit/docking durations within the Harbor.

Table A.1.2-Alt1U-8. Cargo Vessel Hoteling Auxiliary Generator Usage per Ship Visit - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel</i>	<i>Load Factor (1)</i>	<i>Hours/ Visit (2)</i>	<i>kW-Hrs/ Visit</i>
Project Year 2010				
Containerships 8,000 - 9,999 TEU	15,000	0.15	42.10	94,725
Containerships 6,000 - 6,999 TEU	13,501	0.15	42.10	85,259
Containerships 4,000 - 4,999 TEU	7,347	0.17	42.10	52,580
Project Year 2015				
Containerships 8,000 - 9,999 TEU	15,000	0.15	39.71	89,348
Containerships 7,000 - 7,999 TEU	13,501	0.15	39.71	80,419
Containerships 6,000 - 6,999 TEU	13,501	0.15	39.71	80,419
Containerships 4,000 - 4,999 TEU	7,347	0.17	39.71	49,595
Containerships 3,000 - 3,999 TEU	5,298	0.20	39.71	42,077
Project Year 2020				
Containerships 10,000 - 11,999 TEU	18,000	0.15	38.63	104,301
Containerships 8,000 - 9,999 TEU	15,000	0.15	38.63	86,918
Containerships 7,000 - 7,999 TEU	13,501	0.15	38.63	78,232
Containerships 6,000 - 6,999 TEU	13,501	0.15	38.63	78,232
Containerships 4,000 - 4,999 TEU	7,347	0.17	38.63	48,246
Project Year 2030				
Containerships 10,000 - 11,999 TEU	18,000	0.15	38.63	104,301
Containerships 8,000 - 9,999 TEU	15,000	0.15	38.63	86,918
Containerships 7,000 - 7,999 TEU	13,501	0.15	38.63	78,232
Containerships 6,000 - 6,999 TEU	13,501	0.15	38.63	78,232
Containerships 5,000 - 5,999 TEU	10,366	0.16	38.63	62,068
Containerships 4,000 - 4,999 TEU	7,347	0.17	38.63	48,246

Notes: (1) 2005 PEI Table 2.12.

(2) From POLB 2006

**Table A.1.2-Alt1U-9. Cargo Vessel Auxiliary Generator Usage per Shift within the POLB
Breakwater - POLB - MHTP Alternatives.**

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel</i>	<i>Load Factor (1)</i>	<i>Hours/ Visit (1)</i>	<i>kW-Hrs/ Year</i>
<i>Transit (1)</i>				
Containership < 3,000 TEU	3,681	0.50	0.72	1,325
<i>Docking</i>				
Containership < 3,000 TEU	3,681	0.50	0.25	460

Notes: (1) From Table8.

**Table A.1.2-Alt1U-9a. Cargo Vessel Auxiliary Generator Usage during Hoteling per Shift -
POLB - MHTP Alternatives.**

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel (1)</i>	<i>Load Factor (2)</i>	<i>Hours/ Visit (1)</i>	<i>kW-Hrs/ Transit</i>
Containership < 3,000 TEU				

Notes: (1) From Table9.

**Table A.1.2-Alt1U-9b. Cargo Vessel Auxiliary Boiler Usage per Ship Visit -
POLB - MHTP Alternatives.**

<i>Vessel Type</i>	<i>Hourly Fuel Usage (1)</i>
Container Vessels	0.170

Notes: (1) Units in tons/hour of fuel consumption. From
2005 PEI Table 2.13. HFO SFC = 305 grams/kW-Hr
This usage applies to all vessel locations except the fairway.

Table A.1.2-Alt1U-10. Cargo Vessel Tugboat Assist Usage - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Tugboat Max Hp (1)</i>	<i>Load Factor (2)</i>	<i>Hours/ Assist (3)</i>	<i>Hp-Hr/ Assist</i>	<i>Annual # of Assists (4)</i>	<i>Annual Hp-Hrs</i>	<i>Annual kW-Hrs</i>
All Containerships - 2010	4,100	0.31	1.26	1,603	624	1,000,104	746,078
All Containerships - 2015	4,100	0.31	1.26	1,603	780	1,250,130	932,597
All Containerships - 2020	4,100	0.31	1.26	1,603	936	1,500,156	1,119,117
All Containerships - 2030	4,100	0.31	1.26	1,603	1,092	1,750,182	1,305,636
Totals						5,500,573	4,103,427

Notes: (1) = Total tug Hp rating (2005 PEI Table 3.1).

(2) 2005 PEI Table 3.9.

(3) Duration 1-way vessel trip due to harbor transit and docking durations presented in Tables ___ and ___ times 1.3 to account for tug assist time, travel to/from berth, and idle mode.

(4) Assuming 3 tug assists per ship visit.

Table A.1.2-Alt1U-10a. Tugboat Aux. Generator Usage during Cargo Vessel Assists - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Aux. Engine Hp (1)</i>	<i>Load Factor (2)</i>	<i>Hours/ Assist (3)</i>	<i>Hp-Hr/ Assist</i>	<i>Annual # of Assists (4)</i>	<i>Annual Hp-Hrs</i>	<i>Annual kW-Hrs</i>
All Containerships - 2010	260	0.43	1.64	183	624	114,363	85,315
All Containerships - 2015	260	0.43	1.64	183	780	142,954	106,643
All Containerships - 2020	260	0.43	1.64	183	936	171,544	127,972
All Containerships - 2030	260	0.43	1.64	183	1,092	200,135	149,301
Totals						628,995	469,231

Notes: (1) = Total tug aux. gen. Hp rating (2005 PEI Table 3.1).

(2) 2005 PEI Table 3.9.

(3) Duration = 1.3 times tug assist time in Table13 to account for usage when main engines are shut down in stand-by mode.

(4) Assuming 3 tug assists per ship visit.

Table A.1.2-Alt1U-11. Emissions Factors for Vessels - Middle Harbor Project Alternatives.

Operational Mode/Ship-Engine Type	Emission Factors (Gm/kW-Hr)						Source
	ROG	CO	NOx	SOx	PM10	PM2.5	
<i>Cruise/Main Engine</i>							
OGVs - Slow Speed Diesel Main Engines - 0.1% S RFO	0.78	1.10	17.00	0.36	0.25	0.23	(1)
<i><20% Main Engine Load Emission Factors</i>							
OGVs - Slow Speed Diesel 2% Load Adjustment Factor	21.18	9.68	4.63	1.00	7.29		(2)
OGVs - Slow Speed Diesel 3% Load Adjustment Factor	11.68	6.46	2.92	1.00	4.33		(2)
OGVs - Slow Speed Diesel 4% Load Adjustment Factor	7.71	4.86	2.21	1.00	3.09		(2)
OGVs - Slow Speed Diesel 5% Load Adjustment Factor	5.61	3.89	1.83	1.00	2.44		(2)
OGVs - Slow Speed Diesel 6% Load Adjustment Factor	4.35	3.25	1.60	1.00	2.04		(2)
OGVs - Slow Speed Diesel 7% Load Adjustment Factor	3.52	2.79	1.45	1.00	1.79		(2)
OGVs - Slow Speed Diesel 8% Load Adjustment Factor	2.95	2.45	1.35	1.00	1.61		(2)
OGVs - Slow Speed Diesel 9% Load Adjustment Factor	2.52	2.18	1.27	1.00	1.48		(2)
OGVs - Slow Speed Diesel 10% Load Adjustment Factor	2.20	1.96	1.22	1.00	1.38		(2)
OGVs - Slow Speed Diesel 11% Load Adjustment Factor	1.96	1.79	1.17	1.00	1.30		(2)
OGVs - Slow Speed Diesel 12% Load Adjustment Factor	1.76	1.64	1.14	1.00	1.24		(2)
OGVs - Slow Speed Diesel 13% Load Adjustment Factor	1.60	1.52	1.11	1.00	1.19		(2)
OGVs - Slow Speed Diesel 15% Load Adjustment Factor	1.36	1.32	1.06	1.00	1.11		(2)
OGVs - Slow Speed Diesel 16% Load Adjustment Factor	1.26	1.24	1.05	1.00	1.08		(2)
OGVs - Slow Speed Diesel 17% Load Adjustment Factor	1.18	1.17	1.03	1.00	1.06		(2)
OGVs - Slow Speed Diesel 18% Load Adjustment Factor	1.11	1.11	1.02	1.00	1.04		(2)
OGVs - Slow Speed Diesel 19% Load Adjustment Factor	1.05	1.05	1.01	1.00	1.02		(2)
OGVs - Slow Speed Diesel 2% Load Emission Factor	16.52	10.65	78.71	0.36	1.82	1.68	(3)
OGVs - Slow Speed Diesel 3% Load Emission Factor	9.11	7.11	49.64	0.36	1.08	1.00	(3)
OGVs - Slow Speed Diesel 4% Load Emission Factor	6.01	5.35	37.57	0.36	0.77	0.71	(3)
OGVs - Slow Speed Diesel 5% Load Emission Factor	4.38	4.28	31.11	0.36	0.61	0.56	(3)
OGVs - Slow Speed Diesel 6% Load Emission Factor	3.39	3.58	27.20	0.36	0.51	0.47	(3)
OGVs - Slow Speed Diesel 7% Load Emission Factor	2.75	3.07	24.65	0.36	0.45	0.41	(3)
OGVs - Slow Speed Diesel 8% Load Emission Factor	2.30	2.70	22.95	0.36	0.40	0.37	(3)
OGVs - Slow Speed Diesel 9% Load Emission Factor	1.97	2.40	21.59	0.36	0.37	0.34	(3)
OGVs - Slow Speed Diesel 10% Load Emission Factor	1.72	2.16	20.74	0.36	0.35	0.32	(3)
OGVs - Slow Speed Diesel 11% Load Emission Factor	1.53	1.97	19.89	0.36	0.33	0.30	(3)
OGVs - Slow Speed Diesel 12% Load Emission Factor	1.37	1.80	19.38	0.36	0.31	0.29	(3)
OGVs - Slow Speed Diesel 13% Load Emission Factor	1.25	1.67	18.87	0.36	0.30	0.27	(3)
OGVs - Slow Speed Diesel 15% Load Emission Factor	1.06	1.45	18.02	0.36	0.28	0.26	(3)
OGVs - Slow Speed Diesel 16% Load Emission Factor	0.98	1.36	17.85	0.36	0.27	0.25	(3)
OGVs - Slow Speed Diesel 17% Load Emission Factor	0.92	1.29	17.51	0.36	0.27	0.24	(3)
OGVs - Slow Speed Diesel 18% Load Emission Factor	0.87	1.22	17.34	0.36	0.26	0.24	(3)
OGVs - Slow Speed Diesel 19% Load Emission Factor	0.82	1.16	17.17	0.36	0.26	0.23	(3)
Tugboats - Diesel Main Engines Year 2005	0.33	2.48	13.61	0.07	0.46	0.43	(4)
Tugboats - Diesel Main Engines Year 2010	0.33	2.48	13.03	0.01	0.43	0.40	(4)
Tugboats - Diesel Main Engines Year 2015	0.33	2.48	5.06	0.01	0.12	0.11	(4)
Tugboats - Diesel Main Engines Year 2020	0.33	2.48	4.45	0.01	0.10	0.10	(4)
Tugboats - Diesel Main Engines Year 2030	0.33	2.48	4.45	0.01	0.10	0.10	(4)
<i>Auxiliary Generators</i>							
OGVs - Medium Speed Diesel - Marine Gas Oil @ 1.5% S	0.49	1.10	14.30	6.60	0.94	0.91	(5)
OGVs - Medium Speed Diesel - Marine Gas Oil @ 0.1% S	0.52	1.10	13.90	0.40	0.25	0.23	(5)
Tugboats - High Speed Diesel - Year 2005	0.26	2.79	12.09	0.08	0.42	0.39	(4)
Tugboats - High Speed Diesel - Year 2010	0.26	2.79	11.30	0.01	0.39	0.37	(4)
Tugboats - High Speed Diesel - Year 2015	0.26	2.79	6.51	0.01	0.19	0.18	(4)
Tugboats - High Speed Diesel - Year 2020	0.26	2.79	4.58	0.01	0.10	0.09	(4)
Tugboats - High Speed Diesel - Year 2030	0.26	2.79	4.58	0.01	0.10	0.09	(4)
<i>Auxiliary Boilers</i>							
Commercial Vessels - Residual Oil @ 0.1% S	0.76	9.20	23.43	3.73	0.49	0.45	(6)
Commercial Vessels - Residual Oil @ 1.5% S	0.76	9.20	24.01	63.79	1.89	1.82	(6)

Notes: (1) Applies to OGV transit mode of operation (ARB 2008).

(2) Unitless adjustment factors from PEI Table 2.21 that are applied to OGV main power plant emission factors in PEI Table 2.20 to obtain emission factors for engine loads <20%.

(3) Calculated OGV main power plant low load emission factors.

(4) Composite EFs for category 1/2 diesel engines (Starcrest 2006). Average sulfur (S) content = 0.19% (PEI Section 3.2.2) in year 2003 and 15 ppm in year 2007+.

(5) Table 2.22 (Starcrest 2004). PM emission factors for medium speed diesel engines burning 0.2% S marine gas, POLB diesel, and ULSD calculated by Starcrest (Starcrest 2006).

(6) Units in Lb/ton fuel from PEI Table 2.23. Original PM10 factor divided by 0.86 to produce DPM factor (Table 1.3-5 [EPA 1998]).

(7) (ARB 2008)

Table A.1.2-Alt1U-12. 1.5% S Diesel Emissions Factors for OGVs - Middle Harbor Project Alternatives.

Operational Mode/Ship-Engine Type	Emission Factors (Gm/KW-Hr)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Cruise/Main Engine</i>						
OGVs - Slow Speed Diesel Main Engines - 1.5% S RFO	0.74	1.24	17.55	6.20	0.94	0.91
OGVs - Slow Speed Diesel 2% Load Emission Factor	15.57	12.00	81.26	6.20	6.85	6.60
OGVs - Slow Speed Diesel 3% Load Emission Factor	8.58	8.01	51.25	6.20	4.07	3.92
OGVs - Slow Speed Diesel 4% Load Emission Factor	5.67	6.03	38.79	6.20	2.90	2.80
OGVs - Slow Speed Diesel 5% Load Emission Factor	4.12	4.82	32.12	6.20	2.29	2.21
OGVs - Slow Speed Diesel 6% Load Emission Factor	3.20	4.03	28.08	6.20	1.92	1.85
OGVs - Slow Speed Diesel 7% Load Emission Factor	2.59	3.46	25.45	6.20	1.68	1.62
OGVs - Slow Speed Diesel 8% Load Emission Factor	2.17	3.04	23.69	6.20	1.51	1.46
OGVs - Slow Speed Diesel 9% Load Emission Factor	1.85	2.70	22.29	6.20	1.39	1.34
OGVs - Slow Speed Diesel 10% Load Emission Factor	1.62	2.43	21.41	6.20	1.30	1.25
OGVs - Slow Speed Diesel 11% Load Emission Factor	1.44	2.22	20.53	6.20	1.22	1.18
OGVs - Slow Speed Diesel 12% Load Emission Factor	1.29	2.03	20.01	6.20	1.17	1.12
OGVs - Slow Speed Diesel 13% Load Emission Factor	1.18	1.88	19.48	6.20	1.12	1.08
OGVs - Slow Speed Diesel 15% Load Emission Factor	1.00	1.64	18.60	6.20	1.04	1.00
OGVs - Slow Speed Diesel 16% Load Emission Factor	0.93	1.54	18.43	6.20	1.02	0.98
OGVs - Slow Speed Diesel 17% Load Emission Factor	0.87	1.45	18.08	6.20	1.00	0.96
OGVs - Slow Speed Diesel 18% Load Emission Factor	0.82	1.38	17.90	6.20	0.98	0.94
OGVs - Slow Speed Diesel 19% Load Emission Factor	0.77	1.30	17.73	6.20	0.96	0.92

Table A.1.2-Alt1U-13. Annual Cargo Vessel Emissions (POLB Fairway Zone) - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	4.51	6.58	54.25	15.09	3.39	3.26
Containerships 6,000 - 6,999 TEU	3.91	5.70	47.01	13.08	2.93	2.83
Containerships 4,000 - 4,999 TEU	5.09	7.65	67.38	19.51	4.08	3.93
Subtotal	13.50	19.93	168.64	47.68	10.40	10.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	0.88	0.90	0.83
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	0.79	0.81	0.74
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	0.76	0.78	0.72
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	0.57	0.54	0.50
Containerships 3,000 - 3,999 TEU	2.02	2.66	28.55	0.53	0.46	0.42
Subtotal	17.95	22.19	206.46	3.52	3.49	3.21
Project Year 2020						
Containerships 10,000 - 11,999 TEU	4.67	5.70	51.32	0.86	0.88	0.81
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	0.88	0.90	0.83
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	0.79	0.81	0.74
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	0.76	0.78	0.72
Containerships 4,000 - 4,999 TEU	5.40	6.79	65.27	1.13	1.09	1.00
Subtotal	23.30	28.62	261.87	4.41	4.45	4.10
Project Year 2030						
Containerships 10,000 - 11,999 TEU	4.67	5.70	51.32	0.86	0.88	0.81
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	0.88	0.90	0.83
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	0.79	0.81	0.74
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	0.76	0.78	0.72
Containerships 5,000 - 5,999 TEU	3.56	4.34	39.11	0.65	0.67	0.62
Containerships 4,000 - 4,999 TEU	5.40	6.79	65.27	1.13	1.09	1.00
Subtotal	26.86	32.96	300.97	5.06	5.13	4.72

Note: (1) VSRP compliance = 100% for future years.

Table A.1.2-Alt1U-14. Annual Cargo Vessel Emissions (POLB Precautionary Area) - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NO _x	SO _x	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.39	1.86	13.70	3.34	0.91	0.87
Containerships 6,000 - 6,999 TEU	1.21	1.61	11.87	2.89	0.78	0.76
Containerships 4,000 - 4,999 TEU	1.80	2.41	17.71	4.31	1.17	1.13
Subtotal	4.40	5.88	43.27	10.54	2.86	2.75
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.19	0.24	0.22
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.17	0.22	0.20
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.17	0.21	0.19
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.13	0.16	0.14
Containerships 3,000 - 3,999 TEU	0.64	0.78	7.03	0.12	0.12	0.11
Subtotal	5.68	6.42	52.29	0.78	0.94	0.87
Project Year 2020						
Containerships 10,000 - 11,999 TEU	1.44	1.61	12.96	0.19	0.24	0.22
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.19	0.24	0.22
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.17	0.22	0.20
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.17	0.21	0.19
Containerships 4,000 - 4,999 TEU	1.91	2.14	17.15	0.25	0.31	0.29
Subtotal	7.44	8.32	66.79	0.98	1.21	1.12
Project Year 2030						
Containerships 10,000 - 11,999 TEU	1.44	1.61	12.96	0.19	0.24	0.22
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.19	0.24	0.22
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.17	0.22	0.20
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.17	0.21	0.19
Containerships 5,000 - 5,999 TEU	1.10	1.23	9.87	0.14	0.18	0.16
Containerships 4,000 - 4,999 TEU	1.91	2.14	17.15	0.25	0.31	0.29
Subtotal	8.54	9.54	76.66	1.12	1.39	1.28

Note: Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2-Alt1U-15. Annual Cargo Vessel Emissions (Transit, POLB Breakwater) - MHTP - Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.26	1.17	7.49	0.91	0.60	0.57
Containerships 6,000 - 6,999 TEU	2.01	1.55	10.50	0.80	0.89	0.85
Containerships 4,000 - 4,999 TEU	1.56	1.46	9.33	1.13	0.74	0.71
Subtotal	4.83	4.18	27.32	2.84	2.22	2.14
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.05	0.16	0.15
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.05	0.14	0.13
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.05	0.24	0.22
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.03	0.10	0.09
Containerships 3,000 - 3,999 TEU	0.77	0.60	4.17	0.03	0.09	0.08
Subtotal	6.26	4.59	32.66	0.21	0.73	0.67
Project Year 2020						
Containerships 10,000 - 11,999 TEU	1.33	1.04	7.26	0.05	0.16	0.15
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.05	0.16	0.15
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.05	0.14	0.13
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.05	0.24	0.22
Containerships 4,000 - 4,999 TEU	1.66	1.29	9.03	0.07	0.20	0.18
Subtotal	7.66	5.68	40.26	0.26	0.89	0.82
Project Year 2030						
Containerships 10,000 - 11,999 TEU	1.33	1.04	7.26	0.05	0.16	0.15
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.05	0.16	0.15
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.05	0.14	0.13
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.05	0.24	0.22
Containerships 5,000 - 5,999 TEU	1.84	1.19	8.79	0.04	0.20	0.19
Containerships 4,000 - 4,999 TEU	1.66	1.29	9.03	0.07	0.20	0.18
Subtotal	9.50	6.87	49.05	0.30	1.10	1.01

Table A.1.2-Alt1U-16. Annual Cargo Vessel Emissions (Docking Activities) - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.62	0.48	3.24	0.25	0.27	0.26
Containerships 6,000 - 6,999 TEU	0.57	0.44	2.98	0.23	0.25	0.24
Containerships 4,000 - 4,999 TEU	0.76	0.59	3.99	0.30	0.34	0.32
Subtotal	1.95	1.51	10.20	0.78	0.86	0.83
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.01	0.07	0.07
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.01	0.07	0.06
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.01	0.07	0.06
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.01	0.04	0.04
Containerships 3,000 - 3,999 TEU	0.32	0.20	1.51	0.01	0.03	0.03
Subtotal	2.59	1.67	12.34	0.06	0.29	0.26
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.66	0.42	3.13	0.01	0.07	0.07
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.01	0.07	0.07
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.01	0.07	0.06
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.01	0.07	0.06
Containerships 4,000 - 4,999 TEU	0.81	0.52	3.86	0.02	0.09	0.08
Subtotal	3.34	2.15	15.90	0.07	0.37	0.34
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.66	0.42	3.13	0.01	0.07	0.07
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.01	0.07	0.07
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.01	0.07	0.06
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.01	0.07	0.06
Containerships 5,000 - 5,999 TEU	0.52	0.34	2.49	0.01	0.06	0.05
Containerships 4,000 - 4,999 TEU	0.81	0.52	3.86	0.02	0.09	0.08
Subtotal	3.86	2.49	18.39	0.08	0.43	0.39

Table A.1.2-Alt1U-17. Annual Aux. Gen. Emissions (Cargo Vessel Transit, Fairway Zone) - MHTP - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.36	0.82	10.63	4.91	0.70	0.67
Containerships 6,000 - 6,999 TEU	0.33	0.74	9.57	4.42	0.63	0.61
Containerships 4,000 - 4,999 TEU	0.36	0.80	10.41	4.81	0.68	0.66
Subtotal	1.05	2.35	30.61	14.13	2.01	1.94
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.14	0.29	3.65	0.11	0.07	0.06
Subtotal	1.41	2.98	37.64	1.08	0.68	0.62
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.46	0.98	12.40	0.36	0.22	0.21
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.38	0.80	10.12	0.29	0.18	0.17
Subtotal	1.92	4.07	51.45	1.48	0.93	0.85
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.46	0.98	12.40	0.36	0.22	0.21
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 5,000 - 5,999 TEU	0.27	0.57	7.14	0.21	0.13	0.12
Containerships 4,000 - 4,999 TEU	0.38	0.80	10.12	0.29	0.18	0.17
Subtotal	2.19	4.64	58.59	1.69	1.05	0.97

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

(2) VSRP compliance = 100% for future years.

Table A.1.2-Alt1U-18. Annual Aux. Gen. Emissions (Cargo Vessel Transit, Precautionary Area) - Unmitigated Alternative 1

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.20	0.45	5.87	2.71	0.39	0.37
Containerships 6,000 - 6,999 TEU	0.18	0.41	5.28	2.44	0.35	0.33
Containerships 4,000 - 4,999 TEU	0.20	0.44	5.75	2.65	0.38	0.36
Subtotal	0.58	1.30	16.90	7.80	1.11	1.07
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.08	0.16	2.01	0.06	0.04	0.03
Subtotal	0.78	1.64	20.78	0.60	0.37	0.34
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.26	0.54	6.84	0.20	0.12	0.11
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.21	0.44	5.59	0.16	0.10	0.09
Subtotal	1.06	2.25	28.40	0.82	0.51	0.47
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.26	0.54	6.84	0.20	0.12	0.11
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 5,000 - 5,999 TEU	0.15	0.31	3.94	0.11	0.07	0.07
Containerships 4,000 - 4,999 TEU	0.21	0.44	5.59	0.16	0.10	0.09
Subtotal	1.21	2.56	32.35	0.93	0.58	0.54

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2-Alt1U-19. Annual Aux. Gen. Emissions (Cargo Vessel Transit, POLB Breakwater) - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.30	0.68	8.85	4.09	0.58	0.56
Containerships 6,000 - 6,999 TEU	0.27	0.61	7.97	3.68	0.52	0.50
Containerships 4,000 - 4,999 TEU	0.30	0.67	8.67	4.00	0.57	0.55
Subtotal	0.87	1.96	25.49	11.77	1.68	1.61
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.11	0.22	2.83	0.08	0.05	0.05
Subtotal	1.16	2.46	31.14	0.90	0.56	0.52
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.32	0.67	8.43	0.24	0.15	0.14
Subtotal	1.60	3.39	42.85	1.23	0.77	0.71
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 5,000 - 5,999 TEU	0.22	0.47	5.95	0.17	0.11	0.10
Containerships 4,000 - 4,999 TEU	0.32	0.67	8.43	0.24	0.15	0.14
Subtotal	1.83	3.86	48.80	1.40	0.88	0.81

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2-Alt1U-20. Annual Aux. Gen. Emissions (Cargo Vessel Docking, POLB Breakwater) - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.11	0.24	3.07	1.42	0.20	0.19
Containerships 6,000 - 6,999 TEU	0.09	0.21	2.77	1.28	0.18	0.18
Containerships 4,000 - 4,999 TEU	0.10	0.23	3.01	1.39	0.20	0.19
Subtotal	0.30	0.68	8.85	4.09	0.58	0.56
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.04	0.08	0.98	0.03	0.02	0.02
Subtotal	0.40	0.86	10.81	0.31	0.19	0.18
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.13	0.28	3.59	0.10	0.06	0.06
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.11	0.23	2.93	0.08	0.05	0.05
Subtotal	0.56	1.18	14.88	0.43	0.27	0.25
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.13	0.28	3.59	0.10	0.06	0.06
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 5,000 - 5,999 TEU	0.08	0.16	2.06	0.06	0.04	0.03
Containerships 4,000 - 4,999 TEU	0.11	0.23	2.93	0.08	0.05	0.05
Subtotal	0.63	1.34	16.94	0.49	0.30	0.28

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2-Alt1U-21. Annual Aux. Gen. Emissions (Cargo Vessel Hoteling) - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	2.66	5.97	77.64	35.84	5.10	4.91
Containerships 6,000 - 6,999 TEU	2.39	5.38	69.88	32.25	4.59	4.42
Containerships 4,000 - 4,999 TEU	2.95	6.63	86.20	39.78	5.67	5.46
Subtotal	8.01	17.98	233.72	107.87	15.36	14.79
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.33	2.82	35.59	1.02	0.64	0.59
Containerships 7,000 - 7,999 TEU	1.20	2.54	32.04	0.92	0.58	0.53
Containerships 6,000 - 6,999 TEU	1.20	2.54	32.04	0.92	0.58	0.53
Containerships 4,000 - 4,999 TEU	0.74	1.56	19.76	0.57	0.36	0.33
Containerships 3,000 - 3,999 TEU	0.63	1.33	16.76	0.48	0.30	0.28
Subtotal	5.09	10.78	136.19	3.92	2.45	2.25
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.62	1.32	16.62	0.48	0.30	0.28
Containerships 8,000 - 9,999 TEU	0.52	1.10	13.85	0.40	0.25	0.23
Containerships 7,000 - 7,999 TEU	0.47	0.99	12.47	0.36	0.22	0.21
Containerships 6,000 - 6,999 TEU	0.47	0.99	12.47	0.36	0.22	0.21
Containerships 4,000 - 4,999 TEU	0.58	1.22	15.38	0.44	0.28	0.25
Subtotal	2.65	5.60	70.78	2.04	1.27	1.17
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.62	1.32	16.62	0.48	0.30	0.28
Containerships 8,000 - 9,999 TEU	0.52	1.10	13.85	0.40	0.25	0.23
Containerships 7,000 - 7,999 TEU	0.47	0.99	12.47	0.36	0.22	0.21
Containerships 6,000 - 6,999 TEU	0.47	0.99	12.47	0.36	0.22	0.21
Containerships 5,000 - 5,999 TEU	0.37	0.78	9.89	0.28	0.18	0.16
Containerships 4,000 - 4,999 TEU	0.58	1.22	15.38	0.44	0.28	0.25
Subtotal	3.02	6.38	80.67	2.32	1.45	1.33

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in years 2015/2020+

Table A.1.2-Alt1U-22. Annual Aux. Boiler Emissions (Cargo Vessel Transit, the Precautionary Area) - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.54	0.02	0.02
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.54	0.02	0.02
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.41	1.08	0.03	0.03
Subtotal	0.03	0.31	0.81	2.15	0.06	0.06
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Subtotal	0.03	0.39	0.99	0.16	0.02	0.02
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Subtotal	0.04	0.47	1.19	0.19	0.02	0.02
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Subtotal	0.04	0.54	1.38	0.22	0.03	0.03

Table A.1.2-Alt1U-23. Annual Aux. Boiler Emissions (Cargo Vessel Transit, POLB Breakwater) - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.41	0.01	0.01
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.41	0.01	0.01
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.31	0.81	0.02	0.02
Subtotal	0.02	0.23	0.61	1.63	0.05	0.05
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Subtotal	0.02	0.29	0.75	0.12	0.02	0.01
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Subtotal	0.03	0.35	0.90	0.14	0.02	0.02
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Subtotal	0.03	0.41	1.04	0.17	0.02	0.02

Table A.1.2-Alt1U-24. Annual Aux. Boiler Emissions (Cargo Vessel Docking, POLB Breakwater) - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.14	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.14	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.11	0.28	0.01	0.01
Subtotal	0.01	0.08	0.21	0.56	0.02	0.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Subtotal	0.01	0.10	0.26	0.04	0.01	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Subtotal	0.01	0.12	0.31	0.05	0.01	0.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Subtotal	0.01	0.14	0.36	0.06	0.01	0.01

Table A.1.2-Alt1U-25. Annual Aux. Boiler Emissions (Cargo Vessel Hoteling) - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.14	1.71	4.47	11.88	0.35	0.34
Containerships 6,000 - 6,999 TEU	0.14	1.71	4.47	11.88	0.35	0.34
Containerships 4,000 - 4,999 TEU	0.28	3.43	8.94	23.75	0.70	0.68
Subtotal	0.57	6.85	17.89	47.51	1.41	1.35
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Subtotal	0.67	8.08	20.57	3.28	0.43	0.39
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 6,000 - 6,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 4,000 - 4,999 TEU	0.26	3.14	8.01	1.27	0.17	0.15
Subtotal	0.78	9.43	24.02	3.82	0.50	0.46
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 6,000 - 6,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 5,000 - 5,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 4,000 - 4,999 TEU	0.26	3.14	8.01	1.27	0.17	0.15
Subtotal	0.91	11.00	28.02	4.46	0.59	0.54

Table A.1.2-Alt1U-26. Annual Tugboat Emissions (Cargo Vessel Assists) - POLB - MHTP - Unmitigated Alternative 1.

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year (1)</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.27	2.04	10.72	0.01	0.36	0.33
<i>Project Year 2015</i>	0.34	2.55	5.20	0.01	0.13	0.12
<i>Project Year 2020</i>	0.41	3.06	5.49	0.01	0.13	0.12
<i>Project Year 2030</i>	0.48	3.57	6.40	0.01	0.15	0.14

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt1U-27. Annual Aux. Gen. Emissions (Tugboats during Cargo Vessel Assists) - Unmitigated Alternative 1.

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.02	0.26	1.06	0.00	0.04	0.03
<i>Project Year 2015</i>	0.03	0.33	0.77	0.00	0.02	0.02
<i>Project Year 2020</i>	0.04	0.39	0.65	0.00	0.01	0.01
<i>Project Year 2030</i>	0.04	0.46	0.75	0.00	0.02	0.02

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt1U-28. Annual Vessel Emissions - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Emission Source	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.86
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Subtotal	25.44	69.07	697.99	506.60	48.24	45.30
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	14.55	22.28	199.25	61.81	12.41	11.95
Ships - Precautionary Area Transit (1)	5.00	7.49	60.98	20.50	4.04	3.89
Ships - Harbor Transit (1)	5.72	6.37	53.42	16.23	3.94	3.80
Ships - Docking (1)	2.26	2.27	19.26	5.43	1.46	1.40
Ships - Hoteling Aux. Sources	8.57	24.83	251.61	155.38	16.77	16.15
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Subtotal	36.42	65.55	596.30	259.34	39.02	37.55
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	4.60	4.17	3.83
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	1.53	1.34	1.23
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.22	1.30	1.20
Ships - Docking (1)	3.00	2.63	23.41	0.41	0.49	0.45
Ships - Hoteling Aux. Sources	5.76	18.86	156.76	7.20	2.88	2.65
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Subtotal	42.44	65.32	568.83	14.97	10.32	9.49
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	25.22	32.69	313.31	5.89	5.38	4.95
Ships - Precautionary Area Transit (1)	8.54	11.03	96.38	1.98	1.75	1.61
Ships - Harbor Transit (1)	9.29	9.43	84.00	1.64	1.68	1.55
Ships - Docking (1)	3.90	3.45	31.08	0.55	0.64	0.59
Ships - Hoteling Aux. Sources	3.43	15.03	94.80	5.86	1.78	1.63
Tugboats - Cargo Vessel Assist (1)	0.45	3.45	6.13	0.01	0.14	0.13
Subtotal	50.83	75.08	625.71	15.94	11.37	10.46
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	29.05	37.60	359.56	6.75	6.18	5.68
Ships - Precautionary Area Transit (1)	9.79	12.65	110.39	2.27	2.00	1.84
Ships - Harbor Transit (1)	11.36	11.14	98.89	1.88	1.99	1.84
Ships - Docking (1)	4.50	3.97	35.69	0.63	0.74	0.68
Ships - Hoteling Aux. Sources	3.93	17.39	108.69	6.78	2.04	1.87
Tugboats - Cargo Vessel Assist (1)	0.52	4.03	7.15	0.01	0.16	0.15
Subtotal	59.16	86.78	720.38	18.32	13.12	12.07

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt1U-29. Daily Vessel Emissions - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Emission Source	Pounds Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	52.7	120.0	1,394.0	798.6	119.5	112.0
Ships - Precautionary Area Transit (1)	11.7	25.4	215.8	119.6	19.8	18.6
Ships - Harbor Transit (1)	15.1	23.4	179.5	76.2	18.6	17.4
Ships - Docking (1)						
Ships - Hoteling Aux. Sources	53.3	189.6	1,909.6	1,755.7	98.0	92.4
Tugboats - Cargo Vessel Assist (1)	1.6	12.3	65.9	0.3	2.2	2.1
Subtotal	134	371	3,765	2,750	258	242
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	79.7	122.1	1,091.8	338.7	68.0	65.5
Ships - Precautionary Area Transit (1)	27.4	41.1	334.1	112.3	22.1	21.3
Ships - Harbor Transit (1)	31.3	34.9	292.7	88.9	21.6	20.8
Ships - Docking (1)	12.4	12.4	105.5	29.7	8.0	7.7
Ships - Hoteling Aux. Sources	47.0	136.1	1,378.7	851.4	91.9	88.5
Tugboats - Cargo Vessel Assist (1)	1.6	12.6	64.6	0.0	2.1	2.0
Subtotal	200	359	3,267	1,421	214	206
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106.1	137.9	1,337.5	25.2	22.8	21.0
Ships - Precautionary Area Transit (1)	35.6	46.3	405.8	8.4	7.3	6.7
Ships - Harbor Transit (1)	40.8	40.3	353.6	6.7	7.1	6.6
Ships - Docking (1)	16.4	14.4	128.2	2.2	2.7	2.4
Ships - Hoteling Aux. Sources	31.6	103.3	859.0	39.4	15.8	14.5
Tugboats - Cargo Vessel Assist (1)	2.1	15.8	32.7	0.1	0.8	0.8
Subtotal	233	358	3,117	82	57	52
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	138.2	179.1	1,716.8	32.3	29.5	27.1
Ships - Precautionary Area Transit (1)	46.8	60.4	528.1	10.9	9.6	8.8
Ships - Harbor Transit (1)	50.9	51.6	460.3	9.0	9.2	8.5
Ships - Docking (1)	21.4	18.9	170.3	3.0	3.5	3.2
Ships - Hoteling Aux. Sources	18.8	82.4	519.4	32.1	9.7	8.9
Tugboats - Cargo Vessel Assist (1)	2.5	18.9	33.6	0.1	0.8	0.7
Subtotal	279	411	3,429	87	62	57
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	159.2	206.0	1,970.2	37.0	33.9	31.1
Ships - Precautionary Area Transit (1)	53.7	69.3	604.9	12.4	11.0	10.1
Ships - Harbor Transit (1)	62.3	61.1	541.9	10.3	10.9	10.1
Ships - Docking (1)	24.7	21.8	195.6	3.4	4.0	3.7
Ships - Hoteling Aux. Sources	21.5	95.3	595.6	37.2	11.2	10.3
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.2	0.1	0.9	0.8
Subtotal	324	475	3,947	100	72	66

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt1U-30. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 1.
POLB - MHTP Alternatives

<i>Equipment Type</i>	<i>Hp (1)</i>	<i>Load Factor (2)</i>	<i>Number Active</i>	<i>Hourly Hp-Hr</i>	<i>Hours/Trip</i>	<i>Total Hp-Hrs</i>
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	4,244	0.11	3	1,420	0.1	185
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	4,244	0.23	3	2,914	0.14	418
Haul Line Locomotive - 40 mph - PCH to SCAB border	4,244	0.47	3	5,982	2.5	15,230
Haul Line Locomotive - Switching	4,244	0.05	3	637	2.5	1,592
Yard Locomotive	2,144	0.09	1	193	1.9	367

Notes: (1) See 2005 PEI Section 5.1.2 and Table 5.2.

(2) Line haul loco Notch settings vs. speeds estimated by Starcrest (2007) and load factors from 2005 PEI Table 5.12.

Table A.1.2-Alt1U-30a. Equipment Usage Associated with One Inbound Train Trip at the Middle Harbor Railyard -
POLB - MHTP Alternatives

<i>Equipment Type (1)</i>	<i>Hp</i>	<i>Load Factor</i>	<i>Number Active</i>	<i>Hourly Hp-Hr</i>	<i>Hours/Trip</i>	<i>Total Hp-Hrs</i>
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	4,244	0.11	3	1,420	0.1	185
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	4,244	0.23	3	2,914	0.14	418
Haul Line Locomotive - 40 mph - PCH to SCAB border	4,244	0.47	3	5,982	2.5	15,230
Haul Line Locomotive - Switching	4,244	0.05	3	637	1.0	637
Yard Locomotive	2,144	0.09	1	193	1.9	367

Notes: (1)

Table A.1.2-AIU30b. Unmitigated Emission Factors for Rail Equipment - POLB Middle Harbor Project Alternatives.

Project Scenario/Equipment	Emission Factors (Gm/Hp-Hr)						References
	ROG	CO	NOx	SOx	PM	PM10	
<i>Baseline - Year 2005</i>							
RTG							
Yard Tractor							
Line Haul Locomotive - Year 2005	0.58	1.28	8.82	0.69	0.32	0.32	
Switch Yard Locomotive - Year 2005	1.28	1.83	17.40	0.11	0.44	0.44	
<i>Year 2010</i>							
RTG	0.31	1.83	8.12	0.01	0.26	0.24	
Yard Tractor	0.02	0.87	0.65	0.01	0.02	0.02	
Line Haul Locomotive - Year 2010	0.51	1.28	7.02	0.16	0.20	0.20	
Switch Yard Locomotive - Year 2010	0.60	2.40	8.10	0.005	0.17	0.17	(4)
<i>Year 2015</i>							
RTG	0.08	0.96	1.41	0.01	0.01	0.01	
Yard Tractor	0.02	1.03	0.13	0.01	0.01	0.01	
Line Haul Locomotive - Year 2015	0.47	1.28	6.56	0.005	0.17	0.17	(3)
Switch Yard Locomotive - Year 2015	0.60	2.40	8.10	0.005	0.17	0.17	(4)
<i>Year 2020</i>							
RTG	0.08	1.01	1.47	0.01	0.01	0.01	
Yard Tractor	0.02	1.13	0.14	0.01	0.01	0.01	
Line Haul Locomotive - Year 2020	0.43	1.28	6.12	0.005	0.16	0.16	
Switch Yard Locomotive - Year 2020	0.60	2.40	8.10	0.005	0.17	0.17	
<i>Year 2025</i>							
RTG	0.09	1.06	1.53	0.01	0.01	0.01	
Yard Tractor	0.02	1.04	0.13	0.01	0.01	0.01	
Line Haul Locomotive - Tier 3	0.38	1.28	5.50	0.005	0.10	0.10	(5)
Switch Yard Locomotive - Tier 3	0.60	2.40	5.00	0.005	0.10	0.10	(5)

- Notes: (1) Estimated with the use of the ARB OFFROAD Model with consideration of fleet turnover with adopted future EPA off-road emission standards. Based on equipment annual Hp-Hr usages at CUT/LBCT in year 2005 (Starcrest 2006).
- (2) Represents national average emission factors for line haul/switch yard locomotives for year 2005 (EPA 1998). ROG = THC * 1.27. Year 2005 data for switch engines = 1999 national fleet average values, as 2005 PHL fleet was pre-1973 vintage (pre-Tier 0). Year 2005 line haul/switch loco diesel fuel assumed to be 0.22/0.035% sulfur (S) (PEI pages 223 and 229), although PM emission factors for switch locos not subsequently reduced, due to the antiquated age of the PHL engines.
- (3) Represents average EPA emission factors for line haul locomotives for a given year + the use of 500 ppm S diesel by 2008 and ULSD by 2012, as stated in the EPA non-road diesel fuel rule. These fuels would produce 25/28% reductions in PM emissions from an assumed S fuel content of 0.2%.
- (4) Assumes 100% conversion of existing fleet to Tier 2 standard engines + use of ULSD + 25% reduction in PM emissions due to the use of DOC, per CAAP measure R

Table A.1.2-Alt1U-30c. Train Trip Generation Rates - Unmitigated Alternative 1.

<i>Project Scenario/Rail Yard</i>	<i>Annual Round Trips</i>
Year 2005 Baseline	
To/from Middle Harbor Railyard	138
Year 2010	
To/from Middle Harbor Railyard	126
Year 2015	
To/from Middle Harbor Railyard	1,648
Year 2020	
To/from Middle Harbor Railyard	2,098
Year 2030	
To/from Middle Harbor Railyard	2,098

Table A.1.2-AIU30d. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 Baseline Year 2005.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.02	0.04	0.25	0.02	0.01	0.01
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.04	0.08	0.56	0.04	0.02	0.02
Haul Line Locomotive - 40 mph - PCH to SCAB border	1.35	2.97	20.43	1.60	0.74	0.74
Haul Line Locomotive - Swiching	0.14	0.31	2.14	0.17	0.08	0.08
Yard Locomotive	0.07	0.10	0.97	0.01	0.02	0.02
Subtotal	1.62	3.49	24.35	1.83	0.87	0.87
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.02	0.04	0.25	0.02	0.01	0.01
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.04	0.08	0.56	0.04	0.02	0.02
Haul Line Locomotive - 40 mph - PCH to SCAB border	1.35	2.97	20.43	1.60	0.74	0.74
Haul Line Locomotive - Swiching	0.06	0.12	0.85	0.07	0.03	0.03
Yard Locomotive	0.07	0.10	0.97	0.01	0.02	0.02
Subtotal	1.54	3.31	23.07	1.73	0.83	0.83
Total Tons Per Year	3.16	6.80	47.41	3.57	1.70	1.70

Table A.1.2-AIU30e. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 Baseline Year 2005.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	661,484	-	-	-	-	-	-
Yard Tractor	431,602	-	-	-	-	-	-
Subtotal	1,093,087	0.83	2.14	18.51	0.21	0.34	0.31

Table A.1.2-Alt1U-31. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2010.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.18	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.03	0.07	0.41	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - PCH to SCAB border	1.07	2.71	14.85	0.33	0.41	0.41
Haul Line Locomotive - Switching	0.11	0.28	1.55	0.03	0.04	0.04
Yard Locomotive	0.03	0.12	0.41	0.00	0.01	0.01
Subtotal	1.26	3.22	17.40	0.38	0.48	0.48
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.18	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.03	0.07	0.41	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - PCH to SCAB border	1.07	2.71	14.85	0.33	0.41	0.41
Haul Line Locomotive - Switching	0.04	0.11	0.62	0.01	0.02	0.02
Yard Locomotive	0.03	0.12	0.41	0.00	0.01	0.01
Subtotal	1.19	3.05	16.47	0.36	0.45	0.45
Total Tons Per Year	2.45	6.27	33.87	0.74	0.94	0.94

Table A.1.2-Alt1U-32. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2010.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	204,990	0.07	0.41	1.83	0.00	0.06	0.05
Yard Tractor	133,751	0.00	0.13	0.10	0.00	0.00	0.00
Subtotal	338,741	0.07	0.54	1.93	0.00	0.06	0.06

Table A.1.2-Alt1U-33. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2015.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.43	2.20	0.00	0.06	0.06
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.36	0.97	4.98	0.00	0.13	0.13
Haul Line Locomotive - 40 mph - PCH to SCAB border	13.00	35.41	181.49	0.13	4.78	4.78
Haul Line Locomotive - Swiching	1.36	3.70	18.97	0.01	0.50	0.50
Yard Locomotive	0.40	1.60	5.39	0.00	0.12	0.12
Subtotal	15.27	42.11	213.03	0.15	5.58	5.58
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.43	2.20	0.00	0.06	0.06
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.36	0.97	4.98	0.00	0.13	0.13
Haul Line Locomotive - 40 mph - PCH to SCAB border	13.00	35.41	181.49	0.13	4.78	4.78
Haul Line Locomotive - Swiching	0.54	1.48	7.59	0.01	0.20	0.20
Yard Locomotive	0.40	1.60	5.39	0.00	0.12	0.12
Subtotal	14.46	39.89	201.65	0.14	5.28	5.28
Total Tons Per Year	29.73	82.01	414.69	0.30	10.87	10.87

Table A.1.2-Alt1U-34. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2015.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	3,023,640	0.25	3.21	4.72	0.02	0.04	0.03
Yard Tractor	1,972,850	0.04	2.24	0.28	0.01	0.02	0.02
Subtotal	4,996,490	0.30	5.45	5.00	0.03	0.06	0.05

Table A.1.2-Alt1U-35. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2020.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.18	0.55	2.61	0.00	0.07	0.07
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.42	1.24	5.92	0.00	0.15	0.15
Haul Line Locomotive - 40 mph - PCH to SCAB border	15.21	45.08	215.55	0.17	5.58	5.58
Haul Line Locomotive - Swiching	1.59	4.71	22.52	0.02	0.58	0.58
Yard Locomotive	0.51	2.03	6.87	0.00	0.15	0.15
Subtotal	17.91	53.61	253.47	0.19	6.53	6.53
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.18	0.55	2.61	0.00	0.07	0.07
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.42	1.24	5.92	0.00	0.15	0.15
Haul Line Locomotive - 40 mph - PCH to SCAB border	15.21	45.08	215.55	0.17	5.58	5.58
Haul Line Locomotive - Swiching	0.64	1.88	9.01	0.01	0.23	0.23
Yard Locomotive	0.51	2.03	6.87	0.00	0.15	0.15
Subtotal	16.95	50.79	239.96	0.18	6.18	6.18
Total Tons Per Year	34.86	104.40	493.43	0.38	12.71	12.71

Table A.1.2-Alt1U-36. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2020.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	4,342,795	0.39	4.84	7.06	0.03	0.03	0.03
Yard Tractor	2,833,566	0.07	3.52	0.44	0.02	0.02	0.02
Subtotal	7,176,361	0.47	8.36	7.50	0.05	0.05	0.04

Table A.1.2-Alt1U-37. Annual Train Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2030.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.55	2.35	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.37	1.24	5.32	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - PCH to SCAB border	13.42	45.08	193.71	0.17	3.52	3.52
Haul Line Locomotive - Swiching	1.40	4.71	20.24	0.02	0.37	0.37
Yard Locomotive	0.51	2.03	4.24	0.00	0.08	0.08
Subtotal	15.86	53.61	225.86	0.19	4.11	4.11
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.55	2.35	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.37	1.24	5.32	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - PCH to SCAB border	13.42	45.08	193.71	0.17	3.52	3.52
Haul Line Locomotive - Swiching	0.56	1.88	8.10	0.01	0.15	0.15
Yard Locomotive	0.51	2.03	4.24	0.00	0.08	0.08
Subtotal	15.02	50.79	213.72	0.18	3.89	3.89
Total Tons Per Year	30.88	104.40	439.58	0.38	8.01	8.01

Table A.1.2-Alt1U-38. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1 - Year 2030.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	4,682,863	0.46	5.47	7.92	0.03	0.07	0.07
Yard Tractor	3,055,452	0.07	3.49	0.44	0.02	0.03	0.03
Subtotal	7,738,315	0.53	8.96	8.36	0.05	0.10	0.10

Table A.1.2-Alt1U-39. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Baseline Year 2005</i>						
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Subtotal	3.99	8.94	65.93	3.78	2.04	2.01
<i>Project Year 2010</i>						
Trains	2.45	6.27	33.87	0.74	0.94	0.94
Railyard Equipment	0.07	0.54	1.93	0.00	0.06	0.06
Subtotal	2.53	6.81	35.80	0.74	1.00	0.99
<i>Project Year 2015</i>						
Trains	29.73	82.01	414.69	0.30	10.87	10.87
Railyard Equipment	0.30	5.45	5.00	0.03	0.06	0.05
Subtotal	30.03	87.46	419.69	0.33	10.93	10.92
<i>Project Year 2020</i>						
Trains	34.86	104.40	493.43	0.38	12.71	12.71
Railyard Equipment	0.47	8.36	7.50	0.05	0.05	0.04
Subtotal	35.33	112.76	500.93	0.43	12.76	12.75
<i>Project Year 2030</i>						
Trains - 2026	30.88	104.40	439.58	0.38	8.01	8.01
Railyard Equipment - 2030	0.53	8.96	8.36	0.05	0.10	0.10
Subtotal	31.41	113.36	447.94	0.43	8.11	8.10

Table A.1.2-Alt1U-40. Annual Truck Emissions for the MHTP - Unmitigated Alternative 1.

Location/Project Scenario - Mode	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>On-Terminal</i>						
Year 2005 - Idling	7.67	13.79	53.59	0.39	1.15	1.06
Year 2005 - Driving	8.58	13.90	25.32	0.15	2.75	2.53
Subtotal - Year 2005	16.26	27.69	78.91	0.54	3.89	3.58
Year 2010 - Idling	3.13	7.46	37.85	0.02	0.35	0.32
Year 2010 - Driving	11.71	17.60	36.88	0.03	0.44	0.41
Subtotal - Year 2010	14.84	25.07	74.73	0.05	0.79	0.73
Year 2015 - Idling	2.16	5.99	34.49	0.02	0.03	0.02
Year 2015 - Driving	2.66	5.22	10.70	0.02	0.07	0.06
Subtotal - Year 2015	4.82	11.22	45.19	0.05	0.09	0.09
Year 2020 - Idling	2.79	7.75	44.58	0.03	0.03	0.03
Year 2020 - Driving	3.82	7.51	13.04	0.03	0.10	0.10
Subtotal - Year 2020	6.60	15.26	57.62	0.06	0.14	0.13
Year 2030 - Idling	3.56	9.90	56.98	0.04	0.04	0.04
Year 2030 - Driving	3.22	6.40	9.84	0.04	0.13	0.12
Subtotal - Year 2030	6.78	16.31	66.82	0.08	0.17	0.16
Year 2040 - Idling	3.56	9.90	56.98	0.04	0.04	0.04
Year 2040 - Driving	3.13	6.22	9.69	0.04	0.12	0.11
Subtotal - Year 2040	6.69	16.12	66.67	0.08	0.16	0.15
<i>Off-Terminal</i>						
Subtotal - Year 2005	72.78	387.35	1,256.64	7.01	63.21	58.16
Subtotal - Year 2010	63.55	280.03	1,448.70	1.45	10.98	10.10
Subtotal - Year 2015	21.79	110.87	325.12	1.20	5.96	5.49
Subtotal - Year 2020	31.73	161.76	401.80	1.58	9.66	8.89
Subtotal - Year 2030	30.84	138.38	329.02	2.05	10.65	9.80
<i>Total Annual Truck Emissions by Project Year</i>						
Year 2005	89.03	415.04	1,335.56	7.55	67.10	61.74
Year 2010	78.39	305.09	1,523.43	1.51	11.77	10.83
Year 2015	26.61	122.09	370.31	1.25	6.06	5.57
Year 2020	38.33	177.02	459.42	1.64	9.80	9.02
Year 2030	37.63	154.68	395.84	2.13	10.82	9.96

Table A.1.2-AltU-41 Unmitigated Emission Factors for Terminal Equipment - POLB MHTP Alternatives.

Project Scenario/Equipment	Emission Factors (1)						References
	ROG	CO	NOx	SOx	PM10	PM2.5	
<i>Project Year 2016</i>							
RTG	0.31	1.83	8.12	0.01	0.26	0.24	(1)
Top-Pick	0.17	0.66	5.26	0.01	0.12	0.11	(1)
Side-Pick	0.21	0.64	6.56	0.01	0.23	0.21	(1)
Yard Tractor	0.02	0.87	0.65	0.01	0.02	0.02	(1)
<i>Project Year 2015</i>							
RTG	0.08	0.96	1.41	0.006	0.01	0.01	(1)
Top-Pick	0.08	0.98	1.43	0.006	0.01	0.01	(1)
Side-Pick	0.09	1.93	1.93	0.006	0.01	0.01	(1)
Yard Tractor	0.02	1.03	0.13	0.006	0.01	0.01	(1)
<i>Project Year 2026</i>							
RTG	0.08	1.01	1.47	0.006	0.01	0.01	(1)
Top-Pick	0.09	1.05	1.52	0.006	0.01	0.01	(1)
Side-Pick	0.10	2.03	2.02	0.006	0.01	0.01	(1)
Yard Tractor	0.02	1.13	0.14	0.006	0.01	0.01	(1)
<i>Project Year 2025</i>							
RTG	0.09	1.06	1.53	0.006	0.01	0.01	(1)
Top-Pick	0.10	1.12	1.61	0.006	0.02	0.01	(1)
Side-Pick	0.11	2.14	2.12	0.006	0.01	0.01	(1)
Yard Tractor	0.02	1.04	0.13	0.006	0.01	0.01	(1)

Notes: (1) = ARB Reg only (Raw data provided by Starcrest Feb 14, 2008, then converted by SAIC to composite EFs)

Table A.1.2-Alt1U-41a. Terminal Equipment Annual Emissions - POLB - MHTP - Unmitigated Alternative 1.

Equipment Type	Annual Hp-Hrs	Annual Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2005							
Pier E							
Subtotal		6.17	21.60	113.81	1.06	3.46	3.19
Pier F							
Subtotal		6.17	15.86	137.39	1.59	2.51	2.31
Subtotal - Baseline - 2005		12.34	37.46	251.19	2.64	5.97	5.49
Project Year 2010							
Pier E							
RTG (CY)	12,944,007	4.48	26.15	115.81	0.08	3.65	3.35
Top-Pick	3,655,804	0.68	2.66	21.21	0.03	0.48	0.44
Side-Pick	1,721,939	0.41	1.21	12.45	0.01	0.43	0.40
Yard Tractor (CY)	5,030,150	0.12	4.83	3.63	0.04	0.11	0.11
Subtotal	23,351,900	5.68	34.86	153.08	0.16	4.67	4.30
Pier F							
RTG (CY)	1,912,022	0.66	3.86	17.11	0.01	0.54	0.50
Top-Pick	647,153	0.12	0.47	3.75	0.00	0.08	0.08
Side-Pick	479,589	0.11	0.34	3.47	0.00	0.12	0.11
Yard Tractor (CY)	1,590,438	0.04	1.53	1.15	0.01	0.04	0.03
Subtotal	4,629,202	0.93	6.20	25.47	0.03	0.78	0.72
Subtotal - Project Year 2010	27,981,102	6.62	41.06	178.56	0.19	5.45	5.02
Project Year 2015							
RTG (CY)	15,597,658	1.30	16.57	24.32	0.10	0.19	0.18
Top-Pick	5,324,820	0.46	5.74	8.41	0.04	0.07	0.06
Side-Pick	2,865,352	0.28	6.08	6.09	0.02	0.04	0.03
Yard Tractor (CY)	8,688,619	0.19	9.87	1.25	0.06	0.09	0.08
Subtotal - Project Year 2015	32,476,448	2.23	38.26	40.07	0.22	0.39	0.36
Project Year 2020							
RTG (CY)	17,410,878	1.58	19.42	28.29	0.11	0.11	0.10
Top-Pick	6,049,810	0.58	7.00	10.15	0.04	0.04	0.04
Side-Pick	3,704,734	0.39	8.29	8.27	0.03	0.03	0.02
Yard Tractor (CY)	11,178,134	0.28	13.87	1.74	0.08	0.08	0.07
Subtotal - Project Year 2020	38,343,556	2.84	48.59	48.45	0.26	0.26	0.24
Project Year 2030							
RTG (CY)	23,591,541	2.31	27.56	39.88	0.15	0.37	0.34
Top-Pick	7,971,770	0.85	9.86	14.16	0.06	0.14	0.13
Side-Pick	4,514,420	0.52	10.63	10.55	0.03	0.07	0.07
Yard Tractor (CY)	13,042,454	0.29	14.88	1.89	0.09	0.13	0.12
Subtotal - Project Year 2030	49,120,185	3.97	62.94	66.48	0.33	0.71	0.66

Table A.1.2-Alt1U-42. Annual Operational Emissions - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Source Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.76
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Terminal Equipment	12.42	37.75	251.88	4.93	6.00	5.52
On-road Trucks	89.03	415.04	1,335.56	7.55	67.10	61.74
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Commuting	0.73	21.79	1.79	0.03	0.04	0.04
Year 2005 Total	131.61	552.59	2,353.14	522.88	123.42	114.50
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	14.55	22.28	199.25	61.81	12.41	11.63
Ships - Precautionary Area Transit (1)	5.00	7.49	60.98	20.50	4.04	3.78
Ships - Harbor Transit (1)	5.72	6.37	53.42	16.23	3.94	3.70
Ships - Docking (1)	2.26	2.27	19.26	5.43	1.46	1.37
Ships - Hoteling Aux. Sources	8.57	24.83	251.61	155.38	16.77	15.71
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Terminal Equipment	6.62	41.06	178.56	0.19	5.45	5.02
On-road Trucks	78.39	305.09	1,523.43	1.51	11.77	10.83
Trains	2.45	6.27	33.87	0.74	0.94	0.94
Railyard Equipment	0.07	0.54	1.93	0.00	0.06	0.06
Commuting	0.40	15.75	1.19	0.03	0.06	0.05
Project Year 2010 Total	124.34	434.26	2,335.28	261.82	57.30	53.45
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	4.60	4.17	3.90
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	1.53	1.34	1.25
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.22	1.30	1.22
Ships - Docking (1)	3.00	2.63	23.41	0.41	0.49	0.45
Ships - Hoteling Aux. Sources	5.76	18.86	156.76	7.20	2.88	2.70
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Terminal Equipment	2.23	38.26	40.07	0.22	0.39	0.36
On-road Trucks	26.61	122.09	370.31	1.25	6.06	5.57
Trains	29.73	82.01	414.69	0.30	10.87	10.87
Railyard Equipment	0.30	5.45	5.00	0.03	0.06	0.05
Commuting	0.23	11.74	0.79	0.04	0.08	0.07
Project Year 2015 Total	101.53	324.88	1,399.69	16.81	27.77	26.59

<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	25.22	32.69	313.31	5.89	5.38	5.04
Ships - Precautionary Area Transit (1)	8.54	11.03	96.38	1.98	1.75	1.64
Ships - Harbor Transit (1)	9.29	9.43	84.00	1.64	1.68	1.58
Ships - Docking (1)	3.90	3.45	31.08	0.55	0.64	0.60
Ships - Hoteling Aux. Sources	3.43	15.03	94.80	5.86	1.78	1.66
Tugboats - Cargo Vessel Assist (1)	0.45	3.45	6.13	0.01	0.14	0.13
Terminal Equipment	2.84	48.59	48.45	0.26	0.26	0.24
On-road Trucks	38.33	177.02	459.42	1.64	9.80	9.02
Trains	34.86	104.40	493.43	0.38	12.71	12.71
Railyard Equipment	0.47	8.36	7.50	0.05	0.05	0.04
Commuting	0.15	9.32	0.58	0.04	0.09	0.08
Project Year 2020 Total	127.48	422.77	1,635.09	18.31	34.28	32.74
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	29.05	37.60	359.56	6.75	6.18	5.79
Ships - Precautionary Area Transit (1)	9.79	12.65	110.39	2.27	2.00	1.88
Ships - Harbor Transit (1)	11.36	11.14	98.89	1.88	1.99	1.87
Ships - Docking (1)	4.50	3.97	35.69	0.63	0.74	0.69
Ships - Hoteling Aux. Sources	3.93	17.39	108.69	6.78	2.04	1.91
Tugboats - Cargo Vessel Assist (1)	0.52	4.03	7.15	0.01	0.16	0.15
Terminal Equipment	3.97	62.94	66.48	0.33	0.71	0.66
On-road Trucks	37.63	154.68	395.84	2.13	10.82	9.96
Trains	30.88	104.40	439.58	0.38	8.01	8.01
Railyard Equipment	0.53	8.96	8.36	0.05	0.10	0.10
Commuting	0.11	7.44	0.41	0.05	0.13	0.12
Project Year 2030 Total	132.28	425.19	1,631.05	21.26	32.90	31.13

Note: (1) Includes auxiliary generator emissions.

Table A.1.2-Alt1U-43. Annual Average Daily Operational Emissions - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Source Type	Pounds Per Day (2)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	53	120	1,394	799	120	112
Ships - Precautionary Area Transit (1)	12	25	216	120	20	19
Ships - Harbor Transit (1)	15	23	180	76	19	17
Ships - Docking (1)	5	8	60	25	6	6
Ships - Hoteling Aux. Sources	53	190	1,910	1,756	98	92
Tugboats - Cargo Vessel Assist (1)	2	12	66	0	2	2
Terminal Equipment	68	207	1,380	27	33	30
On-road Trucks	488	2,274	7,318	41	368	338
Trains	17	37	260	20	9	9
Railyard Equipment	5	12	101	1	2	2
Commuting	4	119	10	0	0	0
Year 2005 Total	721	3,028	12,894	2,865	676	627
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	80	122	1,092	339	68	64
Ships - Precautionary Area Transit (1)	27	41	334	112	22	21
Ships - Harbor Transit (1)	31	35	293	89	22	20
Ships - Docking (1)	12	12	106	30	8	7
Ships - Hoteling Aux. Sources	47	136	1,379	851	92	86
Tugboats - Cargo Vessel Assist (1)	2	13	65	0	2	2
Terminal Equipment	36	225	978	1	30	27
On-road Trucks	430	1,672	8,348	8	65	59
Trains	13	34	186	4	5	5
Railyard Equipment	0	3	11	0	0	0
Commuting	2	86	6	0	0	0
Project Year 2010 Total	681	2,380	12,796	1,435	314	292
Net Change from 2005 CEQA Baseline	(40)	(648)	(98)	(1,430)	(362)	(334)
Net Change from NEPA Baseline Year 2010	65	209	3,479	1,263	193	181
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106	138	1,338	25	23	21
Ships - Precautionary Area Transit (1)	36	46	406	8	7	7
Ships - Harbor Transit (1)	41	40	354	7	7	7
Ships - Docking (1)	16	14	128	2	3	2
Ships - Hoteling Aux. Sources	32	103	859	39	16	15
Tugboats - Cargo Vessel Assist (1)	2	16	33	0	1	1
Terminal Equipment	12	210	220	1	2	2
On-road Trucks	146	669	2,029	7	33	31
Trains	163	449	2,272	2	60	55
Railyard Equipment	2	30	27	0	0	0
Commuting	1	64	4	0	0	0
Project Year 2015 Total	556	1,780	7,670	92	152	141
Net Change from 2005 CEQA Baseline	(165)	(1,248)	(5,224)	(2,773)	(524)	(486)
Net Change from NEPA Baseline Year 2015	38	131	968	(13)	25	23

<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	138	179	1,717	32	29	28
Ships - Precautionary Area Transit (1)	47	60	528	11	10	9
Ships - Harbor Transit (1)	51	52	460	9	9	9
Ships - Docking (1)	21	19	170	3	4	3
Ships - Hoteling Aux. Sources	19	82	519	32	10	9
Tugboats - Cargo Vessel Assist (1)	2	19	34	0	1	1
Terminal Equipment	16	266	265	1	1	1
On-road Trucks	210	970	2,517	9	54	49
Trains	191	572	2,704	2	70	64
Railyard Equipment	3	46	41	0	0	0
Commuting	1	51	3	0	1	0
Project Year 2020 Total	699	2,317	8,959	100	188	174
Net Change from 2005 CEQA Baseline	(23)	(711)	(3,935)	(2,765)	(488)	(453)
Net Change from NEPA Baseline Year 2020	74	387	1,343	(24)	30	27
<i>Project Year 2030 Total</i>						
Ships - Fairway Transit (1)	159	206	1,970	37	34	32
Ships - Precautionary Area Transit (1)	54	69	605	12	11	10
Ships - Harbor Transit (1)	62	61	542	10	11	10
Ships - Docking (1)	25	22	196	3	4	4
Ships - Hoteling Aux. Sources	22	95	596	37	11	10
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	22	345	364	2	4	4
On-road Trucks	206	848	2,169	12	59	55
Trains	169	572	2,409	2	44	40
Railyard Equipment	3	49	46	0	1	1
Commuting	1	41	2	0	1	1
Project Year 2030 Total	725	2,330	8,937	117	180	167
Net Change from 2005 CEQA Baseline	4	(698)	(3,957)	(2,749)	(496)	(460)
Net Change from NEPA Baseline Year 2030	91	432	1,342	(40)	17	16
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (2) Equal to annual emissions divided by 365 days.

(1) Includes auxiliary generator emissions.

Table A.1.2-Alt1M-1. Ship Visit and Throughput Data -

Table A.1.2-Alt1M-1a. Emissions Factors for OGVs - 0.2% S Diesel

Table A.1.2-Alt1M-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone -

Table A.1.2-Alt1M-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area -

Table A.1.2-Alt1M-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater

Table A.1.2-Alt1M-5. Annual Cargo Vessel Emissions for Docking Activities

Table A.1.2-Alt1M-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone

Table A.1.2-Alt1M-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt1M-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2-Alt1M-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater

Table A.1.2-Alt1M-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling

Table A.1.2-Alt1M-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt1M-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2-Alt1M-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater

Table A.1.2-Alt1M-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling

Table A.1.2-Alt1M-15. Annual Tugboat Emissions for Cargo Vessel Assists -

Table A.1.2-Alt1M-16. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists -

Table A.1.2-Alt1M-17. Annual Vessel Emissions -

Table A.1.2-Alt1M-18. Daily Vessel Emissions -

Table A.1.2-Alt1M-19. Mitigated Emission Factors for Rail Equipment - POLB Middle Harbor Project Alternatives.

Table A.1.2-Alt1M-19a. Train Trip Generation Rates)

Table A.1.2-Alt1M-20. Annual Train Emissions -

Table A.1.2-Alt1M-21. Annual Rail Yard Cargo Handling Equipment Emissions -

Table A.1.2-Alt1M-22. Annual Train Emissions -

Table A.1.2-Alt1M-23. Annual Rail Yard Cargo Handling Equipment Emissions -

Table A.1.2-Alt1M-24. Annual Train Emissions -

Table A.1.2-Alt1M-25. Annual Rail Yard Cargo Handling Equipment Emissions -

Table A.1.2-Alt1M-26. Annual Train Emissions -

Table A.1.2-Alt1M-27. Annual Rail Yard Cargo Handling Equipment Emissions -

Table A.1.2-Alt1M-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions -

Table A.1.2-Alt1M-29. Annual Truck Emissions for the MHTP - 342-acre Alternative.

Table A.1.2-Alt1M-30. Mitigated Emission Factors for Terminal Equipment - POLB Middle Harbor Terminal Project Alternativ

Table A.1.2-Alt1M-30a. Terminal Equipment Annual Emissions -

Table A.1.2-Alt1M-31. Annual Operational Emissions -

Table A.1.2-Alt1M-32. Daily Operational Emissions -

This page intentionally left blank.

Table A.1.2-Alt1M-1. Ship Visit and Throughput Data - POLB - MHTP - 342-acre Alternative.

<i>Project Scenario/Ship Type</i>	<i>Annual Ship Visits</i>		<i>TEU Moves/ Ship Visit (1)</i>	<i>Hoteling Time/ Visit (Hours) (2)</i>	<i>Annual TEU Movements</i>
Baseline - Year 2005					
Subtotal					
Project Year 2010					
Containerships 8,000 - 9,999 TEU	52		12,719	42.10	661,375
Containerships 6,000 - 6,999 TEU	52		10,175	42.10	529,100
Containerships 4,000 - 4,999 TEU	104		4,163	42.10	432,900
Subtotal	208				1,623,375
Project Year 2015					
Containerships 8,000 - 9,999 TEU	52		12,580	39.71	654,160
Containerships 7,000 - 7,999 TEU	52		11,285	39.71	586,820
Containerships 6,000 - 6,999 TEU	52		10,175	39.71	529,100
Containerships 4,000 - 4,999 TEU	52		3,793	39.71	197,210
Containerships 3,000 - 3,999 TEU	52		4,070	39.71	211,640
Subtotal	260				2,178,930
Project Year 2020					
Containerships 10,000 - 11,999 TEU	52		15,818	38.63	822,510
Containerships 8,000 - 9,999 TEU	52		12,617	38.63	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	38.63	596,440
Containerships 6,000 - 6,999 TEU	52		9,805	38.63	509,860
Containerships 4,000 - 4,999 TEU	104		3,330	38.63	346,320
Subtotal	312				2,931,214
Project Year 2030					
Containerships 10,000 - 11,999 TEU	52		15,818	38.63	822,510
Containerships 8,000 - 9,999 TEU	52		12,617	38.63	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	38.63	596,440
Containerships 6,000 - 6,999 TEU	52		9,805	38.63	509,860
Containerships 5,000 - 5,999 TEU	52		7,400	38.63	384,800
Containerships 4,000 - 4,999 TEU	104		3,330	38.63	346,320
Subtotal	364				3,316,014

Notes: (1) Source: Middle Harbor Vessel Allocation102406.xls (POLB 2006) Throughputs for vessels <3,000 and 3,000-5,000 TEUs based upon Middle Harbor. Thrghtput for 5,000-6,000 TEU vessels based upon average throughput of vessels >5000
(2) Source: Vessel Dwell Times 103106.xls (POLB 2006)

Table A.1.2-Alt1M-1a. Emissions Factors for OGVs - 0.2% S Diesel						
Operational Mode/Ship-Engine Type	Emission Factors (Gm/kW-Hr)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Cruise/Main Engine</i>						
OGVs - Slow Speed Diesel Main Engines - 0.2% S RFO	0.78	1.10	17.00	0.75	0.28	0.26
OGVs - Slow Speed Diesel 2% Load Emission Factor	16.52	10.65	78.71	0.75	2.06	1.90
OGVs - Slow Speed Diesel 3% Load Emission Factor	9.11	7.11	49.64	0.75	1.22	1.13
OGVs - Slow Speed Diesel 4% Load Emission Factor	6.01	5.35	37.57	0.75	0.87	0.80
OGVs - Slow Speed Diesel 5% Load Emission Factor	4.38	4.28	31.11	0.75	0.69	0.63
OGVs - Slow Speed Diesel 6% Load Emission Factor	3.39	3.58	27.20	0.75	0.58	0.53
OGVs - Slow Speed Diesel 7% Load Emission Factor	2.75	3.07	24.65	0.75	0.51	0.47
OGVs - Slow Speed Diesel 8% Load Emission Factor	2.30	2.70	22.95	0.75	0.45	0.42
OGVs - Slow Speed Diesel 9% Load Emission Factor	1.97	2.40	21.59	0.75	0.42	0.38
OGVs - Slow Speed Diesel 10% Load Emission Factor	1.72	2.16	20.74	0.75	0.39	0.36
OGVs - Slow Speed Diesel 11% Load Emission Factor	1.53	1.97	19.89	0.75	0.37	0.34
OGVs - Slow Speed Diesel 12% Load Emission Factor	1.37	1.80	19.38	0.75	0.35	0.32
OGVs - Slow Speed Diesel 13% Load Emission Factor	1.25	1.67	18.87	0.75	0.34	0.31
OGVs - Slow Speed Diesel 15% Load Emission Factor	1.06	1.45	18.02	0.75	0.31	0.29
OGVs - Slow Speed Diesel 16% Load Emission Factor	0.98	1.36	17.85	0.75	0.31	0.28
OGVs - Slow Speed Diesel 17% Load Emission Factor	0.92	1.29	17.51	0.75	0.30	0.28
OGVs - Slow Speed Diesel 18% Load Emission Factor	0.87	1.22	17.34	0.75	0.29	0.27
OGVs - Slow Speed Diesel 19% Load Emission Factor	0.82	1.16	17.17	0.75	0.29	0.27

Table A.1.2-Alt1M-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone - POLB MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 4,000 - 4,999 TEU	5.40	6.79	65.27	2.34	1.23	1.13
Subtotal	14.33	17.68	163.35	5.73	3.13	2.88
Project Year 2015						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	1.17	0.61	0.56
Containerships 3,000 - 3,999 TEU	2.02	2.66	28.55	1.10	0.52	0.47
Subtotal	17.95	22.19	206.46	7.28	3.94	3.63
Project Year 2020						
Containerships 10,000 - 11,999 TEU	4.67	5.70	51.32	1.77	0.99	0.91
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 4,000 - 4,999 TEU	5.40	6.79	65.27	2.34	1.23	1.13
Subtotal	23.30	28.62	261.87	9.13	5.03	4.63
Project Year 2030						
Containerships 10,000 - 11,999 TEU	4.67	5.70	51.32	1.77	0.99	0.91
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 5,000 - 5,999 TEU	3.56	4.34	39.11	1.35	0.76	0.70
Containerships 4,000 - 4,999 TEU	5.40	6.79	65.27	2.34	1.23	1.13
Subtotal	26.86	32.96	300.97	10.48	5.79	5.33

Note: (1) VSRP compliance = 100% for future years.

Table A.1.2-Alt1M-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area - POLB - MHTP - 342-acre Alternative.

<i>Project Scenario/Vessel Type</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 4,000 - 4,999 TEU	1.91	2.14	17.15	0.52	0.35	0.32
Subtotal	4.67	5.22	41.92	1.27	0.86	0.79
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.26	0.18	0.16
Containerships 3,000 - 3,999 TEU	0.64	0.78	7.03	0.24	0.14	0.13
Subtotal	5.68	6.42	52.29	1.61	1.06	0.98
Project Year 2020						
Containerships 10,000 - 11,999 TEU	1.44	1.61	12.96	0.39	0.27	0.24
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 4,000 - 4,999 TEU	1.91	2.14	17.15	0.52	0.35	0.32
Subtotal	7.44	8.32	66.79	2.02	1.37	1.26
Project Year 2030						
Containerships 10,000 - 11,999 TEU	1.44	1.61	12.96	0.39	0.27	0.24
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 5,000 - 5,999 TEU	1.10	1.23	9.87	0.30	0.20	0.19
Containerships 4,000 - 4,999 TEU	1.91	2.14	17.15	0.52	0.35	0.32
Subtotal	8.54	9.54	76.66	2.32	1.57	1.45

Table A.1.2-Alt1M-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 4,000 - 4,999 TEU	1.66	1.29	9.03	0.14	0.22	0.20
Subtotal	5.12	3.71	26.46	0.34	0.67	0.61
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.07	0.11	0.10
Containerships 3,000 - 3,999 TEU	0.77	0.60	4.17	0.06	0.10	0.09
Subtotal	6.26	4.59	32.66	0.43	0.82	0.75
Project Year 2020						
Containerships 10,000 - 11,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 4,000 - 4,999 TEU	1.66	1.29	9.03	0.14	0.22	0.20
Subtotal	7.66	5.68	40.26	0.55	1.01	0.93
Project Year 2030						
Containerships 10,000 - 11,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 5,000 - 5,999 TEU	1.84	1.19	8.79	0.08	0.23	0.21
Containerships 4,000 - 4,999 TEU	1.66	1.29	9.03	0.14	0.22	0.20
Subtotal	9.50	6.87	49.05	0.63	1.24	1.14

Table A.1.2-Alt1M-5. Annual Cargo Vessel Emissions for Docking Activities
POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.81	0.52	3.86	0.04	0.10	0.09
Subtotal	2.07	1.34	9.88	0.09	0.26	0.24
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.02	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.32	0.20	1.51	0.01	0.04	0.04
Subtotal	2.59	1.67	12.34	0.12	0.32	0.30
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.81	0.52	3.86	0.04	0.10	0.09
Subtotal	3.34	2.15	15.90	0.15	0.42	0.38
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 5,000 - 5,999 TEU	0.52	0.34	2.49	0.02	0.07	0.06
Containerships 4,000 - 4,999 TEU	0.81	0.52	3.86	0.04	0.10	0.09
Subtotal	3.86	2.49	18.39	0.17	0.48	0.44

Table A.1.2-Alt1M-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.61	0.21	0.19
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.55	0.19	0.17
Containerships 4,000 - 4,999 TEU	0.38	0.80	10.12	0.60	0.21	0.19
Subtotal	1.11	2.35	29.75	1.77	0.60	0.56
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.14	0.29	3.65	0.11	0.07	0.06
Subtotal	1.41	2.98	37.64	1.08	0.68	0.62
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.46	0.98	12.40	0.36	0.22	0.21
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.38	0.80	10.12	0.29	0.18	0.17
Subtotal	1.92	4.07	51.45	1.48	0.93	0.85
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.46	0.98	12.40	0.36	0.22	0.21
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 5,000 - 5,999 TEU	0.27	0.57	7.14	0.21	0.13	0.12
Containerships 4,000 - 4,999 TEU	0.38	0.80	10.12	0.29	0.18	0.17
Subtotal	2.19	4.64	58.59	1.69	1.05	0.97

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) VSRP compliance = 100% for future years.

Table A.1.2-Alt1M-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.34	0.12	0.11
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.30	0.10	0.10
Containerships 4,000 - 4,999 TEU	0.21	0.44	5.59	0.33	0.11	0.10
Subtotal	0.61	1.30	16.43	0.97	0.33	0.31
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.08	0.16	2.01	0.06	0.04	0.03
Subtotal	0.78	1.64	20.78	0.60	0.37	0.34
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.26	0.54	6.84	0.20	0.12	0.11
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.21	0.44	5.59	0.16	0.10	0.09
Subtotal	1.06	2.25	28.40	0.82	0.51	0.47
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.26	0.54	6.84	0.20	0.12	0.11
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 5,000 - 5,999 TEU	0.15	0.31	3.94	0.11	0.07	0.07
Containerships 4,000 - 4,999 TEU	0.21	0.44	5.59	0.16	0.10	0.09
Subtotal	1.21	2.56	32.35	0.93	0.58	0.54

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt1M-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.51	0.17	0.16
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.46	0.16	0.14
Containerships 4,000 - 4,999 TEU	0.32	0.67	8.43	0.50	0.17	0.16
Subtotal	0.93	1.96	24.78	1.47	0.50	0.46
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.11	0.22	2.83	0.08	0.05	0.05
Subtotal	1.16	2.46	31.14	0.90	0.56	0.52
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.32	0.67	8.43	0.24	0.15	0.14
Subtotal	1.60	3.39	42.85	1.23	0.77	0.71
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 5,000 - 5,999 TEU	0.22	0.47	5.95	0.17	0.11	0.10
Containerships 4,000 - 4,999 TEU	0.32	0.67	8.43	0.24	0.15	0.14
Subtotal	1.83	3.86	48.80	1.40	0.88	0.81

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt1M-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.18	0.06	0.06
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.16	0.05	0.05
Containerships 4,000 - 4,999 TEU	0.11	0.23	2.93	0.17	0.06	0.05
Subtotal	0.32	0.68	8.60	0.51	0.17	0.16
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.04	0.08	0.98	0.03	0.02	0.02
Subtotal	0.40	0.86	10.81	0.31	0.19	0.18
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.13	0.28	3.59	0.10	0.06	0.06
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.11	0.23	2.93	0.08	0.05	0.05
Subtotal	0.56	1.18	14.88	0.43	0.27	0.25
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.13	0.28	3.59	0.10	0.06	0.06
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 5,000 - 5,999 TEU	0.08	0.16	2.06	0.06	0.04	0.03
Containerships 4,000 - 4,999 TEU	0.11	0.23	2.93	0.08	0.05	0.05
Subtotal	0.63	1.34	16.94	0.49	0.30	0.28

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt1M-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.98	4.20	53.06	3.15	1.08	0.99
Containerships 6,000 - 6,999 TEU	1.79	3.78	47.75	2.83	0.97	0.89
Containerships 4,000 - 4,999 TEU	2.20	4.66	58.90	3.50	1.20	1.10
Subtotal	5.97	12.64	159.71	9.48	3.25	2.99
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.27	0.56	7.12	0.20	0.13	0.12
Containerships 7,000 - 7,999 TEU	0.24	0.51	6.41	0.18	0.12	0.11
Containerships 6,000 - 6,999 TEU	0.24	0.51	6.41	0.18	0.12	0.11
Containerships 4,000 - 4,999 TEU	0.15	0.31	3.95	0.11	0.07	0.07
Containerships 3,000 - 3,999 TEU	0.13	0.27	3.35	0.10	0.06	0.06
Subtotal	1.02	2.16	27.24	0.78	0.49	0.45
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.31	0.66	8.31	0.24	0.15	0.14
Containerships 8,000 - 9,999 TEU	0.26	0.55	6.93	0.20	0.12	0.11
Containerships 7,000 - 7,999 TEU	0.23	0.49	6.23	0.18	0.11	0.10
Containerships 6,000 - 6,999 TEU	0.23	0.49	6.23	0.18	0.11	0.10
Containerships 4,000 - 4,999 TEU	0.29	0.61	7.69	0.22	0.14	0.13
Subtotal	1.32	2.80	35.39	1.02	0.64	0.59
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.31	0.66	8.31	0.24	0.15	0.14
Containerships 8,000 - 9,999 TEU	0.26	0.55	6.93	0.20	0.12	0.11
Containerships 7,000 - 7,999 TEU	0.23	0.49	6.23	0.18	0.11	0.10
Containerships 6,000 - 6,999 TEU	0.23	0.49	6.23	0.18	0.11	0.10
Containerships 5,000 - 5,999 TEU	0.18	0.39	4.95	0.14	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.29	0.61	7.69	0.22	0.14	0.13
Subtotal	1.51	3.19	40.33	1.16	0.73	0.67

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths will be completed by then. Beginning in year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducing hoteling aux. gen. emissions by 90%.

Table A.1.2-Alt1M-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.06	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.06	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.40	0.13	0.01	0.01
Subtotal	0.03	0.31	0.79	0.26	0.02	0.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Subtotal	0.03	0.39	0.99	0.16	0.02	0.02
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Subtotal	0.04	0.47	1.19	0.19	0.02	0.02
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Subtotal	0.04	0.54	1.38	0.22	0.03	0.03

Table A.1.2-Alt1M-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakw:
POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.05	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.05	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.30	0.10	0.01	0.01
Subtotal	0.02	0.23	0.60	0.20	0.01	0.01
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Subtotal	0.02	0.29	0.75	0.12	0.02	0.01
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Subtotal	0.03	0.35	0.90	0.14	0.02	0.02
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Subtotal	0.03	0.41	1.04	0.17	0.02	0.02

Table A.1.2-Alt1M-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater
POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.10	0.03	0.00	0.00
Subtotal	0.01	0.08	0.21	0.07	0.00	0.00
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Subtotal	0.01	0.10	0.26	0.04	0.01	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Subtotal	0.01	0.12	0.31	0.05	0.01	0.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Subtotal	0.01	0.14	0.36	0.06	0.01	0.01

Table A.1.2-Alt1M-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.14	1.71	4.36	1.43	0.10	0.10
Containerships 6,000 - 6,999 TEU	0.14	1.71	4.36	1.43	0.10	0.10
Containerships 4,000 - 4,999 TEU	0.28	3.43	8.73	2.86	0.21	0.19
Subtotal	0.57	6.85	17.45	5.73	0.42	0.38
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Subtotal	0.67	8.08	20.57	3.28	0.43	0.39
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 6,000 - 6,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 4,000 - 4,999 TEU	0.26	3.14	8.01	1.27	0.17	0.15
Subtotal	0.78	9.43	24.02	3.82	0.50	0.46
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 6,000 - 6,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 5,000 - 5,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 4,000 - 4,999 TEU	0.26	3.14	8.01	1.27	0.17	0.15
Subtotal	0.91	11.00	28.02	4.46	0.59	0.54

Table A.1.2-Alt1M-15. Annual Tugboat Emissions for Cargo Vessel Assists - POLB - MHTP - 342-acre Alternative.

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year (1)</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.27	2.04	10.72	0.01	0.36	0.33
<i>Project Year 2015</i>	0.34	2.55	5.20	0.01	0.13	0.12
<i>Project Year 2020</i>	0.41	3.06	5.49	0.01	0.13	0.12
<i>Project Year 2030</i>	0.48	3.57	6.40	0.01	0.15	0.14

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt1M-16. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - POLB - MHTP - 342-acre Alternative.

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.02	0.26	1.06	0.00	0.04	0.03
<i>Project Year 2015</i>	0.03	0.33	0.77	0.00	0.02	0.02
<i>Project Year 2020</i>	0.04	0.39	0.65	0.00	0.01	0.01
<i>Project Year 2030</i>	0.04	0.46	0.75	0.00	0.02	0.02

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt1M-17. Annual Vessel Emissions -
POLB - MHTP - 342-acre Alternative.

Project Scenario/Emission Source	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.86
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Subtotal	25.44	69.07	697.99	506.60	48.24	45.30
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	15.44	20.03	193.11	7.49	3.73	3.43
Ships - Precautionary Area Transit (1)	5.31	6.83	59.13	2.50	1.21	1.12
Ships - Harbor Transit (1)	6.07	5.90	51.84	2.01	1.19	1.09
Ships - Docking (1)	2.40	2.10	18.69	0.67	0.44	0.40
Ships - Hoteling Aux. Sources	6.54	19.49	177.16	15.21	3.66	3.37
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Subtotal	36.07	56.66	511.71	27.89	10.62	9.78
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	8.37	4.62	4.25
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	2.37	1.46	1.34
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.45	1.40	1.28
Ships - Docking (1)	3.00	2.63	23.41	0.47	0.52	0.48
Ships - Hoteling Aux. Sources	1.69	10.23	47.81	4.06	0.92	0.85
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Subtotal	38.36	56.70	459.88	16.72	9.07	8.34
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	25.22	32.69	313.31	10.61	5.96	5.48
Ships - Precautionary Area Transit (1)	8.54	11.03	96.38	3.02	1.91	1.75
Ships - Harbor Transit (1)	9.29	9.43	84.00	1.92	1.80	1.65
Ships - Docking (1)	3.90	3.45	31.08	0.63	0.69	0.63
Ships - Hoteling Aux. Sources	2.10	12.23	59.41	4.84	1.14	1.05
Tugboats - Cargo Vessel Assist (1)	0.45	3.45	6.13	0.01	0.14	0.13
Subtotal	49.51	72.28	590.32	21.04	11.63	10.70
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	29.05	37.60	359.56	12.16	6.85	6.30
Ships - Precautionary Area Transit (1)	9.79	12.65	110.39	3.47	2.18	2.01
Ships - Harbor Transit (1)	11.36	11.14	98.89	2.20	2.14	1.97
Ships - Docking (1)	4.50	3.97	35.69	0.72	0.79	0.73
Ships - Hoteling Aux. Sources	2.42	14.20	68.36	5.62	1.31	1.21
Tugboats - Cargo Vessel Assist (1)	0.52	4.03	7.15	0.01	0.16	0.15
Subtotal	57.65	83.58	680.04	24.19	13.44	12.36

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt1M-18. Daily Vessel Emissions -
POLB - MHTP - 342-acre Alternative.

Project Scenario/Emission Source	Pounds Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	52.7	120.0	1,394.0	798.6	119.5	112.0
Ships - Precautionary Area Transit (1)	11.7	25.4	215.8	119.6	19.8	18.6
Ships - Harbor Transit (1)	15.1	23.4	179.5	76.2	18.6	17.4
Ships - Docking (1)						
Ships - Hoteling Aux. Sources	53.3	189.6	1,909.6	1,755.7	98.0	92.4
Tugboats - Cargo Vessel Assist (1)	1.6	12.3	65.9	0.3	2.2	2.1
Subtotal	134	371	3,765	2,750	258	242
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	84.6	109.8	1,058.1	41.1	20.4	18.8
Ships - Precautionary Area Transit (1)	29.1	37.4	324.0	13.7	6.6	6.1
Ships - Harbor Transit (1)	33.3	32.3	284.0	11.0	6.5	6.0
Ships - Docking (1)	13.2	11.5	102.4	3.7	2.4	2.2
Ships - Hoteling Aux. Sources	35.8	106.8	970.7	83.3	20.1	18.5
Tugboats - Cargo Vessel Assist (1)	1.6	12.6	64.6	0.0	2.1	2.0
Subtotal	198	310	2,804	153	58	54
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106.1	137.9	1,337.5	45.8	25.3	23.3
Ships - Precautionary Area Transit (1)	35.6	46.3	405.8	13.0	8.0	7.4
Ships - Harbor Transit (1)	40.8	40.3	353.6	7.9	7.6	7.0
Ships - Docking (1)	16.4	14.4	128.2	2.6	2.9	2.6
Ships - Hoteling Aux. Sources	9.2	56.1	262.0	22.2	5.0	4.6
Tugboats - Cargo Vessel Assist (1)	2.1	15.8	32.7	0.1	0.8	0.8
Subtotal	210	311	2,520	92	50	46
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	138.2	179.1	1,716.8	58.1	32.7	30.1
Ships - Precautionary Area Transit (1)	46.8	60.4	528.1	16.6	10.4	9.6
Ships - Harbor Transit (1)	50.9	51.6	460.3	10.5	9.8	9.1
Ships - Docking (1)	21.4	18.9	170.3	3.4	3.8	3.5
Ships - Hoteling Aux. Sources	11.5	67.0	325.5	26.5	6.2	5.7
Tugboats - Cargo Vessel Assist (1)	2.5	18.9	33.6	0.1	0.8	0.7
Subtotal	271	396	3,235	115	64	59
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	159.2	206.0	1,970.2	66.7	37.5	34.5
Ships - Precautionary Area Transit (1)	53.7	69.3	604.9	19.0	12.0	11.0
Ships - Harbor Transit (1)	62.3	61.1	541.9	12.1	11.7	10.8
Ships - Docking (1)	24.7	21.8	195.6	3.9	4.3	4.0
Ships - Hoteling Aux. Sources	13.2	77.8	374.6	30.8	7.2	6.6
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.2	0.1	0.9	0.8
Subtotal	316	458	3,726	133	74	68

Note: (1) Includes auxiliary power emissions.

Table A.1.2-A1M-19. Mitigated Emission Factors for Rail Equipment - POLB Middle Harbor Project Alternatives.

Project Scenario/Equipment	Emission Factors (Gm/Hp-Hr)						References
	ROG	CO	NOx	SOx	PM	PM10	
<i>Baseline - Year 2005</i>							
RTG							
Yard Tractor							
Line Haul Locomotive - Year 2005	0.58	1.28	8.82	0.69	0.32	0.32	
Switch Yard Locomotive - Year 2005	1.28	1.83	17.40	0.11	0.44	0.44	
<i>Year 2010</i>							
RTG	0.18	0.58	4.94	0.006	0.08	0.07	
Yard Tractor	0.02	0.91	0.39	0.006	0.01	0.01	
Line Haul Locomotive - Year 2010	0.51	1.28	7.02	0.16	0.20	0.20	
Switch Yard Locomotive - Year 2010	0.60	2.40	8.10	0.005	0.17	0.17	(4)
<i>Year 2015</i>							
RTG	0.08	0.96	1.41	0.006	0.01	0.01	
Yard Tractor	0.02	1.04	0.13	0.006	0.01	0.01	
Line Haul Locomotive - Year 2015	0.47	1.28	6.56	0.005	0.17	0.17	(3)
Switch Yard Locomotive - Year 2015	0.60	2.40	8.10	0.005	0.17	0.17	(4)
<i>Year 2020</i>							
RTG							
Yard Tractor	0.02	1.14	0.14	0.006	0.01	0.01	
Line Haul Locomotive - Year 2020	0.43	1.28	6.12	0.005	0.16	0.16	
Switch Yard Locomotive - Year 2020	0.60	2.40	8.10	0.005	0.17	0.17	
<i>Year 2025</i>							
RTG							
Yard Tractor	0.02	1.00	0.13	0.006	0.01	0.01	
Line Haul Locomotive - Tier 3	0.38	1.28	5.50	0.005	0.10	0.10	(5)
Switch Yard Locomotive - Tier 3	0.60	2.40	5.00	0.005	0.10	0.10	(5)

- Notes: (1) Estimated with the use of the ARB OFFROAD Model with consideration of fleet turnover with adopted future EPA off-road emission standards. Based on equipment annual Hp-Hr usages at CUT/LBCT in year 2005 (Starcrest 2006).
- (2) Represents national average emission factors for line haul/switch yard locomotives for year 2005 (EPA 1998). ROG = THC * 1.27. Year 2005 data for switch engines = 1999 national fleet average values, as 2005 PHL fleet was pre-1973 vintage (pre-Tier 0). Year 2005 line haul/switch loco diesel fuel assumed to be 0.22/0.035% sulfur (S) (PEI pages 223 and 229), although PM emission factors for switch locos not subsequently reduced, due to the antiquated age of the PHL engines.
- (3) Represents average EPA emission factors for line haul locomotives for a given year + the use of 500 ppm S diesel by 2008 and ULSD by 2012, as stated in the EPA non-road diesel fuel rule. These fuels would produce 25/28% reductions in PM emissions from an assumed S fuel content of 0.2%.
- (4) Assumes 100% conversion of existing fleet to Tier 2 standard engines + use of ULSD + 25% reduction in PM emissions due to the use of DOC, r

Table A.1.2-Alt1M-19a Train Trip Generation Rates)
POLB - MHTP - 342-acre Alternative.

<i>Project Scenario/Rail Yard</i>	<i>Annual Round Trips</i>
Year 2005 Baseline	
To/from Middle Harbor Railyard	138
Year 2010	
To/from Middle Harbor Railyard	126
Year 2015	
To/from Middle Harbor Railyard	1,648
Year 2020	
To/from Middle Harbor Railyard	2,098
Year 2030	
To/from Middle Harbor Railyard	2,098

Table A.1.2-Alt1M-20. Annual Train Emissions -
POLB - MHTP 342-acre Alternative Year 2010.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.18	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.03	0.07	0.41	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - PCH to SCAB border	1.07	2.71	14.85	0.33	0.41	0.41
Haul Line Locomotive - Swiching	0.11	0.28	1.55	0.03	0.04	0.04
Yard Locomotive	0.03	0.12	0.41	0.00	0.01	0.01
Subtotal	1.26	3.22	17.40	0.38	0.48	0.48
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.18	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.03	0.07	0.41	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - PCH to SCAB border	1.07	2.71	14.85	0.33	0.41	0.41
Haul Line Locomotive - Swiching	0.04	0.11	0.62	0.01	0.02	0.02
Yard Locomotive	0.03	0.12	0.41	0.00	0.01	0.01
Subtotal	1.19	3.05	16.47	0.36	0.45	0.45
Total Tons Per Year	2.45	6.27	33.87	0.74	0.94	0.94

Table A.1.2-Alt1M-21. Annual Rail Yard Cargo Handling Equipment Emissions -
POLB - MHTP 342-acre Alternative Year 2010.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	204,990	0.04	0.13	1.12	0.00	0.02	0.02
Yard Tractor	133,751	0.00	0.13	0.06	0.00	0.00	0.00
Subtotal	338,741	0.04	0.27	1.17	0.00	0.02	0.02

Table A.1.2-Alt1M-22. Annual Train Emissions -
POLB - MHTP 342-acre Alternative Year 2015.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.43	2.20	0.00	0.06	0.06
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.36	0.97	4.98	0.00	0.13	0.13
Haul Line Locomotive - 40 mph - PCH to SCAB border	13.00	35.41	181.49	0.13	4.78	4.78
Haul Line Locomotive - Swiching	1.36	3.70	18.97	0.01	0.50	0.50
Yard Locomotive	0.40	1.60	5.39	0.00	0.12	0.12
Subtotal	15.27	42.11	213.03	0.15	5.58	5.58
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.43	2.20	0.00	0.06	0.06
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.36	0.97	4.98	0.00	0.13	0.13
Haul Line Locomotive - 40 mph - PCH to SCAB border	13.00	35.41	181.49	0.13	4.78	4.78
Haul Line Locomotive - Swiching	0.54	1.48	7.59	0.01	0.20	0.20
Yard Locomotive	0.40	1.60	5.39	0.00	0.12	0.12
Subtotal	14.46	39.89	201.65	0.14	5.28	5.28
Total Tons Per Year	29.73	82.01	414.69	0.30	10.87	10.87

Table A.1.2-Alt1M-23. Annual Rail Yard Cargo Handling Equipment Emissions -
POLB - MHTP 342-acre Alternative Year 2015.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	3,023,640	0.25	3.21	4.72	0.02	0.04	0.03
Yard Tractor	1,972,850	0.04	2.26	0.29	0.01	0.02	0.02
Subtotal	4,996,490	0.30	5.47	5.00	0.03	0.06	0.05

Table A.1.2-Alt1M-24. Annual Train Emissions -
POLB - MHTP 342-acre Alternative Year 2020.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.18	0.55	2.61	0.00	0.07	0.07
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.42	1.24	5.92	0.00	0.15	0.15
Haul Line Locomotive - 40 mph - PCH to SCAB border	15.21	45.08	215.55	0.17	5.58	5.58
Haul Line Locomotive - Swiching	1.59	4.71	22.52	0.02	0.58	0.58
Yard Locomotive	0.51	2.03	6.87	0.00	0.15	0.15
Subtotal	17.91	53.61	253.47	0.19	6.53	6.53
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.18	0.55	2.61	0.00	0.07	0.07
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.42	1.24	5.92	0.00	0.15	0.15
Haul Line Locomotive - 40 mph - PCH to SCAB border	15.21	45.08	215.55	0.17	5.58	5.58
Haul Line Locomotive - Swiching	0.64	1.88	9.01	0.01	0.23	0.23
Yard Locomotive	0.51	2.03	6.87	0.00	0.15	0.15
Subtotal	16.95	50.79	239.96	0.18	6.18	6.18
Total Tons Per Year	34.86	104.40	493.43	0.38	12.71	12.71

Table A.1.2-Alt1M-25. Annual Rail Yard Cargo Handling Equipment Emissions -
POLB - MHTP 342-acre Alternative Year 2020.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	4,342,795	-	-	-	-	-	-
Yard Tractor	2,833,566	0.07	3.55	0.44	0.02	0.04	0.03
Subtotal	7,176,361	0.07	3.55	0.44	0.02	0.04	0.03

Table A.1.2-Alt1M-26. Annual Train Emissions -
POLB - MHTP 342-acre Alternative Year 2030.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.55	2.35	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.37	1.24	5.32	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - PCH to SCAB border	13.42	45.08	193.71	0.17	3.52	3.52
Haul Line Locomotive - Swiching	1.40	4.71	20.24	0.02	0.37	0.37
Yard Locomotive	0.51	2.03	4.24	0.00	0.08	0.08
Subtotal	15.86	53.61	225.86	0.19	4.11	4.11
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.55	2.35	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.37	1.24	5.32	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - PCH to SCAB border	13.42	45.08	193.71	0.17	3.52	3.52
Haul Line Locomotive - Swiching	0.56	1.88	8.10	0.01	0.15	0.15
Yard Locomotive	0.51	2.03	4.24	0.00	0.08	0.08
Subtotal	15.02	50.79	213.72	0.18	3.89	3.89
Total Tons Per Year	30.88	104.40	439.58	0.38	8.01	8.01

Table A.1.2-Alt1M-27. Annual Rail Yard Cargo Handling Equipment Emissions -
POLB - MHTP 342-acre Alternative Year 2030.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	4,682,863	-	-	-	-	-	-
Yard Tractor	3,055,452	0.06	3.37	0.43	0.02	0.03	0.03
Subtotal	7,738,315	0.06	3.37	0.43	0.02	0.03	0.03

Table A.1.2-Alt1M-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 342-acre Alternative.

Project Scenario/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Baseline Year 2005</i>						
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Subtotal	3.99	8.94	65.93	3.78	2.04	2.01
<i>Project Year 2010</i>						
Trains	2.45	6.27	33.87	0.74	0.94	0.94
Railyard Equipment	0.04	0.27	1.17	0.00	0.02	0.02
Subtotal	2.50	6.54	35.04	0.74	0.96	0.95
<i>Project Year 2015</i>						
Trains	29.73	82.01	414.69	0.30	10.87	10.87
Railyard Equipment	0.30	5.47	5.00	0.03	0.06	0.05
Subtotal	30.03	87.48	419.69	0.33	10.93	10.92
<i>Project Year 2020</i>						
Trains	34.86	104.40	493.43	0.38	12.71	12.71
Railyard Equipment	0.07	3.55	0.44	0.02	0.04	0.03
Subtotal	34.94	107.95	493.88	0.40	12.74	12.74
<i>Project Year 2030</i>						
Trains - 2026	30.88	104.40	439.58	0.38	8.01	8.01
Railyard Equipment - 2030	0.06	3.37	0.43	0.02	0.03	0.03
Subtotal	30.95	107.77	440.01	0.40	8.04	8.03

Table A.1.2-Alt1M-29. Annual Truck Emissions for the MHTP - 342-acre Alternative.

Location/Project Scenario - Mode	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>On-Terminal</i>						
Year 2005 - Idling	7.67	13.79	53.59	0.39	1.15	1.06
Year 2005 - Driving	9.98	16.15	29.43	0.17	3.19	2.94
Subtotal - Year 2005	17.65	29.95	83.03	0.56	4.34	3.99
Year 2010 - Idling	3.13	7.46	37.85	0.03	0.35	0.32
Year 2010 - Driving	10.72	16.13	26.11	0.13	0.38	0.35
Subtotal - Year 2010	13.85	23.59	63.96	0.16	0.74	0.68
Year 2015 - Idling	2.16	5.99	34.49	0.03	0.03	0.02
Year 2015 - Driving	2.59	5.09	10.25	0.11	0.07	0.06
Subtotal - Year 2015	4.75	11.09	44.73	0.14	0.09	0.09
Year 2020 - Idling	2.79	7.75	44.58	0.03	0.03	0.03
Year 2020 - Driving	3.75	7.39	12.74	0.14	0.10	0.10
Subtotal - Year 2020	6.54	15.14	57.32	0.18	0.14	0.13
Year 2030 - Idling	3.56	9.90	56.98	0.04	0.04	0.04
Year 2030 - Driving	3.22	6.39	9.82	0.18	0.13	0.12
Subtotal - Year 2030	6.78	16.30	66.80	0.23	0.18	0.16
Year 2040 - Idling	3.56	9.90	56.98	0.04	0.04	0.04
Year 2040 - Driving	3.13	6.21	9.67	0.18	0.12	0.11
Subtotal - Year 2040	6.69	16.11	66.65	0.23	0.17	0.15
<i>Off-Terminal</i>						
Subtotal - Year 2005	72.78	387.35	1,256.64	7.01	63.21	58.16
Subtotal - Year 2010	58.47	288.33	1,013.93	1.45	7.53	6.93
Subtotal - Year 2015	21.24	108.11	311.13	1.20	5.93	5.46
Subtotal - Year 2020	35.39	157.26	418.87	1.58	8.73	8.04
Subtotal - Year 2030	30.81	138.21	328.54	2.05	10.63	9.78
<i>Total Annual Truck Emissions by Project Year</i>						
Year 2005	90.43	417.30	1,339.67	7.57	67.55	62.15
Year 2010	72.32	311.92	1,077.90	1.61	8.27	7.61
Year 2015	25.98	119.20	355.86	1.34	6.03	5.55
Year 2020	41.93	172.39	476.20	1.76	8.87	8.16
Year 2030	37.59	154.51	395.34	2.28	10.81	9.95

Table A.1.2-Alt1M-29a Hourly On-Terminal Truck Emissions for the MHTP - 342-acre Alternative

Location/Project Scenario - Mode	Pounds per Hour							
	TOG	ROG	CO	NOx	NO2	SOx	PM10	PM2.5
On-Terminal								
Subtotal - Year 2005	10.7	9.4	16.0	44.2	11.4	0.3	2.3	2.1
Subtotal - Year 2010	9.6	8.5	14.5	39.2	10.1	0.1	0.5	0.4
Subtotal - Year 2015	0.5	0.5	1.1	25.6	6.6	0.0	0.0	0.0
Subtotal - Year 2020	0.7	0.7	1.5	30.1	7.8	0.0	0.0	0.0
Subtotal - Year 2030	0.8	0.7	1.6	34.4	8.9	0.0	0.0	0.0

Based upon daily peak hour trips estimated by MMA.

Table A.1.2-A11M-30. Mitigated Emission Factors for Terminal Equipment - POLB Middle Harbor Terminal Project Alternative

Project Scenario/Equipment	Emission Factors (1)						References
	ROG	CO	NOx	SOx	PM10	PM2.5	
<i>Project Year 2010</i>							
RTG	0.18	0.58	4.94	0.01	0.08	0.07	(1)
Top-Pick	0.17	0.66	5.26	0.01	0.12	0.11	(1)
Side-Pick	0.21	0.64	6.56	0.01	0.23	0.21	(1)
Yard Tractor	0.02	0.91	0.39	0.01	0.01	0.01	(1)
<i>Project Year 2015</i>							
RTG	0.08	0.96	1.41	0.006	0.01	0.01	(1)
Top-Pick	0.08	0.98	1.43	0.006	0.01	0.01	(1)
Side-Pick	0.09	1.93	1.93	0.006	0.01	0.01	(1)
Yard Tractor	0.02	1.04	0.13	0.006	0.01	0.01	(1)
<i>Project Year 2020</i>							
RTG							(1)
Top-Pick	0.09	1.05	1.52	0.006	0.01	0.01	(1)
Side-Pick	0.10	2.03	2.02	0.006	0.01	0.01	(1)
Yard Tractor	0.02	1.14	0.14	0.006	0.01	0.01	(1)
<i>Project Year 2025</i>							
RTG							(1)
Top-Pick	0.10	1.12	1.61	0.006	0.02	0.01	(1)
Side-Pick	0.11	2.14	2.12	0.006	0.01	0.01	(1)
Yard Tractor	0.02	1.00	0.13	0.006	0.01	0.01	(1)

Notes: (1) = ARB Reg + CAAP measures (Starcrest Dec 2007)

Table A.1.2-Alt1M-30a. Terminal Equipment Annual Emissions -
POLB - MHTP - 342-acre Alternative.

Equipment Type	Annual Hp-Hrs	Annual Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2005							
Pier E							
Subtotal		6.17	21.60	113.81	1.06	3.46	3.19
Pier F							
Subtotal		6.17	15.86	137.39	1.59	2.51	2.31
Subtotal - Baseline - 2005		12.34	37.46	251.19	2.64	5.97	5.49
Project Year 2010							
Pier E							
RTG (CY)	12,944,007	2.53	8.33	70.49	0.08	1.12	1.03
Top-Pick	3,655,804	0.68	2.66	21.21	0.03	0.48	0.44
Side-Pick	1,721,939	0.41	1.21	12.45	0.01	0.43	0.40
Yard Tractor (CY)	5,030,150	0.11	5.02	2.15	0.04	0.08	0.07
Subtotal	23,351,900	3.72	17.23	106.29	0.16	2.11	1.95
Pier F							
RTG (CY)	1,912,022	0.37	1.23	10.41	0.01	0.17	0.15
Top-Pick	647,153	0.12	0.47	3.75	0.00	0.08	0.08
Side-Pick	479,589	0.11	0.34	3.47	0.00	0.12	0.11
Yard Tractor (CY)	1,590,438	0.03	1.59	0.68	0.01	0.02	0.02
Subtotal	4,629,202	0.64	3.63	18.31	0.03	0.40	0.36
Subtotal - Project Year 2010	27,981,102	4.36	20.86	124.60	0.19	2.51	2.31
Project Year 2015							
RTG (CY)	15,597,658	1.30	16.57	24.32	0.10	0.19	0.18
Top-Pick	5,324,820	0.46	5.74	8.41	0.04	0.07	0.06
Side-Pick	2,865,352	0.28	6.08	6.09	0.02	0.04	0.03
Yard Tractor (CY)	8,688,619	0.19	9.96	1.26	0.06	0.09	0.08
Subtotal - Project Year 2015	32,476,448	2.23	38.36	40.08	0.22	0.39	0.36
Project Year 2020							
RTG (CY)	17,410,878	-	-	-	-	-	-
Top-Pick	6,049,810	0.58	7.00	10.15	0.04	0.09	0.08
Side-Pick	3,704,734	0.39	8.29	8.27	0.03	0.05	0.05
Yard Tractor (CY)	11,178,134	0.29	13.99	1.75	0.08	0.14	0.13
Subtotal - Project Year 2020	38,343,556	1.26	29.29	20.17	0.15	0.29	0.26
Project Year 2030							
RTG (CY)	23,591,541	-	-	-	-	-	-
Top-Pick	7,971,770	0.85	9.86	14.16	0.06	0.14	0.13
Side-Pick	4,514,420	0.52	10.63	10.55	0.03	0.07	0.07
Yard Tractor (CY)	13,042,454	0.27	14.40	1.84	0.09	0.12	0.11
Subtotal - Project Year 2030	49,120,185	1.65	34.89	26.55	0.18	0.34	0.31

Table A.1.2-Alt1M-31. Annual Operational Emissions - POLB - MHTP 342-acre Alternative.

Project Scenario/Source Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.76
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Terminal Equipment	12.42	37.75	251.88	4.93	6.00	5.52
On-road Trucks	90.43	417.30	1,339.67	7.57	67.55	62.15
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Commuting	0.73	21.79	1.79	0.03	0.04	0.04
Year 2005 Total	133.00	554.85	2,357.26	522.91	123.87	114.91
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	15.44	20.03	193.11	7.49	3.73	3.50
Ships - Precautionary Area Transit (1)	5.31	6.83	59.13	2.50	1.21	1.14
Ships - Harbor Transit (1)	6.07	5.90	51.84	2.01	1.19	1.11
Ships - Docking (1)	2.40	2.10	18.69	0.67	0.44	0.41
Ships - Hoteling Aux. Sources	6.54	19.49	177.16	15.21	3.66	3.43
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Terminal Equipment	4.36	20.86	124.60	0.19	2.51	2.31
On-road Trucks	72.32	311.92	1,077.90	1.61	8.27	7.61
Trains	2.45	6.27	33.87	0.74	0.94	0.94
Railyard Equipment	0.04	0.27	1.17	0.00	0.02	0.02
Commuting	0.40	15.75	1.19	0.03	0.06	0.05
Project Year 2010 Total	115.64	411.72	1,750.44	30.47	22.41	20.88
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	8.37	4.62	4.33
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	2.37	1.46	1.37
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.45	1.40	1.31
Ships - Docking (1)	3.00	2.63	23.41	0.47	0.52	0.49
Ships - Hoteling Aux. Sources	1.69	10.23	47.81	4.06	0.92	0.86
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Terminal Equipment	2.23	38.36	40.08	0.22	0.39	0.36
On-road Trucks	25.98	119.20	355.86	1.34	6.03	5.55
Trains	29.73	82.01	414.69	0.30	10.87	10.87
Railyard Equipment	0.30	5.47	5.00	0.03	0.06	0.05
Commuting	0.23	11.74	0.79	0.04	0.08	0.07

Project Year 2015 Total	96.84	313.47	1,276.30	18.65	26.49	25.39
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	25.22	32.69	313.31	10.61	5.96	5.58
Ships - Precautionary Area Transit (1)	8.54	11.03	96.38	3.02	1.91	1.79
Ships - Harbor Transit (1)	9.29	9.43	84.00	1.92	1.80	1.68
Ships - Docking (1)	3.90	3.45	31.08	0.63	0.69	0.65
Ships - Hoteling Aux. Sources	2.10	12.23	59.41	4.84	1.14	1.07
Tugboats - Cargo Vessel Assist (1)	0.45	3.45	6.13	0.01	0.14	0.13
Terminal Equipment	1.26	29.29	20.17	0.15	0.29	0.26
On-road Trucks	41.93	172.39	476.20	1.76	8.87	8.16
Trains	34.86	104.40	493.43	0.38	12.71	12.71
Railyard Equipment	0.07	3.55	0.44	0.02	0.04	0.03
Commuting	0.15	9.32	0.58	0.04	0.09	0.08
Project Year 2020 Total	127.79	391.23	1,581.15	23.39	33.63	32.15
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	29.05	37.60	359.56	12.16	6.85	6.41
Ships - Precautionary Area Transit (1)	9.79	12.65	110.39	3.47	2.18	2.05
Ships - Harbor Transit (1)	11.36	11.14	98.89	2.20	2.14	2.00
Ships - Docking (1)	4.50	3.97	35.69	0.72	0.79	0.74
Ships - Hoteling Aux. Sources	2.42	14.20	68.36	5.62	1.31	1.23
Tugboats - Cargo Vessel Assist (1)	0.52	4.03	7.15	0.01	0.16	0.15
Terminal Equipment	1.65	34.89	26.55	0.18	0.34	0.31
On-road Trucks	37.59	154.51	395.34	2.28	10.81	9.95
Trains	30.88	104.40	439.58	0.38	8.01	8.01
Railyard Equipment	0.06	3.37	0.43	0.02	0.03	0.03
Commuting	0.11	7.44	0.41	0.05	0.13	0.12
Project Year 2030 Total	127.95	388.20	1,542.35	27.10	32.76	31.00

Note: (1) Includes auxiliary generator emissions.

Table A.1.2-Alt1M-32. Daily Operational Emissions -
POLB - Middle Harbor Terminal Mitigated Alternative 1.

Project Scenario/Source Type	Pounds Per Day (2)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	53	120	1,394	799	120	112
Ships - Precautionary Area Transit (1)	12	25	216	120	20	19
Ships - Harbor Transit (1)	15	23	180	76	19	17
Ships - Docking (1)	5	8	60	25	6	6
Ships - Hoteling Aux. Sources	53	190	1,910	1,756	98	92
Tugboats - Cargo Vessel Assist (1)	2	12	66	0	2	2
Terminal Equipment	68	207	1,380	27	33	30
On-road Trucks	495	2,287	7,341	42	370	341
Trains	17	37	260	20	9	9
Railyard Equipment	5	12	101	1	2	2
Commuting	4	119	10	0	0	0
Year 2005 Total	729	3,040	12,916	2,865	679	629
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	85	110	1,058	41	20	19
Ships - Precautionary Area Transit (1)	29	37	324	14	7	6
Ships - Harbor Transit (1)	33	32	284	11	6	6
Ships - Docking (1)	13	11	102	4	2	2
Ships - Hoteling Aux. Sources	36	107	971	83	20	19
Tugboats - Cargo Vessel Assist (1)	2	13	65	0	2	2
Terminal Equipment	24	114	683	1	14	13
On-road Trucks	396	1,709	5,906	9	45	42
Trains	13	34	186	4	5	5
Railyard Equipment	0	1	6	0	0	0
Commuting	2	86	6	0	0	0
Project Year 2010 Total	634	2,256	9,591	167	123	114
Net Change from 2005 CEQA Baseline	(95)	(784)	(3,325)	(2,698)	(556)	(515)
Net Change from NEPA Baseline Year 2010	17	85	274	(5)	2	2
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106	138	1,338	46	25	24
Ships - Precautionary Area Transit (1)	36	46	406	13	8	7
Ships - Harbor Transit (1)	41	40	354	8	8	7
Ships - Docking (1)	16	14	128	3	3	3
Ships - Hoteling Aux. Sources	9	56	262	22	5	5
Tugboats - Cargo Vessel Assist (1)	2	16	33	0	1	1
Terminal Equipment	12	210	220	1	2	2
On-road Trucks	142	653	1,950	7	33	30
Trains	163	449	2,272	2	60	55
Railyard Equipment	2	30	27	0	0	0
Commuting	1	64	4	0	0	0
Project Year 2015 Total	531	1,718	6,993	102	145	134
Net Change from 2005 CEQA Baseline	(198)	(1,323)	(5,923)	(2,763)	(534)	(495)
Net Change from NEPA Baseline Year 2015	12	68	292	(3)	18	16

<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	138	179	1,717	58	33	31
Ships - Precautionary Area Transit (1)	47	60	528	17	10	10
Ships - Harbor Transit (1)	51	52	460	11	10	9
Ships - Docking (1)	21	19	170	3	4	4
Ships - Hoteling Aux. Sources	12	67	326	27	6	6
Tugboats - Cargo Vessel Assist (1)	2	19	34	0	1	1
Terminal Equipment	7	160	111	1	2	1
On-road Trucks	230	945	2,609	10	49	45
Trains	191	572	2,704	2	70	64
Railyard Equipment	0	19	2	0	0	0
Commuting	1	51	3	0	1	0
Project Year 2020 Total	700	2,144	8,664	128	184	171
Net Change from 2005 CEQA Baseline	(29)	(897)	(4,253)	(2,737)	(494)	(458)
Net Change from NEPA Baseline Year 2020	75	214	1,048	4	26	24
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	159	206	1,970	67	38	35
Ships - Precautionary Area Transit (1)	54	69	605	19	12	11
Ships - Harbor Transit (1)	62	61	542	12	12	11
Ships - Docking (1)	25	22	196	4	4	4
Ships - Hoteling Aux. Sources	13	78	375	31	7	7
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	9	191	145	1	2	2
On-road Trucks	206	847	2,166	12	59	54
Trains	169	572	2,409	2	44	40
Railyard Equipment	0	18	2	0	0	0
Commuting	1	41	2	0	1	1
Project Year 2030 Total	701	2,127	8,451	148	179	166
Net Change from 2005 CEQA Baseline	(28)	(913)	(4,465)	(2,717)	(499)	(463)
Net Change from NEPA Baseline Year 2030	68	229	856	(8)	16	15
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (2) Equal to annual emissions divided by 365 days.

(1) Includes auxiliary generator emissions.

This page intentionally left blank.

Table A.1.2-Alt2U-1. Ship Visit and Throughput Data

Table A.1.2-Alt2U-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone

Table A.1.2-Alt2U-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area

Table A.1.2-Alt2U-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater

Table A.1.2-Alt2U-5. Annual Cargo Vessel Emissions for Docking Activities

Table A.1.2-Alt2U-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone

Table A.1.2-Alt2U-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt2U-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2-Alt2U-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater

Table A.1.2-Alt2U-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling

Table A.1.2-Alt2U-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt2U-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2-Alt2U-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater

Table A.1.2-Alt2U-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling

Table A.1.2-Alt2U-15. Annual Tugboat Emissions for Cargo Vessel Assists

Table A.1.2-Alt2U-16. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists

Table A.1.2-Alt2U-17. Annual Vessel Emissions

Table A.1.2-Alt2U-18. Daily Vessel Emissions

Table A.1.2-Alt2U-19. Train Trip Generation Rates

Table A.1.2-Alt2U-20. Annual Train Emissions - Year 2010

Table A.1.2-Alt2U-21. Annual Rail Yard Cargo Handling Equipment Emissions - Year 2010.

Table A.1.2-Alt2U-22. Annual Train Emissions - Year 2015.

Table A.1.2-Alt2U-23. Annual Rail Yard Cargo Handling Equipment Emissions - Year 2015.

Table A.1.2-Alt2U-24. Annual Train Emissions - Year 2020.

Table A.1.2-Alt2U-25. Annual Rail Yard Cargo Handling Equipment Emissions - Year 2020.

Table A.1.2-Alt2U-26. Annual Train Emissions - Year 2030.

Table A.1.2-Alt2U-27. Annual Rail Yard Cargo Handling Equipment Emissions - Year 2030.

Table A.1.2-Alt2U-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions -

Table A.1.2-Alt2U-29. Annual Truck Emissions for the MHTP

Table A.1.2-Alt2U-30. Terminal Equipment Annual Emissions

Table A.1.2-Alt2U-31. Annual Operational Emissions

Table A.1.2-Alt2U-32. Daily Operational Emissions

This page intentionally left blank.

Table A.1.2-Alt2U-1. Ship Visit and Throughput Data
POLB - MHTP - Unmitigated 315-Acre Alternative.

<i>Project Scenario/Ship Type</i>	<i>Annual Ship Visits</i>	<i>Annual Shifts</i>	<i>TEU Moves/ Ship Visit (1)</i>	<i>Hoteling Time/ Visit (Hours) (2)</i>	<i>Annual TEU Movements</i>
Baseline - Year 2005					
Subtotal					
Project Year 2010					
Containerships 8,000 - 9,999 TEU	52		12,719	42.10	661,375
Containerships 6,000 - 6,999 TEU	52		10,175	42.10	529,100
Containerships 4,000 - 4,999 TEU	104		4,163	42.10	432,900
Subtotal	208				1,623,375
Project Year 2015					
Containerships 8,000 - 9,999 TEU	52		12,580	39.71	654,160
Containerships 7,000 - 7,999 TEU	52		11,285	39.71	586,820
Containerships 6,000 - 6,999 TEU	52		10,175	39.71	529,100
Containerships 4,000 - 4,999 TEU	52		3,793	39.71	197,210
Containerships 3,000 - 3,999 TEU	52		4,070	39.71	211,640
Subtotal	260				2,178,930
Project Year 2020					
Containerships 10,000 - 11,999 TEU	52		15,818	38.63	822,510
Containerships 8,000 - 9,999 TEU	52		12,617	38.63	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	38.63	596,440
Containerships 4,000 - 4,999 TEU	52		3,330	38.63	173,160
Containerships 3,000 - 3,999 TEU	52		4,070	38.63	211,640
Subtotal	260				2,459,834
Project Year 2030					
Containerships 10,000 - 11,999 TEU					
Containerships 8,000 - 9,999 TEU	52		12,617	38.63	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	38.63	596,440
Containerships 6,000 - 6,999 TEU	104		9,805	38.63	1,019,720
Containerships 4,000 - 4,999 TEU	52		3,330	38.63	173,160
Containerships 3,000 - 3,999 TEU	104		4,070	38.63	423,280
Subtotal	364				2,868,684

Notes: (1) Source: Middle Harbor Vessel Allocation102406.xls (POLB 2006) Throughputs for vessels <3,000 and 3,000-5,000 TEUs based upon Middle Harbor. Throughput for 5,000-6,000 TEU vessels based upon average throughput of vessels >5000
(2) Source: Vessel Dwell Times 103106.xls (POLB 2006)

Table A.1.2-Alt2U-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - Unmitigated 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	4.51	6.58	54.25	15.09	3.39	3.26
Containerships 6,000 - 6,999 TEU	3.91	5.70	47.01	13.08	2.93	2.83
Containerships 4,000 - 4,999 TEU	5.09	7.65	67.38	19.51	4.08	3.93
Subtotal	13.50	19.93	168.64	47.68	10.40	10.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	1.17	0.61	0.56
Containerships 3,000 - 3,999 TEU	2.02	2.66	28.55	1.10	0.52	0.47
Subtotal	17.95	22.19	206.46	7.28	3.94	3.63
Project Year 2020						
Containerships 10,000 - 11,999 TEU	4.67	5.70	51.32	1.77	0.99	0.91
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	1.17	0.61	0.56
Containerships 3,000 - 3,999 TEU	2.02	2.66	28.55	1.10	0.52	0.47
Subtotal	18.48	22.83	212.24	7.48	4.05	3.73
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	8.29	10.12	91.08	3.14	1.76	1.62
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	1.17	0.61	0.56
Containerships 3,000 - 3,999 TEU	4.05	5.32	57.11	2.20	1.03	0.95
Subtotal	24.12	29.90	280.55	9.95	5.34	4.92

Note: Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2-Alt2U-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - Unmitigated 315-Acre Alternative.

<i>Project Scenario/Vessel Type</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.39	1.86	13.70	3.34	0.91	0.87
Containerships 6,000 - 6,999 TEU	1.21	1.61	11.87	2.89	0.78	0.76
Containerships 4,000 - 4,999 TEU	1.80	2.41	17.71	4.31	1.17	1.13
Subtotal	4.40	5.88	43.27	10.54	2.86	2.75
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.26	0.18	0.16
Containerships 3,000 - 3,999 TEU	0.64	0.78	7.03	0.24	0.14	0.13
Subtotal	5.68	6.42	52.29	1.61	1.06	0.98
Project Year 2020						
Containerships 10,000 - 11,999 TEU	1.44	1.61	12.96	0.39	0.27	0.24
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.26	0.18	0.16
Containerships 3,000 - 3,999 TEU	0.64	0.78	7.03	0.24	0.14	0.13
Subtotal	5.84	6.60	53.75	1.65	1.09	1.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	2.56	2.86	22.99	0.69	0.47	0.43
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.26	0.18	0.16
Containerships 3,000 - 3,999 TEU	1.28	1.56	14.07	0.49	0.27	0.25
Subtotal	7.60	8.63	70.82	2.20	1.44	1.32

Table A.1.2-Alt2U-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Alternative 1.

<i>Project Scenario/Vessel Type</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.26	1.17	7.49	0.91	0.60	0.57
Containerships 6,000 - 6,999 TEU	2.01	1.55	10.50	0.80	0.89	0.85
Containerships 4,000 - 4,999 TEU	1.56	1.46	9.33	1.13	0.74	0.71
Subtotal	4.83	4.18	27.32	2.84	2.22	2.14
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.07	0.11	0.10
Containerships 3,000 - 3,999 TEU	0.77	0.60	4.17	0.06	0.10	0.09
Subtotal	6.26	4.59	32.66	0.43	0.82	0.75
Project Year 2020						
Containerships 10,000 - 11,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.07	0.11	0.10
Containerships 3,000 - 3,999 TEU	0.77	0.60	4.17	0.06	0.10	0.09
Subtotal	5.46	4.26	29.75	0.45	0.73	0.67
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	4.27	2.75	20.33	0.19	0.53	0.49
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.07	0.11	0.10
Containerships 3,000 - 3,999 TEU	1.53	1.19	8.34	0.13	0.21	0.19
Subtotal	9.16	6.57	46.99	0.59	1.19	1.09

Table A.1.2-AIt2U-5. Annual Cargo Vessel Emissions for Docking Activities
POLB - MHTP - Unmitigated 315-Acre Alternative

<i>Project Scenario/Vessel Type</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.62	0.48	3.24	0.25	0.27	0.26
Containerships 6,000 - 6,999 TEU	0.57	0.44	2.98	0.23	0.25	0.24
Containerships 4,000 - 4,999 TEU	0.76	0.59	3.99	0.30	0.34	0.32
Subtotal	1.95	1.51	10.20	0.78	0.86	0.83
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.02	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.32	0.20	1.51	0.01	0.04	0.04
Subtotal	2.59	1.67	12.34	0.12	0.32	0.30
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.02	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.32	0.20	1.51	0.01	0.04	0.04
Subtotal	2.64	1.70	12.59	0.12	0.33	0.30
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	1.21	0.78	5.76	0.05	0.15	0.14
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.02	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.63	0.41	3.01	0.03	0.08	0.07
Subtotal	3.51	2.26	16.72	0.16	0.44	0.40

Table A.1.2-Alt2U-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone
POLB - MHTP - Unmitigated 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.36	0.82	10.63	4.91	0.70	0.67
Containerships 6,000 - 6,999 TEU	0.33	0.74	9.57	4.42	0.63	0.61
Containerships 4,000 - 4,999 TEU	0.36	0.80	10.41	4.81	0.68	0.66
Subtotal	1.05	2.35	30.61	14.13	2.01	1.94
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.14	0.29	3.65	0.11	0.07	0.06
Subtotal	1.41	2.98	37.64	1.08	0.68	0.62
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.46	0.98	12.40	0.36	0.22	0.21
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.14	0.29	3.65	0.11	0.07	0.06
Subtotal	1.52	3.22	40.74	1.17	0.73	0.67
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.70	1.47	18.60	0.54	0.33	0.31
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.27	0.58	7.30	0.21	0.13	0.12
Subtotal	1.89	4.00	50.59	1.46	0.91	0.84

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

(2) VSRP compliance = 100% for future years.

Table A.1.2-Alt2U-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area
POLB - MHTP - Unmitigated 315-Acre Alternative.

<i>Project Scenario/Vessel Type</i>	<i>Tons Per Year (1)</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.20	0.45	5.87	2.71	0.39	0.37
Containerships 6,000 - 6,999 TEU	0.18	0.41	5.28	2.44	0.35	0.33
Containerships 4,000 - 4,999 TEU	0.20	0.44	5.75	2.65	0.38	0.36
Subtotal	0.58	1.30	16.90	7.80	1.11	1.07
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.08	0.16	2.01	0.06	0.04	0.03
Subtotal	0.78	1.64	20.78	0.60	0.37	0.34
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.26	0.54	6.84	0.20	0.12	0.11
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.08	0.16	2.01	0.06	0.04	0.03
Subtotal	0.84	1.78	22.49	0.65	0.40	0.37
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.38	0.81	10.27	0.30	0.18	0.17
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.15	0.32	4.03	0.12	0.07	0.07
Subtotal	1.04	2.21	27.93	0.80	0.50	0.46

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2-Alt2U-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater
POLB - MHTP - Unmitigated 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.30	0.68	8.85	4.09	0.58	0.56
Containerships 6,000 - 6,999 TEU	0.27	0.61	7.97	3.68	0.52	0.50
Containerships 4,000 - 4,999 TEU	0.30	0.67	8.67	4.00	0.57	0.55
Subtotal	0.87	1.96	25.49	11.77	1.68	1.61
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.11	0.22	2.83	0.08	0.05	0.05
Subtotal	1.16	2.46	31.14	0.90	0.56	0.52
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.11	0.22	2.83	0.08	0.05	0.05
Subtotal	1.26	2.67	33.72	0.97	0.61	0.56
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.58	1.23	15.49	0.45	0.28	0.26
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.21	0.45	5.65	0.16	0.10	0.09
Subtotal	1.56	3.30	41.71	1.20	0.75	0.69

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2-Alt2U-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater
POLB - MHTP - Unmitigated 315-Acre Alternative

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.11	0.24	3.07	1.42	0.20	0.19
Containerships 6,000 - 6,999 TEU	0.09	0.21	2.77	1.28	0.18	0.18
Containerships 4,000 - 4,999 TEU	0.10	0.23	3.01	1.39	0.20	0.19
Subtotal	0.30	0.68	8.85	4.09	0.58	0.56
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.04	0.08	0.98	0.03	0.02	0.02
Subtotal	0.40	0.86	10.81	0.31	0.19	0.18
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.13	0.28	3.59	0.10	0.06	0.06
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.04	0.08	0.98	0.03	0.02	0.02
Subtotal	0.44	0.93	11.71	0.34	0.21	0.19
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.20	0.43	5.38	0.15	0.10	0.09
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.07	0.16	1.96	0.06	0.04	0.03
Subtotal	0.54	1.15	14.48	0.42	0.26	0.24

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2-AIt2U-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - Unmitigated 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	2.66	5.97	77.64	35.84	5.10	4.91
Containerships 6,000 - 6,999 TEU	2.39	5.38	69.88	32.25	4.59	4.42
Containerships 4,000 - 4,999 TEU	2.95	6.63	86.20	39.78	5.67	5.46
Subtotal	8.01	17.98	233.72	107.87	15.36	14.79
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.33	2.82	35.59	1.02	0.64	0.59
Containerships 7,000 - 7,999 TEU	1.20	2.54	32.04	0.92	0.58	0.53
Containerships 6,000 - 6,999 TEU	1.20	2.54	32.04	0.92	0.58	0.53
Containerships 4,000 - 4,999 TEU	0.74	1.56	19.76	0.57	0.36	0.33
Containerships 3,000 - 3,999 TEU	0.63	1.33	16.76	0.48	0.30	0.28
Subtotal	5.09	10.78	136.19	3.92	2.45	2.25
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.62	1.32	16.62	0.48	0.30	0.28
Containerships 8,000 - 9,999 TEU	0.52	1.10	13.85	0.40	0.25	0.23
Containerships 7,000 - 7,999 TEU	0.47	0.99	12.47	0.36	0.22	0.21
Containerships 4,000 - 4,999 TEU	0.29	0.61	7.69	0.22	0.14	0.13
Containerships 3,000 - 3,999 TEU	0.24	0.52	6.52	0.19	0.12	0.11
Subtotal	2.14	4.52	57.15	1.64	1.03	0.95
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.52	1.10	13.85	0.40	0.25	0.23
Containerships 7,000 - 7,999 TEU	0.47	0.99	12.47	0.36	0.22	0.21
Containerships 6,000 - 6,999 TEU	0.93	1.97	24.93	0.72	0.45	0.41
Containerships 4,000 - 4,999 TEU	0.24	0.52	6.52	0.19	0.12	0.11
Containerships 3,000 - 3,999 TEU	0.49	1.03	13.04	0.38	0.23	0.22
Subtotal	2.65	5.60	70.82	2.04	1.27	1.17

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths will be completed by then. Beginning in year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducing hoteling aux. gen. emissions by 90%.

Table A.1.2-Alt2U-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area
POLB - MHTP - Unmitigated 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.54	0.02	0.02
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.54	0.02	0.02
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.41	1.08	0.03	0.03
Subtotal	0.03	0.31	0.81	2.15	0.06	0.06
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Subtotal	0.03	0.39	0.99	0.16	0.02	0.02
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Subtotal	0.03	0.39	0.99	0.16	0.02	0.02
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Subtotal	0.04	0.54	1.38	0.22	0.03	0.03

Table A.1.2-AIt2U-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater
POLB - MHTP - Unmitigated 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.41	0.01	0.01
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.41	0.01	0.01
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.31	0.81	0.02	0.02
Subtotal	0.02	0.23	0.61	1.63	0.05	0.05
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Subtotal	0.02	0.29	0.75	0.12	0.02	0.01
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Subtotal	0.02	0.29	0.75	0.12	0.02	0.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Subtotal	0.03	0.41	1.04	0.17	0.02	0.02

Table A.1.2-Alt2U-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater
POLB - MHTP - Unmitigated 315-Acre Alternative

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.14	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.14	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.11	0.28	0.01	0.01
Subtotal	0.01	0.08	0.21	0.56	0.02	0.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Subtotal	0.01	0.10	0.26	0.04	0.01	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Subtotal	0.01	0.10	0.26	0.04	0.01	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Subtotal	0.01	0.14	0.36	0.06	0.01	0.01

Table A.1.2-Alt2U-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - Unmitigated 315-Acre Alternative.

<i>Project Scenario/Vessel Type</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.14	1.71	4.47	11.88	0.35	0.34
Containerships 6,000 - 6,999 TEU	0.14	1.71	4.47	11.88	0.35	0.34
Containerships 4,000 - 4,999 TEU	0.28	3.43	8.94	23.75	0.70	0.68
Subtotal	0.57	6.85	17.89	47.51	1.41	1.35
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Subtotal	0.67	8.08	20.57	3.28	0.43	0.39
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 4,000 - 4,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 3,000 - 3,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Subtotal	0.65	7.86	20.02	3.19	0.42	0.38
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 6,000 - 6,999 TEU	0.26	3.14	8.01	1.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 3,000 - 3,999 TEU	0.26	3.14	8.01	1.27	0.17	0.15
Subtotal	0.91	11.00	28.02	4.46	0.59	0.54

**Table A.1.2-Alt2U-15. Annual Tugboat Emissions for Cargo Vessel Assists
POLB - MHTP - Unmitigated 315-Acre Alternative.**

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year (1)</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.27	2.04	10.72	0.01	0.36	0.33
<i>Project Year 2015</i>	0.34	2.55	5.20	0.01	0.13	0.12
<i>Project Year 2020</i>	0.34	2.55	4.57	0.01	0.11	0.10
<i>Project Year 2030</i>	0.48	3.57	6.40	0.01	0.15	0.14

Note: (1) Assumes 3 tug assists per ship visit for all years.

**Table A.1.2-Alt2U-16. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists
POLB - MHTP - Unmitigated 315-Acre Alternative.**

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.02	0.26	1.06	0.00	0.04	0.03
<i>Project Year 2015</i>	0.03	0.33	0.77	0.00	0.02	0.02
<i>Project Year 2020</i>	0.03	0.33	0.54	0.00	0.01	0.01
<i>Project Year 2030</i>	0.04	0.46	0.75	0.00	0.02	0.02

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt2U-17. Annual Vessel Emissions
POLB - MHTP - Unmitigated 315-Acre Alternative.

Project Scenario/Emission Source	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.86
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Subtotal	25.44	69.07	697.99	506.60	48.24	45.30
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	14.55	22.28	199.25	61.81	12.41	11.95
Ships - Precautionary Area Transit (1)	5.00	7.49	60.98	20.50	4.04	3.89
Ships - Harbor Transit (1)	5.72	6.37	53.42	16.23	3.94	3.80
Ships - Docking (1)	2.26	2.27	19.26	5.43	1.46	1.40
Ships - Hoteling Aux. Sources	8.57	24.83	251.61	155.38	16.77	16.15
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Subtotal	36.42	65.55	596.30	259.34	39.02	37.55
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	8.37	4.62	4.25
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	2.37	1.46	1.34
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.45	1.40	1.28
Ships - Docking (1)	3.00	2.63	23.41	0.47	0.52	0.48
Ships - Hoteling Aux. Sources	5.76	18.86	156.76	7.20	2.88	2.65
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Subtotal	42.44	65.32	568.83	19.85	11.03	10.15
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	20.00	26.05	252.98	8.65	4.79	4.41
Ships - Precautionary Area Transit (1)	6.72	8.77	77.23	2.46	1.52	1.40
Ships - Harbor Transit (1)	6.75	7.22	64.21	1.54	1.36	1.25
Ships - Docking (1)	3.09	2.73	24.55	0.50	0.55	0.50
Ships - Hoteling Aux. Sources	2.79	12.38	77.16	4.83	1.45	1.33
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.11	0.01	0.12	0.11
Subtotal	39.71	60.03	501.25	17.99	9.77	8.99
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	26.01	33.91	331.14	11.41	6.25	5.75
Ships - Precautionary Area Transit (1)	8.69	11.38	100.13	3.22	1.97	1.81
Ships - Harbor Transit (1)	10.76	10.28	89.75	1.96	1.96	1.80
Ships - Docking (1)	4.06	3.55	31.57	0.63	0.71	0.65
Ships - Hoteling Aux. Sources	3.56	16.61	98.84	6.50	1.86	1.71
Tugboats - Cargo Vessel Assist (1)	0.52	4.03	7.15	0.01	0.16	0.15
Subtotal	53.60	79.75	658.58	23.74	12.91	11.88

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt2U-18. Daily Vessel Emissions
POLB - MHTP - Unmitigated 315-Acre Alternative.

Project Scenario/Emission Source	Pounds Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	52.7	120.0	1,394.0	798.6	119.5	112.0
Ships - Precautionary Area Transit (1)	11.7	25.4	215.8	119.6	19.8	18.6
Ships - Harbor Transit (1)	15.1	23.4	179.5	76.2	18.6	17.4
Ships - Docking (1)						
Ships - Hoteling Aux. Sources	53.3	189.6	1,909.6	1,755.7	98.0	92.4
Tugboats - Cargo Vessel Assist (1)	1.6	12.3	65.9	0.3	2.2	2.1
Subtotal	134	371	3,765	2,750	258	242
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	79.7	122.1	1,091.8	338.7	68.0	65.5
Ships - Precautionary Area Transit (1)	27.4	41.1	334.1	112.3	22.1	21.3
Ships - Harbor Transit (1)	31.3	34.9	292.7	88.9	21.6	20.8
Ships - Docking (1)	12.4	12.4	105.5	29.7	8.0	7.7
Ships - Hoteling Aux. Sources	47.0	136.1	1,378.7	851.4	91.9	88.5
Tugboats - Cargo Vessel Assist (1)	1.6	12.6	64.6	0.0	2.1	2.0
Subtotal	200	359	3,267	1,421	214	206
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106.1	137.9	1,337.5	45.8	25.3	23.3
Ships - Precautionary Area Transit (1)	35.6	46.3	405.8	13.0	8.0	7.4
Ships - Harbor Transit (1)	40.8	40.3	353.6	7.9	7.6	7.0
Ships - Docking (1)	16.4	14.4	128.2	2.6	2.9	2.6
Ships - Hoteling Aux. Sources	31.6	103.3	859.0	39.4	15.8	14.5
Tugboats - Cargo Vessel Assist (1)	2.1	15.8	32.7	0.1	0.8	0.8
Subtotal	233	358	3,117	109	60	56
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	109.6	142.8	1,386.2	47.4	26.2	24.1
Ships - Precautionary Area Transit (1)	36.8	48.0	423.2	13.5	8.3	7.7
Ships - Harbor Transit (1)	37.0	39.6	351.8	8.4	7.4	6.8
Ships - Docking (1)	16.9	15.0	134.5	2.7	3.0	2.7
Ships - Hoteling Aux. Sources	15.3	67.8	422.8	26.5	7.9	7.3
Tugboats - Cargo Vessel Assist (1)	2.1	15.8	28.0	0.1	0.6	0.6
Subtotal	218	329	2,747	99	54	49
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	142.5	185.8	1,814.5	62.5	34.3	31.5
Ships - Precautionary Area Transit (1)	47.6	62.4	548.7	17.7	10.8	9.9
Ships - Harbor Transit (1)	58.9	56.3	491.8	10.7	10.7	9.9
Ships - Docking (1)	22.3	19.5	173.0	3.5	3.9	3.6
Ships - Hoteling Aux. Sources	19.5	91.0	541.6	35.6	10.2	9.4
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.2	0.1	0.9	0.8
Subtotal	294	437	3,609	130	71	65

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt2U-19. Train Trip Generation Rates
 POLB - MHTP - 315-Acre Alternative.

<i>Project Scenario/Rail Yard</i>	<i>Annual Round Trips</i>
Year 2005 Baseline	
To/from Middle Harbor Railyard	138
Year 2010	
To/from Middle Harbor Railyard	120
Year 2015	
To/from Middle Harbor Railyard	1,653
Year 2020	
To/from Middle Harbor Railyard	2,114
Year 2030	
To/from Middle Harbor Railyard	2,095

Table A.1.2-Alt2U-20. Annual Train Emissions - Year 2010
POLB - MHTP Unmitigated 315-Acre Alternative.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.17	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.03	0.07	0.39	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	1.02	2.58	14.14	0.32	0.39	0.39
Haul Line Locomotive - Switching	0.11	0.27	1.48	0.03	0.04	0.04
Yard Locomotive	0.03	0.12	0.39	0.00	0.01	0.01
Subtotal	1.20	3.07	16.57	0.36	0.46	0.46
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.17	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.03	0.07	0.39	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	1.02	2.58	14.14	0.32	0.39	0.39
Haul Line Locomotive - Switching	0.04	0.11	0.59	0.01	0.02	0.02
Yard Locomotive	0.03	0.12	0.39	0.00	0.01	0.01
Subtotal	1.14	2.90	15.69	0.34	0.43	0.43
Total Tons Per Year	2.34	5.97	32.26	0.71	0.89	0.89

Table A.1.2-Alt2U-21. Annual Rail Yard Cargo Handling Equipment Emissions - Year 2010.
POLB - MHTP Unmitigated 315-Acre Alternative

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	196,119	0.07	0.40	1.75	0.00	0.06	0.05
Yard Tractor	127,963	0.00	0.12	0.09	0.00	0.00	0.00
Subtotal	324,081	0.07	0.52	1.85	0.00	0.06	0.05

Table A.1.2-Alt2U-22. Annual Train Emissions - Year 2015.
POLB - MHTP Unmitigated 315-Acre Alternative

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.43	2.21	0.00	0.06	0.06
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.36	0.98	5.00	0.00	0.13	0.13
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	13.04	35.52	182.04	0.13	4.80	4.80
Haul Line Locomotive - Switching	1.36	3.71	19.02	0.01	0.50	0.50
Yard Locomotive	0.40	1.60	5.41	0.00	0.12	0.12
Subtotal	15.32	42.24	213.68	0.15	5.60	5.60
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.43	2.21	0.00	0.06	0.06
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.36	0.98	5.00	0.00	0.13	0.13
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	13.04	35.52	182.04	0.13	4.80	4.80
Haul Line Locomotive - Switching	0.55	1.48	7.61	0.01	0.20	0.20
Yard Locomotive	0.40	1.60	5.41	0.00	0.12	0.12
Subtotal	14.50	40.01	202.27	0.15	5.30	5.30
Total Tons Per Year	29.82	82.26	415.95	0.30	10.90	10.90

Table A.1.2-Alt2U-23. Annual Rail Yard Cargo Handling Equipment Emissions - Year 2015.
POLB - MHTP Unmitigated 315-Acre Alternative

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	2,987,284	0.25	3.17	4.66	0.02	0.04	0.03
Yard Tractor	1,949,128	0.04	2.21	0.28	0.01	0.02	0.02
Subtotal	4,936,412	0.29	5.39	4.94	0.03	0.06	0.05

Table A.1.2-Alt2U-24. Annual Train Emissions - Year 2020.
POLB - MHTP Unmitigated 315-Acre Alternative

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.19	0.55	2.63	0.00	0.07	0.07
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.42	1.25	5.96	0.00	0.15	0.15
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	15.32	45.43	217.19	0.17	5.62	5.62
Haul Line Locomotive - Switching	1.60	4.75	22.70	0.02	0.59	0.59
Yard Locomotive	0.51	2.05	6.92	0.00	0.15	0.15
Subtotal	18.04	54.02	255.41	0.20	6.58	6.58
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.19	0.55	2.63	0.00	0.07	0.07
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.42	1.25	5.96	0.00	0.15	0.15
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	15.32	45.43	217.19	0.17	5.62	5.62
Haul Line Locomotive - Switching	0.64	1.90	9.08	0.01	0.23	0.23
Yard Locomotive	0.51	2.05	6.92	0.00	0.15	0.15
Subtotal	17.08	51.17	241.79	0.19	6.23	6.23
Total Tons Per Year	35.13	105.19	497.20	0.38	12.81	12.81

Table A.1.2-Alt2U-25. Annual Rail Yard Cargo Handling Equipment Emissions - Year 2020.
POLB - MHTP Unmitigated 315-Acre Alternative

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	3,794,215	0.34	4.23	6.17	0.02	0.02	0.02
Yard Tractor	2,475,631	0.06	3.07	0.39	0.02	0.02	0.02
Subtotal	6,269,847	0.41	7.30	6.55	0.04	0.04	0.04

Table A.1.2-Alt2U-26. Annual Train Emissions - Year 2030.
POLB - MHTP Unmitigated 315-Acre Alternative

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.55	2.34	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.37	1.24	5.31	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	13.40	45.02	193.44	0.17	3.52	3.52
Haul Line Locomotive - Switching	1.40	4.70	20.21	0.02	0.37	0.37
Yard Locomotive	0.51	2.03	4.23	0.00	0.08	0.08
Subtotal	15.84	53.54	225.54	0.19	4.11	4.11
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.55	2.34	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.37	1.24	5.31	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	13.40	45.02	193.44	0.17	3.52	3.52
Haul Line Locomotive - Switching	0.56	1.88	8.09	0.01	0.15	0.15
Yard Locomotive	0.51	2.03	4.23	0.00	0.08	0.08
Subtotal	15.00	50.71	213.41	0.18	3.89	3.89
Total Tons Per Year	30.84	104.25	438.95	0.38	8.00	8.00

Table A.1.2-Alt2U-27. Annual Rail Yard Cargo Handling Equipment Emissions - Year 2030.
POLB - MHTP Unmitigated 315-Acre Alternative

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	4,048,199	0.40	4.73	6.84	0.03	0.06	0.06
Yard Tractor	2,641,349	0.06	3.01	0.38	0.02	0.03	0.03
Subtotal	6,689,548.38	0.45	7.74	7.23	0.04	0.09	0.08

Table A.1.2-Alt2U-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP Unmitigated 315-Acre Alternative.

Project Scenario/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Baseline Year 2005</i>						
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Subtotal	3.99	8.94	65.93	3.78	2.04	2.01
<i>Project Year 2010</i>						
Trains	2.34	5.97	32.26	0.71	0.89	0.89
Railyard Equipment	0.07	0.52	1.85	0.00	0.06	0.05
Subtotal	2.41	6.49	34.10	0.71	0.95	0.94
<i>Project Year 2015</i>						
Trains	29.82	82.26	415.95	0.30	10.90	10.90
Railyard Equipment	0.29	5.39	4.94	0.03	0.06	0.05
Subtotal	30.11	87.64	420.89	0.33	10.96	10.95
<i>Project Year 2020</i>						
Trains	35.13	105.19	497.20	0.38	12.81	12.81
Railyard Equipment	0.41	7.30	6.55	0.04	0.04	0.04
Subtotal	35.54	112.50	503.75	0.42	12.85	12.84
<i>Project Year 2030</i>						
Trains - 2030	30.84	104.25	438.95	0.38	8.00	8.00
Railyard Equipment - 2030	0.45	7.74	7.23	0.04	0.09	0.08
Subtotal	31.29	111.99	446.18	0.42	8.09	8.08

Table A.1.2-Alt2U-29. Annual Truck Emissions for the MHTP
POLB - Unmitigated 315-Acre Alternative.

Location/Project Scenario - Mode	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>On-Terminal</i>						
Year 2005 - Idling	7.67	13.79	53.59	0.39	1.15	1.06
Year 2005 - Driving	8.58	13.90	25.32	0.15	2.75	2.53
Subtotal - Year 2005	16.26	27.69	78.91	0.54	3.89	3.58
Year 2010 - Idling	2.99	7.14	36.19	0.02	0.34	0.31
Year 2010 - Driving	11.20	16.83	35.27	0.03	0.42	0.39
Subtotal - Year 2010	14.19	23.97	71.46	0.05	0.76	0.70
Year 2015 - Idling	2.11	5.87	33.79	0.02	0.02	0.02
Year 2015 - Driving	2.61	5.12	10.49	0.02	0.07	0.06
Subtotal - Year 2015	4.72	10.99	44.27	0.05	0.09	0.08
Year 2020 - Idling	2.21	6.15	35.37	0.02	0.03	0.02
Year 2020 - Driving	3.03	5.96	10.34	0.03	0.08	0.08
Subtotal - Year 2020	5.24	12.10	45.71	0.05	0.11	0.10
Year 2030 - Idling	2.83	7.86	45.23	0.03	0.03	0.03
Year 2030 - Driving	2.56	5.08	7.81	0.03	0.11	0.10
Subtotal - Year 2030	5.38	12.94	53.04	0.06	0.14	0.13
Year 2040 - Idling	2.83	7.86	45.23	0.03	0.03	0.03
Year 2040 - Driving	2.48	4.94	7.69	0.03	0.10	0.09
Subtotal - Year 2040	5.31	12.80	52.92	0.06	0.13	0.12
<i>Off-Terminal</i>						
Subtotal - Year 2005	72.78	387.35	1,256.64	7.01	63.21	58.16
Subtotal - Year 2010	60.26	265.53	1,373.73	1.38	10.41	9.58
Subtotal - Year 2015	21.33	108.54	318.27	1.18	5.84	5.37
Subtotal - Year 2020	25.14	128.20	318.45	1.25	7.66	7.05
Subtotal - Year 2030	24.47	109.77	261.01	1.63	8.45	7.77
<i>Total Annual Truck Emissions by Project Year</i>						
Year 2005	89.03	415.04	1,335.56	7.55	67.10	61.74
Year 2010	74.45	289.50	1,445.19	1.43	11.17	10.28
Year 2015	26.05	119.53	362.54	1.22	5.93	5.46
Year 2020	30.38	140.31	364.16	1.30	7.77	7.15
Year 2030	29.85	122.72	314.05	1.69	8.59	7.90

Table A.1.2-AltU2-30. Terminal Equipment Annual Emissions
POLB - MHTP - Unmitigated 315-Acre Alternative.

Equipment Type	Annual Hp-Hrs	Annual Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2005							
Pier E							
Subtotal		6.17	21.60	113.81	1.06	3.46	3.19
Pier F							
Subtotal		6.17	15.86	137.39	1.59	2.51	2.31
Subtotal - Baseline - 2005		12.34	37.46	251.19	2.64	5.97	5.49
Project Year 2010							
Pier E							
RTG (CY)	12,375,969	4.28	25.00	110.72	0.08	3.49	3.21
Top-Pick	3,494,694	0.65	2.55	20.27	0.02	0.46	0.42
Side-Pick	1,646,729	0.39	1.16	11.90	0.01	0.42	0.38
Yard Tractor (CY)	4,809,405	0.11	4.62	3.47	0.03	0.11	0.10
Subtotal	22,326,797	5.43	33.33	146.37	0.15	4.47	4.11
Pier F							
RTG (CY)	1,810,343	0.63	3.66	16.20	0.01	0.51	0.47
Top-Pick	617,459	0.11	0.45	3.58	0.00	0.08	0.07
Side-Pick	456,408	0.11	0.32	3.30	0.00	0.12	0.11
Yard Tractor (CY)	1,521,609	0.04	1.46	1.10	0.01	0.03	0.03
Subtotal	4,405,819	0.88	5.89	24.17	0.03	0.74	0.68
Subtotal - Project Year 2010	26,732,616	6.32	39.22	170.54	0.18	5.21	4.79
Project Year 2015							
RTG (CY)	15,402,340	1.29	16.37	24.02	0.10	0.19	0.18
Top-Pick	5,259,508	0.45	5.67	8.31	0.04	0.07	0.06
Side-Pick	2,830,414	0.27	6.01	6.01	0.02	0.04	0.03
Yard Tractor (CY)	8,584,146	0.19	9.75	1.24	0.06	0.09	0.08
Subtotal - Project Year 2015	32,076,408	2.20	37.79	39.57	0.22	0.38	0.35
Project Year 2020							
RTG (CY)	15,139,138	1.37	16.89	24.60	0.10	0.10	0.09
Top-Pick	5,291,798	0.51	6.13	8.88	0.04	0.04	0.03
Side-Pick	3,220,663	0.34	7.21	7.19	0.02	0.02	0.02
Yard Tractor (CY)	9,766,118	0.25	12.12	1.52	0.07	0.07	0.06
Subtotal - Project Year 2020	33,417,717	2.47	42.35	42.18	0.23	0.23	0.21
Project Year 2030							
RTG (CY)	20,306,600	1.99	23.72	34.33	0.13	0.32	0.29
Top-Pick	6,891,582	0.74	8.53	12.24	0.05	0.12	0.11
Side-Pick	3,889,070	0.45	9.16	9.09	0.03	0.06	0.06
Yard Tractor (CY)	11,274,822	0.25	12.86	1.63	0.08	0.12	0.11
Subtotal - Project Year 2030	42,362,074	3.43	54.27	57.29	0.29	0.62	0.57

Table A.1.2-AIU2-31. Annual Operational Emissions
POLB - MHTP Unmitigated 315-Acre Alternative.

Project Scenario/Source Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.76
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Terminal Equipment	12.42	37.75	251.88	4.93	6.00	5.52
On-road Trucks	89.03	415.04	1,335.56	7.55	67.10	61.74
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Commuting	0.73	21.79	1.79	0.03	0.04	0.04
Year 2005 Total	131.61	552.59	2,353.14	522.88	123.42	114.50
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	14.55	22.28	199.25	61.81	12.41	11.63
Ships - Precautionary Area Transit (1)	5.00	7.49	60.98	20.50	4.04	3.78
Ships - Harbor Transit (1)	5.72	6.37	53.42	16.23	3.94	3.70
Ships - Docking (1)	2.26	2.27	19.26	5.43	1.46	1.37
Ships - Hoteling Aux. Sources	8.57	24.83	251.61	155.38	16.77	15.71
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Terminal Equipment	6.32	39.22	170.54	0.18	5.21	4.79
On-road Trucks	74.45	289.50	1,445.19	1.43	11.17	10.28
Trains	2.34	5.97	32.26	0.71	0.89	0.89
Railyard Equipment	0.07	0.52	1.85	0.00	0.06	0.05
Commuting	0.36	14.11	1.06	0.03	0.05	0.05
Project Year 2010 Total	119.95	414.88	2,247.20	261.69	56.40	52.62
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	8.37	4.62	4.33
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	2.37	1.46	1.37
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.45	1.40	1.31
Ships - Docking (1)	3.00	2.63	23.41	0.47	0.52	0.49
Ships - Hoteling Aux. Sources	5.76	18.86	156.76	7.20	2.88	2.70
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Terminal Equipment	2.20	37.79	39.57	0.22	0.38	0.35
On-road Trucks	26.05	119.53	362.54	1.22	5.93	5.46
Trains	29.82	82.26	415.95	0.30	10.90	10.90
Railyard Equipment	0.29	5.39	4.94	0.03	0.06	0.05
Commuting	0.23	11.61	0.78	0.04	0.08	0.07
Project Year 2015 Total	101.03	321.90	1,392.61	21.66	28.37	27.16
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	20.00	26.05	252.98	8.65	4.79	4.49
Ships - Precautionary Area Transit (1)	6.72	8.77	77.23	2.46	1.52	1.42
Ships - Harbor Transit (1)	6.75	7.22	64.21	1.54	1.36	1.27
Ships - Docking (1)	3.09	2.73	24.55	0.50	0.55	0.51
Ships - Hoteling Aux. Sources	2.79	12.38	77.16	4.83	1.45	1.36
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.11	0.01	0.12	0.11
Terminal Equipment	2.47	42.35	42.18	0.23	0.23	0.21
On-road Trucks	30.38	140.31	364.16	1.30	7.77	7.15
Trains	35.13	105.19	497.20	0.38	12.81	12.81
Railyard Equipment	0.41	7.30	6.55	0.04	0.04	0.04
Commuting	0.13	8.01	0.50	0.04	0.08	0.07
Project Year 2020 Total	108.24	363.19	1,411.84	19.97	30.69	29.43
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	26.01	33.91	331.14	11.41	6.25	5.86
Ships - Precautionary Area Transit (1)	8.69	11.38	100.13	3.22	1.97	1.84
Ships - Harbor Transit (1)	10.76	10.28	89.75	1.96	1.96	1.84
Ships - Docking (1)	4.06	3.55	31.57	0.63	0.71	0.66
Ships - Hoteling Aux. Sources	3.56	16.61	98.84	6.50	1.86	1.74
Tugboats - Cargo Vessel Assist (1)	0.52	4.03	7.15	0.01	0.16	0.15
Terminal Equipment	3.43	54.27	57.29	0.29	0.62	0.57
On-road Trucks	29.85	122.72	314.05	1.69	8.59	7.90
Trains	30.84	104.25	438.95	0.38	8.00	8.00
Railyard Equipment	0.45	7.74	7.23	0.04	0.09	0.08
Commuting	0.09	6.12	0.34	0.04	0.11	0.10
Project Year 2030 Total	118.26	374.85	1,476.43	26.18	30.31	28.74

Note: (1) Includes auxiliary generator emissions.

Table A.1.2-AIU2-32. Daily Operational Emissions
POLB - MHTP Unmitigated 315-Acre Alternative.

Project Scenario/Source Type	Pounds Per Day (2)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	53	120	1,394	799	120	112
Ships - Precautionary Area Transit (1)	12	25	216	120	20	19
Ships - Harbor Transit (1)	15	23	180	76	19	17
Ships - Docking (1)	5	8	60	25	6	6
Ships - Hoteling Aux. Sources	53	190	1,910	1,756	98	92
Tugboats - Cargo Vessel Assist (1)	2	12	66	0	2	2
Terminal Equipment	68	207	1,380	27	33	30
On-road Trucks	488	2,274	7,318	41	368	338
Trains	17	37	260	20	9	9
Railyard Equipment	5	12	101	1	2	2
Commuting	4	119	10	0	0	0
Year 2005 Total	721	3,028	12,894	2,865	676	627
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	80	122	1,092	339	68	64
Ships - Precautionary Area Transit (1)	27	41	334	112	22	21
Ships - Harbor Transit (1)	31	35	293	89	22	20
Ships - Docking (1)	12	12	106	30	8	7
Ships - Hoteling Aux. Sources	47	136	1,379	851	92	86
Tugboats - Cargo Vessel Assist (1)	2	13	65	0	2	2
Terminal Equipment	35	215	934	1	29	26
On-road Trucks	408	1,586	7,919	8	61	56
Trains	13	33	177	4	5	4
Railyard Equipment	0	3	10	0	0	0
Commuting	2	77	6	0	0	0
Project Year 2010 Total	657	2,273	12,313	1,434	309	288
Net Change from 2005 CEQA Baseline	(64)	(755)	(580)	(1,431)	(367)	(339)
Net Change from NEPA Baseline Year 2010	41	103	2,996	1,262	189	176
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106	138	1,338	46	25	24
Ships - Precautionary Area Transit (1)	36	46	406	13	8	7
Ships - Harbor Transit (1)	41	40	354	8	8	7
Ships - Docking (1)	16	14	128	3	3	3
Ships - Hoteling Aux. Sources	32	103	859	39	16	15
Tugboats - Cargo Vessel Assist (1)	2	16	33	0	1	1
Terminal Equipment	12	207	217	1	2	2
On-road Trucks	143	655	1,987	7	32	30
Trains	163	451	2,279	2	60	55
Railyard Equipment	2	30	27	0	0	0
Commuting	1	64	4	0	0	0
Project Year 2015 Total	554	1,764	7,631	119	155	144
Net Change from 2005 CEQA Baseline	(168)	(1,264)	(5,263)	(2,746)	(521)	(483)
Net Change from NEPA Baseline Year 2015	35	115	929	13	28	26
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	110	143	1,386	47	26	25
Ships - Precautionary Area Transit (1)	37	48	423	13	8	8
Ships - Harbor Transit (1)	37	40	352	8	7	7
Ships - Docking (1)	17	15	135	3	3	3
Ships - Hoteling Aux. Sources	15	68	423	26	8	7
Tugboats - Cargo Vessel Assist (1)	2	16	28	0	1	1
Terminal Equipment	14	232	231	1	1	1
On-road Trucks	166	769	1,995	7	43	39
Trains	192	576	2,724	2	70	65
Railyard Equipment	2	40	36	0	0	0
Commuting	1	44	3	0	0	0
Project Year 2020 Total	593	1,990	7,736	109	168	156
Net Change from 2005 CEQA Baseline	(128)	(1,038)	(5,158)	(2,756)	(508)	(471)
Net Change from NEPA Baseline Year 2020	(32)	60	120	(15)	10	9
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	143	186	1,814	63	34	32
Ships - Precautionary Area Transit (1)	48	62	549	18	11	10
Ships - Harbor Transit (1)	59	56	492	11	11	10
Ships - Docking (1)	22	19	173	3	4	4
Ships - Hoteling Aux. Sources	19	91	542	36	10	10
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	19	297	314	2	3	3
On-road Trucks	164	672	1,721	9	47	43
Trains	169	571	2,405	2	44	40
Railyard Equipment	2	42	40	0	0	0
Commuting	0	34	2	0	1	1
Project Year 2030 Total	648	2,054	8,090	143	166	154
Net Change from 2005 CEQA Baseline	(73)	(974)	(4,804)	(2,722)	(510)	(473)
Net Change from NEPA Baseline Year 2030	15	156	495	(13)	3	3
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (2) Equal to annual emissions divided by 365 days.

(1) Includes auxiliary generator emissions.

This page intentionally left blank.

Table A.1.2-Alt2M-1. Ship Visit and Throughput Data - POLB - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone - POLB - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area - POLB - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater - POLB - MHTP - Alternative 1.

Table A.1.2-Alt2M-5. Annual Cargo Vessel Emissions for Docking Activities - POLB - MHTP - 315-Acre Alternative

Table A.1.2-Alt2M-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone

Table A.1.2-Alt2M-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt2M-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2-Alt2M-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater

Table A.1.2-Alt2M-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling - POLB - MHTP - 315-Acre Alternative

Table A.1.2-Alt2M-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt2M-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2-Alt2M-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater

Table A.1.2-Alt2M-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling - POLB - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-15. Annual Tugboat Emissions for Cargo Vessel Assists - POLB - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-16. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists

Table A.1.2-Alt2M-17. Annual Vessel Emissions - POLB - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-18. Daily Vessel Emissions - POLB - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-19. Train Trip Generation Rates - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-20. Annual Train Emissions - POLB - MHTP 315-Acre Alternative Year 2010.

Table A.1.2-Alt2M-21. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 315-Acre Alternative Year 2010.

Table A.1.2-Alt2M-22. Annual Train Emissions - POLB - MHTP 315-Acre Alternative Year 2015.

Table A.1.2-Alt2M-23. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 315-Acre Alternative Year 2015.

Table A.1.2-Alt2M-24. Annual Train Emissions - POLB - MHTP 315-Acre Alternative Year 2020.

Table A.1.2-Alt2M-25. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 315-Acre Alternative Year 2020.

Table A.1.2-Alt2M-26. Annual Train Emissions - POLB - MHTP 315-Acre Alternative Year 2030.

Table A.1.2-Alt2M-27. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 315-Acre Alternative Year 2030.

Table A.1.2-Alt2M-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions -

Table A.1.2-Alt2M-29. Annual Truck Emissions - POLB - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-30. Terminal Equipment Annual Emissions - POLB - MHTP - 315-Acre Alternative.

Table A.1.2-Alt2M-31. Annual Operational Emissions - POLB - MHTP 315-Acre Alternative.

Table A.1.2-Alt2M-32. Daily Operational Emissions - POLB - MHTP 315-Acre Alternative.

This page intentionally left blank.

Table A.1.2-Alt2M-1. Ship Visit and Throughput Data - POLB - MHTP - 315-Acre Alternative.

<i>Project Scenario/Ship Type</i>	<i>Annual Ship Visits</i>		<i>TEU Moves/ Ship Visit (1)</i>	<i>Hoteling Time/ Visit (Hours) (2)</i>	<i>Annual TEU Movements</i>
Baseline - Year 2005					
Subtotal					
Project Year 2010					
Containerships 8,000 - 9,999 TEU	52		12,719	42.10	661,375
Containerships 6,000 - 6,999 TEU	52		10,175	42.10	529,100
Containerships 4,000 - 4,999 TEU	104		4,163	42.10	432,900
Subtotal	208				1,623,375
Project Year 2015					
Containerships 8,000 - 9,999 TEU	52		12,580	39.71	654,160
Containerships 7,000 - 7,999 TEU	52		11,285	39.71	586,820
Containerships 6,000 - 6,999 TEU	52		10,175	39.71	529,100
Containerships 4,000 - 4,999 TEU	52		3,793	39.71	197,210
Containerships 3,000 - 3,999 TEU	52		4,070	39.71	211,640
Subtotal	260				2,178,930
Project Year 2020					
Containerships 10,000 - 11,999 TEU	52		15,818	38.63	822,510
Containerships 8,000 - 9,999 TEU	52		12,617	38.63	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	38.63	596,440
Containerships 4,000 - 4,999 TEU	52		3,330	38.63	173,160
Containerships 3,000 - 3,999 TEU	52		4,070	38.63	211,640
Subtotal	260				2,459,834
Project Year 2030					
Containerships 10,000 - 11,999 TEU					
Containerships 8,000 - 9,999 TEU	52		12,617	38.63	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	38.63	596,440
Containerships 6,000 - 6,999 TEU	104		9,805	38.63	1,019,720
Containerships 4,000 - 4,999 TEU	52		3,330	38.63	173,160
Containerships 3,000 - 3,999 TEU	104		4,070	38.63	423,280
Subtotal	364				2,868,684

Notes: (1) Source: Middle Harbor Vessel Allocation102406.xls (POLB 2006) Throughputs for vessels <3,000 and 3,000-5,000 TEUs based upon Middle Harbor. Throughput for 5,000-6,000 TEU vessels based upon average throughput of vessels >5000

(2) Source: Vessel Dwell Times 103106.xls (POLB 2006)

Table A.1.2-Alt2M-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone - POLB - MHTP - 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 4,000 - 4,999 TEU	5.40	6.79	65.27	2.34	1.23	1.13
Subtotal	14.33	17.68	163.35	5.73	3.13	2.88
Project Year 2015						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	1.17	0.61	0.56
Containerships 3,000 - 3,999 TEU	2.02	2.66	28.55	1.10	0.52	0.47
Subtotal	17.95	22.19	206.46	7.28	3.94	3.63
Project Year 2020						
Containerships 10,000 - 11,999 TEU	4.67	5.70	51.32	1.77	0.99	0.91
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	1.17	0.61	0.56
Containerships 3,000 - 3,999 TEU	2.02	2.66	28.55	1.10	0.52	0.47
Subtotal	18.48	22.83	212.24	7.48	4.05	3.73
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	8.29	10.12	91.08	3.14	1.76	1.62
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	1.17	0.61	0.56
Containerships 3,000 - 3,999 TEU	4.05	5.32	57.11	2.20	1.03	0.95
Subtotal	24.12	29.90	280.55	9.95	5.34	4.92

Note: (1) VSRP compliance = 100% for future years.

Table A.1.2-Alt2M-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area - POLB - MHTP - 315-Acre Alternat

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 4,000 - 4,999 TEU	1.91	2.14	17.15	0.52	0.35	0.32
Subtotal	4.67	5.22	41.92	1.27	0.86	0.79
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.26	0.18	0.16
Containerships 3,000 - 3,999 TEU	0.64	0.78	7.03	0.24	0.14	0.13
Subtotal	5.68	6.42	52.29	1.61	1.06	0.98
Project Year 2020						
Containerships 10,000 - 11,999 TEU	1.44	1.61	12.96	0.39	0.27	0.24
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.26	0.18	0.16
Containerships 3,000 - 3,999 TEU	0.64	0.78	7.03	0.24	0.14	0.13
Subtotal	5.84	6.60	53.75	1.65	1.09	1.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	2.56	2.86	22.99	0.69	0.47	0.43
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.26	0.18	0.16
Containerships 3,000 - 3,999 TEU	1.28	1.56	14.07	0.49	0.27	0.25
Subtotal	7.60	8.63	70.82	2.20	1.44	1.32

Table A.1.2-Alt2M-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater - POLB - MHTP - Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 4,000 - 4,999 TEU	1.66	1.29	9.03	0.14	0.22	0.20
Subtotal	5.12	3.71	26.46	0.34	0.67	0.61
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.07	0.11	0.10
Containerships 3,000 - 3,999 TEU	0.77	0.60	4.17	0.06	0.10	0.09
Subtotal	6.26	4.59	32.66	0.43	0.82	0.75
Project Year 2020						
Containerships 10,000 - 11,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.07	0.11	0.10
Containerships 3,000 - 3,999 TEU	0.77	0.60	4.17	0.06	0.10	0.09
Subtotal	5.46	4.26	29.75	0.45	0.73	0.67
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	4.27	2.75	20.33	0.19	0.53	0.49
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.07	0.11	0.10
Containerships 3,000 - 3,999 TEU	1.53	1.19	8.34	0.13	0.21	0.19
Subtotal	9.16	6.57	46.99	0.59	1.19	1.09

Table A.1.2-Alt2M-5. Annual Cargo Vessel Emissions for Docking Activities - POLB - MHTP - 315-Acre Alternative

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.81	0.52	3.86	0.04	0.10	0.09
Subtotal	2.07	1.34	9.88	0.09	0.26	0.24
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.02	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.32	0.20	1.51	0.01	0.04	0.04
Subtotal	2.59	1.67	12.34	0.12	0.32	0.30
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.02	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.32	0.20	1.51	0.01	0.04	0.04
Subtotal	2.64	1.70	12.59	0.12	0.33	0.30
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	1.21	0.78	5.76	0.05	0.15	0.14
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.02	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.63	0.41	3.01	0.03	0.08	0.07
Subtotal	3.51	2.26	16.72	0.16	0.44	0.40

Table A.1.2-Alt2M-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone
POLB - MHTP - 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.61	0.21	0.19
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.55	0.19	0.17
Containerships 4,000 - 4,999 TEU	0.38	0.80	10.12	0.60	0.21	0.19
Subtotal	1.11	2.35	29.75	1.77	0.60	0.56
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.14	0.29	3.65	0.11	0.07	0.06
Subtotal	1.41	2.98	37.64	1.08	0.68	0.62
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.46	0.98	12.40	0.36	0.22	0.21
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.14	0.29	3.65	0.11	0.07	0.06
Subtotal	1.52	3.22	40.74	1.17	0.73	0.67
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.70	1.47	18.60	0.54	0.33	0.31
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.27	0.58	7.30	0.21	0.13	0.12
Subtotal	1.89	4.00	50.59	1.46	0.91	0.84

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) VSRP compliance = 100% for future years.

Table A.1.2-Alt2M-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area
POLB - MHTP - 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.34	0.12	0.11
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.30	0.10	0.10
Containerships 4,000 - 4,999 TEU	0.21	0.44	5.59	0.33	0.11	0.10
Subtotal	0.61	1.30	16.43	0.97	0.33	0.31
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.08	0.16	2.01	0.06	0.04	0.03
Subtotal	0.78	1.64	20.78	0.60	0.37	0.34
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.26	0.54	6.84	0.20	0.12	0.11
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.08	0.16	2.01	0.06	0.04	0.03
Subtotal	0.84	1.78	22.49	0.65	0.40	0.37
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.38	0.81	10.27	0.30	0.18	0.17
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.15	0.32	4.03	0.12	0.07	0.07
Subtotal	1.04	2.21	27.93	0.80	0.50	0.46

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt2M-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater
POLB - MHTP - 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.51	0.17	0.16
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.46	0.16	0.14
Containerships 4,000 - 4,999 TEU	0.32	0.67	8.43	0.50	0.17	0.16
Subtotal	0.93	1.96	24.78	1.47	0.50	0.46
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.11	0.22	2.83	0.08	0.05	0.05
Subtotal	1.16	2.46	31.14	0.90	0.56	0.52
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.11	0.22	2.83	0.08	0.05	0.05
Subtotal	1.26	2.67	33.72	0.97	0.61	0.56
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.58	1.23	15.49	0.45	0.28	0.26
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.21	0.45	5.65	0.16	0.10	0.09
Subtotal	1.56	3.30	41.71	1.20	0.75	0.69

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt2M-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater
POLB - MHTP - 315-Acre Alternative

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.18	0.06	0.06
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.16	0.05	0.05
Containerships 4,000 - 4,999 TEU	0.11	0.23	2.93	0.17	0.06	0.05
Subtotal	0.32	0.68	8.60	0.51	0.17	0.16
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.04	0.08	0.98	0.03	0.02	0.02
Subtotal	0.40	0.86	10.81	0.31	0.19	0.18
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.13	0.28	3.59	0.10	0.06	0.06
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.04	0.08	0.98	0.03	0.02	0.02
Subtotal	0.44	0.93	11.71	0.34	0.21	0.19
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.20	0.43	5.38	0.15	0.10	0.09
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.07	0.16	1.96	0.06	0.04	0.03
Subtotal	0.54	1.15	14.48	0.42	0.26	0.24

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt2M-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling - POLB - MHTP - 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.98	4.20	53.06	3.15	1.08	0.99
Containerships 6,000 - 6,999 TEU	1.79	3.78	47.75	2.83	0.97	0.89
Containerships 4,000 - 4,999 TEU	2.20	4.66	58.90	3.50	1.20	1.10
Subtotal	5.97	12.64	159.71	9.48	3.25	2.99
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.27	0.56	7.12	0.20	0.13	0.12
Containerships 7,000 - 7,999 TEU	0.24	0.51	6.41	0.18	0.12	0.11
Containerships 6,000 - 6,999 TEU	0.24	0.51	6.41	0.18	0.12	0.11
Containerships 4,000 - 4,999 TEU	0.15	0.31	3.95	0.11	0.07	0.07
Containerships 3,000 - 3,999 TEU	0.13	0.27	3.35	0.10	0.06	0.06
Subtotal	1.02	2.16	27.24	0.78	0.49	0.45
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.31	0.66	8.31	0.24	0.15	0.14
Containerships 8,000 - 9,999 TEU	0.26	0.55	6.93	0.20	0.12	0.11
Containerships 7,000 - 7,999 TEU	0.23	0.49	6.23	0.18	0.11	0.10
Containerships 4,000 - 4,999 TEU	0.14	0.30	3.84	0.11	0.07	0.06
Containerships 3,000 - 3,999 TEU	0.12	0.26	3.26	0.09	0.06	0.05
Subtotal	1.07	2.26	28.57	0.82	0.51	0.47
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.26	0.55	6.93	0.20	0.12	0.11
Containerships 7,000 - 7,999 TEU	0.23	0.49	6.23	0.18	0.11	0.10
Containerships 6,000 - 6,999 TEU	0.47	0.99	12.47	0.36	0.22	0.21
Containerships 4,000 - 4,999 TEU	0.12	0.26	3.26	0.09	0.06	0.05
Containerships 3,000 - 3,999 TEU	0.24	0.52	6.52	0.19	0.12	0.11
Subtotal	1.32	2.80	35.41	1.02	0.64	0.59

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths will be completed by then. Beginning in year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducing hoteling aux. gen. emissions by 90%.

Table A.1.2-Alt2M-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area
POLB - MHTP - 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.06	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.06	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.40	0.13	0.01	0.01
Subtotal	0.03	0.31	0.79	0.26	0.02	0.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Subtotal	0.03	0.39	0.99	0.16	0.02	0.02
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Subtotal	0.03	0.39	0.99	0.16	0.02	0.02
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Subtotal	0.04	0.54	1.38	0.22	0.03	0.03

Table A.1.2-Alt2M-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater
POLB - MHTP - 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.05	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.05	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.30	0.10	0.01	0.01
Subtotal	0.02	0.23	0.60	0.20	0.01	0.01
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Subtotal	0.02	0.29	0.75	0.12	0.02	0.01
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Subtotal	0.02	0.29	0.75	0.12	0.02	0.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Subtotal	0.03	0.41	1.04	0.17	0.02	0.02

Table A.1.2-Alt2M-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater
POLB - MHTP - 315-Acre Alternative

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.10	0.03	0.00	0.00
Subtotal	0.01	0.08	0.21	0.07	0.00	0.00
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Subtotal	0.01	0.10	0.26	0.04	0.01	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Subtotal	0.01	0.10	0.26	0.04	0.01	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Subtotal	0.01	0.14	0.36	0.06	0.01	0.01

Table A.1.2-Alt2M-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling - POLB - MHTP - 315-Acre Alternative.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.14	1.71	4.36	1.43	0.10	0.10
Containerships 6,000 - 6,999 TEU	0.14	1.71	4.36	1.43	0.10	0.10
Containerships 4,000 - 4,999 TEU	0.28	3.43	8.73	2.86	0.21	0.19
Subtotal	0.57	6.85	17.45	5.73	0.42	0.38
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.13	1.62	4.11	0.66	0.09	0.08
Subtotal	0.67	8.08	20.57	3.28	0.43	0.39
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 8,000 - 9,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 4,000 - 4,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 3,000 - 3,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Subtotal	0.65	7.86	20.02	3.19	0.42	0.38
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 6,000 - 6,999 TEU	0.26	3.14	8.01	1.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.13	1.57	4.00	0.64	0.08	0.08
Containerships 3,000 - 3,999 TEU	0.26	3.14	8.01	1.27	0.17	0.15
Subtotal	0.91	11.00	28.02	4.46	0.59	0.54

Table A.1.2-Alt2M-15. Annual Tugboat Emissions for Cargo Vessel Assists - POLB - MHTP - 315-Acre Alternative.

Project Scenario/All Vessels	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
Project Year 2010	0.27	2.04	10.72	0.01	0.36	0.33
Project Year 2015	0.34	2.55	5.20	0.01	0.13	0.12
Project Year 2020	0.34	2.55	4.57	0.01	0.11	0.10
Project Year 2030	0.48	3.57	6.40	0.01	0.15	0.14

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt2M-16. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists
POLB - MHTP - 315-Acre Alternative.

Project Scenario/All Vessels	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
Project Year 2010	0.02	0.26	1.06	0.00	0.04	0.03
Project Year 2015	0.03	0.33	0.77	0.00	0.02	0.02
Project Year 2020	0.03	0.33	0.54	0.00	0.01	0.01
Project Year 2030	0.04	0.46	0.75	0.00	0.02	0.02

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt2M-17. Annual Vessel Emissions - POLB - MHTP - 315-Acre Alternative.

Project Scenario/Emission Source	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.86
Tugboats - Cargo Vessel Assist (1)	0.32	1.65	10.66	0.72	0.43	0.41
Subtotal	25.47	68.47	696.63	507.25	48.27	45.33
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	15.44	20.03	193.11	7.49	3.73	3.43
Ships - Precautionary Area Transit (1)	5.31	6.83	59.13	2.50	1.21	1.12
Ships - Harbor Transit (1)	6.07	5.90	51.84	2.01	1.19	1.09
Ships - Docking (1)	2.40	2.10	18.69	0.67	0.44	0.40
Ships - Hoteling Aux. Sources	6.54	19.49	177.16	15.21	3.66	3.37
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Subtotal	36.07	56.66	511.71	27.89	10.62	9.78
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	8.37	4.62	4.25
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	2.37	1.46	1.34
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.45	1.40	1.28
Ships - Docking (1)	3.00	2.63	23.41	0.47	0.52	0.48
Ships - Hoteling Aux. Sources	1.69	10.23	47.81	4.06	0.92	0.85
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Subtotal	38.36	56.70	459.88	16.72	9.07	8.34
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	20.00	26.05	252.98	8.65	4.79	4.41
Ships - Precautionary Area Transit (1)	6.72	8.77	77.23	2.46	1.52	1.40
Ships - Harbor Transit (1)	6.75	7.22	64.21	1.54	1.36	1.25
Ships - Docking (1)	3.09	2.73	24.55	0.50	0.55	0.50
Ships - Hoteling Aux. Sources	1.72	10.12	48.59	4.01	0.93	0.86
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.11	0.01	0.12	0.11
Subtotal	38.64	57.77	472.67	17.17	9.26	8.52
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	26.01	33.91	331.14	11.41	6.25	5.75
Ships - Precautionary Area Transit (1)	8.69	11.38	100.13	3.22	1.97	1.81
Ships - Harbor Transit (1)	10.76	10.28	89.75	1.96	1.96	1.80
Ships - Docking (1)	4.06	3.55	31.57	0.63	0.71	0.65
Ships - Hoteling Aux. Sources	2.23	13.81	63.43	5.48	1.22	1.12
Tugboats - Cargo Vessel Assist (1)	0.52	4.03	7.15	0.01	0.16	0.15
Subtotal	52.28	76.95	623.17	22.72	12.27	11.29

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt2M-18. Daily Vessel Emissions - POLB - MHTP - 315-Acre Alternative.

Project Scenario/Emission Source	Pounds Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	52.7	120.0	1,394.0	798.6	119.5	112.0
Ships - Precautionary Area Transit (1)	11.7	25.4	215.8	119.6	19.8	18.6
Ships - Harbor Transit (1)	15.1	23.4	179.5	76.2	18.6	17.4
Ships - Docking (1)						
Ships - Hoteling Aux. Sources	53.3	189.6	1,909.6	1,755.7	98.0	92.4
Tugboats - Cargo Vessel Assist (1)	1.8	9.1	58.4	3.9	2.4	2.2
Subtotal	135	367	3,757	2,754	258	243
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	84.6	109.8	1,058.1	41.1	20.4	18.8
Ships - Precautionary Area Transit (1)	29.1	37.4	324.0	13.7	6.6	6.1
Ships - Harbor Transit (1)	33.3	32.3	284.0	11.0	6.5	6.0
Ships - Docking (1)	13.2	11.5	102.4	3.7	2.4	2.2
Ships - Hoteling Aux. Sources	35.8	106.8	970.7	83.3	20.1	18.5
Tugboats - Cargo Vessel Assist (1)	1.6	12.6	64.6	0.0	2.1	2.0
Subtotal	198	310	2,804	153	58	54
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106.1	137.9	1,337.5	45.8	25.3	23.3
Ships - Precautionary Area Transit (1)	35.6	46.3	405.8	13.0	8.0	7.4
Ships - Harbor Transit (1)	40.8	40.3	353.6	7.9	7.6	7.0
Ships - Docking (1)	16.4	14.4	128.2	2.6	2.9	2.6
Ships - Hoteling Aux. Sources	9.2	56.1	262.0	22.2	5.0	4.6
Tugboats - Cargo Vessel Assist (1)	2.1	15.8	32.7	0.1	0.8	0.8
Subtotal	210	311	2,520	92	50	46
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	109.6	142.8	1,386.2	47.4	26.2	24.1
Ships - Precautionary Area Transit (1)	36.8	48.0	423.2	13.5	8.3	7.7
Ships - Harbor Transit (1)	37.0	39.6	351.8	8.4	7.4	6.8
Ships - Docking (1)	16.9	15.0	134.5	2.7	3.0	2.7
Ships - Hoteling Aux. Sources	9.4	55.5	266.2	22.0	5.1	4.7
Tugboats - Cargo Vessel Assist (1)	2.1	15.8	28.0	0.1	0.6	0.6
Subtotal	212	317	2,590	94	51	47
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	142.5	185.8	1,814.5	62.5	34.3	31.5
Ships - Precautionary Area Transit (1)	47.6	62.4	548.7	17.7	10.8	9.9
Ships - Harbor Transit (1)	58.9	56.3	491.8	10.7	10.7	9.9
Ships - Docking (1)	22.3	19.5	173.0	3.5	3.9	3.6
Ships - Hoteling Aux. Sources	12.2	75.6	347.6	30.0	6.7	6.2
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.2	0.1	0.9	0.8
Subtotal	286	422	3,415	124	67	62

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt2M-19. Train Trip Generation Rates - MHTP - 315-Acre Alternative.

<i>Project Scenario/Rail Yard</i>	<i>Annual Round Trips</i>
Year 2005 Baseline	
To/from Middle Harbor Railyard	138
Year 2010	
To/from Middle Harbor Railyard	120
Year 2015	
To/from Middle Harbor Railyard	1,653
Year 2020	
To/from Middle Harbor Railyard	2,114
Year 2030	
To/from Middle Harbor Railyard	2,095

Table A.1.2-Alt2M-20. Annual Train Emissions - POLB - MHTP 315-Acre Alternative Year 2010.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.17	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.03	0.07	0.39	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	1.02	2.58	14.14	0.32	0.39	0.39
Haul Line Locomotive - Swiching	0.11	0.27	1.48	0.03	0.04	0.04
Yard Locomotive	0.03	0.12	0.39	0.00	0.01	0.01
Subtotal	1.20	3.07	16.57	0.36	0.46	0.46
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.17	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.03	0.07	0.39	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	1.02	2.58	14.14	0.32	0.39	0.39
Haul Line Locomotive - Swiching	0.04	0.11	0.59	0.01	0.02	0.02
Yard Locomotive	0.03	0.12	0.39	0.00	0.01	0.01
Subtotal	1.14	2.90	15.69	0.34	0.43	0.43
Total Tons Per Year	2.34	5.97	32.26	0.71	0.89	0.89

Table A.1.2-Alt2M-21. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 315-Acre Alternative Year 2010.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	196,119	0.04	0.13	1.07	0.00	0.02	0.02
Yard Tractor	127,963	0.00	0.13	0.05	0.00	0.00	0.00
Subtotal	324,081	0.04	0.25	1.12	0.00	0.02	0.02

Table A.1.2-Alt2M-22. Annual Train Emissions - POLB - MHTP 315-Acre Alternative Year 2015.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.43	2.21	0.00	0.06	0.06
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.36	0.98	5.00	0.00	0.13	0.13
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	13.04	35.52	182.04	0.13	4.80	4.80
Haul Line Locomotive - Swiching	1.36	3.71	19.02	0.01	0.50	0.50
Yard Locomotive	0.40	1.60	5.41	0.00	0.12	0.12
Subtotal	15.32	42.24	213.68	0.15	5.60	5.60
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.43	2.21	0.00	0.06	0.06
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.36	0.98	5.00	0.00	0.13	0.13
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	13.04	35.52	182.04	0.13	4.80	4.80
Haul Line Locomotive - Swiching	0.55	1.48	7.61	0.01	0.20	0.20
Yard Locomotive	0.40	1.60	5.41	0.00	0.12	0.12
Subtotal	14.50	40.01	202.27	0.15	5.30	5.30
Total Tons Per Year	29.82	82.26	415.95	0.30	10.90	10.90

Table A.1.2-Alt2M-23. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 315-Acre Alternative Year 2015.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	2,987,284	0.25	3.17	4.66	0.02	0.04	0.03
Yard Tractor	1,949,128	0.04	2.23	0.28	0.01	0.02	0.02
Subtotal	4,936,412	0.29	5.41	4.94	0.03	0.06	0.05

Table A.1.2-Alt2M-24. Annual Train Emissions - POLB - MHTP 315-Acre Alternative Year 2020.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.19	0.55	2.63	0.00	0.07	0.07
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.42	1.25	5.96	0.00	0.15	0.15
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	15.32	45.43	217.19	0.17	5.62	5.62
Haul Line Locomotive - Swiching	1.60	4.75	22.70	0.02	0.59	0.59
Yard Locomotive	0.51	2.05	6.92	0.00	0.15	0.15
Subtotal	18.04	54.02	255.41	0.20	6.58	6.58
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.19	0.55	2.63	0.00	0.07	0.07
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.42	1.25	5.96	0.00	0.15	0.15
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	15.32	45.43	217.19	0.17	5.62	5.62
Haul Line Locomotive - Swiching	0.64	1.90	9.08	0.01	0.23	0.23
Yard Locomotive	0.51	2.05	6.92	0.00	0.15	0.15
Subtotal	17.08	51.17	241.79	0.19	6.23	6.23
Total Tons Per Year	35.13	105.19	497.20	0.38	12.81	12.81

Table A.1.2-Alt2M-25. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 315-Acre Alternative Year 2020.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	3,794,215	-	-	-	-	-	
Yard Tractor	2,475,631	0.06	3.10	0.39	0.02	0.03	
Subtotal	6,269,847	0.06	3.10	0.39	0.02	0.03	

Table A.1.2-Alt2M-26. Annual Train Emissions - POLB - MHTP 315-Acre Alternative Year 2030.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.55	2.34	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.37	1.24	5.31	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	13.40	45.02	193.44	0.17	3.52	3.52
Haul Line Locomotive - Swiching	1.40	4.70	20.21	0.02	0.37	0.37
Yard Locomotive	0.51	2.03	4.23	0.00	0.08	0.08
Subtotal	15.84	53.54	225.54	0.19	4.11	4.11
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.16	0.55	2.34	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.37	1.24	5.31	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	13.40	45.02	193.44	0.17	3.52	3.52
Haul Line Locomotive - Swiching	0.56	1.88	8.09	0.01	0.15	0.15
Yard Locomotive	0.51	2.03	4.23	0.00	0.08	0.08
Subtotal	15.00	50.71	213.41	0.18	3.89	3.89
Total Tons Per Year	30.84	104.25	438.95	0.38	8.00	8.00

Table A.1.2-Alt2M-27. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 315-Acre Alternative Year 2030.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	4,048,199	-	-	-	-	-	-
Yard Tractor	2,641,349	0.06	2.92	0.37	0.02	0.03	0.02
Subtotal	6,689,548.38	0.06	2.92	0.37	0.02	0.03	0.02

Table A.1.2-Alt2M-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP 315-Acre Alternative.

Project Scenario/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Baseline Year 2005</i>						
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Subtotal	3.99	8.94	65.93	3.78	2.04	2.01
<i>Project Year 2010</i>						
Trains	2.34	5.97	32.26	0.71	0.89	0.89
Railyard Equipment	0.04	0.25	1.12	0.00	0.02	0.02
Subtotal	2.38	6.23	33.38	0.71	0.91	0.91
<i>Project Year 2015</i>						
Trains	29.82	82.26	415.95	0.30	10.90	10.90
Railyard Equipment	0.29	5.41	4.94	0.03	0.06	0.05
Subtotal	30.11	87.66	420.89	0.33	10.96	10.96
<i>Project Year 2020</i>						
Trains	35.13	105.19	497.20	0.38	12.81	12.81
Railyard Equipment	0.06	3.10	0.39	0.02	0.03	0.03
Subtotal	35.19	108.29	497.58	0.40	12.84	12.83
<i>Project Year 2030</i>						
Trains - 2030	30.84	104.25	438.95	0.38	8.00	8.00
Railyard Equipment - 2030	0.06	2.92	0.37	0.02	0.03	0.02
Subtotal	30.89	107.17	439.32	0.40	8.02	8.02

Table A.1.2-Alt2M-29. Annual Truck Emissions - POLB - MHTP - 315-Acre Alternative.

Location/Project Scenario - Mode	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>On-Terminal</i>						
Year 2005 - Idling	7.67	13.79	53.59	0.39	1.15	1.06
Year 2005 - Driving	8.58	13.90	25.32	0.15	2.75	2.53
Subtotal - Year 2005	16.26	27.69	78.91	0.54	3.89	3.58
Year 2010 - Idling	2.99	7.14	36.19	0.03	0.34	0.31
Year 2010 - Driving	10.25	15.43	24.97	0.12	0.37	0.34
Subtotal - Year 2010	13.24	22.56	61.17	0.15	0.70	0.65
Year 2015 - Idling	2.11	5.87	33.79	0.02	0.03	0.02
Year 2015 - Driving	2.54	4.99	10.04	0.11	0.07	0.06
Subtotal - Year 2015	4.65	10.86	43.82	0.13	0.09	0.08
Year 2020 - Idling	2.21	6.15	35.37	0.03	0.03	0.02
Year 2020 - Driving	2.98	5.86	10.11	0.11	0.08	0.08
Subtotal - Year 2020	5.19	12.01	45.48	0.14	0.11	0.10
Year 2030 - Idling	2.83	7.86	45.23	0.03	0.03	0.03
Year 2030 - Driving	2.56	5.07	7.79	0.15	0.11	0.10
Subtotal - Year 2030	5.38	12.94	53.02	0.18	0.14	0.13
Year 2040 - Idling	2.83	7.86	45.23	0.03	0.03	0.03
Year 2040 - Driving	2.48	4.93	7.67	0.15	0.10	0.09
Subtotal - Year 2040	5.31	12.79	52.90	0.18	0.13	0.12
<i>Off-Terminal</i>						
Subtotal - Year 2005	72.78	387.35	1,256.64	7.01	63.21	58.16
Subtotal - Year 2010	55.44	273.41	961.46	1.38	7.14	6.57
Subtotal - Year 2015	20.79	105.83	304.57	1.18	5.81	5.34
Subtotal - Year 2020	28.05	124.63	331.98	1.25	6.92	6.37
Subtotal - Year 2030	24.44	24.44	260.63	1.63	8.44	7.76
<i>Total Annual Truck Emissions by Project Year</i>						
Year 2005	89.03	415.04	1,335.56	7.55	67.10	61.74
Year 2010	68.69	295.97	1,022.63	1.53	7.85	7.22
Year 2015	25.44	116.69	348.40	1.31	5.90	5.43
Year 2020	33.24	136.64	377.46	1.39	7.03	6.47
Year 2030	29.82	37.37	313.65	1.81	8.58	7.89

Table A.1.2-Alt2M-30. Terminal Equipment Annual Emissions - POLB - MHTP - 315-Acre Alternative.

Equipment Type	Annual Hp-Hrs	Annual Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2005							
Pier E							
Subtotal		6.17	21.60	113.81	1.06	3.46	3.19
Pier F							
Subtotal		6.17	15.86	137.39	1.59	2.51	2.31
Subtotal - Baseline - 2005		12.34	37.46	251.19	2.64	5.97	5.49
Project Year 2010							
Pier E							
RTG (CY)	12,375,969	2.41	7.97	67.40	0.08	1.08	0.99
Top-Pick	3,494,694	0.65	2.55	20.27	0.02	0.46	0.42
Side-Pick	1,646,729	0.39	1.16	11.90	0.01	0.42	0.38
Yard Tractor (CY)	4,809,405	0.10	4.80	2.06	0.03	0.07	0.07
Subtotal	22,326,797	3.55	16.48	101.63	0.15	2.02	1.86
Pier F							
RTG (CY)	1,810,343	0.35	1.17	9.86	0.01	0.16	0.14
Top-Pick	617,459	0.11	0.45	3.58	0.00	0.08	0.07
Side-Pick	456,408	0.11	0.32	3.30	0.00	0.12	0.11
Yard Tractor (CY)	1,521,609	0.03	1.52	0.65	0.01	0.02	0.02
Subtotal	4,405,819	0.61	3.46	17.39	0.03	0.38	0.35
Subtotal - Project Year 2010	26,732,616	4.16	19.93	119.01	0.18	2.40	2.21
Project Year 2015							
RTG (CY)	15,402,340	1.29	16.37	24.02	0.10	0.19	0.18
Top-Pick	5,259,508	0.45	5.67	8.31	0.04	0.07	0.06
Side-Pick	2,830,414	0.27	6.01	6.01	0.02	0.04	0.03
Yard Tractor (CY)	8,584,146	0.19	9.84	1.25	0.06	0.09	0.08
Subtotal - Project Year 2015	32,076,408	2.20	37.89	39.58	0.22	0.38	0.35
Project Year 2020							
RTG (CY)	15,139,138	-	-	-	-	-	-
Top-Pick	5,291,798	0.51	6.13	8.88	0.04	0.08	0.07
Side-Pick	3,220,663	0.34	7.21	7.19	0.02	0.05	0.04
Yard Tractor (CY)	9,766,118	0.25	12.22	1.53	0.07	0.12	0.11
Subtotal - Project Year 2020	33,417,717	1.10	25.56	17.59	0.13	0.25	0.23
Project Year 2030							
RTG (CY)	20,306,600	-	-	-	-	-	-
Top-Pick	6,891,582	0.74	8.53	12.24	0.05	0.12	0.11
Side-Pick	3,889,070	0.45	9.16	9.09	0.03	0.06	0.06
Yard Tractor (CY)	11,274,822	0.24	12.45	1.59	0.08	0.11	0.10
Subtotal - Project Year 2030	42,362,074	1.43	30.13	22.92	0.16	0.29	0.27

Table A.1.2-AIT2M-31. Annual Operational Emissions - POLB - MHTP 315-Acre Alternative.

Project Scenario/Source Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.76
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Terminal Equipment	12.42	37.75	251.88	4.93	6.00	5.52
On-road Trucks	89.03	415.04	1,335.56	7.55	67.10	61.74
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Commuting	0.73	21.79	1.79	0.03	0.04	0.04
Year 2005 Total	131.61	552.59	2,353.14	522.88	123.42	114.50
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	15.44	20.03	193.11	7.49	3.73	3.50
Ships - Precautionary Area Transit (1)	5.31	6.83	59.13	2.50	1.21	1.14
Ships - Harbor Transit (1)	6.07	5.90	51.84	2.01	1.19	1.11
Ships - Docking (1)	2.40	2.10	18.69	0.67	0.44	0.41
Ships - Hoteling Aux. Sources	6.54	19.49	177.16	15.21	3.66	3.43
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Terminal Equipment	4.16	19.93	119.01	0.18	2.40	2.21
On-road Trucks	68.69	295.97	1,022.63	1.53	7.85	7.22
Trains	2.34	5.97	32.26	0.71	0.89	0.89
Railyard Equipment	0.04	0.25	1.12	0.00	0.02	0.02
Commuting	0.36	14.11	1.06	0.03	0.05	0.05
Project Year 2010 Total	111.65	392.90	1,687.79	30.34	21.83	20.33
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	8.37	4.62	4.33
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	2.37	1.46	1.37
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.45	1.40	1.31
Ships - Docking (1)	3.00	2.63	23.41	0.47	0.52	0.49
Ships - Hoteling Aux. Sources	1.69	10.23	47.81	4.06	0.92	0.86
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Terminal Equipment	2.20	37.89	39.58	0.22	0.38	0.35
On-road Trucks	25.44	116.69	348.40	1.31	5.90	5.43
Trains	29.82	82.26	415.95	0.30	10.90	10.90
Railyard Equipment	0.29	5.41	4.94	0.03	0.06	0.05
Commuting	0.23	11.61	0.78	0.04	0.08	0.07
Project Year 2015 Total	96.35	310.55	1,269.53	18.61	26.39	25.30
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	20.00	26.05	252.98	8.65	4.79	4.49
Ships - Precautionary Area Transit (1)	6.72	8.77	77.23	2.46	1.52	1.42
Ships - Harbor Transit (1)	6.75	7.22	64.21	1.54	1.36	1.27
Ships - Docking (1)	3.09	2.73	24.55	0.50	0.55	0.51
Ships - Hoteling Aux. Sources	1.72	10.12	48.59	4.01	0.93	0.87
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.11	0.01	0.12	0.11
Terminal Equipment	1.10	25.56	17.59	0.13	0.25	0.23
On-road Trucks	33.24	136.64	377.46	1.39	7.03	6.47
Trains	35.13	105.19	497.20	0.38	12.81	12.81
Railyard Equipment	0.06	3.10	0.39	0.02	0.03	0.03
Commuting	0.13	8.01	0.50	0.04	0.08	0.07
Project Year 2020 Total	108.30	336.27	1,365.81	19.12	29.46	28.28
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	26.01	33.91	331.14	11.41	6.25	5.86
Ships - Precautionary Area Transit (1)	8.69	11.38	100.13	3.22	1.97	1.84
Ships - Harbor Transit (1)	10.76	10.28	89.75	1.96	1.96	1.84
Ships - Docking (1)	4.06	3.55	31.57	0.63	0.71	0.66
Ships - Hoteling Aux. Sources	2.23	13.81	63.43	5.48	1.22	1.15
Tugboats - Cargo Vessel Assist (1)	0.52	4.03	7.15	0.01	0.16	0.15
Terminal Equipment	1.43	30.13	22.92	0.16	0.29	0.27
On-road Trucks	29.82	37.37	313.65	1.81	8.58	7.89
Trains	30.84	104.25	438.95	0.38	8.00	8.00
Railyard Equipment	0.06	2.92	0.37	0.02	0.03	0.02
Commuting	0.09	6.12	0.34	0.04	0.11	0.10
Project Year 2030 Total	114.51	257.74	1,399.40	25.12	29.27	27.78

Note: (1) Includes auxiliary generator emissions.

Table A.1.2-AIT2M-32. Daily Operational Emissions - POLB - MHTP 315-Acre Alternative.

Project Scenario/Source Type	Pounds Per Day (2)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	53	120	1,394	799	120	112
Ships - Precautionary Area Transit (1)	12	25	216	120	20	19
Ships - Harbor Transit (1)	15	23	180	76	19	17
Ships - Docking (1)	5	8	60	25	6	6
Ships - Hoteling Aux. Sources	53	190	1,910	1,756	98	92
Tugboats - Cargo Vessel Assist (1)	2	12	66	0	2	2
Terminal Equipment	68	207	1,380	27	33	30
On-road Trucks	488	2,274	7,318	41	368	338
Trains	17	37	260	20	9	9
Railyard Equipment	5	12	101	1	2	2
Commuting	4	119	10	0	0	0
Year 2005 Total	721	3,028	12,894	2,865	676	627
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	85	110	1,058	41	20	19
Ships - Precautionary Area Transit (1)	29	37	324	14	7	6
Ships - Harbor Transit (1)	33	32	284	11	6	6
Ships - Docking (1)	13	11	102	4	2	2
Ships - Hoteling Aux. Sources	36	107	971	83	20	19
Tugboats - Cargo Vessel Assist (1)	2	13	65	0	2	2
Terminal Equipment	23	109	652	1	13	12
On-road Trucks	376	1,622	5,603	8	43	40
Trains	13	33	177	4	5	4
Railyard Equipment	0	1	6	0	0	0
Commuting	2	77	6	0	0	0
Project Year 2010 Total	612	2,153	9,248	166	120	111
Net Change from 2005 CEQA Baseline	(109)	(875)	(3,646)	(2,699)	(557)	(516)
Net Change from NEPA Baseline Year 2010	(4)	(18)	(69)	(5)	(1)	(1)
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106	138	1,338	46	25	24
Ships - Precautionary Area Transit (1)	36	46	406	13	8	7
Ships - Harbor Transit (1)	41	40	354	8	8	7
Ships - Docking (1)	16	14	128	3	3	3
Ships - Hoteling Aux. Sources	9	56	262	22	5	5
Tugboats - Cargo Vessel Assist (1)	2	16	33	0	1	1
Terminal Equipment	12	208	217	1	2	2
On-road Trucks	139	639	1,909	7	32	30
Trains	163	451	2,279	2	60	55
Railyard Equipment	2	30	27	0	0	0
Commuting	1	64	4	0	0	0
Project Year 2015 Total	528	1,702	6,956	102	145	134
Net Change from 2005 CEQA Baseline	(193)	(1,326)	(5,938)	(2,763)	(532)	(493)
Net Change from NEPA Baseline Year 2015	10	52	255	(4)	17	16
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	110	143	1,386	47	26	25
Ships - Precautionary Area Transit (1)	37	48	423	13	8	8
Ships - Harbor Transit (1)	37	40	352	8	7	7
Ships - Docking (1)	17	15	135	3	3	3
Ships - Hoteling Aux. Sources	9	55	266	22	5	5
Tugboats - Cargo Vessel Assist (1)	2	16	28	0	1	1
Terminal Equipment	6	140	96	1	1	1
On-road Trucks	182	749	2,068	8	39	35
Trains	192	576	2,724	2	70	65
Railyard Equipment	0	17	2	0	0	0
Commuting	1	44	3	0	0	0
Project Year 2020 Total	593	1,843	7,484	105	161	149
Net Change from 2005 CEQA Baseline	(128)	(1,185)	(5,410)	(2,760)	(515)	(477)
Net Change from NEPA Baseline Year 2020	(31)	(87)	(132)	(20)	3	3
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	143	186	1,814	63	34	32
Ships - Precautionary Area Transit (1)	48	62	549	18	11	10
Ships - Harbor Transit (1)	59	56	492	11	11	10
Ships - Docking (1)	22	19	173	3	4	4
Ships - Hoteling Aux. Sources	12	76	348	30	7	6
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	8	165	126	1	2	1
On-road Trucks	163	205	1,719	10	47	43
Trains	169	571	2,405	2	44	40
Railyard Equipment	0	16	2	0	0	0
Commuting	0	34	2	0	1	1
Project Year 2030 Total	627	1,412	7,668	138	160	149
Net Change from 2005 CEQA Baseline	(94)	(1,616)	(5,226)	(2,727)	(516)	(478)
Net Change from NEPA Baseline Year 2030	(6)	(486)	73	(18)	(3)	(3)
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (2) Equal to annual emissions divided by 365 days.

(1) Includes auxiliary generator emissions.

This page intentionally left blank.

Table A.1.2-Alt3-1. Annual Cargo Vessel Emissions within the POLB Fairway Zone

Table A.1.2-Alt3-2. Annual Cargo Vessel Emissions within the POLB Precautionary Area

Table A.1.2-Alt3-3. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater

Table A.1.2-Alt3-4. Annual Cargo Vessel Emissions for Docking Activities - POLB - MHTP - NEPA Baseline.

Table A.1.2-Alt3-5. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone

Table A.1.2-Alt3-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt3-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2-Alt3-8. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater

Table A.1.2-Alt3-9. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling

Table A.1.2-Alt3-10. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt3-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2-Alt3-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater

Table A.1.2-Alt3-13. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling

Table A.1.2-Alt3-14. Annual Tugboat Emissions for Cargo Vessel Assists - POLB - MHTP - NEPA Baseline.

Table A.1.2-Alt3-15. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists

Table A.1.2-Alt3-16. Annual Vessel Emissions - POLB - MHTP - NEPA Baseline.

Table A.1.2-Alt3-17. Daily Vessel Emissions - POLB - MHTP - NEPA Baseline.

Table A.1.2-Alt3-18. Ship Visit and Throughput Data - POLB - MHTP - NEPA Baseline.

Table A.1.2-Alt3-19. Train Trip Generation Rates - MHTP - NEPA Baseline.

Table A.1.2-Alt3-20. Annual Train Emissions - POLB - MHTP NEPA Baseline Year 2010.

Table A.1.2-Alt3-21. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline Year 2010.

Table A.1.2-Alt3-22. Annual Train Emissions - POLB - MHTP NEPA Baseline Year 2015.

Table A.1.2-Alt3-23. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline Year 2015.

Table A.1.2-Alt3-24. Annual Train Emissions - POLB - MHTP NEPA Baseline Year 2020.

Table A.1.2-Alt3-25. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline Year 2020.

Table A.1.2-Alt3-26. Annual Train Emissions - POLB - MHTP NEPA Baseline Year 2030.

Table A.1.2-Alt3-27. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline Year 2030.

Table A.1.2-Alt3-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline

Table A.1.2-Alt3-29. Annual Truck Emissions for the MHTP - NEPA Baseline.

Table A.1.2-Alt3-30. Terminal Equipment Annual Emissions - POLB - MHTP - NEPA Baseline.

Table A.1.2-Alt3-31. Annual Operational Emissions - POLB - MHTP NEPA Baseline.

Table A.1.2-Alt3-32. Daily Operational Emissions - POLB - MHTP NEPA Baseline.

Table A.1.2-Alt3-33. Net Change from CEQA Baseline for Alt 3 Landside Improvements Alternative

This page intentionally left blank.

Table A.1.2-Alt3-1. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 4,000 - 4,999 TEU	5.40	6.79	65.27	2.34	1.23	1.13
Subtotal	14.33	17.68	163.35	5.73	3.13	2.88
Project Year 2015						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	1.17	0.61	0.56
Containerships 3,000 - 3,999 TEU	2.02	2.66	28.55	1.10	0.52	0.47
Subtotal	17.95	22.19	206.46	7.28	3.94	3.63
Project Year 2020						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 5,000 - 5,999 TEU	3.56	4.34	39.11	1.35	0.76	0.70
Containerships 4,000 - 4,999 TEU	2.70	3.39	32.63	1.17	0.61	0.56
Containerships 3,000 - 3,999 TEU	2.02	2.66	28.55	1.10	0.52	0.47
Subtotal	21.51	26.53	245.57	8.63	4.70	4.33
Project Year 2030						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	1.81	1.02	0.94
Containerships 7,000 - 7,999 TEU	4.30	5.24	47.19	1.63	0.91	0.84
Containerships 6,000 - 6,999 TEU	4.15	5.06	45.54	1.57	0.88	0.81
Containerships 5,000 - 5,999 TEU	3.56	4.34	39.11	1.35	0.76	0.70
Containerships 4,000 - 4,999 TEU	5.40	6.79	65.27	2.34	1.23	1.13
Containerships 3,000 - 3,999 TEU	4.05	5.32	57.11	2.20	1.03	0.95
Subtotal	26.23	32.58	306.76	10.90	5.83	5.37

Note: (1) VSRP compliance = 100% for future years.

(2) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-A1t3-2. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 4,000 - 4,999 TEU	1.91	2.14	17.15	0.52	0.35	0.32
Subtotal	4.67	5.22	41.92	1.27	0.86	0.79
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.26	0.18	0.16
Containerships 3,000 - 3,999 TEU	0.64	0.78	7.03	0.24	0.14	0.13
Subtotal	5.68	6.42	52.29	1.61	1.06	0.98
Project Year 2020						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 5,000 - 5,999 TEU	1.10	1.23	9.87	0.30	0.20	0.19
Containerships 4,000 - 4,999 TEU	0.96	1.07	8.58	0.26	0.18	0.16
Containerships 3,000 - 3,999 TEU	0.64	0.78	7.03	0.24	0.14	0.13
Subtotal	6.78	7.64	62.16	1.91	1.27	1.17
Project Year 2030						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.40	0.27	0.25
Containerships 7,000 - 7,999 TEU	1.33	1.48	11.91	0.36	0.24	0.22
Containerships 6,000 - 6,999 TEU	1.28	1.43	11.50	0.35	0.24	0.22
Containerships 5,000 - 5,999 TEU	1.10	1.23	9.87	0.30	0.20	0.19
Containerships 4,000 - 4,999 TEU	1.91	2.14	17.15	0.52	0.35	0.32
Containerships 3,000 - 3,999 TEU	1.28	1.56	14.07	0.49	0.27	0.25
Subtotal	8.38	9.49	77.77	2.41	1.58	1.45

Note: Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt3-3. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 4,000 - 4,999 TEU	1.66	1.29	9.03	0.14	0.22	0.20
Subtotal	5.12	3.71	26.46	0.34	0.67	0.61
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.07	0.11	0.10
Containerships 3,000 - 3,999 TEU	0.77	0.60	4.17	0.06	0.10	0.09
Subtotal	6.26	4.59	32.66	0.43	0.82	0.75
Project Year 2020						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 5,000 - 5,999 TEU	1.84	1.19	8.79	0.08	0.23	0.21
Containerships 4,000 - 4,999 TEU	0.83	0.65	4.52	0.07	0.11	0.10
Containerships 3,000 - 3,999 TEU	0.77	0.60	4.17	0.06	0.10	0.09
Subtotal	8.11	5.78	41.45	0.52	1.05	0.97
Project Year 2030						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.11	0.18	0.16
Containerships 7,000 - 7,999 TEU	1.20	0.94	6.54	0.10	0.16	0.15
Containerships 6,000 - 6,999 TEU	2.13	1.38	10.17	0.10	0.27	0.24
Containerships 5,000 - 5,999 TEU	1.84	1.19	8.79	0.08	0.23	0.21
Containerships 4,000 - 4,999 TEU	1.66	1.29	9.03	0.14	0.22	0.20
Containerships 3,000 - 3,999 TEU	1.53	1.19	8.34	0.13	0.21	0.19
Subtotal	9.70	7.03	50.13	0.65	1.26	1.16

Note: Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt3-4. Annual Cargo Vessel Emissions for Docking Activities - POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.81	0.52	3.86	0.04	0.10	0.09
Subtotal	2.07	1.34	9.88	0.09	0.26	0.24
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.02	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.32	0.20	1.51	0.01	0.04	0.04
Subtotal	2.59	1.67	12.34	0.12	0.32	0.30
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 5,000 - 5,999 TEU	0.52	0.34	2.49	0.02	0.07	0.06
Containerships 4,000 - 4,999 TEU	0.41	0.26	1.93	0.02	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.32	0.20	1.51	0.01	0.04	0.04
Subtotal	3.11	2.01	14.83	0.14	0.39	0.36
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.03	0.08	0.08
Containerships 7,000 - 7,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.60	0.39	2.88	0.03	0.08	0.07
Containerships 5,000 - 5,999 TEU	0.52	0.34	2.49	0.02	0.07	0.06
Containerships 4,000 - 4,999 TEU	0.81	0.52	3.86	0.04	0.10	0.09
Containerships 3,000 - 3,999 TEU	0.63	0.41	3.01	0.03	0.08	0.07
Subtotal	3.83	2.47	18.26	0.17	0.48	0.44

Note: Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-A13-5. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.61	0.21	0.19
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.55	0.19	0.17
Containerships 4,000 - 4,999 TEU	0.38	0.80	10.12	0.60	0.21	0.19
Subtotal	1.11	2.35	29.75	1.77	0.60	0.56
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.14	0.29	3.65	0.11	0.07	0.06
Subtotal	1.41	2.98	37.64	1.08	0.68	0.62
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 5,000 - 5,999 TEU	0.27	0.57	7.14	0.21	0.13	0.12
Containerships 4,000 - 4,999 TEU	0.19	0.40	5.06	0.15	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.14	0.29	3.65	0.11	0.07	0.06
Subtotal	1.68	3.54	44.78	1.29	0.81	0.74
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 6,000 - 6,999 TEU	0.35	0.74	9.30	0.27	0.17	0.15
Containerships 5,000 - 5,999 TEU	0.27	0.57	7.14	0.21	0.13	0.12
Containerships 4,000 - 4,999 TEU	0.38	0.80	10.12	0.29	0.18	0.17
Containerships 3,000 - 3,999 TEU	0.27	0.58	7.30	0.21	0.13	0.12
Subtotal	2.00	4.23	53.49	1.54	0.96	0.89

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) VSRP compliance = 100% for future years.

Table A.1.2-A13-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.34	0.12	0.11
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.30	0.10	0.10
Containerships 4,000 - 4,999 TEU	0.21	0.44	5.59	0.33	0.11	0.10
Subtotal	0.61	1.30	16.43	0.97	0.33	0.31
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.08	0.16	2.01	0.06	0.04	0.03
Subtotal	0.78	1.64	20.78	0.60	0.37	0.34
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 5,000 - 5,999 TEU	0.15	0.31	3.94	0.11	0.07	0.07
Containerships 4,000 - 4,999 TEU	0.10	0.22	2.79	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.08	0.16	2.01	0.06	0.04	0.03
Subtotal	0.92	1.96	24.72	0.71	0.44	0.41
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.19	0.41	5.13	0.15	0.09	0.08
Containerships 5,000 - 5,999 TEU	0.15	0.31	3.94	0.11	0.07	0.07
Containerships 4,000 - 4,999 TEU	0.21	0.44	5.59	0.16	0.10	0.09
Containerships 3,000 - 3,999 TEU	0.15	0.32	4.03	0.12	0.07	0.07
Subtotal	1.10	2.34	29.53	0.85	0.53	0.49

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-A13-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.51	0.17	0.16
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.46	0.16	0.14
Containerships 4,000 - 4,999 TEU	0.32	0.67	8.43	0.50	0.17	0.16
Subtotal	0.93	1.96	24.78	1.47	0.50	0.46
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.11	0.22	2.83	0.08	0.05	0.05
Subtotal	1.16	2.46	31.14	0.90	0.56	0.52
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 5,000 - 5,999 TEU	0.22	0.47	5.95	0.17	0.11	0.10
Containerships 4,000 - 4,999 TEU	0.16	0.33	4.21	0.12	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.11	0.22	2.83	0.08	0.05	0.05
Subtotal	1.39	2.93	37.08	1.07	0.67	0.61
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.29	0.61	7.74	0.22	0.14	0.13
Containerships 5,000 - 5,999 TEU	0.22	0.47	5.95	0.17	0.11	0.10
Containerships 4,000 - 4,999 TEU	0.32	0.67	8.43	0.24	0.15	0.14
Containerships 3,000 - 3,999 TEU	0.21	0.45	5.65	0.16	0.10	0.09
Subtotal	1.65	3.49	44.12	1.27	0.79	0.73

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-A13-8. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.18	0.06	0.06
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.16	0.05	0.05
Containerships 4,000 - 4,999 TEU	0.11	0.23	2.93	0.17	0.06	0.05
Subtotal	0.32	0.68	8.60	0.51	0.17	0.16
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.04	0.08	0.98	0.03	0.02	0.02
Subtotal	0.40	0.86	10.81	0.31	0.19	0.18
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 5,000 - 5,999 TEU	0.08	0.16	2.06	0.06	0.04	0.03
Containerships 4,000 - 4,999 TEU	0.05	0.12	1.46	0.04	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.04	0.08	0.98	0.03	0.02	0.02
Subtotal	0.48	1.02	12.88	0.37	0.23	0.21
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 6,000 - 6,999 TEU	0.10	0.21	2.69	0.08	0.05	0.04
Containerships 5,000 - 5,999 TEU	0.08	0.16	2.06	0.06	0.04	0.03
Containerships 4,000 - 4,999 TEU	0.11	0.23	2.93	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.07	0.16	1.96	0.06	0.04	0.03
Subtotal	0.57	1.21	15.32	0.44	0.28	0.25

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt3-9. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	2.11	4.47	56.48	3.35	1.15	1.06
Containerships 6,000 - 6,999 TEU	1.90	4.02	50.84	3.02	1.03	0.95
Containerships 4,000 - 4,999 TEU	2.35	4.96	62.71	3.72	1.27	1.17
Subtotal	6.36	13.46	170.03	10.09	3.46	3.18
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.30	0.64	8.03	0.23	0.14	0.13
Containerships 7,000 - 7,999 TEU	0.27	0.57	7.23	0.21	0.13	0.12
Containerships 6,000 - 6,999 TEU	0.27	0.57	7.23	0.21	0.13	0.12
Containerships 4,000 - 4,999 TEU	0.17	0.35	4.46	0.13	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.14	0.30	3.78	0.11	0.07	0.06
Subtotal	1.15	2.43	30.74	0.88	0.55	0.51
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.30	0.64	8.03	0.23	0.14	0.13
Containerships 7,000 - 7,999 TEU	0.27	0.57	7.23	0.21	0.13	0.12
Containerships 6,000 - 6,999 TEU	0.27	0.57	7.23	0.21	0.13	0.12
Containerships 5,000 - 5,999 TEU	0.21	0.44	5.60	0.16	0.10	0.09
Containerships 4,000 - 4,999 TEU	0.17	0.35	4.46	0.13	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.14	0.29	3.69	0.11	0.07	0.06
Subtotal	1.36	2.87	36.24	1.04	0.65	0.60
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.29	0.62	7.84	0.23	0.14	0.13
Containerships 7,000 - 7,999 TEU	0.26	0.56	7.05	0.20	0.13	0.12
Containerships 6,000 - 6,999 TEU	0.26	0.56	7.05	0.20	0.13	0.12
Containerships 5,000 - 5,999 TEU	0.21	0.44	5.60	0.16	0.10	0.09
Containerships 4,000 - 4,999 TEU	0.33	0.69	8.70	0.25	0.16	0.14
Containerships 3,000 - 3,999 TEU	0.28	0.58	7.38	0.21	0.13	0.12
Subtotal	1.63	3.45	43.62	1.26	0.78	0.72

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths will be completed by then. Beginning in year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducing hoteling aux. gen. emissions by 90%.

Table A.1.2-A13-10. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.06	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.06	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.40	0.13	0.01	0.01
Subtotal	0.03	0.31	0.79	0.26	0.02	0.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Subtotal	0.03	0.39	0.99	0.16	0.02	0.02
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Subtotal	0.04	0.47	1.19	0.19	0.02	0.02
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Containerships 3,000 - 3,999 TEU	0.01	0.16	0.40	0.06	0.01	0.01
Subtotal	0.05	0.62	1.58	0.25	0.03	0.03

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-A13-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.05	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.05	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.30	0.10	0.01	0.01
Subtotal	0.02	0.23	0.60	0.20	0.01	0.01
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Subtotal	0.02	0.29	0.75	0.12	0.02	0.01
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Subtotal	0.03	0.35	0.90	0.14	0.02	0.02
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Containerships 3,000 - 3,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Subtotal	0.04	0.47	1.19	0.19	0.03	0.02

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-A13-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.10	0.03	0.00	0.00
Subtotal	0.01	0.08	0.21	0.07	0.00	0.00
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Subtotal	0.01	0.10	0.26	0.04	0.01	0.00
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Subtotal	0.01	0.12	0.31	0.05	0.01	0.01
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Subtotal	0.01	0.16	0.41	0.07	0.01	0.01

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-A13-13. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - NEPA Baseline.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.15	1.82	4.64	1.52	0.11	0.10
Containerships 6,000 - 6,999 TEU	0.15	1.82	4.64	1.52	0.11	0.10
Containerships 4,000 - 4,999 TEU	0.30	3.65	9.29	3.05	0.22	0.20
Subtotal	0.60	7.30	18.58	6.10	0.44	0.41
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 6,000 - 6,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 4,000 - 4,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 3,000 - 3,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Subtotal	0.75	9.12	23.22	3.70	0.49	0.45
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 6,000 - 6,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 5,000 - 5,999 TEU	0.15	1.78	4.53	0.72	0.09	0.09
Containerships 4,000 - 4,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 3,000 - 3,999 TEU	0.15	1.78	4.53	0.72	0.09	0.09
Subtotal	0.90	10.85	27.64	4.40	0.58	0.53
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.15	1.78	4.53	0.72	0.09	0.09
Containerships 7,000 - 7,999 TEU	0.15	1.78	4.53	0.72	0.09	0.09
Containerships 6,000 - 6,999 TEU	0.15	1.78	4.53	0.72	0.09	0.09
Containerships 5,000 - 5,999 TEU	0.15	1.78	4.53	0.72	0.09	0.09
Containerships 4,000 - 4,999 TEU	0.29	3.56	9.06	1.44	0.19	0.17
Containerships 3,000 - 3,999 TEU	0.29	3.56	9.06	1.44	0.19	0.17
Subtotal	1.18	14.23	36.24	5.77	0.76	0.70

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt3-14. Annual Tugboat Emissions for Cargo Vessel Assists - POLB - MHTP - NEPA Baseline.

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year (1)</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.27	2.04	10.72	0.01	0.36	0.33
<i>Project Year 2015</i>	0.34	2.55	5.20	0.01	0.13	0.12
<i>Project Year 2020</i>	0.41	3.06	5.49	0.01	0.13	0.12
<i>Project Year 2030</i>	0.55	4.08	7.32	0.01	0.17	0.16

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt3-15. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists POLB - MHTP - NEPA Baseline.

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.02	0.26	1.06	0.00	0.04	0.03
<i>Project Year 2015</i>	0.03	0.33	0.77	0.00	0.02	0.02
<i>Project Year 2020</i>	0.04	0.39	0.65	0.00	0.01	0.01
<i>Project Year 2030</i>	0.05	0.52	0.86	0.00	0.02	0.02

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt3-16. Annual Vessel Emissions - POLB - MHTP - NEPA Baseline.

Project Scenario/Emission Source	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.86
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Subtotal	25.44	69.07	697.99	506.60	48.24	45.30
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	15.44	20.03	193.11	7.49	3.73	3.43
Ships - Precautionary Area Transit (1)	5.31	6.83	59.13	2.50	1.21	1.12
Ships - Harbor Transit (1)	6.07	5.90	51.84	2.01	1.19	1.09
Ships - Docking (1)	2.40	2.10	18.69	0.67	0.44	0.40
Ships - Hoteling Aux. Sources	6.96	20.75	188.61	16.19	3.90	3.59
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Subtotal	36.49	57.92	523.15	28.87	10.86	10.00
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	8.37	4.62	4.25
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	2.37	1.46	1.34
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.45	1.40	1.28
Ships - Docking (1)	3.00	2.63	23.41	0.47	0.52	0.48
Ships - Hoteling Aux. Sources	1.90	11.55	53.96	4.58	1.04	0.95
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Subtotal	38.58	58.02	466.04	17.24	9.19	8.45
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	23.18	30.07	290.35	9.92	5.51	5.07
Ships - Precautionary Area Transit (1)	7.74	10.07	88.07	2.81	1.74	1.60
Ships - Harbor Transit (1)	9.52	9.07	79.42	1.73	1.74	1.60
Ships - Docking (1)	3.60	3.15	28.01	0.56	0.63	0.58
Ships - Hoteling Aux. Sources	2.25	13.72	63.88	5.44	1.23	1.13
Tugboats - Cargo Vessel Assist (1)	0.45	3.45	6.13	0.01	0.14	0.13
Subtotal	46.76	69.53	555.86	20.47	10.98	10.10
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	28.23	36.81	360.24	12.44	6.79	6.25
Ships - Precautionary Area Transit (1)	9.53	12.45	108.88	3.51	2.14	1.97
Ships - Harbor Transit (1)	11.39	10.99	95.45	2.11	2.08	1.92
Ships - Docking (1)	4.42	3.85	34.00	0.68	0.76	0.70
Ships - Hoteling Aux. Sources	2.81	17.68	79.85	7.03	1.54	1.42
Tugboats - Cargo Vessel Assist (1)	0.60	4.60	8.18	0.01	0.19	0.18
Subtotal	56.98	86.38	686.61	25.78	13.51	12.43

Note: (1) Includes auxiliary power emissions.

Table A.1.2-A13-17. Daily Vessel Emissions - POLB - MHTP - NEPA Baseline.

Project Scenario/Emission Source	Pounds Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	52.7	120.0	1,394.0	798.6	119.5	112.0
Ships - Precautionary Area Transit (1)	11.7	25.4	215.8	119.6	19.8	18.6
Ships - Harbor Transit (1)	15.1	23.4	179.5	76.2	18.6	17.4
Ships - Docking (1)	5.0	7.8	59.8	25.4	6.2	5.8
Ships - Hoteling Aux. Sources	53.3	189.6	1,909.6	1,755.7	98.0	92.4
Tugboats - Cargo Vessel Assist (1)	1.6	12.3	65.9	0.3	2.2	2.1
Subtotal	139	378	3,825	2,776	264	248
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	84.6	109.8	1,058.1	41.1	20.4	18.8
Ships - Precautionary Area Transit (1)	29.1	37.4	324.0	13.7	6.6	6.1
Ships - Harbor Transit (1)	33.3	32.3	284.0	11.0	6.5	6.0
Ships - Docking (1)	13.2	11.5	102.4	3.7	2.4	2.2
Ships - Hoteling Aux. Sources	38.2	113.7	1,033.5	88.7	21.4	19.7
Tugboats - Cargo Vessel Assist (1)	1.6	12.6	64.6	0.0	2.1	2.0
Subtotal	200	317	2,867	158	59	55
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106.1	137.9	1,337.5	45.8	25.3	23.3
Ships - Precautionary Area Transit (1)	35.6	46.3	405.8	13.0	8.0	7.4
Ships - Harbor Transit (1)	40.8	40.3	353.6	7.9	7.6	7.0
Ships - Docking (1)	16.4	14.4	128.2	2.6	2.9	2.6
Ships - Hoteling Aux. Sources	10.4	63.3	295.7	25.1	5.7	5.2
Tugboats - Cargo Vessel Assist (1)	2.1	15.8	32.7	0.1	0.8	0.8
Subtotal	211	318	2,554	94	50	46
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	127.0	164.8	1,590.9	54.4	30.2	27.8
Ships - Precautionary Area Transit (1)	42.4	55.2	482.6	15.4	9.5	8.8
Ships - Harbor Transit (1)	52.2	49.7	435.2	9.5	9.5	8.8
Ships - Docking (1)	19.7	17.2	153.5	3.1	3.4	3.2
Ships - Hoteling Aux. Sources	12.3	75.2	350.0	29.8	6.7	6.2
Tugboats - Cargo Vessel Assist (1)	2.5	18.9	33.6	0.1	0.8	0.7
Subtotal	256	381	3,046	112	60	55
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	154.7	201.7	1,973.9	68.2	37.2	34.2
Ships - Precautionary Area Transit (1)	52.2	68.2	596.6	19.2	11.7	10.8
Ships - Harbor Transit (1)	62.4	60.2	523.0	11.5	11.4	10.5
Ships - Docking (1)	24.2	21.1	186.3	3.7	4.2	3.8
Ships - Hoteling Aux. Sources	15.4	96.9	437.5	38.5	8.5	7.8
Tugboats - Cargo Vessel Assist (1)	3.3	25.2	44.8	0.1	1.0	1.0
Subtotal	312	473	3,762	141	74	68

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt3-18. Ship Visit and Throughput Data - POLB - MHTP - NEPA Baseline.

<i>Project Scenario/Ship Type</i>	<i>Annual Ship Visits</i>	<i>Annual Shifts</i>	<i>TEU Moves/ Ship Visit (1)</i>	<i>Hoteling Time/ Visit (Hours) (2)</i>	<i>Annual TEU Movements</i>
Baseline - Year 2005					
Subtotal					
Project Year 2010					
Containerships 8,000 - 9,999 TEU	52		12,719	44.82	661,375
Containerships 6,000 - 6,999 TEU	52		10,175	44.82	529,100
Containerships 4,000 - 4,999 TEU	104		4,163	44.82	432,900
Subtotal	208				1,623,375
Project Year 2015					
Containerships 8,000 - 9,999 TEU	52		12,580	44.82	654,160
Containerships 7,000 - 7,999 TEU	52		11,285	44.82	586,820
Containerships 6,000 - 6,999 TEU	52		10,175	44.82	529,100
Containerships 4,000 - 4,999 TEU	52		3,793	44.82	197,210
Containerships 3,000 - 3,999 TEU	52		4,070	44.82	211,640
Subtotal	260				2,178,930
Project Year 2020					
Containerships 8,000 - 9,999 TEU	52		12,617	44.82	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	44.82	596,440
Containerships 6,000 - 6,999 TEU	52		9,805	44.82	509,860
Containerships 5,000 - 5,999 TEU	52		7,400	44.82	384,800
Containerships 4,000 - 4,999 TEU	52		3,330	44.82	173,160
Containerships 3,000 - 3,999 TEU	52		4,070	44.82	211,640
Subtotal	312				2,531,984
Project Year 2030					
Containerships 8,000 - 9,999 TEU	52		12,617	43.71	656,084
Containerships 7,000 - 7,999 TEU	52		11,470	43.71	596,440
Containerships 6,000 - 6,999 TEU	52		9,805	43.71	509,860
Containerships 5,000 - 5,999 TEU	52		7,400	43.71	384,800
Containerships 4,000 - 4,999 TEU	104		3,330	43.71	346,320
Containerships 3,000 - 3,999 TEU	104		4,070	43.71	423,280
Subtotal	416				2,916,784

Notes: (1) Source: Middle Harbor Vessel Allocation102406.xls (POLB 2006) Throughputs for vessels <3,000 and 3,000-5,000 Middle Harbor. Thrghtput for 5,000-6,000 TEU vessels based upon average throughput of vessels >5000

(2) Source: Vessel Dwell Times 103106.xls (POLB 2006)

Table A.1.2-Alt3-19. Train Trip Generation Rates - MHTP - NEPA Baseline.

<i>Project Scenario/Rail Yard</i>	<i>Annual Round Trips</i>
Year 2005 Baseline	
To/from Middle Harbor Railyard	138
Year 2010	
To/from Middle Harbor Railyard	122
Year 2015	
To/from Middle Harbor Railyard	1,092
Year 2020	
To/from Middle Harbor Railyard	1,412
Year 2030	
To/from Middle Harbor Railyard	1,380

Table A.1.2-Ait3-20. Annual Train Emissions - POLB - MHTP NEPA Baseline Year 2010.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.17	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.03	0.07	0.39	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	1.04	2.62	14.38	0.32	0.40	0.40
Haul Line Locomotive - Swiching	0.11	0.27	1.50	0.03	0.04	0.04
Yard Locomotive	0.03	0.12	0.40	0.00	0.01	0.01
Subtotal	1.22	3.12	16.85	0.37	0.47	0.47
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.03	0.17	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.03	0.07	0.39	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	1.04	2.62	14.38	0.32	0.40	0.40
Haul Line Locomotive - Swiching	0.04	0.11	0.60	0.01	0.02	0.02
Yard Locomotive	0.03	0.12	0.40	0.00	0.01	0.01
Subtotal	1.15	2.95	15.95	0.35	0.44	0.44
Total Tons Per Year	2.37	6.07	32.80	0.72	0.91	0.91

Table A.1.2-Ait3-21. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline Year 2010.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	232,501	0.05	0.15	1.27	0.00	0.02	0.02
Yard Tractor	151,701	0.00	0.15	0.06	0.00	0.00	0.00
Subtotal	384,203	0.05	0.30	1.33	0.00	0.02	0.02

Table A.1.2-Alt3-22. Annual Train Emissions - POLB - MHTP NEPA Baseline Year 2015.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.10	0.28	1.46	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.24	0.64	3.30	0.00	0.09	0.09
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	8.61	23.47	120.26	0.09	3.17	3.17
Haul Line Locomotive - Swiching	0.90	2.45	12.57	0.01	0.33	0.33
Yard Locomotive	0.26	1.06	3.57	0.00	0.08	0.08
Subtotal	10.12	27.91	141.16	0.10	3.70	3.70
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.10	0.28	1.46	0.00	0.04	0.04
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.24	0.64	3.30	0.00	0.09	0.09
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	8.61	23.47	120.26	0.09	3.17	3.17
Haul Line Locomotive - Swiching	0.36	0.98	5.03	0.00	0.13	0.13
Yard Locomotive	0.26	1.06	3.57	0.00	0.08	0.08
Subtotal	9.58	26.43	133.62	0.10	3.50	3.50
Total Tons Per Year	19.70	54.34	274.78	0.20	7.20	7.20

Table A.1.2-Alt3-23. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline Year 2015.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	2,960,195	0.25	3.15	4.62	0.02	0.04	0.03
Yard Tractor	1,931,453	0.04	2.21	0.28	0.01	0.02	0.02
Subtotal	4,891,648	0.29	5.36	4.90	0.03	0.06	0.05

Table A.1.2-Ait3-24. Annual Train Emissions - POLB - MHTP NEPA Baseline Year 2020.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.12	0.37	1.76	0.00	0.05	0.05
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.28	0.83	3.98	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	10.24	30.34	145.07	0.11	3.75	3.75
Haul Line Locomotive - Swiching	1.07	3.17	15.16	0.01	0.39	0.39
Yard Locomotive	0.34	1.37	4.62	0.00	0.10	0.10
Subtotal	12.05	36.08	170.59	0.13	4.39	4.39
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.12	0.37	1.76	0.00	0.05	0.05
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.28	0.83	3.98	0.00	0.10	0.10
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	10.24	30.34	145.07	0.11	3.75	3.75
Haul Line Locomotive - Swiching	0.43	1.27	6.06	0.00	0.16	0.16
Yard Locomotive	0.34	1.37	4.62	0.00	0.10	0.10
Subtotal	11.41	34.18	161.50	0.12	4.16	4.16
Total Tons Per Year	23.46	70.26	332.09	0.25	8.55	8.55

Table A.1.2-Ait3-25. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline Year 2020.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	3,844,752	-	-	-	-	-	-
Yard Tractor	2,508,605	0.06	3.14	0.39	0.02	0.03	0.03
Subtotal	6,353,357	0.06	3.14	0.39	0.02	0.03	0.03

Table A.1.2-Ait3-26. Annual Train Emissions - POLB - MHTP NEPA Baseline Year 2030.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.11	0.36	1.54	0.00	0.03	0.03
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.24	0.81	3.50	0.00	0.06	0.06
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	8.83	29.65	127.42	0.11	2.32	2.32
Haul Line Locomotive - Swiching	0.92	3.10	13.32	0.01	0.24	0.24
Yard Locomotive	0.33	1.34	2.79	0.00	0.06	0.06
Subtotal	10.43	35.26	148.57	0.13	2.71	2.71
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.11	0.36	1.54	0.00	0.03	0.03
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.24	0.81	3.50	0.00	0.06	0.06
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	8.83	29.65	127.42	0.11	2.32	2.32
Haul Line Locomotive - Swiching	0.37	1.24	5.33	0.00	0.10	0.10
Yard Locomotive	0.33	1.34	2.79	0.00	0.06	0.06
Subtotal	9.88	33.41	140.58	0.12	2.56	2.56
Total Tons Per Year	20.31	68.67	289.14	0.25	5.27	5.27

Table A.1.2-Ait3-27. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline Year 2030.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	4,376,627	-	-	-	-	-	-
Yard Tractor	2,678,109	0.06	2.96	0.38	0.02	0.03	0.02
Subtotal	7,054,736	0.06	2.96	0.38	0.02	0.03	0.02

Table A.1.2-Alt3-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP NEPA Baseline.

Project Scenario/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Baseline Year 2005</i>						
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Subtotal	3.99	8.94	65.93	3.78	2.04	2.01
<i>Project Year 2010</i>						
Trains	2.37	6.07	32.80	0.72	0.91	0.91
Railyard Equipment	0.05	0.30	1.33	0.00	0.02	0.02
Subtotal	2.42	6.37	34.13	0.72	0.93	0.93
<i>Project Year 2015</i>						
Trains	19.70	54.34	274.78	0.20	7.20	7.20
Railyard Equipment	0.29	5.36	4.90	0.03	0.06	0.05
Subtotal	19.99	59.70	279.68	0.23	7.26	7.25
<i>Project Year 2020</i>						
Trains	23.46	70.26	332.09	0.25	8.55	8.55
Railyard Equipment	0.06	3.14	0.39	0.02	0.03	0.03
Subtotal	23.53	73.40	332.48	0.27	8.58	8.58
<i>Project Year 2030</i>						
Trains - 2026	20.31	68.67	289.14	0.25	5.27	5.27
Railyard Equipment - 2030	0.06	2.96	0.38	0.02	0.03	0.02
Subtotal	20.37	71.63	289.52	0.27	5.29	5.29

Table A.1.2-Alt3-29. Annual Truck Emissions for the MHTP - NEPA Baseline.

Location/Project Scenario - Mode	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>On-Terminal</i>						
Year 2005 - Idling	7.67	13.79	53.59	0.39	1.15	1.06
Year 2005 - Driving	8.58	13.90	25.32	0.15	2.75	2.53
Subtotal - Year 2005	16.26	27.69	78.91	0.54	3.89	3.58
Year 2010 - Idling	3.02	7.21	36.60	0.03	0.34	0.31
Year 2010 - Driving	10.37	15.60	25.25	0.12	0.37	0.34
Subtotal - Year 2010	13.39	22.81	61.85	0.15	0.71	0.66
Year 2015 - Idling	2.53	7.02	40.40	0.03	0.03	0.03
Year 2015 - Driving	3.04	5.97	12.00	0.13	0.08	0.07
Subtotal - Year 2015	5.56	12.99	52.40	0.16	0.11	0.10
Year 2020 - Idling	2.82	7.85	45.15	0.03	0.03	0.03
Year 2020 - Driving	3.80	7.48	12.90	0.15	0.11	0.10
Subtotal - Year 2020	6.62	15.33	58.06	0.18	0.14	0.13
Year 2030 - Idling	3.46	9.63	55.38	0.04	0.04	0.04
Year 2030 - Driving	3.13	6.21	9.54	0.18	0.13	0.12
Subtotal - Year 2030	6.59	15.84	64.92	0.22	0.17	0.16
Year 2040 - Idling	3.46	9.63	55.38	0.04	0.04	0.04
Year 2040 - Driving	3.04	6.03	9.39	0.18	0.12	0.11
Subtotal - Year 2040	6.50	15.66	64.77	0.22	0.16	0.15
<i>Off-Terminal</i>						
Subtotal - Year 2005	72.78	387.35	1,256.64	7.01	63.21	58.16
Subtotal - Year 2010	55.98	276.05	970.76	1.39	7.21	6.64
Subtotal - Year 2015	28.42	126.04	392.04	1.42	6.34	5.84
Subtotal - Year 2020	35.83	159.21	424.07	1.60	8.84	8.13
Subtotal - Year 2030	30.01	134.65	320.08	2.00	10.36	9.53
<i>Total Annual Truck Emissions by Project Year</i>						
Year 2005	89.03	415.04	1,335.56	7.55	67.10	61.74
Year 2010	69.37	298.87	1,032.61	1.54	7.92	7.29
Year 2015	33.98	139.03	444.44	1.58	6.45	5.94
Year 2020	42.45	174.54	482.13	1.78	8.98	8.26
Year 2030	36.61	150.49	385.00	2.22	10.53	9.69

Table A.1.2-Alt3-30. Terminal Equipment Annual Emissions - POLB - MHTP - NEPA Baseline.

Equipment Type	Annual Hp-Hrs	Annual Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2005							
Pier E							
Subtotal		6.17	21.60	113.81	3.34	3.46	3.19
Pier F							
Subtotal		6.17	15.86	137.39	1.59	2.51	2.31
Subtotal - Baseline - 2005		12.34	37.46	251.19	4.92	5.97	5.49
Project Year 2010							
Pier E							
RTG (CY)	10,635,802	2.08	6.85	57.92	0.07	0.92	0.85
Top-Pick	2,996,680	0.55	2.18	17.38	0.02	0.39	0.36
Side-Pick	1,520,160	0.36	1.07	10.99	0.01	0.38	0.35
Yard Tractor (CY)	4,592,402	0.10	4.58	1.96	0.03	0.07	0.07
Subtotal	19,745,043	3.09	14.69	88.25	0.13	1.77	1.63
Pier F							
RTG (CY)	2,227,348	0.43	1.43	12.13	0.01	0.19	0.18
Top-Pick	745,076	0.14	0.54	4.32	0.01	0.10	0.09
Side-Pick	546,883	0.13	0.39	3.95	0.00	0.14	0.13
Yard Tractor (CY)	1,803,890	0.04	1.80	0.77	0.01	0.03	0.03
Subtotal	5,323,196	0.74	4.16	21.17	0.04	0.46	0.42
Subtotal - Project Year 2010	25,068,239	3.83	18.85	109.43	0.17	2.23	2.05
Project Year 2015							
RTG (CY)	11,866,408	0.99	12.61	18.50	0.08	0.15	0.14
Top-Pick	4,057,824	0.35	4.38	6.41	0.03	0.05	0.05
Side-Pick	2,801,045	0.27	5.94	5.95	0.02	0.04	0.03
Yard Tractor (CY)	8,506,304	0.19	9.75	1.24	0.06	0.09	0.08
Subtotal - Project Year 2015	27,231,581	1.80	32.68	32.10	0.18	0.32	0.30
Project Year 2020							
RTG (CY)	17,266,969	-	-	-	-	-	-
Top-Pick	6,034,521	0.58	6.99	10.12	0.04	0.09	0.08
Side-Pick	3,263,845	0.35	7.31	7.28	0.02	0.05	0.04
Yard Tractor (CY)	9,896,196	0.25	12.39	1.55	0.07	0.12	0.11
Subtotal - Project Year 2020	36,461,531	1.18	26.68	18.96	0.14	0.26	0.24
Project Year 2030							
RTG (CY)	22,886,895	-	-	-	-	-	-
Top-Pick	7,776,791	0.83	9.62	13.81	0.05	0.14	0.13
Side-Pick	3,937,795	0.46	9.27	9.21	0.03	0.06	0.06
Yard Tractor (CY)	11,431,735	0.24	12.62	1.61	0.08	0.11	0.10
Subtotal - Project Year 2030	46,033,216	1.53	31.52	24.63	0.16	0.31	0.29

Table A.1.2-Alt3-31. Annual Operational Emissions - POLB - MHTP NEPA Baseline.

Project Scenario/Source Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.76
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Terminal Equipment	12.42	37.75	251.88	4.93	6.00	5.52
On-road Trucks	89.03	415.04	1,335.56	7.55	67.10	61.74
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Commuting	0.73	21.79	1.79	0.03	0.04	0.04
Year 2005 Total	131.61	552.59	2,353.14	522.88	123.42	114.50
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	15.44	20.03	193.11	7.49	3.73	3.50
Ships - Precautionary Area Transit (1)	5.31	6.83	59.13	2.50	1.21	1.14
Ships - Harbor Transit (1)	6.07	5.90	51.84	2.01	1.19	1.11
Ships - Docking (1)	2.40	2.10	18.69	0.67	0.44	0.41
Ships - Hoteling Aux. Sources	6.96	20.75	188.61	16.19	3.90	3.65
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Terminal Equipment	3.83	18.85	109.43	0.17	2.23	2.05
On-road Trucks	69.37	298.87	1,032.61	1.54	7.92	7.29
Trains	2.37	6.07	32.80	0.72	0.91	0.91
Railyard Equipment	0.05	0.30	1.33	0.00	0.02	0.02
Commuting	0.36	14.14	1.06	0.03	0.05	0.05
Project Year 2010 Total	112.47	396.15	1,700.38	31.34	21.99	20.49
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	19.36	25.16	244.10	8.37	4.62	4.33
Ships - Precautionary Area Transit (1)	6.49	8.45	74.06	2.37	1.46	1.37
Ships - Harbor Transit (1)	7.45	7.35	64.54	1.45	1.40	1.31
Ships - Docking (1)	3.00	2.63	23.41	0.47	0.52	0.49
Ships - Hoteling Aux. Sources	1.90	11.55	53.96	4.58	1.04	0.97
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.97	0.01	0.15	0.14
Terminal Equipment	1.80	32.68	32.10	0.18	0.32	0.30
On-road Trucks	33.98	139.03	444.44	1.58	6.45	5.94
Trains	19.70	54.34	274.78	0.20	7.20	7.20
Railyard Equipment	0.29	5.36	4.90	0.03	0.06	0.05
Commuting	0.23	11.57	0.77	0.04	0.07	0.07
Project Year 2015 Total	94.58	301.00	1,223.03	19.27	23.29	22.17
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	23.18	30.07	290.35	9.92	5.51	5.16
Ships - Precautionary Area Transit (1)	7.74	10.07	88.07	2.81	1.74	1.63
Ships - Harbor Transit (1)	9.52	9.07	79.42	1.73	1.74	1.63
Ships - Docking (1)	3.60	3.15	28.01	0.56	0.63	0.59
Ships - Hoteling Aux. Sources	2.25	13.72	63.88	5.44	1.23	1.15
Tugboats - Cargo Vessel Assist (1)	0.45	3.45	6.13	0.01	0.14	0.13
Terminal Equipment	1.18	26.68	18.96	0.14	0.26	0.24
On-road Trucks	42.45	174.54	482.13	1.78	8.98	8.26
Trains	23.46	70.26	332.09	0.25	8.55	8.55
Railyard Equipment	0.06	3.14	0.39	0.02	0.03	0.03
Commuting	0.13	8.08	0.51	0.04	0.07	0.07
Project Year 2020 Total	114.05	352.23	1,389.94	22.70	28.88	27.44
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	28.23	36.81	360.24	12.44	6.79	6.36
Ships - Precautionary Area Transit (1)	9.53	12.45	108.88	3.51	2.14	2.01
Ships - Harbor Transit (1)	11.39	10.99	95.45	2.11	2.08	1.95
Ships - Docking (1)	4.42	3.85	34.00	0.68	0.76	0.71
Ships - Hoteling Aux. Sources	2.81	17.68	79.85	7.03	1.54	1.45
Tugboats - Cargo Vessel Assist (1)	0.60	4.60	8.18	0.01	0.19	0.18
Terminal Equipment	1.53	31.52	24.63	0.16	0.31	0.29
On-road Trucks	36.61	150.49	385.00	2.22	10.53	9.69
Trains	20.31	68.67	289.14	0.25	5.27	5.27
Railyard Equipment	0.06	2.96	0.38	0.02	0.03	0.02
Commuting	0.09	6.40	0.36	0.04	0.11	0.11
Project Year 2030 Total	115.58	346.41	1,386.11	28.47	29.75	28.03

Note: (1) Includes auxiliary generator emissions.

Table A.1.2-Alt3-32. Daily Operational Emissions - POLB - MHTP NEPA Baseline.

Project Scenario/Source Type	Pounds Per Day (2)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	53	120	1,394	799	120	112
Ships - Precautionary Area Transit (1)	12	25	216	120	20	19
Ships - Harbor Transit (1)	15	23	180	76	19	17
Ships - Docking (1)	5	8	60	25	6	6
Ships - Hoteling Aux. Sources	53	190	1,910	1,756	98	92
Tugboats - Cargo Vessel Assist (1)	2	12	66	0	2	2
Terminal Equipment	68	207	1,380	27	33	30
On-road Trucks	488	2,274	7,318	41	368	338
Trains	17	37	260	20	9	9
Railyard Equipment	5	12	101	1	2	2
Commuting	4	119	10	0	0	0
Year 2005 Total	721	3,028	12,894	2,865	676	627
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	85	110	1,058	41	20	19
Ships - Precautionary Area Transit (1)	29	37	324	14	7	6
Ships - Harbor Transit (1)	33	32	284	11	6	6
Ships - Docking (1)	13	11	102	4	2	2
Ships - Hoteling Aux. Sources	38	114	1,033	89	21	20
Tugboats - Cargo Vessel Assist (1)	2	13	65	0	2	2
Terminal Equipment	21	103	600	1	12	11
On-road Trucks	380	1,638	5,658	8	43	40
Trains	13	33	180	4	5	5
Railyard Equipment	0	2	7	0	0	0
Commuting	2	78	6	0	0	0
Project Year 2010 Total	616	2,171	9,317	172	120	112
Net Change from CEQA Baseline	(105)	(857)	(3,577)	(2,693)	(556)	(515)
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	106	138	1,338	46	25	24
Ships - Precautionary Area Transit (1)	36	46	406	13	8	7
Ships - Harbor Transit (1)	41	40	354	8	8	7
Ships - Docking (1)	16	14	128	3	3	3
Ships - Hoteling Aux. Sources	10	63	296	25	6	5
Tugboats - Cargo Vessel Assist (1)	2	16	33	0	1	1
Terminal Equipment	10	179	176	1	2	2
On-road Trucks	186	762	2,435	9	35	33
Trains	108	298	1,506	1	39	36
Railyard Equipment	2	29	27	0	0	0
Commuting	1	63	4	0	0	0
Project Year 2015 Total	518	1,649	6,702	106	128	118
Net Change from CEQA Baseline	(203)	(1,379)	(6,192)	(2,760)	(549)	(508)
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	127	165	1,591	54	30	28
Ships - Precautionary Area Transit (1)	42	55	483	15	10	9
Ships - Harbor Transit (1)	52	50	435	9	10	9
Ships - Docking (1)	20	17	153	3	3	3
Ships - Hoteling Aux. Sources	12	75	350	30	7	6
Tugboats - Cargo Vessel Assist (1)	2	19	34	0	1	1
Terminal Equipment	6	146	104	1	1	1
On-road Trucks	233	956	2,642	10	49	45
Trains	129	385	1,820	1	47	43
Railyard Equipment	0	17	2	0	0	0
Commuting	1	44	3	0	0	0
Project Year 2020 Total	625	1,930	7,616	124	158	147
Net Change from CEQA Baseline	(96)	(1,098)	(5,278)	(2,741)	(518)	(480)
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	155	202	1,974	68	37	35
Ships - Precautionary Area Transit (1)	52	68	597	19	12	11
Ships - Harbor Transit (1)	62	60	523	12	11	11
Ships - Docking (1)	24	21	186	4	4	4
Ships - Hoteling Aux. Sources	15	97	438	38	8	8
Tugboats - Cargo Vessel Assist (1)	3	25	45	0	1	1
Terminal Equipment	8	173	135	1	2	2
On-road Trucks	201	825	2,110	12	58	53
Trains	111	376	1,584	1	29	27
Railyard Equipment	0	16	2	0	0	0
Commuting	1	35	2	0	1	1
Project Year 2030 Total	633	1,898	7,595	156	163	151
Net Change from CEQA Baseline	(88)	(1,130)	(5,299)	(2,709)	(513)	(475)
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (2) Equal to annual emissions divided by 365 days.

(1) Includes auxiliary generator emissions.

Table A.1.2-Alt3-33. Net Change from CEQA Baseline for Alt 3 Landside Improvements Alternative

Daily Emissions	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
Year 2010	(105)	(857)	(3,577)	(2,693)	(556)	(515)
Year 2015	(203)	(1,379)	(6,192)	(2,760)	(549)	(508)
Year 2020	(96)	(1,098)	(5,278)	(2,741)	(518)	(480)
Year 2030	(88)	(1,130)	(5,299)	(2,709)	(513)	(475)

Table A.1.2-Alt4-1. Annual Cargo Vessel Emissions within the POLB Fairway Zone

Table A.1.2-Alt4-2. Annual Cargo Vessel Emissions within the POLB Precautionary Area

Table A.1.2-Alt4-3. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater

Table A.1.2-Alt4-4. Annual Cargo Vessel Emissions for Docking ActivitiesPOLB - MHTP - No Project.

Table A.1.2-Alt4-5. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone

Table A.1.2-Alt4-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt4-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB

Table A.1.2-Alt4-8. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB

Table A.1.2-Alt4-9. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling

Table A.1.2-Alt4-10. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2-Alt4-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2-Alt4-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater

Table A.1.2-Alt4-13. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling

Table A.1.2-Alt4-14. Annual Tugboat Emissions for Cargo Vessel Assists

Table A.1.2-Alt4-15. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists

Table A.1.2-Alt4-16. Annual Vessel Emissions - POLB - MHTP - No Project.

Table A.1.2-Alt4-17. Daily Vessel Emissions - POLB - MHTP - No Project.

Table A.1.2-Alt4-18. Ship Visit and Throughput Data - POLB - MHTP - No Project.

Table A.1.2-Alt4-19. Train Trip Generation Rates - MHTP - No Project.

Table A.1.2-Alt4-20. Annual Train Emissions - POLB - MHTP No Project Year 2010.

Table A.1.2-Alt4-21. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP No Project Year 2010.

Table A.1.2-Alt4-22. Annual Train Emissions - POLB - MHTP No Project Year 2015.

Table A.1.2-Alt4-23. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP No Project Year 2015.

Table A.1.2-Alt4-24. Annual Train Emissions - POLB - MHTP No Project Year 2020.

Table A.1.2-Alt4-25. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP No Project Year 2020.

Table A.1.2-Alt4-26. Annual Train Emissions - POLB - MHTP No Project Year 2030.

Table A.1.2-Alt4-27. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP No Project Year 2030.

Table A.1.2-Alt4-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions

Table A.1.2-Alt4-29. Annual Truck Emissions for the MHTP - No Project.

Table A.1.2-Alt4-30. Terminal Equipment Annual Emissions - POLB - MHTP - No Project.

Table A.1.2-Alt4-31. Annual Operational Emissions - POLB - MHTP No Project.

Table A.1.2-Alt4-32. Daily Operational Emissions - POLB - MHTP No Project.

This page intentionally left blank.

Table A.1.2-Alt4-1. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	4.51	6.58	54.25	15.09	3.39	3.26
Containerships 6,000 - 6,999 TEU	3.16	4.61	37.97	10.56	2.37	2.28
Containerships 4,000 - 4,999 TEU	5.58	8.38	73.86	21.39	4.47	4.31
Subtotal	13.24	19.57	166.08	47.04	10.23	9.85
Project Year 2015						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	0.88	0.90	0.83
Containerships 7,000 - 7,999 TEU	1.90	2.32	20.87	0.35	0.36	0.33
Containerships 6,000 - 6,999 TEU	5.98	7.30	65.68	1.10	1.13	1.04
Containerships 4,000 - 4,999 TEU	1.56	1.96	18.83	0.33	0.31	0.29
Containerships 3,000 - 3,999 TEU	1.09	1.43	15.37	0.29	0.25	0.23
Subtotal	15.31	18.84	173.30	2.93	2.94	2.71
Project Year 2020						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	0.88	0.90	0.83
Containerships 7,000 - 7,999 TEU	2.64	3.23	29.04	0.48	0.50	0.46
Containerships 6,000 - 6,999 TEU	6.38	7.78	70.06	1.17	1.20	1.10
Containerships 5,000 - 5,999 TEU	1.78	2.17	19.55	0.33	0.34	0.31
Containerships 4,000 - 4,999 TEU	2.18	2.74	26.36	0.46	0.44	0.40
Containerships 3,000 - 3,999 TEU	1.09	1.43	15.37	0.29	0.25	0.23
Subtotal	18.86	23.19	212.93	3.60	3.62	3.33
Project Year 2030						
Containerships 8,000 - 9,999 TEU	4.78	5.84	52.55	0.88	0.90	0.83
Containerships 7,000 - 7,999 TEU	3.64	4.43	39.93	0.67	0.68	0.63
Containerships 6,000 - 6,999 TEU	5.82	7.10	63.93	1.07	1.10	1.01
Containerships 5,000 - 5,999 TEU	3.29	4.01	36.10	0.60	0.62	0.57
Containerships 4,000 - 4,999 TEU	2.54	3.20	30.75	0.53	0.51	0.47
Containerships 3,000 - 3,999 TEU	1.79	2.35	25.26	0.47	0.40	0.37
Subtotal	21.86	26.93	248.51	4.21	4.21	3.88

Note: (1) VSRP compliance = 100% for future years.

(2) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-2. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.39	1.86	13.70	3.34	0.91	0.87
Containerships 6,000 - 6,999 TEU	0.97	1.30	9.59	2.34	0.63	0.61
Containerships 4,000 - 4,999 TEU	1.97	2.64	19.41	4.73	1.28	1.24
Subtotal	4.34	5.80	42.69	10.40	2.82	2.72
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.19	0.24	0.22
Containerships 7,000 - 7,999 TEU	0.59	0.66	5.27	0.08	0.10	0.09
Containerships 6,000 - 6,999 TEU	1.85	2.06	16.58	0.24	0.30	0.28
Containerships 4,000 - 4,999 TEU	0.55	0.62	4.95	0.07	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.34	0.42	3.79	0.06	0.06	0.06
Subtotal	4.81	5.41	43.85	0.65	0.79	0.73
Project Year 2020						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.19	0.24	0.22
Containerships 7,000 - 7,999 TEU	0.82	0.91	7.33	0.11	0.13	0.12
Containerships 6,000 - 6,999 TEU	1.97	2.20	17.69	0.26	0.32	0.30
Containerships 5,000 - 5,999 TEU	0.55	0.61	4.94	0.07	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.77	0.86	6.93	0.10	0.13	0.12
Containerships 3,000 - 3,999 TEU	0.34	0.42	3.79	0.06	0.06	0.06
Subtotal	5.93	6.66	53.94	0.80	0.98	0.90
Project Year 2030						
Containerships 8,000 - 9,999 TEU	1.48	1.65	13.27	0.19	0.24	0.22
Containerships 7,000 - 7,999 TEU	1.12	1.26	10.08	0.15	0.18	0.17
Containerships 6,000 - 6,999 TEU	1.80	2.01	16.14	0.24	0.29	0.27
Containerships 5,000 - 5,999 TEU	1.02	1.13	9.11	0.13	0.17	0.15
Containerships 4,000 - 4,999 TEU	0.90	1.01	8.08	0.12	0.15	0.13
Containerships 3,000 - 3,999 TEU	0.57	0.69	6.22	0.10	0.11	0.10
Subtotal	6.88	7.75	62.90	0.93	1.14	1.04

Note: Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-3. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Alternative 1.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	1.26	1.17	7.49	0.91	0.60	0.57
Containerships 6,000 - 6,999 TEU	1.62	1.25	8.48	0.65	0.71	0.69
Containerships 4,000 - 4,999 TEU	1.71	1.60	10.22	1.24	0.81	0.78
Subtotal	4.59	4.02	26.19	2.79	2.12	2.04
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.05	0.16	0.15
Containerships 7,000 - 7,999 TEU	0.53	0.41	2.89	0.02	0.06	0.06
Containerships 6,000 - 6,999 TEU	3.08	1.98	14.66	0.07	0.34	0.31
Containerships 4,000 - 4,999 TEU	0.48	0.37	2.61	0.02	0.06	0.05
Containerships 3,000 - 3,999 TEU	0.41	0.32	2.25	0.02	0.05	0.05
Subtotal	5.83	4.13	29.67	0.18	0.67	0.61
Project Year 2020						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.05	0.16	0.15
Containerships 7,000 - 7,999 TEU	0.74	0.58	4.03	0.03	0.09	0.08
Containerships 6,000 - 6,999 TEU	3.28	2.12	15.64	0.07	0.36	0.33
Containerships 5,000 - 5,999 TEU	0.92	0.59	4.39	0.02	0.10	0.09
Containerships 4,000 - 4,999 TEU	0.67	0.52	3.65	0.03	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.41	0.32	2.25	0.02	0.05	0.05
Subtotal	7.36	5.17	37.21	0.22	0.84	0.77
Project Year 2030						
Containerships 8,000 - 9,999 TEU	1.33	1.04	7.26	0.05	0.16	0.15
Containerships 7,000 - 7,999 TEU	1.02	0.79	5.54	0.04	0.12	0.11
Containerships 6,000 - 6,999 TEU	3.00	1.93	14.27	0.07	0.33	0.30
Containerships 5,000 - 5,999 TEU	1.70	1.10	8.11	0.04	0.19	0.17
Containerships 4,000 - 4,999 TEU	0.78	0.61	4.26	0.03	0.09	0.09
Containerships 3,000 - 3,999 TEU	0.68	0.53	3.69	0.03	0.08	0.07
Subtotal	8.51	6.00	43.13	0.25	0.97	0.89

Note: Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-4. Annual Cargo Vessel Emissions for Docking Activities POLB - MHTP - No Project.
POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.62	0.48	3.24	0.25	0.27	0.26
Containerships 6,000 - 6,999 TEU	0.46	0.35	2.40	0.18	0.20	0.20
Containerships 4,000 - 4,999 TEU	0.84	0.65	4.37	0.33	0.37	0.35
Subtotal	1.92	1.48	10.01	0.76	0.84	0.81
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.01	0.07	0.07
Containerships 7,000 - 7,999 TEU	0.27	0.17	1.27	0.01	0.03	0.03
Containerships 6,000 - 6,999 TEU	0.87	0.56	4.16	0.02	0.10	0.09
Containerships 4,000 - 4,999 TEU	0.23	0.15	1.11	0.01	0.03	0.02
Containerships 3,000 - 3,999 TEU	0.17	0.11	0.81	0.00	0.02	0.02
Subtotal	2.20	1.42	10.49	0.05	0.24	0.22
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.01	0.07	0.07
Containerships 7,000 - 7,999 TEU	0.37	0.24	1.77	0.01	0.04	0.04
Containerships 6,000 - 6,999 TEU	0.93	0.60	4.43	0.02	0.10	0.09
Containerships 5,000 - 5,999 TEU	0.26	0.17	1.25	0.01	0.03	0.03
Containerships 4,000 - 4,999 TEU	0.33	0.21	1.56	0.01	0.04	0.03
Containerships 3,000 - 3,999 TEU	0.17	0.11	0.81	0.00	0.02	0.02
Subtotal	2.72	1.75	12.96	0.06	0.30	0.28
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.66	0.42	3.13	0.01	0.07	0.07
Containerships 7,000 - 7,999 TEU	0.51	0.33	2.44	0.01	0.06	0.05
Containerships 6,000 - 6,999 TEU	0.85	0.55	4.05	0.02	0.09	0.09
Containerships 5,000 - 5,999 TEU	0.48	0.31	2.30	0.01	0.05	0.05
Containerships 4,000 - 4,999 TEU	0.38	0.25	1.82	0.01	0.04	0.04
Containerships 3,000 - 3,999 TEU	0.28	0.18	1.33	0.01	0.03	0.03
Subtotal	3.16	2.04	15.07	0.07	0.35	0.32

Note: Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-5. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone
POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.36	0.82	10.63	4.91	0.70	0.67
Containerships 6,000 - 6,999 TEU	0.26	0.59	7.73	3.57	0.51	0.49
Containerships 4,000 - 4,999 TEU	0.39	0.88	11.41	5.27	0.75	0.72
Subtotal	1.02	2.29	29.77	13.74	1.96	1.88
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.15	0.33	4.11	0.12	0.07	0.07
Containerships 6,000 - 6,999 TEU	0.50	1.06	13.41	0.39	0.24	0.22
Containerships 4,000 - 4,999 TEU	0.11	0.23	2.92	0.08	0.05	0.05
Containerships 3,000 - 3,999 TEU	0.07	0.16	1.96	0.06	0.04	0.03
Subtotal	1.22	2.59	32.74	0.94	0.59	0.54
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.21	0.45	5.72	0.16	0.10	0.09
Containerships 6,000 - 6,999 TEU	0.54	1.13	14.31	0.41	0.26	0.24
Containerships 5,000 - 5,999 TEU	0.13	0.28	3.57	0.10	0.06	0.06
Containerships 4,000 - 4,999 TEU	0.15	0.32	4.09	0.12	0.07	0.07
Containerships 3,000 - 3,999 TEU	0.07	0.16	1.96	0.06	0.04	0.03
Subtotal	1.50	3.16	39.98	1.15	0.72	0.66
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 7,000 - 7,999 TEU	0.29	0.62	7.87	0.23	0.14	0.13
Containerships 6,000 - 6,999 TEU	0.49	1.03	13.05	0.38	0.23	0.22
Containerships 5,000 - 5,999 TEU	0.25	0.52	6.59	0.19	0.12	0.11
Containerships 4,000 - 4,999 TEU	0.18	0.38	4.77	0.14	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.12	0.26	3.23	0.09	0.06	0.05
Subtotal	1.71	3.63	45.84	1.32	0.82	0.76

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) VSRP compliance = 100% for future years.

Table A.1.2-Alt4-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.20	0.45	5.87	2.71	0.39	0.37
Containerships 6,000 - 6,999 TEU	0.15	0.33	4.27	1.97	0.28	0.27
Containerships 4,000 - 4,999 TEU	0.22	0.48	6.30	2.91	0.41	0.40
Subtotal	0.56	1.26	16.43	7.59	1.08	1.04
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.08	0.18	2.27	0.07	0.04	0.04
Containerships 6,000 - 6,999 TEU	0.28	0.59	7.40	0.21	0.13	0.12
Containerships 4,000 - 4,999 TEU	0.06	0.13	1.61	0.05	0.03	0.03
Containerships 3,000 - 3,999 TEU	0.04	0.09	1.08	0.03	0.02	0.02
Subtotal	0.68	1.43	18.08	0.52	0.33	0.30
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.12	0.25	3.16	0.09	0.06	0.05
Containerships 6,000 - 6,999 TEU	0.30	0.63	7.90	0.23	0.14	0.13
Containerships 5,000 - 5,999 TEU	0.07	0.16	1.97	0.06	0.04	0.03
Containerships 4,000 - 4,999 TEU	0.08	0.18	2.26	0.06	0.04	0.04
Containerships 3,000 - 3,999 TEU	0.04	0.09	1.08	0.03	0.02	0.02
Subtotal	0.83	1.75	22.07	0.64	0.40	0.37
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.21	0.45	5.70	0.16	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.16	0.34	4.34	0.13	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.27	0.57	7.21	0.21	0.13	0.12
Containerships 5,000 - 5,999 TEU	0.14	0.29	3.64	0.10	0.07	0.06
Containerships 4,000 - 4,999 TEU	0.10	0.21	2.63	0.08	0.05	0.04
Containerships 3,000 - 3,999 TEU	0.07	0.14	1.78	0.05	0.03	0.03
Subtotal	0.95	2.00	25.31	0.73	0.46	0.42

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB
Breakwater POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.30	0.68	8.85	4.09	0.58	0.56
Containerships 6,000 - 6,999 TEU	0.22	0.50	6.44	2.97	0.42	0.41
Containerships 4,000 - 4,999 TEU	0.33	0.73	9.51	4.39	0.62	0.60
Subtotal	0.85	1.91	24.79	11.44	1.63	1.57
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.13	0.27	3.43	0.10	0.06	0.06
Containerships 6,000 - 6,999 TEU	0.42	0.88	11.17	0.32	0.20	0.18
Containerships 4,000 - 4,999 TEU	0.09	0.19	2.43	0.07	0.04	0.04
Containerships 3,000 - 3,999 TEU	0.06	0.12	1.52	0.04	0.03	0.03
Subtotal	1.02	2.15	27.15	0.78	0.49	0.45
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.18	0.38	4.77	0.14	0.09	0.08
Containerships 6,000 - 6,999 TEU	0.45	0.94	11.92	0.34	0.21	0.20
Containerships 5,000 - 5,999 TEU	0.11	0.24	2.97	0.09	0.05	0.05
Containerships 4,000 - 4,999 TEU	0.13	0.27	3.40	0.10	0.06	0.06
Containerships 3,000 - 3,999 TEU	0.06	0.12	1.52	0.04	0.03	0.03
Subtotal	1.24	2.63	33.19	0.95	0.60	0.55
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.32	0.68	8.60	0.25	0.15	0.14
Containerships 7,000 - 7,999 TEU	0.25	0.52	6.55	0.19	0.12	0.11
Containerships 6,000 - 6,999 TEU	0.41	0.86	10.87	0.31	0.20	0.18
Containerships 5,000 - 5,999 TEU	0.21	0.43	5.49	0.16	0.10	0.09
Containerships 4,000 - 4,999 TEU	0.15	0.31	3.97	0.11	0.07	0.07
Containerships 3,000 - 3,999 TEU	0.09	0.20	2.50	0.07	0.04	0.04
Subtotal	1.42	3.01	37.99	1.09	0.68	0.63

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-8. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year (1)					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.11	0.24	3.07	1.42	0.20	0.19
Containerships 6,000 - 6,999 TEU	0.08	0.17	2.23	1.03	0.15	0.14
Containerships 4,000 - 4,999 TEU	0.11	0.25	3.30	1.52	0.22	0.21
Subtotal	0.29	0.66	8.61	3.97	0.57	0.54
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.04	0.09	1.19	0.03	0.02	0.02
Containerships 6,000 - 6,999 TEU	0.15	0.31	3.88	0.11	0.07	0.06
Containerships 4,000 - 4,999 TEU	0.03	0.07	0.84	0.02	0.02	0.01
Containerships 3,000 - 3,999 TEU	0.02	0.04	0.53	0.02	0.01	0.01
Subtotal	0.35	0.75	9.43	0.27	0.17	0.16
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.06	0.13	1.65	0.05	0.03	0.03
Containerships 6,000 - 6,999 TEU	0.15	0.33	4.14	0.12	0.07	0.07
Containerships 5,000 - 5,999 TEU	0.04	0.08	1.03	0.03	0.02	0.02
Containerships 4,000 - 4,999 TEU	0.04	0.09	1.18	0.03	0.02	0.02
Containerships 3,000 - 3,999 TEU	0.02	0.04	0.53	0.02	0.01	0.01
Subtotal	0.43	0.91	11.52	0.33	0.21	0.19
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.11	0.24	2.99	0.09	0.05	0.05
Containerships 7,000 - 7,999 TEU	0.09	0.18	2.28	0.07	0.04	0.04
Containerships 6,000 - 6,999 TEU	0.14	0.30	3.78	0.11	0.07	0.06
Containerships 5,000 - 5,999 TEU	0.07	0.15	1.91	0.05	0.03	0.03
Containerships 4,000 - 4,999 TEU	0.05	0.11	1.38	0.04	0.02	0.02
Containerships 3,000 - 3,999 TEU	0.03	0.07	0.87	0.02	0.02	0.01
Subtotal	0.49	1.04	13.19	0.38	0.24	0.22

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-9. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	2.83	6.36	82.66	38.15	5.43	5.23
Containerships 6,000 - 6,999 TEU	2.06	4.62	60.09	27.73	3.95	3.80
Containerships 4,000 - 4,999 TEU	3.45	7.74	100.59	46.43	6.61	6.37
Subtotal	8.34	18.72	243.34	112.31	16.00	15.40
Project Year 2015						
Containerships 8,000 - 9,999 TEU	1.50	3.18	40.17	1.16	0.72	0.66
Containerships 7,000 - 7,999 TEU	0.60	1.27	15.99	0.46	0.29	0.26
Containerships 6,000 - 6,999 TEU	1.95	4.13	52.15	1.50	0.94	0.86
Containerships 4,000 - 4,999 TEU	0.48	1.02	12.87	0.37	0.23	0.21
Containerships 3,000 - 3,999 TEU	0.38	0.81	10.19	0.29	0.18	0.17
Subtotal	4.91	10.40	131.37	3.78	2.36	2.17
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.60	1.27	16.07	0.46	0.29	0.27
Containerships 7,000 - 7,999 TEU	0.33	0.70	8.90	0.26	0.16	0.15
Containerships 6,000 - 6,999 TEU	0.83	1.76	22.25	0.64	0.40	0.37
Containerships 5,000 - 5,999 TEU	0.21	0.44	5.60	0.16	0.10	0.09
Containerships 4,000 - 4,999 TEU	0.27	0.57	7.20	0.21	0.13	0.12
Containerships 3,000 - 3,999 TEU	0.15	0.31	3.97	0.11	0.07	0.07
Subtotal	2.39	5.06	64.00	1.84	1.15	1.06
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.59	1.24	15.67	0.45	0.28	0.26
Containerships 7,000 - 7,999 TEU	0.45	0.94	11.94	0.34	0.21	0.20
Containerships 6,000 - 6,999 TEU	0.74	1.57	19.80	0.57	0.36	0.33
Containerships 5,000 - 5,999 TEU	0.39	0.82	10.33	0.30	0.19	0.17
Containerships 4,000 - 4,999 TEU	0.31	0.65	8.20	0.24	0.15	0.14
Containerships 3,000 - 3,999 TEU	0.24	0.52	6.53	0.19	0.12	0.11
Subtotal	2.71	5.73	72.46	2.09	1.30	1.20

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in years 2015/2020+

Table A.1.2-Alt4-10. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area
POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.54	0.02	0.02
Containerships 6,000 - 6,999 TEU	0.01	0.06	0.16	0.44	0.01	0.01
Containerships 4,000 - 4,999 TEU	0.01	0.17	0.44	1.18	0.03	0.03
Subtotal	0.03	0.31	0.81	2.15	0.06	0.06
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.03	0.09	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.11	0.29	0.05	0.01	0.01
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.11	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.04	0.11	0.02	0.00	0.00
Subtotal	0.03	0.31	0.79	0.13	0.02	0.02
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.05	0.12	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.12	0.30	0.05	0.01	0.01
Containerships 5,000 - 5,999 TEU	0.00	0.04	0.10	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.06	0.16	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.04	0.11	0.02	0.00	0.00
Subtotal	0.03	0.39	0.99	0.16	0.02	0.02
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.01	0.08	0.20	0.03	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.07	0.17	0.03	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.11	0.28	0.04	0.01	0.01
Containerships 5,000 - 5,999 TEU	0.01	0.07	0.18	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.01	0.07	0.19	0.03	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.01	0.07	0.18	0.03	0.00	0.00
Subtotal	0.04	0.47	1.19	0.19	0.02	0.02

Note: Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater
POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.41	0.01	0.01
Containerships 6,000 - 6,999 TEU	0.00	0.05	0.12	0.33	0.01	0.01
Containerships 4,000 - 4,999 TEU	0.01	0.13	0.34	0.89	0.03	0.03
Subtotal	0.02	0.23	0.61	1.63	0.05	0.05
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.03	0.07	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.22	0.03	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.03	0.09	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.03	0.08	0.01	0.00	0.00
Subtotal	0.02	0.23	0.60	0.10	0.01	0.01
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.04	0.09	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.09	0.23	0.04	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.03	0.07	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.05	0.12	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.03	0.08	0.01	0.00	0.00
Subtotal	0.02	0.29	0.75	0.12	0.02	0.01
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.00	0.06	0.15	0.02	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.05	0.13	0.02	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.01	0.08	0.21	0.03	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.05	0.14	0.02	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.06	0.14	0.02	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.05	0.13	0.02	0.00	0.00
Subtotal	0.03	0.35	0.90	0.14	0.02	0.02

Note: Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater
POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.14	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.04	0.11	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.04	0.12	0.31	0.01	0.01
Subtotal	0.01	0.08	0.21	0.56	0.02	0.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.02	0.00	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.03	0.07	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.03	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.01	0.03	0.00	0.00	0.00
Subtotal	0.01	0.08	0.21	0.03	0.00	0.00
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.03	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.03	0.08	0.01	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.01	0.03	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.04	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.01	0.03	0.00	0.00	0.00
Subtotal	0.01	0.10	0.26	0.04	0.01	0.00
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.04	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.03	0.07	0.01	0.00	0.00
Containerships 5,000 - 5,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 3,000 - 3,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Subtotal	0.01	0.12	0.31	0.05	0.01	0.01

Note: Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-13. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - No Project.

Project Scenario/Vessel Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.15	1.82	4.76	12.64	0.37	0.36
Containerships 6,000 - 6,999 TEU	0.12	1.47	3.85	10.21	0.30	0.29
Containerships 4,000 - 4,999 TEU	0.33	4.00	10.44	27.72	0.82	0.79
Subtotal	0.60	7.30	19.04	50.58	1.50	1.44
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.07	0.81	2.05	0.33	0.04	0.04
Containerships 6,000 - 6,999 TEU	0.22	2.63	6.70	1.07	0.14	0.13
Containerships 4,000 - 4,999 TEU	0.09	1.05	2.68	0.43	0.06	0.05
Containerships 3,000 - 3,999 TEU	0.08	0.98	2.50	0.40	0.05	0.05
Subtotal	0.60	7.30	18.58	2.96	0.39	0.36
Project Year 2020						
Containerships 8,000 - 9,999 TEU	0.15	1.82	4.64	0.74	0.10	0.09
Containerships 7,000 - 7,999 TEU	0.09	1.12	2.86	0.46	0.06	0.05
Containerships 6,000 - 6,999 TEU	0.23	2.81	7.15	1.14	0.15	0.14
Containerships 5,000 - 5,999 TEU	0.07	0.89	2.26	0.36	0.05	0.04
Containerships 4,000 - 4,999 TEU	0.12	1.47	3.75	0.60	0.08	0.07
Containerships 3,000 - 3,999 TEU	0.08	0.96	2.44	0.39	0.05	0.05
Subtotal	0.75	9.07	23.10	3.68	0.48	0.44
Project Year 2030						
Containerships 8,000 - 9,999 TEU	0.15	1.78	4.53	0.72	0.09	0.09
Containerships 7,000 - 7,999 TEU	0.12	1.51	3.83	0.61	0.08	0.07
Containerships 6,000 - 6,999 TEU	0.21	2.50	6.36	1.01	0.13	0.12
Containerships 5,000 - 5,999 TEU	0.14	1.64	4.18	0.67	0.09	0.08
Containerships 4,000 - 4,999 TEU	0.14	1.68	4.27	0.68	0.09	0.08
Containerships 3,000 - 3,999 TEU	0.13	1.57	4.01	0.64	0.08	0.08
Subtotal	0.88	10.67	27.18	4.33	0.57	0.52

Note: Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2-Alt4-14. Annual Tugboat Emissions for Cargo Vessel Assists
POLB - MHTP - No Project.

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year (1)</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.27	2.04	10.72	0.01	0.36	0.33
<i>Project Year 2015</i>	0.27	2.04	4.16	0.01	0.10	0.09
<i>Project Year 2020</i>	0.34	2.55	4.57	0.01	0.11	0.10
<i>Project Year 2030</i>	0.41	3.06	5.49	0.01	0.13	0.12

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt4-15. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists
POLB - MHTP - No Project.

<i>Project Scenario/All Vessels</i>	<i>Tons Per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Project Year 2010</i>	0.02	0.26	1.06	0.00	0.04	0.03
<i>Project Year 2015</i>	0.02	0.26	0.61	0.00	0.02	0.02
<i>Project Year 2020</i>	0.03	0.33	0.54	0.00	0.01	0.01
<i>Project Year 2030</i>	0.04	0.39	0.65	0.00	0.01	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2-Alt4-16. Annual Vessel Emissions - POLB - MHTP - No Project.

Project Scenario/Emission Source	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.86
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Subtotal	25.44	69.07	697.99	506.60	48.24	45.30
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	14.26	21.86	195.85	60.78	12.19	11.73
Ships - Precautionary Area Transit (1)	4.93	7.38	59.94	20.14	3.97	3.82
Ships - Harbor Transit (1)	5.46	6.16	51.60	15.86	3.80	3.66
Ships - Docking (1)	2.22	2.22	18.83	5.30	1.43	1.37
Ships - Hoteling Aux. Sources	8.94	26.01	262.38	162.89	17.49	16.84
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Subtotal	36.11	65.94	600.38	264.98	39.27	37.79
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	16.54	21.43	206.04	3.87	3.53	3.25
Ships - Precautionary Area Transit (1)	5.51	7.15	62.72	1.29	1.13	1.04
Ships - Harbor Transit (1)	6.87	6.51	57.42	1.05	1.17	1.07
Ships - Docking (1)	2.56	2.25	20.13	0.35	0.42	0.38
Ships - Hoteling Aux. Sources	5.52	17.69	149.95	6.74	2.75	2.53
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	4.78	0.01	0.12	0.11
Subtotal	37.29	57.33	501.03	13.32	9.12	8.39
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	20.35	26.35	252.91	4.75	4.34	3.99
Ships - Precautionary Area Transit (1)	6.79	8.80	77.00	1.59	1.39	1.28
Ships - Harbor Transit (1)	8.62	8.09	71.15	1.29	1.45	1.33
Ships - Docking (1)	3.16	2.77	24.74	0.43	0.51	0.47
Ships - Hoteling Aux. Sources	3.14	14.14	87.10	5.52	1.64	1.50
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.11	0.01	0.12	0.11
Subtotal	42.44	63.02	518.01	13.59	9.45	8.69
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	23.57	30.56	294.35	5.53	5.04	4.64
Ships - Precautionary Area Transit (1)	7.87	10.22	89.40	1.85	1.62	1.49
Ships - Harbor Transit (1)	9.96	9.36	82.01	1.49	1.67	1.54
Ships - Docking (1)	3.67	3.20	28.57	0.50	0.59	0.55
Ships - Hoteling Aux. Sources	3.59	16.41	99.64	6.41	1.87	1.72
Tugboats - Cargo Vessel Assist (1)	0.45	3.45	6.13	0.01	0.14	0.13
Subtotal	49.10	73.19	600.11	15.79	10.93	10.06

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt4-17. Daily Vessel Emissions - POLB - MHTP - No Project.

Project Scenario/Emission Source	Pounds Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	52.7	120.0	1,394.0	798.6	119.5	112.0
Ships - Precautionary Area Transit (1)	11.7	25.4	215.8	119.6	19.8	18.6
Ships - Harbor Transit (1)	15.1	23.4	179.5	76.2	18.6	17.4
Ships - Docking (1)	5.0	7.8	59.8	25.4	6.2	5.8
Ships - Hoteling Aux. Sources	53.3	189.6	1,909.6	1,755.7	98.0	92.4
Tugboats - Cargo Vessel Assist (1)	1.6	12.3	65.9	0.3	2.2	2.1
Subtotal	139	378	3,825	2,776	264	248
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	78.1	119.8	1,073.1	333.0	66.8	64.3
Ships - Precautionary Area Transit (1)	27.0	40.4	328.4	110.4	21.7	20.9
Ships - Harbor Transit (1)	29.9	33.8	282.7	86.9	20.8	20.0
Ships - Docking (1)	12.2	12.2	103.2	29.0	7.8	7.5
Ships - Hoteling Aux. Sources	49.0	142.5	1,437.7	892.5	95.9	92.3
Tugboats - Cargo Vessel Assist (1)	1.6	12.6	64.6	0.0	2.1	2.0
Subtotal	198	361	3,290	1,452	215	207
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	90.6	117.4	1,129.0	21.2	19.4	17.8
Ships - Precautionary Area Transit (1)	30.2	39.2	343.7	7.1	6.2	5.7
Ships - Harbor Transit (1)	37.6	35.7	314.6	5.8	6.4	5.9
Ships - Docking (1)	14.0	12.3	110.3	1.9	2.3	2.1
Ships - Hoteling Aux. Sources	30.2	96.9	821.6	36.9	15.1	13.9
Tugboats - Cargo Vessel Assist (1)	1.6	12.6	26.2	0.0	0.7	0.6
Subtotal	204	314	2,745	73	50	46
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	111.5	144.4	1,385.8	26.0	23.8	21.9
Ships - Precautionary Area Transit (1)	37.2	48.2	421.9	8.7	7.6	7.0
Ships - Harbor Transit (1)	47.3	44.3	389.8	7.1	8.0	7.3
Ships - Docking (1)	17.3	15.2	135.6	2.4	2.8	2.6
Ships - Hoteling Aux. Sources	17.2	77.5	477.3	30.3	9.0	8.2
Tugboats - Cargo Vessel Assist (1)	2.1	15.8	28.0	0.1	0.6	0.6
Subtotal	233	345	2,838	74	52	48
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	129.2	167.4	1,612.9	30.3	27.6	25.4
Ships - Precautionary Area Transit (1)	43.1	56.0	489.9	10.1	8.9	8.1
Ships - Harbor Transit (1)	54.6	51.3	449.4	8.2	9.2	8.4
Ships - Docking (1)	20.1	17.6	156.6	2.7	3.2	3.0
Ships - Hoteling Aux. Sources	19.7	89.9	546.0	35.1	10.3	9.4
Tugboats - Cargo Vessel Assist (1)	2.5	18.9	33.6	0.1	0.8	0.7
Subtotal	269	401	3,288	87	60	55

Note: (1) Includes auxiliary power emissions.

Table A.1.2-Alt4-18. Ship Visit and Throughput Data - POLB - MHTP - No Project.

<i>Project Scenario/Ship Type</i>	<i>Annual Ship Visits</i>	<i>Annual Shifts</i>	<i>TEU Moves/ Ship Visit (1)</i>	<i>Hoteling Time/ Visit (Hours) (2)</i>	<i>Annual TEU Movements</i>
Baseline - Year 2005					
Subtotal					
Project Year 2010					1,524,550
Containerships 8,000 - 9,999 TEU	52		11,100	44.8	577,200
Containerships 6,000 - 6,999 TEU	42		10,175	44.8	427,350
Containerships 4,000 - 4,999 TEU	114		4,562	44.8	520,079
Subtotal	208				1,524,629
Project Year 2015					1,850,036
Containerships 8,000 - 9,999 TEU	52		11,100	44.8	577,200
Containerships 7,000 - 7,999 TEU	23		11,100	44.8	255,300
Containerships 6,000 - 6,999 TEU	75		10,175	44.8	763,125
Containerships 4,000 - 4,999 TEU	30		4,562	44.8	136,863
Containerships 3,000 - 3,999 TEU	28		4,205	44.8	117,741
Subtotal	208				1,850,229
Project Year 2020					2,258,739
Containerships 8,000 - 9,999 TEU	52		11,100	44.8	577,200
Containerships 7,000 - 7,999 TEU	32		11,100	44.8	355,200
Containerships 6,000 - 6,999 TEU	80		10,175	44.8	814,000
Containerships 5,000 - 5,999 TEU	26		7,811	44.8	203,078
Containerships 4,000 - 4,999 TEU	42		4,562	44.8	191,608
Containerships 3,000 - 3,999 TEU	28		4,205	44.8	117,741
Subtotal	260				2,258,828
Project Year 2030					2,600,000
Containerships 8,000 - 9,999 TEU	52		11,100	43.71	577,200
Containerships 7,000 - 7,999 TEU	44		11,100	43.71	488,400
Containerships 6,000 - 6,999 TEU	73		10,175	43.71	742,775
Containerships 5,000 - 5,999 TEU	48		7,811	43.71	374,914
Containerships 4,000 - 4,999 TEU	49		4,562	43.71	223,543
Containerships 3,000 - 3,999 TEU	46		4,205	43.71	193,432
Subtotal	312	312			2,600,264

Notes: (1) Source: Middle Harbor Vessel Allocation102406.xls (POLB 2006) Throughputs for vessels <3,000 and 3,000-5,000 Middle Harbor. Thrhgput for 5,000-6,000 TEU vessels based upon average throughput of vessels >5000

(2) Source: Vessel Dwell Times 103106.xls (POLB 2006)

Table A.1.2-Alt4-19. Train Trip Generation Rates - MHTP - No Project.

<i>Project Scenario/Rail Yard</i>	<i>Annual Round Trips</i>
Year 2005 Baseline	
To/from Middle Harbor Railyard	138
Year 2010	
To/from Middle Harbor Railyard	144
Year 2015	
To/from Middle Harbor Railyard	619
Year 2020	
To/from Middle Harbor Railyard	801
Year 2030	
To/from Middle Harbor Railyard	786

Table A.1.2-Alt4-20. Annual Train Emissions - POLB - MHTP No Project Year 2010.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.04	0.21	0.00	0.01	0.01
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.03	0.08	0.47	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	1.23	3.09	16.97	0.38	0.47	0.47
Haul Line Locomotive - Swiching	0.13	0.32	1.77	0.04	0.05	0.05
Yard Locomotive	0.03	0.14	0.47	0.00	0.01	0.01
Subtotal	1.44	3.68	19.89	0.44	0.55	0.55
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.01	0.04	0.21	0.00	0.01	0.01
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.03	0.08	0.47	0.01	0.01	0.01
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	1.23	3.09	16.97	0.38	0.47	0.47
Haul Line Locomotive - Swiching	0.05	0.13	0.71	0.02	0.02	0.02
Yard Locomotive	0.03	0.14	0.47	0.00	0.01	0.01
Subtotal	1.36	3.49	18.82	0.41	0.52	0.52
Total Tons Per Year	2.80	7.17	38.71	0.85	1.07	1.07

Table A.1.2-Alt4-21. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP No Project Year 2010.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	690,245	0.24	1.39	6.18	0.00	0.19	0.18
Yard Tractor	450,367	0.01	0.43	0.32	0.00	0.01	0.01
Subtotal	1,140,612	0.25	1.83	6.50	0.01	0.20	0.19

Table A.1.2-Alt4-22. Annual Train Emissions - POLB - MHTP No Project Year 2015.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.06	0.16	0.83	0.00	0.02	0.02
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.13	0.37	1.87	0.00	0.05	0.05
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	4.88	13.30	68.17	0.05	1.80	1.80
Haul Line Locomotive - Swiching	0.51	1.39	7.12	0.01	0.19	0.19
Yard Locomotive	0.15	0.60	2.03	0.00	0.04	0.04
Subtotal	5.74	15.82	80.02	0.06	2.10	2.10
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.06	0.16	0.83	0.00	0.02	0.02
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.13	0.37	1.87	0.00	0.05	0.05
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	4.88	13.30	68.17	0.05	1.80	1.80
Haul Line Locomotive - Swiching	0.20	0.56	2.85	0.00	0.08	0.08
Yard Locomotive	0.15	0.60	2.03	0.00	0.04	0.04
Subtotal	5.43	14.98	75.74	0.05	1.99	1.99
Total Tons Per Year	11.17	30.80	155.76	0.11	4.08	4.08

Table A.1.2-Alt4-23. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP No Project Year 2015.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	2,967,093	0.25	3.15	4.63	0.02	0.04	0.03
Yard Tractor	1,935,954	0.04	2.20	0.28	0.01	0.02	0.02
Subtotal	4,903,048	0.29	5.35	4.91	0.03	0.06	0.05

Table A.1.2-Alt4-24. Annual Train Emissions - POLB - MHTP No Project Year 2020.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.07	0.21	1.00	0.00	0.03	0.03
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.16	0.47	2.26	0.00	0.06	0.06
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	5.81	17.21	82.30	0.06	2.13	2.13
Haul Line Locomotive - Swiching	0.61	1.80	8.60	0.01	0.22	0.22
Yard Locomotive	0.19	0.78	2.62	0.00	0.06	0.06
Subtotal	6.84	20.47	96.77	0.07	2.49	2.49
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.07	0.21	1.00	0.00	0.03	0.03
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.16	0.47	2.26	0.00	0.06	0.06
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	5.81	17.21	82.30	0.06	2.13	2.13
Haul Line Locomotive - Swiching	0.24	0.72	3.44	0.00	0.09	0.09
Yard Locomotive	0.19	0.78	2.62	0.00	0.06	0.06
Subtotal	6.47	19.39	91.61	0.07	2.36	2.36
Total Tons Per Year	13.31	39.86	188.39	0.14	4.85	4.85

Table A.1.2-Alt4-25. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP No Project Year 2020.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	3,839,486	0.35	4.28	6.24	0.02	0.02	0.02
Yard Tractor	2,505,169	0.06	3.11	0.39	0.02	0.02	0.02
Subtotal	6,344,654	0.41	7.39	6.63	0.04	0.04	0.04

Table A.1.2-Alt4-26. Annual Train Emissions - POLB - MHTP No Project Year 2030.

Train Direction/Source Activity	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.06	0.20	0.88	0.00	0.02	0.02
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.14	0.46	1.99	0.00	0.04	0.04
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	5.03	16.89	72.57	0.06	1.32	1.32
Haul Line Locomotive - Swiching	0.53	1.76	7.58	0.01	0.14	0.14
Yard Locomotive	0.19	0.76	1.59	0.00	0.03	0.03
Subtotal	5.94	20.09	84.62	0.07	1.54	1.54
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.06	0.20	0.88	0.00	0.02	0.02
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	0.14	0.46	1.99	0.00	0.04	0.04
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	5.03	16.89	72.57	0.06	1.32	1.32
Haul Line Locomotive - Swiching	0.21	0.71	3.03	0.00	0.06	0.06
Yard Locomotive	0.19	0.76	1.59	0.00	0.03	0.03
Subtotal	5.63	19.03	80.07	0.07	1.46	1.46
Total Tons Per Year	11.57	39.11	164.69	0.14	3.00	3.00

Table A.1.2-Alt4-27. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP No Project Year 2030.

Equipment	Hp-Hr per Year	Tons per Year					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	3,767,585	0.37	4.40	6.37	0.02	0.06	0.05
Yard Tractor	2,458,256	0.05	2.80	0.36	0.02	0.03	0.02
Subtotal	6,225,841	0.42	7.21	6.73	0.04	0.08	0.08

Table A.1.2-Alt4-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions
POLB - MHTP No Project.

<i>Project Scenario/Source Activity</i>	<i>Tons per Year</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Baseline Year 2005</i>						
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Subtotal	3.99	8.94	65.93	3.78	2.04	2.01
<i>Project Year 2010</i>						
Trains	2.80	7.17	38.71	0.85	1.07	1.07
Railyard Equipment	0.25	1.83	6.50	0.01	0.20	0.19
Subtotal	3.05	8.99	45.21	0.86	1.27	1.26
<i>Project Year 2015</i>						
Trains	11.17	30.80	155.76	0.11	4.08	4.08
Railyard Equipment	0.29	5.35	4.91	0.03	0.06	0.05
Subtotal	11.46	36.15	160.67	0.14	4.14	4.13
<i>Project Year 2020</i>						
Trains	13.31	39.86	188.39	0.14	4.85	4.85
Railyard Equipment	0.41	7.39	6.63	0.04	0.04	0.04
Subtotal	13.72	47.25	195.02	0.19	4.89	4.89
<i>Project Year 2030</i>						
Trains - 2026	11.57	39.11	164.69	0.14	3.00	3.00
Railyard Equipment - 2030	0.42	7.21	6.73	0.04	0.08	0.08
Subtotal	11.99	46.32	171.41	0.18	3.08	3.08

Table A.1.2-Alt4-29. Annual Truck Emissions for the MHTP - No Project.

Location/Project Scenario - Mode	Tons per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>On-Terminal</i>						
Year 2005 - Idling	7.67	13.79	53.59	0.39	1.15	1.06
Year 2005 - Driving	9.98	16.15	29.43	0.17	3.19	2.94
Subtotal - Year 2005	17.65	29.95	83.03	0.56	4.34	3.99
Year 2010 - Idling	4.90	11.69	59.30	0.04	0.55	0.51
Year 2010 - Driving	8.78	13.20	27.65	0.02	0.33	0.30
Subtotal - Year 2010	13.68	24.89	86.95	0.06	0.88	0.81
Year 2015 - Idling	4.10	11.39	65.52	0.04	0.05	0.04
Year 2015 - Driving	2.42	4.75	9.74	0.02	0.06	0.06
Subtotal - Year 2015	6.51	16.14	75.26	0.06	0.11	0.10
Year 2020 - Idling	4.93	13.72	78.90	0.05	0.06	0.05
Year 2020 - Driving	3.23	6.36	11.05	0.03	0.09	0.08
Subtotal - Year 2020	8.16	20.07	89.95	0.08	0.15	0.13
Year 2030 - Idling	5.83	16.22	93.31	0.06	0.07	0.06
Year 2030 - Driving	2.52	5.02	7.71	0.03	0.10	0.10
Subtotal - Year 2030	8.36	21.23	101.02	0.09	0.17	0.16
Year 2040 - Idling	5.83	16.22	93.31	0.06	0.07	0.06
Year 2040 - Driving	2.45	4.87	7.59	0.03	0.10	0.09
Subtotal - Year 2040	8.28	21.09	100.90	0.09	0.16	0.15
<i>Off-Terminal</i>						
Subtotal - Year 2005	72.78	387.35	1,256.64	7.01	63.21	58.16
Subtotal - Year 2010	56.79	280.03	1,283.11	1.30	8.94	8.23
Subtotal - Year 2015	25.19	128.20	375.92	1.39	6.90	6.34
Subtotal - Year 2020	38.86	172.63	463.39	1.71	9.46	8.70
Subtotal - Year 2030	31.86	142.94	339.86	2.12	11.00	10.12
<i>Total Annual Truck Emissions by Project Year</i>						
Year 2005	90.43	417.30	1,339.67	7.57	67.55	62.15
Year 2010	70.47	304.93	1,370.06	1.36	9.82	9.04
Year 2015	31.71	144.33	451.17	1.45	7.01	6.44
Year 2020	47.02	192.70	553.34	1.78	9.60	8.83
Year 2030	40.22	164.17	440.88	2.21	11.17	10.28

Table A.1.2-AIt4-30. Terminal Equipment Annual Emissions - POLB - MHTP - No Project.

Equipment Type	Annual Hp-Hrs	Annual Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2005							
Pier E							
Subtotal		6.17	21.60	113.81	3.34	3.46	3.19
Pier F							
Subtotal		6.17	15.86	137.39	1.59	2.51	2.31
Subtotal - Baseline - 2005		12.34	37.46	251.19	4.92	5.97	5.49
Project Year 2010							
Pier E							
RTG (CY)	4,140,183	1.43	8.36	37.04	0.03	1.17	1.07
Top-Pick	1,133,950	0.21	0.83	6.58	0.01	0.15	0.14
Side-Pick	861,436	0.20	0.61	6.23	0.01	0.22	0.20
Yard Tractor (CY)	2,745,917	0.06	2.64	1.98	0.02	0.06	0.06
Subtotal	8,881,486	1.91	12.44	51.83	0.06	1.59	1.47
Pier F							
RTG (CY)	3,971,171	1.37	8.02	35.53	0.03	1.12	1.03
Top-Pick	1,621,266	0.30	1.18	9.40	0.01	0.21	0.19
Side-Pick	883,044	0.21	0.62	6.38	0.01	0.22	0.21
Yard Tractor (CY)	3,307,639	0.08	3.18	2.39	0.02	0.08	0.07
Subtotal	9,783,120	1.96	13.00	53.70	0.07	1.63	1.50
Subtotal - Project Year 2010	18,664,606	3.87	25.44	105.53	0.13	3.22	2.97
Project Year 2015							
RTG (CY)	9,843,099	0.82	10.46	15.35	0.06	0.12	0.11
Top-Pick	3,343,445	0.29	3.61	5.28	0.02	0.04	0.04
Side-Pick	2,116,921	0.20	4.49	4.50	0.01	0.03	0.02
Yard Tractor (CY)	7,345,969	0.16	8.34	1.06	0.05	0.07	0.07
Subtotal - Project Year 2015	22,649,433	1.48	26.90	26.19	0.15	0.27	0.25
Project Year 2020							
RTG (CY)	12,017,599	1.09	13.41	19.53	0.08	0.08	0.07
Top-Pick	4,082,066	0.39	4.73	6.85	0.03	0.03	0.03
Side-Pick	2,584,583	0.27	5.79	5.77	0.02	0.02	0.02
Yard Tractor (CY)	8,968,812	0.23	11.13	1.40	0.06	0.06	0.06
Subtotal - Project Year 2020	27,653,061	1.99	35.05	33.54	0.19	0.19	0.17
Project Year 2030							
RTG (CY)	13,833,275	1.35	16.16	23.39	0.09	0.21	0.20
Top-Pick	4,698,804	0.50	5.81	8.34	0.03	0.08	0.08
Side-Pick	2,975,074	0.35	7.01	6.96	0.02	0.05	0.05
Yard Tractor (CY)	10,323,863	0.23	11.78	1.49	0.07	0.11	0.10
Subtotal - Project Year 2030	31,831,016	2.43	40.76	40.18	0.22	0.45	0.42

Table A.1.2-Alt4-31. Annual Operational Emissions - POLB - MHTP No Project.

Project Scenario/Source Type	Tons Per Year					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.76
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Terminal Equipment	12.42	37.75	251.88	4.93	6.00	5.52
On-road Trucks	90.43	417.30	1,339.67	7.57	67.55	62.15
Trains	3.16	6.80	47.41	3.57	1.70	1.70
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Commuting	0.73	21.79	1.79	0.03	0.04	0.04
Year 2005 Total	133.00	554.85	2,357.26	522.91	123.87	114.91
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	14.26	21.86	195.85	60.78	12.19	11.42
Ships - Precautionary Area Transit (1)	4.93	7.38	59.94	20.14	3.97	3.72
Ships - Harbor Transit (1)	5.46	6.16	51.60	15.86	3.80	3.56
Ships - Docking (1)	2.22	2.22	18.83	5.30	1.43	1.34
Ships - Hoteling Aux. Sources	8.94	26.01	262.38	162.89	17.49	16.39
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	11.78	0.01	0.39	0.37
Terminal Equipment	3.87	25.44	105.53	0.13	3.22	2.97
On-road Trucks	70.47	304.93	1,370.06	1.36	9.82	9.04
Trains	2.80	7.17	38.71	0.85	1.07	1.07
Railyard Equipment	0.25	1.83	6.50	0.01	0.20	0.19
Commuting	0.33	13.14	0.99	0.03	0.05	0.04
Project Year 2010 Total	113.84	418.43	2,122.17	267.34	53.64	50.10
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	16.54	21.43	206.04	3.87	3.53	3.31
Ships - Precautionary Area Transit (1)	5.51	7.15	62.72	1.29	1.13	1.06
Ships - Harbor Transit (1)	6.87	6.51	57.42	1.05	1.17	1.09
Ships - Docking (1)	2.56	2.25	20.13	0.35	0.42	0.39
Ships - Hoteling Aux. Sources	5.52	17.69	149.95	6.74	2.75	2.58
Tugboats - Cargo Vessel Assist (1)	0.30	2.30	4.78	0.01	0.12	0.11
Terminal Equipment	1.48	26.90	26.19	0.15	0.27	0.25
On-road Trucks	31.71	144.33	451.17	1.45	7.01	6.44
Trains	11.17	30.80	155.76	0.11	4.08	4.08
Railyard Equipment	0.29	5.35	4.91	0.03	0.06	0.05
Commuting	0.21	10.42	0.70	0.03	0.07	0.06
Project Year 2015 Total	82.14	275.14	1,139.76	15.10	20.60	19.44
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	20.35	26.35	252.91	4.75	4.34	4.06
Ships - Precautionary Area Transit (1)	6.79	8.80	77.00	1.59	1.39	1.31
Ships - Harbor Transit (1)	8.62	8.09	71.15	1.29	1.45	1.36
Ships - Docking (1)	3.16	2.77	24.74	0.43	0.51	0.48
Ships - Hoteling Aux. Sources	3.14	14.14	87.10	5.52	1.64	1.53
Tugboats - Cargo Vessel Assist (1)	0.37	2.88	5.11	0.01	0.12	0.11
Terminal Equipment	1.99	35.05	33.54	0.19	0.19	0.17
On-road Trucks	47.02	192.70	553.34	1.78	9.60	8.83
Trains	13.31	39.86	188.39	0.14	4.85	4.85
Railyard Equipment	0.41	7.39	6.63	0.04	0.04	0.04
Commuting	0.14	8.67	0.54	0.04	0.09	0.08
Project Year 2020 Total	105.32	346.68	1,300.45	15.79	24.22	22.83
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	23.57	30.56	294.35	5.53	5.04	4.72
Ships - Precautionary Area Transit (1)	7.87	10.22	89.40	1.85	1.62	1.51
Ships - Harbor Transit (1)	9.96	9.36	82.01	1.49	1.67	1.57
Ships - Docking (1)	3.67	3.20	28.57	0.50	0.59	0.56
Ships - Hoteling Aux. Sources	3.59	16.41	99.64	6.41	1.87	1.76
Tugboats - Cargo Vessel Assist (1)	0.45	3.45	6.13	0.01	0.14	0.13
Terminal Equipment	2.43	40.76	40.18	0.22	0.45	0.42
On-road Trucks	40.22	164.17	440.88	2.21	11.17	10.28
Trains	11.57	39.11	164.69	0.14	3.00	3.00
Railyard Equipment	0.42	7.21	6.73	0.04	0.08	0.08
Commuting	0.08	5.86	0.33	0.04	0.11	0.10
Project Year 2030 Total	103.83	330.30	1,252.91	18.44	25.75	24.11

Note: (1) Includes auxiliary generator emissions.

Table A.1.2-Alt4-32. Daily Operational Emissions - POLB - MHTP No Project.

Project Scenario/Source Type	Pounds Per Day (2)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	53	120	1,394	799	120	112
Ships - Precautionary Area Transit (1)	12	25	216	120	20	19
Ships - Harbor Transit (1)	15	23	180	76	19	17
Ships - Docking (1)	5	8	60	25	6	6
Ships - Hoteling Aux. Sources	53	190	1,910	1,756	98	92
Tugboats - Cargo Vessel Assist (1)	2	12	66	0	2	2
Terminal Equipment	68	207	1,380	27	33	30
On-road Trucks	495	2,287	7,341	42	370	341
Trains	17	37	260	20	9	9
Railyard Equipment	5	12	101	1	2	2
Commuting	4	119	10	0	0	0
Year 2005 Total	729	3,040	12,916	2,865	679	629
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	78	120	1,073	333	67	63
Ships - Precautionary Area Transit (1)	27	40	328	110	22	20
Ships - Harbor Transit (1)	30	34	283	87	21	20
Ships - Docking (1)	12	12	103	29	8	7
Ships - Hoteling Aux. Sources	49	143	1,438	893	96	90
Tugboats - Cargo Vessel Assist (1)	2	13	65	0	2	2
Terminal Equipment	21	139	578	1	18	16
On-road Trucks	386	1,671	7,507	7	54	50
Trains	15	39	212	5	6	5
Railyard Equipment	1	10	36	0	1	1
Commuting	2	72	5	0	0	0
Project Year 2010 Total	624	2,293	11,628	1,465	294	274
Net Change from 2005 CEQA Baseline	(105)	(747)	(1,288)	(1,400)	(385)	(355)
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	91	117	1,129	21	19	18
Ships - Precautionary Area Transit (1)	30	39	344	7	6	6
Ships - Harbor Transit (1)	38	36	315	6	6	6
Ships - Docking (1)	14	12	110	2	2	2
Ships - Hoteling Aux. Sources	30	97	822	37	15	14
Tugboats - Cargo Vessel Assist (1)	2	13	26	0	1	1
Terminal Equipment	8	147	143	1	1	1
On-road Trucks	174	791	2,472	8	38	35
Trains	61	169	853	1	22	21
Railyard Equipment	2	29	27	0	0	0
Commuting	1	57	4	0	0	0
Project Year 2015 Total	450	1,508	6,245	83	113	105
Net Change from 2005 CEQA Baseline	(279)	(1,533)	(6,671)	(2,782)	(566)	(524)
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	112	144	1,386	26	24	22
Ships - Precautionary Area Transit (1)	37	48	422	9	8	7
Ships - Harbor Transit (1)	47	44	390	7	8	7
Ships - Docking (1)	17	15	136	2	3	3
Ships - Hoteling Aux. Sources	17	77	477	30	9	8
Tugboats - Cargo Vessel Assist (1)	2	16	28	0	1	1
Terminal Equipment	11	192	184	1	1	1
On-road Trucks	258	1,056	3,032	10	53	48
Trains	73	218	1,032	1	27	24
Railyard Equipment	2	41	36	0	0	0
Commuting	1	47	3	0	0	0
Project Year 2020 Total	577	1,900	7,126	87	133	123
Net Change from 2005 CEQA Baseline	(152)	(1,141)	(5,791)	(2,779)	(546)	(506)
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	129	167	1,613	30	28	26
Ships - Precautionary Area Transit (1)	43	56	490	10	9	8
Ships - Harbor Transit (1)	55	51	449	8	9	9
Ships - Docking (1)	20	18	157	3	3	3
Ships - Hoteling Aux. Sources	20	90	546	35	10	10
Tugboats - Cargo Vessel Assist (1)	2	19	34	0	1	1
Terminal Equipment	13	223	220	1	2	2
On-road Trucks	220	900	2,416	12	61	56
Trains	63	214	902	1	16	15
Railyard Equipment	2	39	37	0	0	0
Commuting	0	32	2	0	1	1
Project Year 2030 Total	569	1,810	6,865	101	141	131
Net Change from 2005 CEQA Baseline	(160)	(1,230)	(6,051)	(2,764)	(538)	(498)
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (2) Equal to annual emissions divided by 365 days.

(1) Includes auxiliary generator emissions.

This page intentionally left blank.

Operations Peak Daily Emissions Tables

This page intentionally left blank.

Table A.1.2PD-CB-1. Peak Day Ship Visit/Throughput Data - POLB MHTP CEQA Baseline

Table A.1.2PD-CB-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone

Table A.1.2PD-CB-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area

Table A.1.2PD-CB-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater

Table A.1.2PD-CB-5. Annual Cargo Vessel Emissions for Docking Activities - POLB - MHTP - CEQA Baseline.

Table A.1.2PD-CB-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone

Table A.1.2PD-CB-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary

Table A.1.2PD-CB-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB

Table A.1.2PD-CB-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB

Table A.1.2PD-CB-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling -

Table A.1.2PD-CB-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary

Table A.1.2PD-CB-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB

Table A.1.2PD-CB-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB

Table A.1.2PD-CB-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling -

Table A.1.2PD-CB-15. Peak Daily Tugboat Emissions for Cargo Vessel Assists - POLB MHTP CEQA Baseline.

Table A.1.2PD-CB-16. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists -

Table A.1.2PD-CB-17. Peak Day Vessel Emissions - POLB MHTP CEQA Baseline

Table A.1.2PD-CB-18. Peak Daily Vessel Emissions - POLB MHTP CEQA Baseline

Table A.1.2PD-CB-19. Train Trip Generation Rates - MHTP - CEQA Baseline.

Table A.1.2PD-CB-20. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions -

Table A.1.2PD-CB-21. Peak Daily Truck Emissions - MHTP CEQA Baseline

Table A.1.2PD-CB-22. Peak Daily Terminal Equipment Emissions - POLB MHTP CEQA Baseline

Table A.1.2PD-CB-23. Peak Daily Backlands TEU Throughput and Terminal Equipment Usage

Table A.1.2PD-CB-24. Annual Operational Emissions - POLB - MHTP CEQA Baseline Peak Day

Table A.1.2PD-CB-25. Peak Daily Operational Emissions - POLB MHTP CEQA Baseline

This page intentionally left blank.

Table A.1.2PD-CB-1. Peak Day Ship Visit/Throughput Data - POLB MHTP CEQA Baseline

<i>Project Scenario/Ship Type</i>	<i>Peak Daily Ship Visits</i>		<i>Max Vessel TEU Moves/Day (1)</i>	<i>Total Daily TEU Moves</i>	<i>Hoteling Hours/Day</i>
	<i>Round Trip Transit</i>	<i>Hoteling</i>			
Project Year 2005					
Containerships 8,000 - 9,999 TEU					
Containerships 6,000 - 6,999 TEU		2	4,144	8,288	24
Containerships 4,000 - 4,999 TEU					
Subtotal				8,288	
Project Year 2015					
Containerships 8,000 - 9,999 TEU					
Containerships 7,000 - 7,999 TEU					
Containerships 6,000 - 6,999 TEU					
Containerships 4,000 - 4,999 TEU					
Containerships 3,000 - 3,999 TEU					
Subtotal					
Project Year 2020					
Containerships 10,000 - 11,999 TEU					
Containerships 8,000 - 9,999 TEU					
Containerships 7,000 - 7,999 TEU					
Containerships 4,000 - 4,999 TEU					
Containerships 3,000 - 3,999 TEU					
Subtotal					
Project Year 2030					
Containerships 10,000 - 11,999 TEU					
Containerships 8,000 - 9,999 TEU					
Containerships 7,000 - 7,999 TEU					
Containerships 6,000 - 6,999 TEU					
Containerships 4,000 - 4,999 TEU					
Containerships 3,000 - 3,999 TEU					
Subtotal					

Notes: (1) From Middle Harbor Vessel Allocation.xls and vessel dwell times.xls. Crane service times = 16/21 hours per day in years pre-2011/2030 and 28 lifts/hr for all years.

(2) Each vessel round trip transit includes assistance from 3 tugs.

(3) Hoteling emissions reduced 50/80% in years 2015/2020+.

Table A.1.2PD-CB-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Note: (1) VSRP compliance = 100% for future years.

Table A.1.2PD-CB-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table A.1.2PD-CB-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - CEQA Baseline.

<i>Project Scenario/Vessel Type</i>	<i>Tons Per Day</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table A.1.2PD-CB-5. Annual Cargo Vessel Emissions for Docking Activities - POLB - MHTP - CEQA Baseline

<i>Project Scenario/Vessel Type</i>	<i>Tons Per Day</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table A.1.2PD-CB-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

(2) VSRP compliance = 100% for future years.

Table A.1.2PD-CB-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD-CB-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD-CB-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD-CB-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling - POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.05	0.12	1.58	1.19	0.16	0.16
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.05	0.12	1.58	1.19	0.16	0.16
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in years 2015/2020+

Table A.1.2PD-CB-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table A.1.2PD-CB-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table A.1.2PD-CB-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table A.1.2PD-CB-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling - POLB - MHTP - CEQA Baseline.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.00	0.04	0.10	0.26	0.01	0.01
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.04	0.10	0.26	0.01	0.01
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table A.1.2PD-CB-15. Peak Daily Tugboat Emissions for Cargo Vessel Assists - POLB MHTP CEQA Baseline.

<i>Project Scenario/All Vessels</i>	<i>Tons Per Day</i>		<i>Tons Per Day</i>			
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
Year 2005 Baseline	0.00	0.01	0.05	0.00	0.00	0.00
<i>Project Year 2015</i>						
<i>Project Year 2020</i>						
<i>Project Year 2030</i>						

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2PD-CB-16. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - POLB MHTP CEQA Baseline

<i>Project Scenario/All Vessels</i>	<i>Tons Per Day</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
Year 2005 Baseline	0.00	0.00	0.01	0.00	0.00	0.00
<i>Project Year 2015</i>						
<i>Project Year 2020</i>						
<i>Project Year 2030</i>						

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2PD-CB-17. Peak Day Vessel Emissions - POLB MHTP CEQA Baseline

Project Scenario/Emission Source	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Ships - Fairway Transit (1)						
Ships - Precautionary Area Transit (1)						
Ships - Harbor Transit (1)						
Ships - Docking (1)						
Ships - Hoteling Aux. Sources						
Tugboats - Cargo Vessel Assist (1)						
Subtotal						
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	0.05	0.16	1.67	1.45	0.17	0.16
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Subtotal	0.05	0.17	1.73	1.45	0.17	0.17
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	-	-	-	-	-	-
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	-	-	-	-	-	-
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	-	-	-	-	-	-
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-CB-18. Peak Daily Vessel Emissions - POLB MHTP CEQA Baseline

<i>Project Scenario/Emission Source</i>	<i>Pounds Per Day</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Year 2005 Baseline - Annual Average Day</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)						
Ships - Hoteling Aux. Sources	-	-	-	-	-	-
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	104.8	310.9	3,346.3	2,899.6	336.9	327.7
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	118.6	0.6	4.0	3.7
Subtotal	108	333	3,465	2,900	341	331
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	-	-	-	-	-	-
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	-	-	-	-	-	-
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	-	-	-	-	-	-
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-CB-19 Train Trip Generation Rates - MHTP - CEQA Baseline.

<i>Project Scenario/Rail Yara</i>	<i>Annual Round Trips</i>	<i>Peak Daily Round Trips</i>	<i>Factor of Annual TEUs</i>
Year 2005 Baseline			
To/from Middle Harbor Railyard	138	1	0.007
Year 2010			
To/from Middle Harbor Railyard	144	1	0.007
Year 2015			
To/from Middle Harbor Railyard	619	2	0.003
Year 2020			
To/from Middle Harbor Railyard	801	3	0.004
Year 2030			
To/from Middle Harbor Railyard	786	3	0.004

Table A.1.2PD-CB-20. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions - POLB MHTP CEQA Baseline.

<i>Project Scenario/Source Activity</i>	<i>Tons per Day</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Baseline Year 2005</i>						
Trains	0.02	0.05	0.34	0.03	0.01	0.01
Railyard Equipment	0.01	0.02	0.13	0.00	0.00	0.00
Subtotal	0.03	0.06	0.48	0.03	0.01	0.01
<i>Project Year 2010</i>						
Trains	0.02	0.05	0.27	0.01	0.01	0.01
Railyard Equipment	0.00	0.00	0.01	0.00	0.00	0.00
Subtotal	0.02	0.05	0.28	0.01	0.01	0.01
<i>Project Year 2015</i>						
Trains	0.04	0.10	0.50	0.00	0.01	0.01
Railyard Equipment	0.00	0.02	0.02	0.00	0.00	0.00
Subtotal	0.04	0.12	0.52	0.00	0.01	0.01
<i>Project Year 2020</i>						
Trains	0.05	0.15	0.71	0.00	0.02	0.02
Railyard Equipment	0.00	0.03	0.03	0.00	0.00	0.00
Subtotal	0.05	0.18	0.73	0.00	0.02	0.02
<i>Project Year 2030</i>						
Trains - 2026	0.04	0.15	0.63	0.00	0.01	0.01
Railyard Equipment - 2030	0.00	0.03	0.03	0.00	0.00	0.00
Subtotal	0.05	0.18	0.66	0.00	0.01	0.01

Table A.1.2PD-CB 21. Peak Daily Truck Emissions - MHTP CEQA Baseline

Location/Project Scenario - Mode	Tons per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>On-Terminal</i>						
Year 2005 - Idling	0.03	0.06	0.22	0.00	0.00	0.00
Year 2005 - Driving	0.04	0.07	0.12	0.00	0.01	0.01
Subtotal - Year 2005	0.07	0.12	0.34	0.00	0.02	0.02
Year 2010 - Idling						
Year 2010 - Driving						
Subtotal - Year 2010						
Year 2015 - Idling						
Year 2015 - Driving						
Subtotal - Year 2015						
Year 2020 - Idling						
Year 2020 - Driving						
Subtotal - Year 2020						
Year 2030 - Idling						
Year 2030 - Driving						
Subtotal - Year 2030						
Year 2040 - Idling						
Year 2040 - Driving						
Subtotal - Year 2040						
<i>Off-Terminal</i>						
Subtotal - Year 2005	0.30	1.58	5.13	0.03	0.26	0.24
Subtotal - Year 2010						
Subtotal - Year 2015						
Subtotal - Year 2020						
Subtotal - Year 2030						
<i>Peak Day Truck Emissions by Project Year</i>						
Year 2005	0.37	1.71	5.47	0.03	0.28	0.25
Year 2010						
Year 2015						
Year 2020						
Year 2030						

Table A.1.2PD-CB-22. Peak Daily Terminal Equipment Emissions - POLB MHTP CEQA Baseline

Equipment Type	Peak Daily Hp-Hrs	Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2005		0.16	0.48	3.25	0.03	0.08	0.07
Pier E							
Subtotal		6.17	21.60	113.81	1.06	3.46	3.19
Pier F							
Subtotal		6.99	17.98	155.77	1.80	2.85	2.62
Subtotal - Baseline - 2005		13.17	39.58	269.57	2.86	6.31	5.80
Project Year 2010							
Pier E							
RTG (CY)	0	-	-	-	-	-	-
Top-Pick	0	-	-	-	-	-	-
Side-Pick	0	-	-	-	-	-	-
Yard Tractor (CY)	0	-	-	-	-	-	-
Subtotal	0	-	-	-	-	-	-
Pier F							
RTG (CY)	0	-	-	-	-	-	-
Top-Pick	0	-	-	-	-	-	-
Side-Pick	0	-	-	-	-	-	-
Yard Tractor (CY)	0	-	-	-	-	-	-
Subtotal	0	-	-	-	-	-	-
Subtotal - Project Year 2010	0	-	-	-	-	-	-
Project Year 2015							
RTG (CY)	0	-	-	-	-	-	-
Top-Pick	0	-	-	-	-	-	-
Side-Pick	0	-	-	-	-	-	-
Yard Tractor (CY)	0	-	-	-	-	-	-
Subtotal - Project Year 2015	0	-	-	-	-	-	-
Project Year 2020							
RTG (CY)	0	-	-	-	-	-	-
Top-Pick	0	-	-	-	-	-	-
Side-Pick	0	-	-	-	-	-	-
Yard Tractor (CY)	0	-	-	-	-	-	-
Subtotal - Project Year 2020	0	-	-	-	-	-	-
Project Year 2030							
RTG (CY)	0	-	-	-	-	-	-
Top-Pick	0	-	-	-	-	-	-
Side-Pick	0	-	-	-	-	-	-
Yard Tractor (CY)	0	-	-	-	-	-	-
Subtotal - Project Year 2030	0	-	-	-	-	-	-

Table A.1.2PD-CB-23. Peak Daily Backlands TEU Throughput and Terminal Equipment Usage POLB - MHTP- CEQA Baseline

<i>Project Year/Scenario</i>	<i>Peak Daily TEUs</i>			<i>Annual TEUs</i>	<i>Peak Daily TEUs/ Annual TEUs (2)</i>
	<i>Wharf</i>	<i>Gate (1)</i>	<i>Total</i>		
2005 - CEQA Baseline	8,288	6,936	15,224	1,264,021	0.012
Year 2010				1,524,550	-
Year 2015				1,850,036	-
Year 2020				2,258,739	-
Year 2030				2,600,000	-

Note: (1) Reduced 50% to simulate that half of the gate throughput is not handled by CHE. This reducing factor is necessary to prevent overprediction of CHE usage for the entire terminal.

(2) This factor applied to the annual CHE emissions to obtain peak day CHE emissions.

Table A.1.2PD-CB-24. Annual Operational Emissions - POLB - MHTP CEQA Baseline Peak Day

<i>Project Scenario/Source Type</i>	<i>Tons Per Day</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	0.05	0.16	1.67	1.45	0.17	0.16
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Terminal Equipment	0.16	0.48	3.25	0.03	0.08	0.07
On-road Trucks	0.37	1.71	5.47	0.03	0.28	0.25
Trains	0.02	0.05	0.34	0.03	0.01	0.01
Railyard Equipment	0.01	0.02	0.13	0.00	0.00	0.00
Commuting	0.00	0.06	0.00	0.00	0.00	0.00
Year 2005 Total	0.61	2.47	10.94	1.54	0.54	0.50
Note: (1) Includes auxiliary generator emissions.						

Table A.1.2PD-CB-25. Peak Daily Operational Emissions - POLB MHTP CEQA Baseline

Project Scenario/Source Type	Pounds Per Day (2)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	105	311	3,346	2,900	337	328
Tugboats - Cargo Vessel Assist (1)	3	22	119	1	4	4
Terminal Equipment	317	954	6,494	69	152	140
On-road Trucks	739	3,410	10,948	62	552	508
Trains	46	99	687	52	25	25
Railyard Equipment	12	31	268	3	5	5
Commuting	4	119	10	0	0	0
Year 2005 Total	1,226	4,946	21,872	3,086	1,075	1,008
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)						
Ships - Precautionary Area Transit (1)						
Ships - Harbor Transit (1)						
Ships - Docking (1)						
Ships - Hoteling Aux. Sources						
Tugboats - Cargo Vessel Assist (1)						
Terminal Equipment						
On-road Trucks						
Trains						
Railyard Equipment						
Commuting						
Project Year 2010 Total						
Net Change from 2005 CEQA Baseline						
Net Change from NEPA Baseline Year 2010						
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)						
Ships - Precautionary Area Transit (1)						
Ships - Harbor Transit (1)						
Ships - Docking (1)						
Ships - Hoteling Aux. Sources						
Tugboats - Cargo Vessel Assist (1)						
Terminal Equipment						
On-road Trucks						
Trains						
Railyard Equipment						
Commuting						
Project Year 2015 Total						
Net Change from 2005 CEQA Baseline						
Net Change from NEPA Baseline Year 2015						
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)						
Ships - Precautionary Area Transit (1)						
Ships - Harbor Transit (1)						
Ships - Docking (1)						
Ships - Hoteling Aux. Sources						
Tugboats - Cargo Vessel Assist (1)						
Terminal Equipment						
On-road Trucks						
Trains						
Railyard Equipment						
Commuting						
Project Year 2020 Total						
Net Change from 2005 CEQA Baseline						
Net Change from NEPA Baseline Year 2020						

<i>Project Year 2030</i>						
Ships - Fairway Transit (1)						
Ships - Precautionary Area Transit (1)						
Ships - Harbor Transit (1)						
Ships - Docking (1)						
Ships - Hoteling Aux. Sources						
Tugboats - Cargo Vessel Assist (1)						
Terminal Equipment						
On-road Trucks						
Trains						
Railyard Equipment						
Commuting						
Project Year 2030 Total						
Net Change from 2005 CEQA Baseline						
Net Change from NEPA Baseline Year 2030						
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (1) Includes auxiliary generator emissions.

Note: (2) Equal to peak daily emissions, except annual average emissions for the CEQA Baseline.

This page intentionally left blank.

Table A.1.2PD- Alt1U-1. Peak Day Ship Visit/Throughput Data - POLB MHTP Unmitigated Alternative 1

Table A.1.2PD- Alt1U-2. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Fairway Zone -

Table A.1.2PD- Alt1U-3. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Precautionary Area -

Table A.1.2PD- Alt1U-4. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip within the POLB Breakwater -

Table A.1.2PD- Alt1U-5. Cargo Vessel Transit Distances within the Fairway and

Table A.1.2PD- Alt1U-6. Cargo Vessel Auxiliary Generator Usage per One-Way Fairway Transit

Table A.1.2PD- Alt1U-7. Cargo Vessel Auxiliary Generator Usage per One-Way Precautionary

Table A.1.2PD- Alt1U-8. Cargo Vessel Auxiliary Generator Usage per One-Way Transit

Table A.1.2PD- Alt1U-9. Cargo Vessel Hoteling Auxiliary Generator Usage per Ship Visit -

Table A.1.2PD- Alt1U-10. Cargo Vessel Auxiliary Boiler Usage per Ship Visit -

Table A.1.2PD- Alt1U-11. Tugboat Assist Usage per OGV Ship Visit - POLB MHTP Alternatives.

Table A.1.2PD- Alt1U-12. Tugboat Aux. Gen. Usage per OGV Ship Visit - POLB MHTP Alternatives.

Table A.1.2PD- Alt1U-13. Unmitigated Emissions Factors for Vessels - Middle Harbor Project Alternatives.

Table A.1.2-PD Alt1U-14. 1.5% S Diesel Emissions Factors for OGVs - Middle Harbor Project Alternatives.

Table A.1.2-PD Alt1U-14a SO2 EF in the following units for #2 diesel - assumes that 98% of S converted to SO2

Table A.1.2PD- Alt1U-15. Annual Cargo Vessel Emissions within the POLB Fairway Zone

Table A.1.2PD- Alt1U-16. Annual Cargo Vessel Emissions within the POLB Precautionary Area

Table A.1.2PD- Alt1U-17. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater

Table A.1.2PD- Alt1U-18. Annual Cargo Vessel Emissions for Docking Activities -

Table A.1.2PD- Alt1U-19. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone

Table A.1.2PD- Alt1U-20. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area

Table A.1.2PD- Alt1U-21. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB

Table A.1.2PD- Alt1U-22. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB

Table A.1.2PD- Alt1U-23. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling

Table A.1.2PD- Alt1U-24. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary

Table A.1.2PD- Alt1U-25. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB

Table A.1.2PD- Alt1U-26. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB

Table A.1.2PD- Alt1U-27. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling

Table A.1.2PD- Alt1U-28. Peak Daily Tugboat Emissions for Cargo Vessel Assists

Table A.1.2PD- Alt1U-29. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists

Table A.1.2PD- Alt1U-30. Peak Day Vessel Emissions - POLB MHTP Unmitigated Alternative 1.

Table A.1.2PD- Alt1U-31. Peak Daily Vessel Emissions - POLB MHTP Unmitigated Alternative 1

Table A.1.2PD- Alt1U-32. Train Trip Generation Rates

Table A.1.2PD- Alt1U-33. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1 Year 2010.

Table A.1.2PD- Alt1U-34. Peak Day Rail Yard Cargo Handling Equipment Emissions

Table A.1.2PD- Alt1U-35. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2015.

Table A.1.2PD- Alt1U-36. Peak Day Rail Yard Cargo Handling Equipment Emissions

Table A.1.2PD- Alt1U-37. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2020.

Table A.1.2PD- Alt1U-38. Peak Day Rail Yard Cargo Handling Equipment Emissions

Table A.1.2PD- Alt1U-39. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2030.

Table A.1.2PD- Alt1U-40. Peak Day Rail Yard Cargo Handling Equipment Emissions

Table A.1.2PD- Alt1U-41. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions

Table A.1.2PD- Alt1U-42. Peak DailyTruck Emissions - POLB - MHTP Unmitigated Alternative 1

Table A.1.2PD-Alt1U-43. Peak Day Truck Trips/Gate Throughput Estimates

Table A.1.2PD-Alt1U-44. Peak Daily Terminal Equipment Emissions - POLB MHTP Unmitigated Alternative 1

Table A.1.2PD- Alt1U-46. Annual Operational Emissions - POLB - MHTP Unmitigated 342-acre Alternative.

Table A.1.2PD- Alt1U-47. Peak Daily Operational Emissions - POLB MHTP Unmitigated Alternative 1

Table A.1.2PD- Alt1U-48. Peak Daily Operational Emissions - POLB MHTP Unmitigated Alternative 1

Table A.1.2PD- Alt1U.49 NEPA Baseline Peak Daily Emissions per Year - POLB MHTP Unmitigated Alternative 1

This page intentionally left blank.

Table A.1.2PD- Alt1U-1. Peak Day Ship Visit/Throughput Data - POLB MHTP Unmitigated Alternative 1

Project Scenario/Ship Type	Peak Daily Ship Visits		Max Vessel TEU Moves/Day (1)	Total Daily TEU Moves	Hoteling Hours/ Day
	Round Trip Transit	Hoteling			
Baseline - Year 2005					
Subtotal					
Project Year 2010					
Containerships 8,000 - 9,999 TEU		1	5,328	5,328	24
Containerships 6,000 - 6,999 TEU		1	4,440	4,440	24
Containerships 4,000 - 4,999 TEU	1				
Subtotal				9,768	
Project Year 2015					
Containerships 8,000 - 9,999 TEU	1				
Containerships 7,000 - 7,999 TEU		1	5,683	5,683	24
Containerships 6,000 - 6,999 TEU		1	5,683	5,683	24
Containerships 4,000 - 4,999 TEU					
Containerships 3,000 - 3,999 TEU					
Subtotal				11,366	
Project Year 2020					
Containerships 10,000 - 11,999 TEU		1	5,861	5,861	24
Containerships 8,000 - 9,999 TEU		1	5,861	5,861	24
Containerships 7,000 - 7,999 TEU		1	5,861	5,861	24
Containerships 6,000 - 6,999 TEU					
Containerships 4,000 - 4,999 TEU	1				
Subtotal				17,582	
Project Year 2030					
Containerships 10,000 - 11,999 TEU		1	7,692	7,692	24
Containerships 8,000 - 9,999 TEU		1	7,692	7,692	24
Containerships 7,000 - 7,999 TEU		1	7,692	7,692	24
Containerships 6,000 - 6,999 TEU	1				
Containerships 5,000 - 5,999 TEU					
Containerships 4,000 - 4,999 TEU					
Subtotal				23,077	

Notes: (1) From Middle Harbor Vessel Allocation.xls and vessel dwell times.xls. Crane service times = 16/21 hours per day in years pre-2011/2030. Also, lifts/hr = 30/32/33 in years 2010/2015/2020+

(2) Each vessel round trip transit includes assistance from 3 tugs.

(3) Hoteling emissions reduced 50/80% in years 2015/2020+.

Table A.1.2PD- Alt1U-2. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Fairway Zone - POLB - MHTP Alternatives.

Vessel Type	Propulsion Max Hp (2)	Fairway (1)							
		Load Factor (3)	Modal Hp	Distance (NM)	Max Speed (kts)	Speed (Kts) (4)	Hours Per Trip	Hp-Hrs/ Trip	kW-Hrs/ Trip (5)
<i>Non-Compliance with VSRP (6)</i>									
Containerships 10,000 - 11,999 TEU	93,120	0.83	77,383	39.9	26.8	25.2	1.58	122,562	91,431
Containerships 8,000 - 9,999 TEU	93,120	0.83	77,383	39.9	26.6	25.0	1.60	123,530	92,153
Containerships 7,000 - 7,999 TEU	85,623	0.83	71,153	39.9	26.8	25.2	1.58	112,695	84,070
Containerships 6,000 - 6,999 TEU	85,623	0.83	71,153	39.9	27.1	25.5	1.57	111,365	83,078
Containerships 5,000 - 5,999 TEU	74,016	0.83	61,507	39.9	27.2	25.5	1.56	96,056	71,658
Containerships 4,000 - 4,999 TEU	57,396	0.83	47,696	39.9	26.2	24.6	1.62	77,361	57,711
Containerships 3,000 - 3,999 TEU	44,746	0.83	37,184	39.9	24.6	23.1	1.72	64,108	47,825
<i>Compliance with VSRP (7)</i>									
Containership 10,000 - 11,999 TEU - Outside VSRPZ	93,120	0.09	8,360	17.9	26.8	12.0	1.49	12,470	9,302
Containership 10,000 - 11,999 TEU - In VSRPZ	93,120	0.09	8,360	22.0		12.0	1.83	15,326	11,433
Containership 10,000 - 11,999 TEU - Total kW-Hrs									20,735
Containership 8,000 - 9,999 TEU - Outside VSRPZ	93,120	0.09	8,559	17.9	26.6	12.0	1.49	12,767	9,525
Containership 8,000 - 9,999 TEU - In VSRPZ	93,120	0.09	8,559	22.0		12.0	1.83	15,692	11,706
Containership 8,000 - 9,999 TEU - Total kW-Hrs									21,231
Containership 7,000 - 7,999 TEU - Outside VSRPZ	85,623	0.09	7,687	17.9	26.8	12.0	1.49	11,466	8,553
Containership 7,000 - 7,999 TEU - In VSRPZ	85,623	0.09	7,687	22.0		12.0	1.83	14,092	10,513
Containership 7,000 - 7,999 TEU - Total kW-Hrs									19,066
Containership 6,000 - 6,999 TEU - Outside VSRPZ	85,623	0.09	7,418	17.9	27.1	12.0	1.49	11,065	8,254
Containership 6,000 - 6,999 TEU - In VSRPZ	85,623	0.09	7,418	22.0		12.0	1.83	13,599	10,145
Containership 6,000 - 6,999 TEU - Total kW-Hrs									18,399
Containership 5,000 - 5,999 TEU - Outside VSRPZ	74,016	0.09	6,370	17.9	27.2	12.0	1.49	9,502	7,088
Containership 5,000 - 5,999 TEU - In VSRPZ	74,016	0.09	6,370	22.0		12.0	1.83	11,678	8,712
Containership 5,000 - 5,999 TEU - Total kW-Hrs									15,800
Containership 4,000 - 4,999 TEU - Outside VSRPZ	57,396	0.10	5,534	17.9	26.2	12.0	1.49	8,254	6,158
Containership 4,000 - 4,999 TEU - In VSRPZ	57,396	0.10	5,534	22.0		12.0	1.83	10,145	7,568
Containership 4,000 - 4,999 TEU - Total kW-Hrs									13,726
Containership 3,000 - 3,999 TEU - Outside VSRPZ	44,746	0.12	5,181	17.9	24.6	12.0	1.49	7,729	5,766
Containership 3,000 - 3,999 TEU - In VSRPZ	44,746	0.12	5,181	22.0		12.0	1.83	9,499	7,086
Containership 3,000 - 3,999 TEU - Total kW-Hrs									12,852

Notes: (1) Vessel route between the boundary of the SCAQMD waters and the Precautionary Area. Based upon data from the Port of Los Angeles Baseline Air Emissions Inventory (PEI) (Starcrest 2005) Table 2.8 and expected usage of fairway routes for each vessel type (see Table5a).

(2) Samsung Heavy Industries (2003) and 2005 PEI Table 2.19.

(3) POLA 2001 PEI page 68.

(4) Represents service speed, which is 94% of maximum speed (2005 PEI Table 2.19).

(5) 1 kW-Hr = 0.746 Hp-Hrs.

(6) Length of fairway within the Vessel Speed Reduction Program (VSRP) Zone (VSRPZ) = 22 nautical miles (NM).

(7) Applies to route within 20 nm of Pt. Fermin. Load factor derived from Propeller Law, where load factor = (actual speed/max. speed)³ (2005 PEI page 61).

Table A.1.2PD- Alt1U-3. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Precautionary Area - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Precautionary Area (1)</i>								
	<i>Propulsion Max Hp</i>	<i>Load Factor (2)</i>	<i>Modal Hp</i>	<i>Distance (NM)</i>	<i>Max Speed (kts)</i>	<i>Speed (Kts) (3)</i>	<i>Hours</i>	<i>Hp-Hrs/ Trip</i>	<i>kW-Hrs/ Trip</i>
Containerships 10,000 - 11,999 TEU	93,120	0.07	6,439	10.5	26.8	11.0	0.95	6,146	4,585
Containerships 8,000 - 9,999 TEU	93,120	0.07	6,593	10.5	26.6	11.0	0.95	6,293	4,695
Containerships 7,000 - 7,999 TEU	85,623	0.07	5,921	10.5	26.8	11.0	0.95	5,651	4,216
Containerships 6,000 - 6,999 TEU	85,623	0.07	5,713	10.5	27.1	11.0	0.95	5,454	4,069
Containerships 5,000 - 5,999 TEU	74,016	0.07	4,906	10.5	27.2	11.0	0.95	4,683	3,494
Containerships 4,000 - 4,999 TEU	57,396	0.07	4,262	10.5	26.2	11.0	0.95	4,069	3,035
Containerships 3,000 - 3,999 TEU	44,746	0.09	3,991	10.5	24.6	11.0	0.95	3,809	2,842

Notes: (1) Portion of the trip between the fairway and POLB breakwater.

(2) Load factor derived from Propeller Law, where load factor = (actual speed/max. speed)³ (2005 PEI page 61).

(3) Average transit speeds obtained from the POLB Air Emissions Inventory - 2005 (AEI), Table 2.4 (Starcrest 2007).

Table A.1.2PD- Alt1U-4. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip within the POLB Breakwater - POLB - MHTP Alternatives.

<i>Operational Mode/Vessel Type</i>	<i>Propulsion Max Hp</i>	<i>Load Factor (2)</i>	<i>Modal Hp</i>	<i>Hours/ Mode (3)</i>	<i>Hp-Hrs/ Trip</i>	<i>kW-Hrs/ Trip</i>
<i>Transit (1)</i>						
Containerships 10,000 - 11,999 TEU	93,120	0.03	2,375	0.72	1,710	1,275
Containerships 8,000 - 9,999 TEU	93,120	0.03	2,375	0.72	1,710	1,275
Containerships 7,000 - 7,999 TEU	85,623	0.03	2,141	0.72	1,541	1,150
Containerships 6,000 - 6,999 TEU	85,623	0.02	2,098	0.72	1,510	1,127
Containerships 5,000 - 5,999 TEU	74,016	0.02	1,813	0.72	1,306	974
Containerships 4,000 - 4,999 TEU	57,396	0.03	1,478	0.72	1,064	794
Containerships 3,000 - 3,999 TEU	44,746	0.03	1,365	0.72	983	733
<i>Docking</i>						
Containerships 10,000 - 11,999 TEU	93,120	0.02	1,862	0.25	466	347
Containerships 8,000 - 9,999 TEU	93,120	0.02	1,862	0.25	466	347
Containerships 7,000 - 7,999 TEU	85,623	0.02	1,712	0.25	428	319
Containerships 6,000 - 6,999 TEU	85,623	0.02	1,712	0.25	428	319
Containerships 5,000 - 5,999 TEU	74,016	0.02	1,480	0.25	370	276
Containerships 4,000 - 4,999 TEU	57,396	0.02	1,148	0.25	287	214
Containerships 3,000 - 3,999 TEU	44,746	0.02	895	0.25	224	167

Notes: (1) Average one-way transit operations between the POLB breakwater and the Middle Harbor Terminal.

(2) Transit load factors based upon the average of inbound and outbound load factors in 2005 AEI Table 2.9. Docking load factors obtained from AEI page 68.

(3) One-way transit durations = 3.6 nm @ 5 kts. Docking durations obtained from AEI page 68.

Table A.1.2PD- Alt1U-5. Cargo Vessel Transit Distances within the Fairway and Precautionary Areas - POLB - MHTP Alternatives.

<i>Fairway 1-way Route Length (1)/ Percent in Route (2)</i>				
<i>Vessel Type</i>	<i>North</i>	<i>West</i>	<i>South</i>	<i>Ave. Length</i>
Container	90.0	10.0	-	39.9
General Cargo	60.0	10.0	30.0	38.9
Auto	80.0	10.0	10.0	39.6
<i>VSRP Zone 1-way Distance within Fairway/Percent in Route (2)</i>				
<i>Vessel Type</i>	<i>North</i>	<i>West</i>	<i>South</i>	<i>Ave. Length</i>
Container	90.0	10.0	-	22.1
General Cargo	60.0	10.0	30.0	19.4
Auto	80.0	10.0	10.0	21.2
<i>Precautionary Area 1-way Route Length (1)/Percent in Route (2)</i>				
<i>Vessel Type</i>	<i>North (3)</i>	<i>West (3)</i>	<i>South (3)</i>	<i>Ave. Length</i>
Container	90.0	10.0	-	10.5
General Cargo	60.0	10.0	30.0	9.6
Auto	80.0	10.0	10.0	10.2

Notes: (1) Route lengths in units of nautical miles (nm) (from PEI Table 2.8).

(2) Based upon expected transit distribution patterns

(3) Revised from PEI Table 2.8 values, based upon review of nautical chart 18740, 40th edition (US D

Table A.1.2PD- Alt1U-6. Cargo Vessel Auxiliary Generator Usage per One-Way Fairway Transit POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel (1)</i>	<i>Load Factor (2)</i>	<i>Hours/Transit</i>	<i>kW-Hrs/Transit</i>
<i>Non-Compliance with VSRP (3)</i>				
Containerships 10,000 - 11,999 TEU	18,000	0.13	1.58	3,706
Containerships 8,000 - 9,999 TEU	15,000	0.13	1.60	3,113
Containerships 7,000 - 7,999 TEU	13,501	0.13	1.58	2,780
Containerships 6,000 - 6,999 TEU	13,501	0.13	1.57	2,747
Containerships 5,000 - 5,999 TEU	10,366	0.13	1.56	2,105
Containerships 4,000 - 4,999 TEU	7,347	0.13	1.62	1,549
Containerships 3,000 - 3,999 TEU	5,298	0.13	1.72	1,187
<i>Compliance with VSRP (3)</i>				
Containerships 10,000 - 11,999 TEU	18,000	0.13	3.33	7,781
Containerships 8,000 - 9,999 TEU	15,000	0.13	3.33	6,484
Containerships 7,000 - 7,999 TEU	13,501	0.13	3.33	5,836
Containerships 6,000 - 6,999 TEU	13,501	0.13	3.33	5,836
Containerships 5,000 - 5,999 TEU	10,366	0.13	3.33	4,481
Containerships 4,000 - 4,999 TEU	7,347	0.13	3.33	3,176
Containerships 3,000 - 3,999 TEU	5,298	0.13	3.33	2,290

Notes: (1) Extrapolated from 2005 PEI Table 2.12.

(2) 2005 PEI Table 2.12.

(3) See Table for estimated vessel transit durations within the fairway for each mode of operation.

Table A.1.2PD- Alt1U-7. Cargo Vessel Auxiliary Generator Usage per One-Way Precautionary Area Transit - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel</i>	<i>Load Factor (1)</i>	<i>Hours/Transit</i>	<i>kW-Hrs/Transit</i>
Containerships 10,000 - 11,999 TEU	18,000	0.25	0.95	4,295
Containerships 8,000 - 9,999 TEU	15,000	0.25	0.95	3,580
Containerships 7,000 - 7,999 TEU	13,501	0.25	0.95	3,222
Containerships 6,000 - 6,999 TEU	13,501	0.25	0.95	3,222
Containerships 5,000 - 5,999 TEU	10,366	0.25	0.95	2,474
Containerships 4,000 - 4,999 TEU	7,347	0.25	0.95	1,753
Containerships 3,000 - 3,999 TEU	5,298	0.25	0.95	1,264

Notes: (1) POLA 2001 PEI Table 2.19.

Table A.1.2PD- Alt1U-8. Cargo Vessel Auxiliary Generator Usage per One-Way Transit and Docking within the POLB Breakwater - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel</i>	<i>Load Factor (1)</i>	<i>Hours/ Mode (2)</i>	<i>kW-Hrs/ Transit</i>
Transit (1)				
Containerships 10,000 - 11,999 TEU	18,000	0.50	0.72	6,480
Containerships 8,000 - 9,999 TEU	15,000	0.50	0.72	5,400
Containerships 7,000 - 7,999 TEU	13,501	0.50	0.72	4,860
Containerships 6,000 - 6,999 TEU	13,501	0.50	0.72	4,860
Containerships 5,000 - 5,999 TEU	10,366	0.50	0.72	3,732
Containerships 4,000 - 4,999 TEU	7,347	0.50	0.72	2,645
Containerships 3,000 - 3,999 TEU	5,298	0.47	0.72	1,774
Docking				
Containerships 10,000 - 11,999 TEU	18,000	0.50	0.25	2,250
Containerships 8,000 - 9,999 TEU	15,000	0.50	0.25	1,875
Containerships 7,000 - 7,999 TEU	13,501	0.50	0.25	1,688
Containerships 6,000 - 6,999 TEU	13,501	0.50	0.25	1,688
Containerships 5,000 - 5,999 TEU	10,366	0.50	0.25	1,296
Containerships 4,000 - 4,999 TEU	7,347	0.50	0.25	918
Containerships 3,000 - 3,999 TEU	5,298	0.47	0.25	616

Notes: (1) 2005 PEI Table 2.12.

(2) See Table for estimated vessel transit/docking durations within the Harbor.

Table A.1.2PD- Alt1U-9. Cargo Vessel Hoteling Auxiliary Generator Usage per Ship Visit - POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Auxiliary kW per Vessel</i>	<i>Load Factor (1)</i>	<i>Hours/ Visit (2)</i>	<i>kW-Hrs/ Visit</i>
Project Year 2010				
Containerships 8,000 - 9,999 TEU	15,000	0.15	24.00	54,000
Containerships 6,000 - 6,999 TEU	13,501	0.15	24.00	48,604
Containerships 4,000 - 4,999 TEU	7,347	0.17	24.00	29,974
Project Year 2015				
Containerships 8,000 - 9,999 TEU	15,000	0.15	24.00	54,000
Containerships 7,000 - 7,999 TEU	13,501	0.15	24.00	48,604
Containerships 6,000 - 6,999 TEU	13,501	0.15	24.00	48,604
Containerships 4,000 - 4,999 TEU	7,347	0.17	24.00	29,974
Containerships 3,000 - 3,999 TEU	5,298	0.20	24.00	25,430
Project Year 2020				
Containerships 10,000 - 11,999 TEU	18,000	0.15	24.00	64,800
Containerships 8,000 - 9,999 TEU	15,000	0.15	24.00	54,000
Containerships 7,000 - 7,999 TEU	13,501	0.15	24.00	48,604
Containerships 6,000 - 6,999 TEU	13,501	0.15	24.00	48,604
Containerships 4,000 - 4,999 TEU	7,347	0.17	24.00	29,974
Project Year 2030				
Containerships 10,000 - 11,999 TEU	18,000	0.15	24.00	64,800
Containerships 8,000 - 9,999 TEU	15,000	0.15	24.00	54,000
Containerships 7,000 - 7,999 TEU	13,501	0.15	24.00	48,604
Containerships 6,000 - 6,999 TEU	13,501	0.15	24.00	48,604
Containerships 5,000 - 5,999 TEU	10,366	0.16	24.00	38,562
Containerships 4,000 - 4,999 TEU	7,347	0.17	24.00	29,974

Notes: (1) 2005 PEI Table 2.12.

(2) From POLB 2006

Table A.1.2PD- Alt1U-10. Cargo Vessel Auxiliary Boiler Usage per Ship Visit -
POLB - MHTP Alternatives.

<i>Vessel Type</i>	<i>Hourly Fuel Usage (1)</i>
Container Vessels	0.170

Notes: (1) Units in tons/hour of fuel consumption. From
2005 PEI Table 2.13. HFO SFC = 305 grams/kW-Hr
This usage applies to all vessel locations except the fairway.

Table A.1.2PD- Alt1U-11. Tugboat Assist Usage per OGV Ship Visit - POLB MHTP Alternatives.

<i>Vessel Type</i>	<i>Tugboat Max Hp (1)</i>	<i>Load Factor (2)</i>	<i>Hours/ Assist (3)</i>	<i>Hp-Hr/ Assist</i>	<i># of Assist Tugs/ OGV Visit (4)</i>	<i>Hp-Hrs/ Ship Visit</i>	<i>kW-Hrs/ Ship Visit</i>
All Containerships - 2010	4,100	0.31	1.26	1,603	3	4,808	3,587
All Containerships - 2015	4,100	0.31	1.26	1,603	3	4,808	3,587
All Containerships - 2020	4,100	0.31	1.26	1,603	3	4,808	3,587
All Containerships - 2030	4,100	0.31	1.26	1,603	3	4,808	3,587
Totals						19,233	14,348

Notes: (1) = Total tug Hp rating (2005 PEI Table 3.1).

(2) 2005 PEI Table 3.9.

(3) Duration 1-way vessel trip due to harbor transit and docking durations presented in Tables ___ and ___ times 1.3 to account for assist time, travel to/from berth, and idle mode.

(4) Assuming 3 tug assists per ship visit.

Table A.1.2PD- Alt1U-12. Tugboat Aux. Gen. Usage per OGV Ship Visit - POLB MHTP Alternatives.

<i>Vessel Type</i>	<i>Aux. Engine Hp (1)</i>	<i>Load Factor (2)</i>	<i>Hours/ Assist (3)</i>	<i>Hp-Hr/ Assist</i>	<i># of Assist Tugs/ OGV Visit (4)</i>	<i>Hp-Hrs/ Ship Visit</i>	<i>kW-Hrs/ Ship Visit</i>
All Containerships - 2010	260	0.43	1.64	183	3	550	410
All Containerships - 2015	260	0.43	1.64	183	3	550	410
All Containerships - 2020	260	0.43	1.64	183	3	550	410
All Containerships - 2030	260	0.43	1.64	183	3	550	410
Totals						2,199	1,641

Notes: (1) = Total tug aux. gen. Hp rating (2005 PEI Table 3.1).

(2) 2005 PEI Table 3.9.

(3) Duration = 1.3 times tug assist time in Table 13 to account for usage when main engines are shut down in stand-by mode.

(4) Assuming 3 tug assists per ship visit.

Table A.1.2PD- Alt1U-13. Unmitigated Emissions Factors for Vessels - Middle Harbor Project Alternatives.

Operational Mode/Ship-Engine Type	Emission Factors (Gm/kW-Hr)						Source
	ROG	CO	NOx	SOx	PM10	PM2.5	
<i>Cruise/Main Engine</i>							
OGVs - Slow Speed Diesel Main Engines - 0.1% S RFO	0.78	1.10	17.00	0.36	0.25	0.23	(1)
<i><20% Main Engine Load Emission Factors</i>							
OGVs - Slow Speed Diesel 2% Load Adjustment Factor	21.18	9.68	4.63	1.00	7.29		(2)
OGVs - Slow Speed Diesel 3% Load Adjustment Factor	11.68	6.46	2.92	1.00	4.33		(2)
OGVs - Slow Speed Diesel 4% Load Adjustment Factor	7.71	4.86	2.21	1.00	3.09		(2)
OGVs - Slow Speed Diesel 5% Load Adjustment Factor	5.61	3.89	1.83	1.00	2.44		(2)
OGVs - Slow Speed Diesel 6% Load Adjustment Factor	4.35	3.25	1.60	1.00	2.04		(2)
OGVs - Slow Speed Diesel 7% Load Adjustment Factor	3.52	2.79	1.45	1.00	1.79		(2)
OGVs - Slow Speed Diesel 8% Load Adjustment Factor	2.95	2.45	1.35	1.00	1.61		(2)
OGVs - Slow Speed Diesel 9% Load Adjustment Factor	2.52	2.18	1.27	1.00	1.48		(2)
OGVs - Slow Speed Diesel 10% Load Adjustment Factor	2.20	1.96	1.22	1.00	1.38		(2)
OGVs - Slow Speed Diesel 11% Load Adjustment Factor	1.96	1.79	1.17	1.00	1.30		(2)
OGVs - Slow Speed Diesel 12% Load Adjustment Factor	1.76	1.64	1.14	1.00	1.24		(2)
OGVs - Slow Speed Diesel 13% Load Adjustment Factor	1.60	1.52	1.11	1.00	1.19		(2)
OGVs - Slow Speed Diesel 15% Load Adjustment Factor	1.36	1.32	1.06	1.00	1.11		(2)
OGVs - Slow Speed Diesel 16% Load Adjustment Factor	1.26	1.24	1.05	1.00	1.08		(2)
OGVs - Slow Speed Diesel 17% Load Adjustment Factor	1.18	1.17	1.03	1.00	1.06		(2)
OGVs - Slow Speed Diesel 18% Load Adjustment Factor	1.11	1.11	1.02	1.00	1.04		(2)
OGVs - Slow Speed Diesel 19% Load Adjustment Factor	1.05	1.05	1.01	1.00	1.02		(2)
OGVs - Slow Speed Diesel 2% Load Emission Factor	16.52	10.65	78.71	0.75	2.06	1.90	(3)
OGVs - Slow Speed Diesel 3% Load Emission Factor	9.11	7.11	49.64	0.75	1.22	1.13	(3)
OGVs - Slow Speed Diesel 4% Load Emission Factor	6.01	5.35	37.57	0.75	0.87	0.80	(3)
OGVs - Slow Speed Diesel 5% Load Emission Factor	4.38	4.28	31.11	0.75	0.69	0.63	(3)
OGVs - Slow Speed Diesel 6% Load Emission Factor	3.39	3.58	27.20	0.75	0.58	0.53	(3)
OGVs - Slow Speed Diesel 7% Load Emission Factor	2.75	3.07	24.65	0.75	0.51	0.47	(3)
OGVs - Slow Speed Diesel 8% Load Emission Factor	2.30	2.70	22.95	0.75	0.45	0.42	(3)
OGVs - Slow Speed Diesel 9% Load Emission Factor	1.97	2.40	21.59	0.75	0.42	0.38	(3)
OGVs - Slow Speed Diesel 10% Load Emission Factor	1.72	2.16	20.74	0.75	0.39	0.36	(3)
OGVs - Slow Speed Diesel 11% Load Emission Factor	1.53	1.97	19.89	0.75	0.37	0.34	(3)
OGVs - Slow Speed Diesel 12% Load Emission Factor	1.37	1.80	19.38	0.75	0.35	0.32	(3)
OGVs - Slow Speed Diesel 13% Load Emission Factor	1.25	1.67	18.87	0.75	0.34	0.31	(3)
OGVs - Slow Speed Diesel 15% Load Emission Factor	1.06	1.45	18.02	0.75	0.31	0.29	(3)
OGVs - Slow Speed Diesel 16% Load Emission Factor	0.98	1.36	17.85	0.75	0.31	0.28	(3)
OGVs - Slow Speed Diesel 17% Load Emission Factor	0.92	1.29	17.51	0.75	0.30	0.28	(3)
OGVs - Slow Speed Diesel 18% Load Emission Factor	0.87	1.22	17.34	0.75	0.29	0.27	(3)
OGVs - Slow Speed Diesel 19% Load Emission Factor	0.82	1.16	17.17	0.75	0.29	0.27	(3)
Tugboats - Diesel Main Engines Year 2005	0.33	2.48	13.61	0.07	0.46	0.43	(4)
Tugboats - Diesel Main Engines Year 2010	0.33	2.48	13.03	0.01	0.43	0.40	(4)
Tugboats - Diesel Main Engines Year 2015	0.33	2.48	5.06	0.01	0.12	0.11	(4)
Tugboats - Diesel Main Engines Year 2020	0.33	2.48	4.45	0.01	0.10	0.10	(4)
Tugboats - Diesel Main Engines Year 2030	0.33	2.48	4.45	0.01	0.10	0.10	(4)

<i>Auxiliary Generators</i>							
OGVs - Medium Speed Diesel - Marine Gas Oil @ 1.5% S	0.49	1.10	14.30	6.60	0.94	0.91	(7)
							(7)
OGVs - Medium Speed Diesel - Marine Gas Oil @ 0.1% S	0.52	1.10	13.90	0.40	0.25	0.23	(7)
Tugboats - High Speed Diesel - Year 2005	0.26	2.79	12.09	0.08	0.42	0.39	(4)
Tugboats - High Speed Diesel - Year 2010	0.26	2.79	11.30	0.01	0.39	0.37	(4)
Tugboats - High Speed Diesel - Year 2015	0.26	2.79	6.51	0.01	0.19	0.18	(4)
Tugboats - High Speed Diesel - Year 2020	0.26	2.79	4.58	0.01	0.10	0.09	(4)
Tugboats - High Speed Diesel - Year 2030	0.26	2.79	4.58	0.01	0.10	0.09	(4)
<i>Auxiliary Boilers</i>							
Commercial Vessels - Residual Oil @ 0.1% S	0.76	9.20	23.43	3.73	0.49	0.45	(6)
Commercial Vessels - Residual Oil @ 1.5% S	0.76	9.20	24.01	63.79	1.89	1.82	(6)

Notes: (1) Applies to OGV transit mode of operation (ARB 2008).

(2) Unitless adjustment factors from PEI Table 2.21 that are applied to OGV main power plant emission factors in PEI Table 2.20 to obtain emission factors for engine loads <20%.

(3) Calculated OGV main power plant low load emission factors.

(4) Composite EFs for category 1/2 diesel engines (Starcrest 2006). Average sulfur (S) content = 0.19% (PEI Section 3.2.2) in year 2003 and 15 ppm in year 2007+

(5) Table 2.22 (Starcrest 2004). PM emission factors for medium speed diesel engines burning 0.2% S marine gas, POLB diesel, and ULSD calculated by Starcrest (Starcrest 2006).

(6) Units in Lb/ton fuel from PEI Table 2.23. Original PM10 factor divided by 0.86 to produce DPM factor (Table 1.3-5 [EPA 1998]).

(7) (ARB 2008)

Table A.1.2-PD Alt1U-14. 1.5% S Diesel Emissions Factors for OGVs - Middle Harbor Project Alternatives.

Operational Mode/Ship-Engine Type	Emission Factors (Gm/kW-Hr)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Cruise/Main Engine</i>						
OGVs - Slow Speed Diesel Main Engines - 1.5% S RFO	0.74	1.24	17.55	6.20	0.94	0.91
OGVs - Slow Speed Diesel 2% Load Emission Factor	15.57	12.00	81.26	6.20	6.85	6.60
OGVs - Slow Speed Diesel 3% Load Emission Factor	8.58	8.01	51.25	6.20	4.07	3.92
OGVs - Slow Speed Diesel 4% Load Emission Factor	5.67	6.03	38.79	6.20	2.90	2.80
OGVs - Slow Speed Diesel 5% Load Emission Factor	4.12	4.82	32.12	6.20	2.29	2.21
OGVs - Slow Speed Diesel 6% Load Emission Factor	3.20	4.03	28.08	6.20	1.92	1.85
OGVs - Slow Speed Diesel 7% Load Emission Factor	2.59	3.46	25.45	6.20	1.68	1.62
OGVs - Slow Speed Diesel 8% Load Emission Factor	2.17	3.04	23.69	6.20	1.51	1.46
OGVs - Slow Speed Diesel 9% Load Emission Factor	1.85	2.70	22.29	6.20	1.39	1.34
OGVs - Slow Speed Diesel 10% Load Emission Factor	1.62	2.43	21.41	6.20	1.30	1.25
OGVs - Slow Speed Diesel 11% Load Emission Factor	1.44	2.22	20.53	6.20	1.22	1.18
OGVs - Slow Speed Diesel 12% Load Emission Factor	1.29	2.03	20.01	6.20	1.17	1.12
OGVs - Slow Speed Diesel 13% Load Emission Factor	1.18	1.88	19.48	6.20	1.12	1.08
OGVs - Slow Speed Diesel 15% Load Emission Factor	1.00	1.64	18.60	6.20	1.04	1.00
OGVs - Slow Speed Diesel 16% Load Emission Factor	0.93	1.54	18.43	6.20	1.02	0.98
OGVs - Slow Speed Diesel 17% Load Emission Factor	0.87	1.45	18.08	6.20	1.00	0.96
OGVs - Slow Speed Diesel 18% Load Emission Factor	0.82	1.38	17.90	6.20	0.98	0.94
OGVs - Slow Speed Diesel 19% Load Emission Factor	0.77	1.30	17.73	6.20	0.96	0.92

Table A.1.2-PD Alt1U-14a SO2 EF in the following units for #2 diesel - assumes that 98% of S converted to SO2

1% S - Gm/kW-Hr	4.22
0.5% S - Gm/kW-Hr	2.11
0.2% S - Gm/kW-Hr	0.84
0.19% S - Gm/kW-Hr - baseline Port tugs	0.80
0.035% S - Gm/Hp-Hr - baseline PHL locos	0.11
0.035% S - Gm/Hp-Hr - baseline CHE	0.10
0.1% S - Gm/Hp-Hr - line haul locos by 2008	0.16
0.22% S - Gm/Hp-Hr - baseline line haul locos	0.69
15 ppm S - Gm/kW-Hr	0.006
15 ppm S - Gm/Hp-Hr - Locos	0.005
15 ppm S - Gm/Hp-Hr - CHE	0.004
Conversions	
Fuel Usage - lb/Hp-Hr to Gm/kW-Hr	607.82
Detroit Diesel - Series 60 - 6063MK33 375 Hp Engine - 0.33 lb/Hp-Hr to Gm/kW-Hr	200.58
SO2 EF in the following units for IFO diesel in main power plants (98% of S converted to SO2)	
2.7% S - Gm/kW-Hr - EPA fuel usage factor	10.58
2.7% S - Gm/kW-Hr - Entec fuel usage Factor	10.32
1.5% S - Gm/kW-Hr - Entec fuel usage Factor	5.73

Table A.1.2PD- Alt1U-15. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.05	0.07	0.65	0.19	0.04	0.04
Subtotal	0.05	0.07	0.65	0.19	0.04	0.04
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.09	0.11	1.01	0.03	0.02	0.02
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.09	0.11	1.01	0.03	0.02	0.02
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.05	0.07	0.63	0.02	0.01	0.01
Subtotal	0.05	0.07	0.63	0.02	0.01	0.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.08	0.10	0.88	0.03	0.02	0.02
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.08	0.10	0.88	0.03	0.02	0.02

Note: (1) VSRP compliance = 100% for future years.

Table A.1.2PD- Alt1U-16. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.02	0.17	0.04	0.01	0.01
Subtotal	0.02	0.02	0.17	0.04	0.01	0.01
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.03	0.03	0.26	0.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.03	0.03	0.26	0.01	0.01	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.02	0.16	0.00	0.00	0.00
Subtotal	0.02	0.02	0.16	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.02	0.03	0.22	0.01	0.00	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.03	0.22	0.01	0.00	0.00

Table A.1.2PD- Alt1U-17. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Alternative 1.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.01	0.09	0.01	0.01	0.01
Subtotal	0.02	0.01	0.09	0.01	0.01	0.01
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.03	0.02	0.14	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.03	0.02	0.14	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.01	0.09	0.00	0.00	0.00
Subtotal	0.02	0.01	0.09	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.04	0.03	0.20	0.00	0.01	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.04	0.03	0.20	0.00	0.01	0.00

Table A.1.2PD- Alt1U-18. Annual Cargo Vessel Emissions for Docking Activities -
POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Subtotal	0.01	0.01	0.04	0.00	0.00	0.00
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.01	0.01	0.06	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.06	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Subtotal	0.01	0.01	0.04	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.01	0.01	0.06	0.00	0.00	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.06	0.00	0.00	0.00

Table A.1.2PD- Alt1U-19. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone
POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.10	0.05	0.01	0.01
Subtotal	0.00	0.01	0.10	0.05	0.01	0.01
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.01	0.02	0.20	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.02	0.20	0.01	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Subtotal	0.00	0.01	0.10	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.01	0.01	0.18	0.01	0.00	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.18	0.01	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

(2) VSRP compliance = 100% for future years.

Table A.1.2PD- Alt1U-20. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.06	0.03	0.00	0.00
Subtotal	0.00	0.00	0.06	0.03	0.00	0.00
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.01	0.11	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.11	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Subtotal	0.00	0.00	0.05	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.10	0.00	0.00	0.00

Note: Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD- Alt1U-21. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.08	0.04	0.01	0.01
Subtotal	0.00	0.01	0.08	0.04	0.01	0.01
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.01	0.01	0.17	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.17	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Subtotal	0.00	0.01	0.08	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.01	0.01	0.15	0.00	0.00	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.15	0.00	0.00	0.00

Note: Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD- Alt1U-22. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.03	0.01	0.00	0.00
Subtotal	0.00	0.00	0.03	0.01	0.00	0.00
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.00	0.06	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.06	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.03	0.00	0.00	0.00
Subtotal	0.00	0.00	0.03	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.05	0.00	0.00	0.00

Note: Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD- Alt1U-23. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.03	0.07	0.85	0.39	0.06	0.05
Containerships 6,000 - 6,999 TEU	0.03	0.06	0.77	0.35	0.05	0.05
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.06	0.12	1.62	0.75	0.11	0.10
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	0.01	0.03	0.37	0.01	0.01	0.01
Containerships 6,000 - 6,999 TEU	0.01	0.03	0.37	0.01	0.01	0.01
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.03	0.06	0.74	0.02	0.01	0.01
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.01	0.02	0.20	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.01	0.01	0.17	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.01	0.15	0.00	0.00	0.00
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.04	0.51	0.01	0.01	0.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.01	0.02	0.20	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.01	0.01	0.17	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.01	0.01	0.15	0.00	0.00	0.00
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.04	0.51	0.01	0.01	0.01

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in years 2015/2020+

Table A.1.2PD- Alt1U-24. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.01	0.00	0.00
Subtotal	0.00	0.00	0.00	0.01	0.00	0.00
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Note: Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD- Alt1U-25. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.01	0.00	0.00
Subtotal	0.00	0.00	0.00	0.01	0.00	0.00
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Note: Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD- Alt1U-26. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2015						
Containerships 8,000 - 9,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 6,000 - 6,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Note: Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD- Alt1U-27. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - Unmitigated 342-acre Alternative.

Project Scenario/Vessel Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Year 2005 Baseline						
Subtotal						
Project Year 2010						
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.13	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.13	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.04	0.10	0.26	0.01	0.01
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.04	0.10	0.02	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.06	0.14	0.02	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.02	0.05	0.01	0.00	0.00
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 5,000 - 5,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.06	0.14	0.02	0.00	0.00

Table A.1.2PD- Alt1U-28. Peak Daily Tugboat Emissions for Cargo Vessel Assists
POLB MHTP Unmitigated Alternative 1.

Project Scenario/All Vessels	Tons Per Day			Tons Per Day		
	ROG	CO	NOx	SOx	PM10	PM2.5
Project Year 2010	0.00	0.01	0.05	0.00	0.00	0.00
Project Year 2015	0.00	0.01	0.02	0.00	0.00	0.00
Project Year 2020	0.00	0.01	0.02	0.00	0.00	0.00
Project Year 2030	0.00	0.01	0.02	0.00	0.00	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2PD- Alt1U-29. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists
POLB - MHTP - Unmitigated Alternative 1

Project Scenario/All Vessels	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
Project Year 2010	0.00	0.00	0.01	0.00	0.00	0.00
Project Year 2015	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2020	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2030	0.00	0.00	0.00	0.00	0.00	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.2PD- Alt1U-30. Peak Day Vessel Emissions - POLB MHTP Unmitigated Alternative 1.

Project Scenario/Emission Source	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline - TPY</i>						
Ships - Fairway Transit (1)	9.61	21.91	254.41	145.75	21.81	20.44
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38	21.82	3.62	3.39
Ships - Harbor Transit (1)	2.76	4.26	32.76	13.92	3.39	3.17
Ships - Docking (1)	0.92	1.42	10.92	4.64	1.13	1.06
Ships - Hoteling Aux. Sources	9.72	34.60	348.50	320.41	17.89	16.86
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02	0.06	0.41	0.38
Subtotal	25.44	69.07	697.99	506.60	48.24	45.30
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	0.05	0.08	0.75	0.23	0.05	0.04
Ships - Precautionary Area Transit (1)	0.02	0.03	0.23	0.08	0.02	0.01
Ships - Harbor Transit (1)	0.02	0.02	0.18	0.06	0.01	0.01
Ships - Docking (1)	0.01	0.01	0.07	0.02	0.01	0.01
Ships - Hoteling Aux. Sources	0.06	0.16	1.72	1.01	0.11	0.11
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Subtotal	0.16	0.31	2.99	1.39	0.19	0.19
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	0.10	0.13	1.21	0.04	0.02	0.02
Ships - Precautionary Area Transit (1)	0.03	0.04	0.37	0.01	0.01	0.01
Ships - Harbor Transit (1)	0.03	0.03	0.31	0.01	0.01	0.01
Ships - Docking (1)	0.01	0.01	0.12	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.03	0.10	0.84	0.04	0.02	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.21	0.32	2.87	0.10	0.06	0.05
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	0.06	0.07	0.72	0.03	0.01	0.01
Ships - Precautionary Area Transit (1)	0.02	0.03	0.22	0.01	0.00	0.00
Ships - Harbor Transit (1)	0.02	0.02	0.17	0.00	0.00	0.00
Ships - Docking (1)	0.01	0.01	0.07	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.02	0.10	0.66	0.04	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.13	0.23	1.86	0.08	0.04	0.03
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	0.09	0.11	1.05	0.04	0.02	0.02
Ships - Precautionary Area Transit (1)	0.03	0.04	0.32	0.01	0.01	0.01
Ships - Harbor Transit (1)	0.05	0.04	0.35	0.01	0.01	0.01
Ships - Docking (1)	0.01	0.01	0.11	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.02	0.10	0.66	0.04	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.20	0.31	2.51	0.09	0.05	0.05

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD- Alt1U-31. Peak Daily Vessel Emissions - POLB MHTP Unmitigated Alternative 1

Project Scenario/Emission Source	Pounds Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline - Annual Average Day</i>						
Ships - Fairway Transit (1)	52.7	120.0	1,394.0	798.6	119.5	112.0
Ships - Precautionary Area Transit (1)	11.7	25.4	215.8	119.6	19.8	18.6
Ships - Harbor Transit (1)	15.1	23.4	179.5	76.2	18.6	17.4
Ships - Docking (1)						
Ships - Hoteling Aux. Sources	53.3	189.6	1,909.6	1,755.7	98.0	92.4
Tugboats - Cargo Vessel Assist (1)	1.6	12.3	65.9	0.3	2.2	2.1
Subtotal	134	371	3,765	2,750	258	242
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	104.7	162.5	1,496.0	467.6	91.7	88.3
Ships - Precautionary Area Transit (1)	38.7	57.8	458.9	154.7	30.4	29.3
Ships - Harbor Transit (1)	35.9	43.1	352.0	114.3	25.7	24.7
Ships - Docking (1)	16.7	16.6	136.6	38.0	10.4	10.0
Ships - Hoteling Aux. Sources	117.0	323.9	3,430.7	2,013.8	228.1	219.6
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	113.3	0.1	3.8	3.5
Subtotal	316	626	5,988	2,788	390	375
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	198.9	255.9	2,418.4	81.2	46.3	42.6
Ships - Precautionary Area Transit (1)	65.3	83.9	737.2	22.9	14.6	13.4
Ships - Harbor Transit (1)	63.8	68.4	615.8	14.6	13.0	11.9
Ships - Docking (1)	29.7	26.2	237.4	4.8	5.3	4.8
Ships - Hoteling Aux. Sources	61.9	193.0	1,680.7	73.3	30.8	28.3
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	45.9	0.1	1.1	1.1
Subtotal	422	649	5,736	197	111	102
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	111.1	145.9	1,449.8	50.7	27.1	24.9
Ships - Precautionary Area Transit (1)	41.0	52.6	444.9	14.3	8.9	8.2
Ships - Harbor Transit (1)	38.1	40.0	341.6	8.2	7.3	6.7
Ships - Docking (1)	17.8	15.3	132.6	2.6	3.0	2.8
Ships - Hoteling Aux. Sources	47.7	193.9	1,312.9	75.2	24.5	22.5
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	259	470	3,721	151	72	66
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	172.8	222.8	2,109.1	70.7	40.4	37.1
Ships - Precautionary Area Transit (1)	56.9	73.7	647.3	20.3	12.8	11.8
Ships - Harbor Transit (1)	93.4	78.7	694.7	13.2	15.7	14.5
Ships - Docking (1)	27.2	24.0	216.3	4.3	4.8	4.4
Ships - Hoteling Aux. Sources	47.7	193.9	1,312.9	75.2	24.5	22.5
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	401	615	5,020	184	99	91

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD- Alt1U-32 Train Trip Generation Rates
 POLA - MHTP - 342-acre Alternative.

<i>Project Scenario/Rail Yard</i>	<i>Annual Round Trips</i>	<i>Peak Daily Round Trips</i>	Factor of Annual TEUs
Year 2005 Baseline			
To/from Middle Harbor Railyard	138	1	0.007
Year 2010			
To/from Middle Harbor Railyard	126	1	0.008
Year 2015			
To/from Middle Harbor Railyard	1,648	5	0.003
Year 2020			
To/from Middle Harbor Railyard	2,098	6	0.003
Year 2030			
To/from Middle Harbor Railyard	2,061	6	0.003

Table A.1.2PD- Alt1U-33. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1 Year 2010.

Train Direction/Source Activity	Tons per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to O	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Bl	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to S	0.01	0.02	0.12	0.00	0.00	0.00
Haul Line Locomotive - Swiching	0.00	0.00	0.01	0.00	0.00	0.00
Yard Locomotive	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.03	0.14	0.00	0.00	0.00
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to O	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Bl	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to S	0.01	0.02	0.12	0.00	0.00	0.00
Haul Line Locomotive - Swiching	0.00	0.00	0.00	0.00	0.00	0.00
Yard Locomotive	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.02	0.13	0.00	0.00	0.00
Total Tons Per Year	0.02	0.05	0.27	0.01	0.01	0.01

Table A.1.2PD- Alt1U-34. Peak Day Rail Yard Cargo Handling Equipment Emissions
POLB - MHTP Unmitigated Alternative 1 Year 2010.

Equipment	Hp-Hr per Year	Tons per Day					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	1,627	0.00	0.00	0.01	0.00	0.00	0.00
Yard Tractor	1,062	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	2,688	0.00	0.00	0.02	0.00	0.00	0.00

7.

ear 2005

or switch

Table A.1.2PD- Alt1U-35. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1 Year 2015.

Train Direction/Source Activity	Tons per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to O	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Bl	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to S	0.04	0.11	0.55	0.00	0.01	0.01
Haul Line Locomotive - Swiching	0.00	0.01	0.06	0.00	0.00	0.00
Yard Locomotive	0.00	0.00	0.02	0.00	0.00	0.00
Subtotal	0.05	0.13	0.65	0.00	0.02	0.02
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to O	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Bl	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to S	0.04	0.11	0.55	0.00	0.01	0.01
Haul Line Locomotive - Swiching	0.00	0.00	0.02	0.00	0.00	0.00
Yard Locomotive	0.00	0.00	0.02	0.00	0.00	0.00
Subtotal	0.04	0.12	0.61	0.00	0.02	0.02
Total Tons Per Year	0.09	0.25	1.26	0.00	0.03	0.03

Table A.1.2PD- Alt1U-36. Peak Day Rail Yard Cargo Handling Equipment Emissions
POLB - MHTP - Unmitigated Alternative 1 Year 2015.

Equipment	Hp-Hr per Year	Tons per Day					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	9,174	0.00	0.01	0.01	0.00	0.00	0.00
Yard Tractor	5,986	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	15,159	0.00	0.02	0.02	0.00	0.00	0.00

Table A.1.2PD- Alt1U-37. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2020.

Train Direction/Source Activity	Tons per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to O	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Bl	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to S	0.04	0.13	0.62	0.00	0.02	0.02
Haul Line Locomotive - Swiching	0.00	0.01	0.06	0.00	0.00	0.00
Yard Locomotive	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.05	0.15	0.72	0.00	0.02	0.02
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to O	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Bl	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to S	0.04	0.13	0.62	0.00	0.02	0.02
Haul Line Locomotive - Swiching	0.00	0.01	0.03	0.00	0.00	0.00
Yard Locomotive	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.05	0.15	0.69	0.00	0.02	0.02
Total Tons Per Year	0.10	0.30	1.41	0.00	0.04	0.04

Table A.1.2PD- Alt1U-38. Peak Day Rail Yard Cargo Handling Equipment Emissions
POLB - MHTP - Unmitigated Alternative 1 Year 2020.

Equipment	Hp-Hr per Year	Tons per Day					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	12,420	0.00	0.01	0.02	0.00	0.00	0.00
Yard Tractor	8,104	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	20,523	0.00	0.02	0.02	0.00	0.00	0.00

Table A.1.2PD- Alt1U-39. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2030.

Train Direction/Source Activity	Tons per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>						
Haul Line Locomotive - 10 mph - Port to O	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Bl	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to S	0.04	0.13	0.55	0.00	0.01	0.01
Haul Line Locomotive - Swiching	0.00	0.01	0.06	0.00	0.00	0.00
Yard Locomotive	0.00	0.01	0.01	0.00	0.00	0.00
Subtotal	0.05	0.15	0.65	0.00	0.01	0.01
<i>Middle Harbor/Inbound</i>						
Haul Line Locomotive - 10 mph - Port to O	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Bl	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to S	0.04	0.13	0.55	0.00	0.01	0.01
Haul Line Locomotive - Swiching	0.00	0.01	0.02	0.00	0.00	0.00
Yard Locomotive	0.00	0.01	0.01	0.00	0.00	0.00
Subtotal	0.04	0.15	0.61	0.00	0.01	0.01
Total Tons Per Year	0.09	0.30	1.26	0.00	0.02	0.02

Table A.1.2PD- Alt1U-40. Peak Day Rail Yard Cargo Handling Equipment Emissions
POLB - MHTP - Unmitigated Alternative 1 Year 2030.

Equipment	Hp-Hr per Year	Tons per Day					
		ROG	CO	NOx	SOx	PM10	PM2.5
<i>Middle Harbor/Outbound</i>							
RTG	13,633	0.00	0.02	0.02	0.00	0.00	0.00
Yard Tractor	8,895	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	22,528	0.00	0.03	0.02	0.00	0.00	0.00

Table A.1.2PD- Alt1U-41. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions
POLB - MHTP - Unmitigated Alternative 1.

<i>Project Scenario/Source Activity</i>	<i>Tons per Day</i>					
	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Baseline Year 2005</i>						
Trains	0.02	0.05	0.34	0.03	0.01	0.01
Railyard Equipment	0.83	2.14	18.51	0.21	0.34	0.31
Subtotal	0.85	2.19	18.86	0.24	0.35	0.32
<i>Project Year 2010</i>						
Trains	0.02	0.05	0.27	0.01	0.01	0.01
Railyard Equipment	0.00	0.00	0.02	0.00	0.00	0.00
Subtotal	0.02	0.05	0.28	0.01	0.01	0.01
<i>Project Year 2015</i>						
Trains	0.09	0.25	1.26	0.00	0.03	0.03
Railyard Equipment	0.00	0.02	0.02	0.00	0.00	0.00
Subtotal	0.09	0.27	1.27	0.00	0.03	0.03
<i>Project Year 2020</i>						
Trains	0.10	0.30	1.41	0.00	0.04	0.04
Railyard Equipment	0.00	0.02	0.02	0.00	0.00	0.00
Subtotal	0.10	0.32	1.43	0.00	0.04	0.04
<i>Project Year 2030</i>						
Trains - 2026	0.09	0.30	1.26	0.00	0.02	0.02
Railyard Equipment - 2030	0.00	0.03	0.02	0.00	0.00	0.00
Subtotal	0.09	0.32	1.28	0.00	0.02	0.02

Table A.1.2PD- Alt1U-42. Peak Daily Truck Emissions - POLB - MHTP Unmitigated Alternative 1

Location/Project Scenario - Mode	Tons per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>On-Terminal</i>						
Year 2005 - Idling						
Year 2005 - Driving						
Subtotal - Year 2005						
Year 2010 - Idling	0.01	0.03	0.15	0.00	0.00	0.00
Year 2010 - Driving	0.05	0.07	0.15	0.00	0.00	0.00
Subtotal - Year 2010	0.06	0.10	0.31	0.00	0.00	0.00
Year 2015 - Idling	0.01	0.02	0.14	0.00	0.00	0.00
Year 2015 - Driving	0.01	0.02	0.04	0.00	0.00	0.00
Subtotal - Year 2015	0.02	0.05	0.18	0.00	0.00	0.00
Year 2020 - Idling	0.01	0.03	0.18	0.00	0.00	0.00
Year 2020 - Driving	0.02	0.03	0.05	0.00	0.00	0.00
Subtotal - Year 2020	0.03	0.06	0.24	0.00	0.00	0.00
Year 2030 - Idling	0.01	0.04	0.23	0.00	0.00	0.00
Year 2030 - Driving	0.01	0.03	0.04	0.00	0.00	0.00
Subtotal - Year 2030	0.03	0.07	0.27	0.00	0.00	0.00
Year 2040 - Idling						
Year 2040 - Driving						
Subtotal - Year 2040						
<i>Off-Terminal</i>						
Subtotal - Year 2005						
Subtotal - Year 2010	0.26	1.14	5.92	0.01	0.04	0.04
Subtotal - Year 2015	0.09	0.45	1.33	0.00	0.02	0.02
Subtotal - Year 2020	0.13	0.66	1.64	0.01	0.04	0.04
Subtotal - Year 2030	0.13	0.57	1.34	0.01	0.04	0.04
<i>Peak Day Truck Emissions by Project Year</i>						
Year 2005						
Year 2010	0.32	1.25	6.23	0.01	0.05	0.04
Year 2015	0.11	0.50	1.51	0.01	0.02	0.02
Year 2020	0.16	0.72	1.88	0.01	0.04	0.04
Year 2030	0.15	0.63	1.62	0.01	0.04	0.04

Table A.1.2PD-Alt1U-43. Peak Day Truck Trips/Gate Throughput Estimates
POLB - MHTP Unmitigated Alternative 1

<i>Project Year</i>	<i>Truck Trips</i>			<i>TEUs/ Day (2)</i>
	<i>Annual</i>	<i>ADT</i>	<i>Peak Daily (1)</i>	
2005 - Baseline	1,997,000	6,528	8,160	13,872
2010	2,150,000	7,032	8,790	14,943
2015	1,872,000	6,119	7,649	13,003
2020	2,420,000	7,911	9,889	16,811
2030	3,093,000	10,112	12,640	21,488

Notes: (1) = 25% increase from ADT

(2) = 1.7 TEUs per truck trip.

Table A.1.2PD-AltU1-44. Peak Daily Terminal Equipment Emissions - POLB MHTP Unmitigated Alternative 1

Equipment Type	Peak Daily Hp-Hrs	Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2005							
Pier E							
Subtotal		6.17	21.60	113.81	1.06	3.46	3.19
Pier F							
Subtotal		6.17	15.86	137.39	1.59	2.51	2.31
Subtotal - Baseline - 2005		12.34	37.46	251.19	2.64	5.97	5.49
Project Year 2010							
Pier E							
RTG (CY)	133,866	0.05	0.27	1.20	0.00	0.04	0.03
Top-Pick	37,808	0.01	0.03	0.22	0.00	0.00	0.00
Side-Pick	17,808	0.00	0.01	0.13	0.00	0.00	0.00
Yard Tractor (CY)	52,022	0.00	0.05	0.04	0.00	0.00	0.00
Subtotal	241,505	0.06	0.36	1.58	0.00	0.05	0.04
Pier F							
RTG (CY)	19,774	0.01	0.04	0.18	0.00	0.01	0.01
Top-Pick	6,693	0.00	0.00	0.04	0.00	0.00	0.00
Side-Pick	4,960	0.00	0.00	0.04	0.00	0.00	0.00
Yard Tractor (CY)	16,448	0.00	0.02	0.01	0.00	0.00	0.00
Subtotal	47,875	0.01	0.06	0.26	0.00	0.01	0.01
Subtotal - Project Year 2010	289,380	0.07	0.42	1.85	0.00	0.06	0.05
Project Year 2015							
RTG (CY)	126,007	0.01	0.13	0.20	0.00	0.00	0.00
Top-Pick	43,017	0.00	0.05	0.07	0.00	0.00	0.00
Side-Pick	23,148	0.00	0.05	0.05	0.00	0.00	0.00
Yard Tractor (CY)	70,192	0.00	0.08	0.01	0.00	0.00	0.00
Subtotal - Project Year 2015	262,364	0.02	0.31	0.32	0.00	0.00	0.00
Project Year 2020							
RTG (CY)	159,022	0.01	0.18	0.26	0.00	0.00	0.00
Top-Pick	55,256	0.01	0.06	0.09	0.00	0.00	0.00
Side-Pick	33,837	0.00	0.08	0.08	0.00	0.00	0.00
Yard Tractor (CY)	102,095	0.00	0.13	0.02	0.00	0.00	0.00
Subtotal - Project Year 2020	350,211	0.03	0.44	0.44	0.00	0.00	0.00
Project Year 2030							
RTG (CY)	240,327	0.02	0.28	0.41	0.00	0.00	0.00
Top-Pick	81,209	0.01	0.10	0.14	0.00	0.00	0.00
Side-Pick	45,988	0.01	0.11	0.11	0.00	0.00	0.00
Yard Tractor (CY)	132,864	0.00	0.15	0.02	0.00	0.00	0.00
Subtotal - Project Year 2030	500,388	0.04	0.64	0.68	0.00	0.01	0.01

Table A.1.2PD-AltU1-45. Peak Daily Backlands TEU Throughput and Terminal Equipment Usa POLB - MHTP -Unmitigated Alternative 1

<i>Project Year/Scenario</i>	<i>Peak Daily TEUs</i>			<i>Annual TEUs</i>	<i>Peak Daily TEUs/ Annual TEUs (2)</i>
	<i>Wharf</i>	<i>Gate (1)</i>	<i>Total</i>		
2005 - CEQA Baseline				1,264,021	-
Year 2010	9,768	7,472	17,240	1,666,946	0.010
Year 2015	11,366	6,501	17,868	2,211,751	0.008
Year 2020	17,582	8,405	25,988	2,845,333	0.009
Year 2030	23,077	10,744	33,821	3,320,000	0.010

Note: (1) Reduced 50% to simulate that half of the gate throughput is not handled by CHE. This reducing factor necessary to prevent overprediction of CHE usage for the entire terminal.

(2) This factor applied to the annual CHE emissions to obtain peak day CHE emissions.

Table A.1.2PD- Alt1U-46. Annual Operational Emissions - POLB - MHTP Unmitigated 342-acre Alternative.

Project Scenario/Source Type	Tons Per Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	0.05	0.16	1.67	1.45	0.17	0.16
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Terminal Equipment	0.16	0.48	3.25	0.03	0.08	0.07
On-road Trucks	0.37	1.71	5.47	0.03	0.28	0.25
Trains	0.02	0.05	0.34	0.03	0.01	0.01
Railyard Equipment	0.01	0.02	0.13	0.00	0.00	0.00
Commuting	0.00	0.06	0.00	0.00	0.00	0.00
Year 2005 Total	0.61	2.47	10.94	1.54	0.54	0.50
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	0.05	0.08	0.75	0.23	0.05	0.04
Ships - Precautionary Area Transit (1)	0.02	0.03	0.23	0.08	0.02	0.01
Ships - Harbor Transit (1)	0.02	0.02	0.18	0.06	0.01	0.01
Ships - Docking (1)	0.01	0.01	0.07	0.02	0.01	0.00
Ships - Hoteling Aux. Sources	0.06	0.16	1.72	1.01	0.11	0.11
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Terminal Equipment	0.07	0.42	1.85	0.00	0.06	0.05
On-road Trucks	0.32	1.25	6.23	0.01	0.05	0.04
Trains	0.02	0.05	0.27	0.01	0.01	0.01
Railyard Equipment	0.00	0.00	0.02	0.00	0.00	0.00
Commuting	0.00	0.04	0.00	0.00	0.00	0.00
Project Year 2010 Total	0.57	2.08	11.36	1.41	0.31	0.29
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	0.10	0.13	1.21	0.04	0.02	0.02
Ships - Precautionary Area Transit (1)	0.03	0.04	0.37	0.01	0.01	0.01
Ships - Harbor Transit (1)	0.03	0.03	0.31	0.01	0.01	0.01
Ships - Docking (1)	0.01	0.01	0.12	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.03	0.10	0.84	0.04	0.02	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.02	0.31	0.32	0.00	0.00	0.00
On-road Trucks	0.11	0.50	1.51	0.01	0.02	0.02
Trains	0.09	0.25	1.26	0.00	0.03	0.03
Railyard Equipment	0.00	0.02	0.02	0.00	0.00	0.00
Commuting	0.00	0.03	0.00	0.00	0.00	0.00
Project Year 2015 Total	0.43	1.43	5.98	0.11	0.12	0.11
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	0.06	0.07	0.72	0.03	0.01	0.01
Ships - Precautionary Area Transit (1)	0.02	0.03	0.22	0.01	0.00	0.00
Ships - Harbor Transit (1)	0.02	0.02	0.17	0.00	0.00	0.00
Ships - Docking (1)	0.01	0.01	0.07	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.02	0.10	0.66	0.04	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.03	0.44	0.44	0.00	0.00	0.00
On-road Trucks	0.16	0.72	1.88	0.01	0.04	0.04
Trains	0.10	0.30	1.41	0.00	0.04	0.04
Railyard Equipment	0.00	0.02	0.02	0.00	0.00	0.00
Commuting	0.00	0.03	0.00	0.00	0.00	0.00
Project Year 2020 Total	0.41	1.75	5.61	0.09	0.11	0.11
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	0.09	0.11	1.05	0.04	0.02	0.02
Ships - Precautionary Area Transit (1)	0.03	0.04	0.32	0.01	0.01	0.01
Ships - Harbor Transit (1)	0.05	0.04	0.35	0.01	0.01	0.01
Ships - Docking (1)	0.01	0.01	0.11	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.02	0.10	0.66	0.04	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.04	0.64	0.68	0.00	0.01	0.01
On-road Trucks	0.15	0.63	1.62	0.01	0.04	0.04
Trains	0.09	0.30	1.26	0.00	0.02	0.02
Railyard Equipment	0.00	0.03	0.02	0.00	0.00	0.00
Commuting	0.00	0.02	0.00	0.00	0.00	0.00
Project Year 2030 Total	0.48	1.93	6.09	0.11	0.12	0.12

Note: (1) Includes auxiliary generator emissions.

Table A.1.2PD- Alt1U-47. Peak Daily Operational Emissions - POLB MHTP Unmitigated Alternative 1

Project Scenario/Source Type	Pounds Per Day (2)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	105	311	3,346	2,900	337	328
Tugboats - Cargo Vessel Assist (1)	3	22	119	1	4	4
Terminal Equipment	317	954	6,494	69	152	140
On-road Trucks	739	3,410	10,948	62	552	508
Trains	46	99	687	52	25	25
Railyard Equipment	12	31	268	3	5	5
Commuting	4	119	10	0	0	0
Year 2005 Total	1,226	4,946	21,872	3,086	1,075	1,008
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	105	162	1,496	468	92	86
Ships - Precautionary Area Transit (1)	39	58	459	155	30	28
Ships - Harbor Transit (1)	36	43	352	114	26	24
Ships - Docking (1)	17	17	137	38	10	10
Ships - Hoteling Aux. Sources	117	324	3,431	2,014	228	214
Tugboats - Cargo Vessel Assist (1)	3	22	113	0	4	4
Terminal Equipment	137	849	3,693	4	113	104
On-road Trucks	641	2,495	12,457	12	96	89
Trains	39	100	538	12	15	15
Railyard Equipment	1	9	31	0	1	1
Commuting	2	86	6	0	0	0
Project Year 2010 Total	1,136	4,164	22,712	2,817	615	574
Net Change from 2005 CEQA Baseline	(90)	(781)	841	(269)	(459)	(435)
Net Change from NEPA Baseline Year 2010	162	649	6,926	2,524	396	369
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	199	256	2,418	81	46	43
Ships - Precautionary Area Transit (1)	65	84	737	23	15	14
Ships - Harbor Transit (1)	64	68	616	15	13	12
Ships - Docking (1)	30	26	237	5	5	5
Ships - Hoteling Aux. Sources	62	193	1,681	73	31	29
Tugboats - Cargo Vessel Assist (1)	3	22	46	0	1	1
Terminal Equipment	36	618	647	4	6	6
On-road Trucks	217	998	3,026	10	49	46
Trains	180	498	2,516	2	66	66
Railyard Equipment	2	33	30	0	0	0
Commuting	1	64	4	0	0	0
Project Year 2015 Total	859	2,860	11,960	213	233	222
Net Change from 2005 CEQA Baseline	(366)	(2,085)	(9,912)	(2,873)	(841)	(787)
Net Change from NEPA Baseline Year 2015	61	204	1,679	33	45	44
<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	111	146	1,450	51	27	25
Ships - Precautionary Area Transit (1)	41	53	445	14	9	8
Ships - Harbor Transit (1)	38	40	342	8	7	7
Ships - Docking (1)	18	15	133	3	3	3
Ships - Hoteling Aux. Sources	48	194	1,313	75	24	23
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	52	888	885	5	5	4
On-road Trucks	313	1,447	3,755	13	80	74
Trains	199	597	2,822	2	73	73
Railyard Equipment	3	48	43	0	0	0
Commuting	1	51	3	0	1	0
Project Year 2020 Total	827	3,500	11,229	172	230	219
Net Change from 2005 CEQA Baseline	(399)	(1,446)	(10,643)	(2,914)	(845)	(790)
Net Change from NEPA Baseline Year 2020	98	806	2,183	38	46	45
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	173	223	2,109	71	40	38
Ships - Precautionary Area Transit (1)	57	74	647	20	13	12
Ships - Harbor Transit (1)	93	79	695	13	16	15
Ships - Docking (1)	27	24	216	4	5	4
Ships - Hoteling Aux. Sources	48	194	1,313	75	24	23
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	81	1,282	1,355	7	15	13
On-road Trucks	308	1,264	3,235	17	88	81
Trains	177	597	2,514	2	46	46
Railyard Equipment	3	52	49	0	1	1
Commuting	1	41	2	0	1	1
Project Year 2030 Total	970	3,852	12,175	211	249	235
Net Change from 2005 CEQA Baseline	(256)	(1,094)	(9,697)	(2,875)	(825)	(774)
Net Change from NEPA Baseline Year 2030	280	1,045	3,642	52	63	60
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (1) Includes auxiliary generator emissions.

Note: (2) Equal to peak daily emissions, except annual average emissions for the CEQA Baseline.

Table A.1.2PD- Alt1U-48. Peak Daily Operational Emissions - POLB MHTP Unmitigated Alternative 1

Project Scenario/Source Type	Pounds Per Day (2)					
	ROG	CO	NOx	SOx	PM10	PM2.5
<i>Year 2005 Baseline - Average Day</i>						
Ships - Fairway Transit (1)	-	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-	-
Ships - Hoteling Aux. Sources	105	311	3,346	2,900	337	328
Tugboats - Cargo Vessel Assist (1)	3	22	119	1	4	4
Terminal Equipment	317	954	6,494	69	152	140
On-road Trucks	739	3,410	10,948	62	552	508
Trains	46	99	687	52	25	25
Railyard Equipment	12	31	268	3	5	5
Commuting	4	119	10	0	0	0
Year 2005 Total	1,226	4,946	21,872	3,086	1,075	1,008
<i>Project Year 2009</i>						
Ships - Fairway Transit (1)	84	130	1,197	374	73	69
Ships - Precautionary Area Transit (1)	31	46	367	124	24	23
Ships - Harbor Transit (1)	29	34	282	91	21	19
Ships - Docking (1)	13	13	109	30	8	8
Ships - Hoteling Aux. Sources	115	321	3,414	2,191	250	236
Tugboats - Cargo Vessel Assist (1)	3	22	114	0	4	4
Terminal Equipment	173	870	4,253	17	121	111
On-road Trucks	661	2,678	12,155	22	187	172
Trains	40	99	568	20	17	17
Railyard Equipment	3	13	78	1	2	2
Commuting	3	93	7	0	0	0
Year 2009 Total	1,154	4,321	22,544	2,871	707	661
Net Change from 2005 CEQA Baseline	(72)	(625)	672	(215)	(368)	(348)
Net Change from NEPA Baseline Year 2009	180	806	6,758	2,578	487	456
<i>Project Year 2010</i>						
Ships - Fairway Transit (1)	105	162	1,496	468	92	86
Ships - Precautionary Area Transit (1)	39	58	459	155	30	28
Ships - Harbor Transit (1)	36	43	352	114	26	24
Ships - Docking (1)	17	17	137	38	10	10
Ships - Hoteling Aux. Sources	117	324	3,431	2,014	228	214
Tugboats - Cargo Vessel Assist (1)	3	22	113	0	4	4
Terminal Equipment	137	849	3,693	4	113	104
On-road Trucks	641	2,495	12,457	12	96	89
Trains	39	100	538	12	15	15
Railyard Equipment	1	9	31	0	1	1
Commuting	2	86	6	0	0	0
Project Year 2010 Total	1,136	4,164	22,712	2,817	615	574
Net Change from 2005 CEQA Baseline	(90)	(781)	841	(269)	(459)	(435)
Net Change from NEPA Baseline Year 2010	162	649	6,926	2,524	396	369

<i>Project Year 2011</i>						
Ships - Fairway Transit (1)	124	181	1,680	390	83	77
Ships - Precautionary Area Transit (1)	44	63	515	128	27	26
Ships - Harbor Transit (1)	42	48	405	94	23	22
Ships - Docking (1)	19	18	157	31	9	9
Ships - Hoteling Aux. Sources	106	298	3,081	1,626	189	177
Tugboats - Cargo Vessel Assist (1)	3	22	100	0	3	3
Terminal Equipment	117	803	3,084	4	92	84
On-road Trucks	556	2,195	10,571	12	87	80
Trains	67	179	933	10	25	25
Railyard Equipment	1	14	31	0	1	1
Commuting	2	82	6	0	0	0
Project Year 2011 Total	1,081	3,904	20,562	2,296	539	503
Net Change from 2005 CEQA Baseline	(145)	(1,042)	(1,310)	(790)	(536)	(505)
Net Change from NEPA Baseline Year 2011	142	560	5,877	2,026	325	304
<i>Project Year 2012</i>						
Ships - Fairway Transit (1)	142	200	1,865	313	74	69
Ships - Precautionary Area Transit (1)	49	68	570	102	24	23
Ships - Harbor Transit (1)	47	53	458	74	21	19
Ships - Docking (1)	22	20	177	25	8	8
Ships - Hoteling Aux. Sources	95	272	2,731	1,238	149	140
Tugboats - Cargo Vessel Assist (1)	3	22	86	0	3	3
Terminal Equipment	97	757	2,475	4	70	65
On-road Trucks	472	1,896	8,684	11	78	71
Trains	96	259	1,329	8	35	35
Railyard Equipment	1	18	31	0	1	1
Commuting	2	78	6	0	0	0
Project Year 2012 Total	1,025	3,643	18,411	1,775	463	433
Net Change from 2005 CEQA Baseline	(200)	(1,303)	(3,460)	(1,311)	(612)	(575)
Net Change from NEPA Baseline Year 2012	122	471	4,827	1,528	255	239
<i>Project Year 2013</i>						
Ships - Fairway Transit (1)	161	219	2,049	236	64	60
Ships - Precautionary Area Transit (1)	55	73	626	76	21	20
Ships - Harbor Transit (1)	53	58	510	54	18	17
Ships - Docking (1)	24	22	197	18	7	7
Ships - Hoteling Aux. Sources	84	245	2,381	849	110	103
Tugboats - Cargo Vessel Assist (1)	3	22	73	0	2	2
Terminal Equipment	76	711	1,866	4	49	45
On-road Trucks	387	1,596	6,798	11	68	63
Trains	124	338	1,725	6	46	46
Railyard Equipment	2	23	30	0	1	1
Commuting	2	73	5	0	0	0
Project Year 2013 Total	970	3,382	16,261	1,254	386	363
Net Change from 2005 CEQA Baseline	(256)	(1,564)	(5,611)	(1,831)	(688)	(646)
Net Change from NEPA Baseline Year 2013	102	382	3,778	1,029	185	174

<i>Project Year 2014</i>						
Ships - Fairway Transit (1)	180	237	2,234	158	55	52
Ships - Precautionary Area Transit (1)	60	79	682	49	18	17
Ships - Harbor Transit (1)	58	63	563	35	15	15
Ships - Docking (1)	27	24	217	11	6	6
Ships - Hoteling Aux. Sources	73	219	2,031	461	70	66
Tugboats - Cargo Vessel Assist (1)	3	22	59	0	2	2
Terminal Equipment	56	664	1,257	4	28	25
On-road Trucks	302	1,297	4,912	11	59	54
Trains	152	418	2,121	4	56	56
Railyard Equipment	2	28	30	0	0	0
Commuting	1	69	5	0	0	0
Project Year 2014 Total	915	3,121	14,111	734	310	292
Net Change from 2005 CEQA Baseline	(311)	(1,824)	(7,761)	(2,352)	(765)	(716)
Net Change from NEPA Baseline Year 2014	81	293	2,728	531	115	109
<i>Project Year 2015</i>						
Ships - Fairway Transit (1)	199	256	2,418	81	46	43
Ships - Precautionary Area Transit (1)	65	84	737	23	15	14
Ships - Harbor Transit (1)	64	68	616	15	13	12
Ships - Docking (1)	30	26	237	5	5	5
Ships - Hoteling Aux. Sources	62	193	1,681	73	31	29
Tugboats - Cargo Vessel Assist (1)	3	22	46	0	1	1
Terminal Equipment	36	618	647	4	6	6
On-road Trucks	217	998	3,026	10	49	46
Trains	180	498	2,516	2	66	66
Railyard Equipment	2	33	30	0	0	0
Commuting	1	64	4	0	0	0
Project Year 2015 Total	859	2,860	11,960	213	233	222
Net Change from 2005 CEQA Baseline	(366)	(2,085)	(9,912)	(2,873)	(841)	(787)
Net Change from NEPA Baseline Year 2015	61	204	1,679	33	45	44
<i>Project Year 2016</i>						
Ships - Fairway Transit (1)	181	234	2,225	75	42	40
Ships - Precautionary Area Transit (1)	60	78	679	21	13	13
Ships - Harbor Transit (1)	59	63	561	13	12	11
Ships - Docking (1)	27	24	216	4	5	5
Ships - Hoteling Aux. Sources	59	193	1,607	74	30	28
Tugboats - Cargo Vessel Assist (1)	3	22	45	0	1	1
Terminal Equipment	39	672	695	4	6	5
On-road Trucks	237	1,088	3,172	11	56	51
Trains	184	518	2,578	2	67	67
Railyard Equipment	2	36	33	0	0	0
Commuting	1	62	4	0	0	0
Project Year 2016 Total	853	2,988	11,814	205	233	221
Net Change from 2005 CEQA Baseline	(373)	(1,957)	(10,058)	(2,881)	(842)	(787)
Net Change from NEPA Baseline Year 2016	68	324	1,780	34	45	44

<i>Project Year 2017</i>						
Ships - Fairway Transit (1)	164	212	2,031	69	39	36
Ships - Precautionary Area Transit (1)	56	71	620	19	12	12
Ships - Harbor Transit (1)	54	57	506	12	11	10
Ships - Docking (1)	25	22	195	4	4	4
Ships - Hoteling Aux. Sources	56	193	1,534	74	28	26
Tugboats - Cargo Vessel Assist (1)	3	22	43	0	1	1
Terminal Equipment	42	726	742	4	6	5
On-road Trucks	256	1,177	3,318	11	62	57
Trains	188	537	2,639	2	69	69
Railyard Equipment	2	39	35	0	0	0
Commuting	1	59	4	0	0	0
Project Year 2017 Total	846	3,116	11,668	196	232	221
Net Change from 2005 CEQA Baseline	(379)	(1,829)	(10,204)	(2,889)	(843)	(788)
Net Change from NEPA Baseline Year 2017	76	445	1,880	35	46	44
<i>Project Year 2018</i>						
Ships - Fairway Transit (1)	146	190	1,837	63	35	33
Ships - Precautionary Area Transit (1)	51	65	562	18	11	10
Ships - Harbor Transit (1)	48	51	451	11	10	9
Ships - Docking (1)	23	20	175	3	4	4
Ships - Hoteling Aux. Sources	53	194	1,460	74	27	25
Tugboats - Cargo Vessel Assist (1)	3	22	42	0	1	1
Terminal Equipment	46	780	790	4	5	5
On-road Trucks	275	1,267	3,463	12	68	62
Trains	192	557	2,700	2	70	70
Railyard Equipment	2	42	38	0	0	0
Commuting	1	56	4	0	0	0
Project Year 2018 Total	840	3,244	11,521	188	231	220
Net Change from 2005 CEQA Baseline	(386)	(1,702)	(10,350)	(2,898)	(843)	(789)
Net Change from NEPA Baseline Year 2018	83	565	1,981	36	46	45
<i>Project Year 2019</i>						
Ships - Fairway Transit (1)	129	168	1,644	57	31	29
Ships - Precautionary Area Transit (1)	46	59	503	16	10	9
Ships - Harbor Transit (1)	43	46	396	9	8	8
Ships - Docking (1)	20	17	154	3	3	3
Ships - Hoteling Aux. Sources	51	194	1,386	75	26	24
Tugboats - Cargo Vessel Assist (1)	3	22	41	0	1	1
Terminal Equipment	49	834	837	5	5	5
On-road Trucks	294	1,357	3,609	13	74	68
Trains	196	577	2,761	2	71	71
Railyard Equipment	2	45	40	0	0	0
Commuting	1	54	3	0	0	0
Project Year 2019 Total	833	3,372	11,375	180	231	219
Net Change from 2005 CEQA Baseline	(392)	(1,574)	(10,497)	(2,906)	(844)	(789)
Net Change from NEPA Baseline Year 2019	90	686	2,082	37	46	45

<i>Project Year 2020</i>						
Ships - Fairway Transit (1)	111	146	1,450	51	27	25
Ships - Precautionary Area Transit (1)	41	53	445	14	9	8
Ships - Harbor Transit (1)	38	40	342	8	7	7
Ships - Docking (1)	18	15	133	3	3	3
Ships - Hoteling Aux. Sources	48	194	1,313	75	24	23
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	52	888	885	5	5	4
On-road Trucks	313	1,447	3,755	13	80	74
Trains	199	597	2,822	2	73	73
Railyard Equipment	3	48	43	0	0	0
Commuting	1	51	3	0	1	0
Project Year 2020 Total	827	3,500	11,229	172	230	219
Net Change from 2005 CEQA Baseline	(399)	(1,446)	(10,643)	(2,914)	(845)	(790)
Net Change from NEPA Baseline Year 2020	98	806	2,183	38	46	45
<i>Project Year 2030</i>						
Ships - Fairway Transit (1)	173	223	2,109	71	40	38
Ships - Precautionary Area Transit (1)	57	74	647	20	13	12
Ships - Harbor Transit (1)	93	79	695	13	16	15
Ships - Docking (1)	27	24	216	4	5	4
Ships - Hoteling Aux. Sources	48	194	1,313	75	24	23
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	81	1,282	1,355	7	15	13
On-road Trucks	308	1,264	3,235	17	88	81
Trains	177	597	2,514	2	46	46
Railyard Equipment	3	52	49	0	1	1
Commuting	1	41	2	0	1	1
Project Year 2030 Total	970	3,852	12,175	211	249	235
Net Change from 2005 CEQA Baseline	(256)	(1,094)	(9,697)	(2,875)	(825)	(774)
Net Change from NEPA Baseline Year 2030	280	1,045	3,642	52	63	60
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (1) Includes auxiliary generator emissions.

Note: (2) Equal to peak daily emissions, except annual average emissions for the CEQA and NEPA Baselines.

Table A.1.2PD- Alt1U.49 NEPA Baseline Peak Daily Emissions per Year - POLB MHTP Unmitigated Alternative 1

	<i>ROG</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
NEPA Baseline - Year 2010	974	3,515	15,786	292	220	205
NEPA Baseline - Year 2011	939	3,343	14,685	270	213	199
NEPA Baseline - Year 2012	904	3,172	13,584	248	207	194
NEPA Baseline - Year 2013	869	3,000	12,483	225	201	189
NEPA Baseline - Year 2014	833	2,828	11,382	203	195	183
NEPA Baseline - Year 2015	798	2,657	10,281	180	188	178
NEPA Baseline - Year 2016	784	2,664	10,034	171	187	177
NEPA Baseline - Year 2017	771	2,672	9,787	162	186	176
NEPA Baseline - Year 2018	757	2,679	9,540	152	185	175
NEPA Baseline - Year 2019	743	2,686	9,293	143	184	175
NEPA Baseline - Year 2020	729	2,694	9,046	134	184	174
NEPA Baseline - Year 2030	689	2,806	8,532	158	186	174

Table A.1.2PD-AltM1-1. Peak Day Ship Visit/Throughput Data - POLB MHTP Mitigated Alternative 1

Table A.1.2PD-AltM1-1a. Emissions Factors for OGVs - 0.2% S Diesel

Table A.1.2PD-AltM1-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone

Table A.1.2PD-AltM1-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area

Table A.1.2PD-AltM1-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater

Table A.1.2PD-AltM1-5. Annual Cargo Vessel Emissions for Docking Activities

Table A.1.2PD-AltM1-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone

Table A.1.2PD-AltM1-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting

Table A.1.2PD-AltM1-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the

Table A.1.2PD-AltM1-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the

Table A.1.2PD-AltM1-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling

Table A.1.2PD-AltM1-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary

Table A.1.2PD-AltM1-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater

Table A.1.2PD-AltM1-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB

Table A.1.2PD-AltM1-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling

Table A.1.2PD-AltM1-15. Peak Daily Tugboat Emissions for Cargo Vessel Assists

Table A.1.2PD-AltM1-16. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists

Table A.1.2PD-AltM1-17. Peak Day Vessel Emissions - POLB MHTP Mitigated Alternative 1.

Table A.1.2PD-AltM1-18. Peak Daily Vessel Emissions - POLB MHTP Mitigated Alternative 1

Table A.1.2PD-AltM1-19. Train Trip Generation Rates - MHTP - Alternative 1.

Table A.1.2PD-AltM1-20. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1 Year 2010.

Table A.1.2PD-AltM1-21. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 1 Year 2010.

Table A.1.2PD-AltM1-22. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2015.

Table A.1.2PD-AltM1-23. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 1 Year 2015.

Table A.1.2PD-AltM1-24. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2020.

Table A.1.2PD-AltM1-25. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 1 Year 2020.

Table A.1.2PD-AltM1-26. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2030.

Table A.1.2PD-AltM1-27. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 1 Year 2030.

Table A.1.2PD-AltM1-28. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions

Table A.1.2PD-AltM1-29. Peak DailyTruck Emissions - MHTP Unmitigated Alternative 1

Table A.1.2PD-AltM1-30. Peak Daily Terminal Equipment Emissions - POLB MHTP Unmitigated Alternative 1

Table A.1.2PD-AltM1-30a. Peak Daily Backlands TEU Throughput and Terminal Equipment Usage

Table A.1.2PD-AltM1-31. Annual Operational Emissions - POLB - MHTP Mitigated Alternative 1.

Table A.1.2PD-AltM1-32. Peak Daily Operational Emissions - POLB MHTP Mitigated Alternative 1

This page intentionally left blank.