Table A.1.2PD-AltM1-1. Peak Day Ship Visit/Throughput Data - POLB MHTP Mitigated Alternative 1

Project Scenario/Ship Type	Peak Daily Ship Visists		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 8-9,999 TEU - Pier F		1	5,328	5,328	24
Containerships 6-6,999 TEU - Pier E		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-AltM1-1a. Emissions Factors for OGVs - 0.2% S Diesel							
	Emission Factors (Gm/kW-Hr)						
Operational Mode/Ship-Engine Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*	*Source*
Cruise/Main Engine							
OGVs - Slow Speed Diesel Main Engines - 0.2% S RFO	0.78	1.10	17.00	0.75	0.28	0.26	(1)
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)

Table A.1.2PD-AltM1-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.05	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 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-AltM1-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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 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-AltM1-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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 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-AltM1-5. Annual Cargo Vessel Emissions for Docking Activities
POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.01	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-AltM1-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.01	0.00	0.00
Subtotal	0.00	0.01	0.10	0.01	0.00	0.00
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 0.2/0.1 in years 2010/2015+.

(2) VSRP compliance = 100% for future years.

Table A.1.2PD-AltM1-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.05	0.00	0.00	0.00
Subtotal	0.00	0.00	0.05	0.00	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: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1 in years 2010/2015+.

Table A.1.2PD-AltM1-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	0.00	0.00
Subtotal	0.00	0.01	0.08	0.00	0.00	0.00
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: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1 in years 2010/2015+.

Table A.1.2PD-AltM1-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.03	0.00	0.00	0.00
Subtotal	0.00	0.00	0.03	0.00	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: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1 in years 2010/2015+.

Table A.1.2PD-AltM1-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day (1)					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
Subtotal						
Project Year 2010 (2)						
Containerships 8-9,999 TEU - Pier F	0.03	0.07	0.83	0.05	0.02	0.02
Containerships 6-6,999 TEU - Pier E	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.03	0.07	0.90	0.05	0.02	0.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.15	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 6,000 - 6,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.02	0.26	0.01	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.07	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	0.01	0.02	0.26	0.01	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1 in years 2010/2015+.

(2) In 2010, Pier F uncontrolled and Pier E controlled 90%, otherwise all years controlled 90%.

Table A.1.2PD-AltM1-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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

Table A.1.2PD-AltM1-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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

Table A.1.2PD-AltM1-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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

Table A.1.2PD-AltM1-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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	-	-	-	-	-	-
Subtotal	0.00	0.04	0.10	0.03	0.00	0.00
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-AltM1-15. Peak Daily Tugboat Emissions for Cargo Vessel Assists
POLB MHTP Mitigated Alternative 1.

	Tons Per Day			*Tons Per Day*		
Project Scenario/All Vessels	*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-AltM1-16. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists
POLB MHTP Mitigated Alternative 1

	Tons Per Day					
Project Scenario/All Vessels	*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-AltM1-17. Peak Day Vessel Emissions - POLB MHTP Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - TPY						
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
Project Year 2010						
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	0.01	0.00	0.00
Ships - Docking (1)	0.01	0.01	0.07	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.04	0.11	1.00	0.08	0.02	0.02
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Subtotal	0.14	0.25	2.24	0.13	0.05	0.04
Project Year 2015						
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	0.01	0.05	0.24	0.02	0.00	0.00
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.19	0.28	2.27	0.08	0.04	0.04
Project Year 2020						
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	0.01	0.08	0.40	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.12	0.21	1.60	0.07	0.03	0.03
Project Year 2030						
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	0.01	0.08	0.40	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.19	0.29	2.25	0.08	0.04	0.04

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-AltM1-18. Peak Daily Vessel Emissions - POLB MHTP Mitigated Alternative 1

	Pounds Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - Annual Average Day						
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
Project Year 2010						
Ships - Fairway Transit (1)	111.1	145.9	1,449.8	56.6	27.5	25.4
Ships - Precautionary Area Transit (1)	41.0	52.6	444.9	18.8	9.1	8.4
Ships - Harbor Transit (1)	38.1	40.0	341.6	14.1	7.7	7.1
Ships - Docking (1)	17.8	15.3	132.6	4.7	3.1	2.9
Ships - Hoteling Aux. Sources	73.7	217.9	1,995.0	169.9	41.2	37.9
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	113.3	0.1	3.8	3.5
Subtotal	285	494	4,477	264	93	85
Project Year 2015						
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	17.3	98.7	489.2	39.0	9.4	8.6
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	45.9	0.1	1.1	1.1
Subtotal	378	555	4,544	163	90	82
Project Year 2020						
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	28.5	153.3	800.0	60.5	15.2	14.0
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	239	429	3,208	136	62	57
Project Year 2030						
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	28.5	153.3	800.0	60.5	15.2	14.0
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	382	575	4,507	169	90	83

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-AltM1-19 Train Trip Generation Rates - MHTP - Alternative 1.

Project Scenario/Rail Yard	*Annual Round Trips*	*Peak Daily Round Trips*	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-AltM1-20. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1 Year 2010.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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-AltM1-21. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 1 Year 2010.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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	0.01	0.00	0.00	0.00

Table A.1.2PD-AltM1-22. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2015.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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-AltM1-23. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 1 Year 2015.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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-AltM1-24. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2020.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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-AltM1-25. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 1 Year 2020.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
RTG	12,420	-	-	-	-	-	-
Yard Tractor	8,104	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	20,523	0.00	0.01	0.00	0.00	0.00	0.00

Table A.1.2PD-AltM1-26. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 1Year 2030.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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-AltM1-27. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 1 Year 2030.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
RTG	13,633	-	-	-	-	-	-
Yard Tractor	8,895	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	22,528	0.00	0.01	0.00	0.00	0.00	0.00

Table A.1.2PD-AltM1-28. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions
POLB MHTP Unmitigated Alternative 1.

	Tons per Day					
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline Year 2005						
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
Project Year 2010						
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
Project Year 2015						
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
Project Year 2020						
Trains	0.10	0.30	1.41	0.00	0.04	0.04
Railyard Equipment	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.10	0.31	1.41	0.00	0.04	0.04
Project Year 2030						
Trains - 2026	0.09	0.30	1.26	0.00	0.02	0.02
Railyard Equipment - 2030	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.09	0.31	1.26	0.00	0.02	0.02

Table A.1.2PD-AltM1-29. Peak DailyTruck Emissions - MHTP Unmitigated Alternative 1

	Tons per Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal						
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	0.04	0.07	0.11	0.00	0.00	0.00
Subtotal - Year 2010	0.06	0.10	0.26	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	0.23	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	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
Off-Terminal						
Subtotal - Year 2005						
Subtotal - Year 2010	0.24	1.18	4.15	0.01	0.03	0.03
Subtotal - Year 2015	0.09	0.44	1.27	0.00	0.02	0.02
Subtotal - Year 2020	0.14	0.64	1.71	0.01	0.04	0.03
Subtotal - Year 2030	0.13	0.56	1.34	0.01	0.04	0.04
Peak Day Truck Emissions by Project Year						
Year 2005						
Year 2010	0.30	1.28	4.41	0.01	0.03	0.03
Year 2015	0.11	0.49	1.45	0.01	0.02	0.02
Year 2020	0.17	0.70	1.95	0.01	0.04	0.03
Year 2030	0.15	0.63	1.62	0.01	0.04	0.04

Table A.1.2PD-AltM1-30. Peak Daily Terminal Equipment Emissions - POLB MHTP Unmitigated Alternative 1

	Peak Daily	*Emissions (Tons)*					
Equipment Type	Hp-Hrs	*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	0.03	0.09	0.73	0.00	0.01	0.01
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	0.02	0.00	0.00	0.00
Subtotal	241,505	0.04	0.18	1.10	0.00	0.02	0.02
Pier F							
RTG (CY)	19,774	0.00	0.01	0.11	0.00	0.00	0.00
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	0.04	0.19	0.00	0.00	0.00
Subtotal - Project Year 2010	289,380	0.05	0.22	1.29	0.00	0.03	0.02
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	-	-	-	-	-	-
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	0.01	0.27	0.18	0.00	0.00	0.00
Project Year 2030							
RTG (CY)	240,327	-	-	-	-	-	-
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	0.02	0.36	0.27	0.00	0.00	0.00

Table A.1.2PD-AltM1-30a Peak Daily Backlands TEU Throughput and Terminal Equipment Usage
POLA - MHTP - Unmitigated Alternative 1

Project Year/Scenario	*Peak Daily TEUs*			*Annual TEUs*	Peak Daily TEUs/ *Annual TEUs (2)*
	Wharf	*Gate (1)*	*Total*		
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 is necessarry 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-AltM1-31. Annual Operational Emissions - POLB - MHTP Mitigated Alternative 1.

	Tons Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
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	0.01	0.00	0.00
Ships - Docking (1)	0.01	0.01	0.07	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.04	0.11	1.00	0.08	0.02	0.02
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Terminal Equipment	0.05	0.22	1.29	0.00	0.03	0.02
On-road Trucks	0.30	1.28	4.41	0.01	0.03	0.03
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
Commuting	0.40	15.75	1.19	0.03	0.06	0.05
Project Year 2010 Total	0.90	17.54	9.40	0.18	0.17	0.16
Project Year 2015						
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	0.01	0.05	0.24	0.02	0.00	0.00
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	0.49	1.45	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	0.23	11.74	0.79	0.04	0.08	0.07
Project Year 2015 Total	0.64	13.08	6.11	0.13	0.18	0.17
Project Year 2020						
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	0.01	0.08	0.40	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.01	0.27	0.18	0.00	0.00	0.00
On-road Trucks	0.17	0.70	1.95	0.01	0.04	0.03
Trains	0.10	0.30	1.41	0.00	0.04	0.04
Railyard Equipment	0.00	0.01	0.00	0.00	0.00	0.00
Commuting	0.15	9.32	0.58	0.04	0.09	0.08
Project Year 2020 Total	0.55	10.82	5.73	0.12	0.20	0.19

Project Year 2030						
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	0.01	0.08	0.40	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.02	0.36	0.27	0.00	0.00	0.00
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	0.01	0.00	0.00	0.00	0.00
Commuting	0.11	7.44	0.41	0.05	0.13	0.12
Project Year 2030 Total	0.56	9.02	5.81	0.15	0.25	0.23

Note: (1) Includes auxiliary generator emissions.

Table A.1.2PD-AltM1-32. Peak Daily Operational Emissions - POLB MHTP Mitigated Alternative 1

	Pounds Per Day (2)					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
Ships - Fairway Transit (1)	111	146	1,450	57	28	26
Ships - Precautionary Area Transit (1)	41	53	445	19	9	9
Ships - Harbor Transit (1)	38	40	342	14	8	7
Ships - Docking (1)	18	15	133	5	3	3
Ships - Hoteling Aux. Sources	74	218	1,995	170	41	39
Tugboats - Cargo Vessel Assist (1)	3	22	113	0	4	4
Terminal Equipment	90	431	2,577	4	52	48
On-road Trucks	591	2,551	8,814	13	68	62
Trains	39	100	538	12	15	15
Railyard Equipment	1	4	19	0	0	0
Commuting	2	86	6	0	0	0
Project Year 2010 Total	1,008	3,666	16,431	293	228	212
Net Change from 2005 CEQA Baseline	(218)	(1,280)	(5,441)	(2,793)	(847)	(796)
Net Change from NEPA Baseline Year 2010	34	151	645	1	8	7

Project Year 2015						
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	17	99	489	39	9	9
Tugboats - Cargo Vessel Assist (1)	3	22	46	0	1	1
Terminal Equipment	36	620	648	4	6	6
On-road Trucks	212	974	2,908	11	49	45
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	810	2,744	10,651	179	212	202
Net Change from 2005 CEQA Baseline	(416)	(2,202)	(11,221)	(2,907)	(863)	(807)
Net Change from NEPA Baseline Year 2015	11	87	369	(1)	24	24
Project Year 2020						
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	28	153	800	60	15	14
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	23	535	368	3	5	5
On-road Trucks	343	1,409	3,892	14	73	67
Trains	199	597	2,822	2	73	73
Railyard Equipment	0	20	3	0	0	0
Commuting	1	51	3	0	1	0
Project Year 2020 Total	806	3,042	10,296	156	214	203
Net Change from 2005 CEQA Baseline	(420)	(1,904)	(11,576)	(2,930)	(861)	(805)
Net Change from NEPA Baseline Year 2020	77	348	1,250	22	30	30
Project Year 2030						
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	28	153	800	60	15	14
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	34	711	541	4	7	6
On-road Trucks	307	1,263	3,231	19	88	81
Trains	177	597	2,514	2	46	46
Railyard Equipment	0	20	3	0	0	0
Commuting	1	41	2	0	1	1
Project Year 2030 Total	900	3,206	10,798	194	232	218
Net Change from 2005 CEQA Baseline	(325)	(1,740)	(11,074)	(2,892)	(843)	(790)
Net Change from NEPA Baseline Year 2030	211	399	2,265	35	46	44
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.

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Table A.1.2PD-Alt2U-1. Peak Day Ship Visit/Throughput Data - POLB MHTP Unmitigated Alternative 2

Project Scenario/Ship Type	Peak Daily Ship Visists		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					
Containerships 4,000 - 4,999 TEU	1				
Containerships 3,000 - 3,999 TEU					
Subtotal				11,722	
Project Year 2030					
Containerships 10,000 - 11,999 TEU					
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	6,410	6,410	24
Containerships 4,000 - 4,999 TEU	1				
Containerships 3,000 - 3,999 TEU					
Subtotal				21,795	

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-Alt2U-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.05	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 4,000 - 4,999 TEU	0.05	0.07	0.63	0.02	0.01	0.01
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.05	0.07	0.63	0.02	0.01	0.01
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.05	0.07	0.63	0.02	0.01	0.01

Note: (1) VSRP compliance = 100% for future years.

Table A.1.2PD-Alt2U-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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 4,000 - 4,999 TEU	0.02	0.02	0.16	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.02	0.16	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.02	0.16	0.00	0.00	0.00

Table A.1.2PD-Alt2U-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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 4,000 - 4,999 TEU	0.02	0.01	0.09	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.01	0.09	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.01	0.09	0.00	0.00	0.00

Table A.1.2PD-Alt2U-5. Annual Cargo Vessel Emissions for Docking Activities
POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.01	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 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.04	0.00	0.00	0.00

Table A.1.2PD-Alt2U-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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 4,000 - 4,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.10	0.00	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-Alt2U-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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 4,000 - 4,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.05	0.00	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD-Alt2U-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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 4,000 - 4,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.08	0.00	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD-Alt2U-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.03	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 4,000 - 4,999 TEU	0.00	0.00	0.03	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.03	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.03	0.00	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD-Alt2U-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.03	0.36	0.01	0.01	0.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
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	0.01	0.01	0.15	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.04	0.46	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-Alt2U-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt2U-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt2U-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt2U-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	-	-	-	-	-	-
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 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	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.06	0.14	0.02	0.00	0.00

Table A.1.2PD-Alt2U-15. Peak Daily Tugboat Emissions for Cargo Vessel Assists
POLB MHTP Unmitigated Alternative 2.

	Tons Per Day			*Tons Per Day*		
Project Scenario/All Vessels	*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 round trip vessel transit

Table A.1.2PD-Alt2U-16. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists
POLB MHTP Unmitigated Alternative 2

	Tons Per Day					
Project Scenario/All Vessels	*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 round trip vessel transit

Table A.1.2PD-Alt2U-17. Peak Day Vessel Emissions - POLB MHTP Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - TPY						
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
Project Year 2010						
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
Project Year 2015						
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
Project Year 2020						
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	0.07	0.46	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.12	0.20	1.66	0.06	0.03	0.03
Project Year 2030						
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	0.09	0.61	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	1.81	0.07	0.03	0.03

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-Alt2U-18. Peak Daily Vessel Emissions - POLB MHTP Unmitigated Alternative 2

	Pounds Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - Annual Average Day						
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
Project Year 2010						
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
Project Year 2015						
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
Project Year 2020						
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	33.4	132.7	919.4	51.4	17.1	15.7
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	244	409	3,328	127	64	59
Project Year 2030						
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	44.0	186.0	1,213.7	72.4	22.7	20.8
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	255	462	3,622	148	70	64

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-Alt2U-19 Train Trip Generation Rates - MHTP - Alternative 2.

Project Scenario/Rail Yard	*Annual Round Trips*	*Peak Daily Round Trips*	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-Alt2U-20. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 2 Year 2010.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	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-Alt2U-21. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 2 Year 2010.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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

Table A.1.2PD-Alt2U-22. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 2Year 2015.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	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-Alt2U-23. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 2 Year 2015.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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-Alt2U-24. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 2Year 2020.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	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-Alt2U-25. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 2 Year 2020.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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-Alt2U-26. Peak Day Train Emissions - POLB MHTP Unmitigated Alternative 2Year 2030.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	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-Alt2U-27. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Unmitigated Alternative 2 Year 2030.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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-Alt2U-28. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions
POLB MHTP Unmitigated Alternative 2.

	Tons per Day					
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline Year 2005						
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
Project Year 2010						
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
Project Year 2015						
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
Project Year 2020						
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
Project Year 2030						
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-Alt2U-29. Peak DailyTruck Emissions - MHTP Unmitigated Alternative 2

	Tons per Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal						
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	0.14	0.00	0.00	0.00
Subtotal - Year 2010	0.06	0.10	0.29	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	0.04	0.18	0.00	0.00	0.00
Year 2020 - Idling	0.01	0.03	0.14	0.00	0.00	0.00
Year 2020 - Driving	0.01	0.02	0.04	0.00	0.00	0.00
Subtotal - Year 2020	0.02	0.05	0.19	0.00	0.00	0.00
Year 2030 - Idling	0.01	0.03	0.18	0.00	0.00	0.00
Year 2030 - Driving	0.01	0.02	0.03	0.00	0.00	0.00
Subtotal - Year 2030	0.02	0.05	0.22	0.00	0.00	0.00
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
Off-Terminal						
Subtotal - Year 2005						
Subtotal - Year 2010	0.25	1.09	5.62	0.01	0.04	0.04
Subtotal - Year 2015	0.09	0.44	1.30	0.00	0.02	0.02
Subtotal - Year 2020	0.10	0.52	1.30	0.01	0.03	0.03
Subtotal - Year 2030	0.10	0.45	1.07	0.01	0.03	0.03
Peak Day Truck Emissions by Project Year						
Year 2005						
Year 2010	0.30	1.18	5.91	0.01	0.05	0.04
Year 2015	0.11	0.49	1.48	0.00	0.02	0.02
Year 2020	0.12	0.57	1.49	0.01	0.03	0.03
Year 2030	0.12	0.50	1.28	0.01	0.04	0.03

Table A.1.2PD-Alt2U-30. Peak Daily Terminal Equipment Emissions - POLB MHTP Unmitigated Alternative 2

	Peak Daily	*Emissions (Tons)*					
Equipment Type	Hp-Hrs	*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)	137,328	0.05	0.28	1.23	0.00	0.04	0.04
Top-Pick	38,786	0.01	0.03	0.22	0.00	0.01	0.00
Side-Pick	18,269	0.00	0.01	0.13	0.00	0.00	0.00
Yard Tractor (CY)	53,367	0.00	0.05	0.04	0.00	0.00	0.00
Subtotal	247,749	0.06	0.37	1.62	0.00	0.05	0.05
Pier F							
RTG (CY)	20,285	0.01	0.04	0.18	0.00	0.01	0.01
Top-Pick	6,866	0.00	0.01	0.04	0.00	0.00	0.00
Side-Pick	5,088	0.00	0.00	0.04	0.00	0.00	0.00
Yard Tractor (CY)	16,874	0.00	0.02	0.01	0.00	0.00	0.00
Subtotal	49,113	0.01	0.07	0.27	0.00	0.01	0.01
Subtotal - Project Year 2010	296,862	0.07	0.44	1.89	0.00	0.06	0.05
Project Year 2015							
RTG (CY)	126,606	0.01	0.13	0.20	0.00	0.00	0.00
Top-Pick	43,222	0.00	0.05	0.07	0.00	0.00	0.00
Side-Pick	23,258	0.00	0.05	0.05	0.00	0.00	0.00
Yard Tractor (CY)	70,526	0.00	0.08	0.01	0.00	0.00	0.00
Subtotal - Project Year 2015	263,611	0.02	0.31	0.33	0.00	0.00	0.00
Project Year 2020							
RTG (CY)	128,786	0.01	0.14	0.21	0.00	0.00	0.00
Top-Pick	44,750	0.00	0.05	0.08	0.00	0.00	0.00
Side-Pick	27,404	0.00	0.06	0.06	0.00	0.00	0.00
Yard Tractor (CY)	82,684	0.00	0.10	0.01	0.00	0.00	0.00
Subtotal - Project Year 2020	283,623	0.02	0.36	0.36	0.00	0.00	0.00
Project Year 2030							
RTG (CY)	249,252	0.02	0.29	0.42	0.00	0.00	0.00
Top-Pick	84,224	0.01	0.10	0.15	0.00	0.00	0.00
Side-Pick	47,696	0.01	0.11	0.11	0.00	0.00	0.00
Yard Tractor (CY)	137,798	0.00	0.16	0.02	0.00	0.00	0.00
Subtotal - Project Year 2030	518,971	0.04	0.66	0.70	0.00	0.01	0.01

Table A.1.2PD-Alt2U-30a. Peak Daily Backlands TEU Throughput and Terminal Equipment Usage
POLB - MHTP - Unmitigated Alternative 2

Project Year/Scenario	*Peak Daily TEUs*			*Annual TEUs*	Peak Daily TEUs/ *Annual TEUs (2)*
	Wharf	*Gate (1)*	*Total*		
2005 - CEQA Baseline				1,264,021	-
Year 2010	9,768	7,144	16,912	1,594,083	0.011
Year 2015	11,366	6,371	17,737	2,185,185	0.008
Year 2020	11,722	6,668	18,390	2,486,157	0.007
Year 2030	21,795	8,528	30,322	2,870,000	0.011

Note: (1) Reduced 50% to simulate that half of the gate throughput is not handled by CHE. This reducing factor is necessarry 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-Alt2U-31. Annual Operational Emissions - POLB - MHTP Unmitigated Alternative 2.

	Tons Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
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	0.44	1.89	0.00	0.06	0.05
On-road Trucks	0.30	1.18	5.91	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	0.36	14.11	1.06	0.03	0.05	0.05
Project Year 2010 Total	0.91	16.10	12.14	1.44	0.36	0.33
Project Year 2015						
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	0.33	0.00	0.00	0.00
On-road Trucks	0.11	0.49	1.48	0.00	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	0.23	11.61	0.78	0.04	0.08	0.07
Project Year 2015 Total	0.66	13.00	6.73	0.14	0.19	0.18
Project Year 2020						
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	0.07	0.46	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.02	0.36	0.36	0.00	0.00	0.00
On-road Trucks	0.12	0.57	1.49	0.01	0.03	0.03
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	0.13	8.01	0.50	0.04	0.08	0.07
Project Year 2020 Total	0.50	9.47	5.44	0.11	0.18	0.17
Project Year 2030						
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	0.09	0.61	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	0.66	0.70	0.00	0.01	0.01
On-road Trucks	0.12	0.50	1.28	0.01	0.04	0.03
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	0.09	6.12	0.34	0.04	0.11	0.10
Project Year 2030 Total	0.47	7.84	5.42	0.13	0.21	0.20

Note: (1) Includes auxiliary generator emissions.

Table A.1.2PD-Alt2U-32. Peak Daily Operational Emissions - POLB MHTP Unmitigated Alternative 2

	Pounds Per Day (2)					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
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	140	871	3,789	4	116	106
On-road Trucks	609	2,367	11,816	12	91	84
Trains	39	100	538	12	15	15
Railyard Equipment	1	9	31	0	1	1
Commuting	2	77	6	0	0	0
Project Year 2010 Total	1,107	4,050	22,166	2,816	613	572
Net Change from 2005 CEQA Baseline	(118)	(896)	295	(270)	(461)	(437)
Net Change from NEPA Baseline Year 2010	133	535	6,380	2,524	393	367
Project Year 2015						
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	621	651	4	6	6
On-road Trucks	213	977	2,963	10	48	45
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	855	2,842	11,900	213	232	221
Net Change from 2005 CEQA Baseline	(371)	(2,104)	(9,972)	(2,873)	(842)	(787)
Net Change from NEPA Baseline Year 2015	57	185	1,619	32	44	43
Project Year 2020						
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	33	133	919	51	17	16
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	42	719	717	4	4	4
On-road Trucks	248	1,147	2,976	11	63	58
Trains	199	597	2,822	2	73	73
Railyard Equipment	3	48	43	0	0	0
Commuting	1	44	3	0	0	0
Project Year 2020 Total	737	2,963	9,888	144	205	195
Net Change from 2005 CEQA Baseline	(488)	(1,983)	(11,984)	(2,942)	(870)	(813)
Net Change from NEPA Baseline Year 2020	8	269	842	11	21	22
Project Year 2030						
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	44	186	1,214	72	23	21
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	84	1,330	1,405	7	15	14
On-road Trucks	244	1,003	2,567	14	70	65
Trains	177	597	2,514	2	46	46
Railyard Equipment	3	52	49	0	1	1
Commuting	0	34	2	0	1	1
Project Year 2030 Total	763	3,478	10,158	172	202	191
Net Change from 2005 CEQA Baseline	(463)	(1,468)	(11,714)	(2,914)	(872)	(818)
Net Change from NEPA Baseline Year 2030	74	671	1,626	13	16	16
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-Alt2U-32. Peak Daily Operational Emissions - POLB MHTP Unmitigated Alternative 2

	Pounds Per Day (2)					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - Average Day						
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
Project Year 2009						
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	176	888	4,330	17	123	113
On-road Trucks	635	2,576	11,642	22	183	169
Trains	40	99	568	20	17	17
Railyard Equipment	3	13	78	1	2	2
Commuting	2	86	7	0	0	0
Year 2009 Total	1,131	4,229	22,108	2,870	705	659
Net Change from 2005 CEQA Baseline	(95)	(717)	236	(216)	(369)	(349)
Net Change from NEPA Baseline Year 2009	157	714	6,321	2,578	486	454
Project Year 2010						
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	140	871	3,789	4	116	106
On-road Trucks	609	2,367	11,816	12	91	84
Trains	39	100	538	12	15	15
Railyard Equipment	1	9	31	0	1	1
Commuting	2	77	6	0	0	0
Project Year 2010 Total	1,107	4,050	22,166	2,816	613	572
Net Change from 2005 CEQA Baseline	(118)	(896)	295	(270)	(461)	(437)
Net Change from NEPA Baseline Year 2010	133	535	6,380	2,524	393	367
Project Year 2011						
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	120	821	3,161	4	94	86
On-road Trucks	530	2,089	10,045	11	83	76
Trains	67	179	933	10	25	25
Railyard Equipment	1	14	31	0	1	1
Commuting	2	75	6	0	0	0
Project Year 2011 Total	1,057	3,808	20,113	2,295	537	502
Net Change from 2005 CEQA Baseline	(169)	(1,138)	(1,759)	(790)	(538)	(507)
Net Change from NEPA Baseline Year 2011	118	465	5,428	2,025	324	302

Project Year 2012						
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	99	771	2,533	4	72	66
On-road Trucks	450	1,811	8,275	11	74	68
Trains	96	259	1,329	8	35	35
Railyard Equipment	1	18	31	0	1	1
Commuting	2	72	5	0	0	0
Project Year 2012 Total	1,006	3,567	18,060	1,775	461	432
Net Change from 2005 CEQA Baseline	(219)	(1,379)	(3,812)	(1,311)	(614)	(577)
Net Change from NEPA Baseline Year 2012	103	395	4,476	1,527	254	237
Project Year 2013						
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	78	721	1,906	4	50	46
On-road Trucks	371	1,533	6,504	11	66	60
Trains	124	338	1,725	6	46	46
Railyard Equipment	2	23	30	0	1	1
Commuting	2	69	5	0	0	0
Project Year 2013 Total	956	3,325	16,007	1,254	385	361
Net Change from 2005 CEQA Baseline	(270)	(1,621)	(5,865)	(1,832)	(690)	(647)
Net Change from NEPA Baseline Year 2013	87	325	3,524	1,029	184	173
Project Year 2014						
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	57	671	1,278	4	28	26
On-road Trucks	292	1,255	4,734	10	57	52
Trains	152	418	2,121	4	56	56
Railyard Equipment	2	28	30	0	0	0
Commuting	1	66	5	0	0	0
Project Year 2014 Total	905	3,084	13,953	733	309	291
Net Change from 2005 CEQA Baseline	(320)	(1,862)	(7,918)	(2,353)	(766)	(717)
Net Change from NEPA Baseline Year 2014	72	255	2,571	531	114	108
Project Year 2015						
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	621	651	4	6	6
On-road Trucks	213	977	2,963	10	48	45
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	855	2,842	11,900	213	232	221
Net Change from 2005 CEQA Baseline	(371)	(2,104)	(9,972)	(2,873)	(842)	(787)
Net Change from NEPA Baseline Year 2015	57	185	1,619	32	44	43

Project Year 2016						
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	56	181	1,528	69	28	26
Tugboats - Cargo Vessel Assist (1)	3	22	45	0	1	1
Terminal Equipment	37	641	664	4	6	5
On-road Trucks	220	1,011	2,966	10	51	47
Trains	184	518	2,578	2	67	67
Railyard Equipment	2	36	33	0	0	0
Commuting	1	60	4	0	0	0
Project Year 2016 Total	831	2,866	11,498	199	227	216
Net Change from 2005 CEQA Baseline	(394)	(2,080)	(10,374)	(2,887)	(848)	(793)
Net Change from NEPA Baseline Year 2016	47	202	1,464	28	40	39
Project Year 2017						
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	51	169	1,376	65	25	24
Tugboats - Cargo Vessel Assist (1)	3	22	43	0	1	1
Terminal Equipment	39	660	677	4	5	5
On-road Trucks	227	1,045	2,968	10	54	50
Trains	188	537	2,639	2	69	69
Railyard Equipment	2	39	35	0	0	0
Commuting	1	56	4	0	0	0
Project Year 2017 Total	808	2,890	11,095	185	221	211
Net Change from 2005 CEQA Baseline	(418)	(2,055)	(10,776)	(2,901)	(853)	(798)
Net Change from NEPA Baseline Year 2017	37	219	1,308	24	35	35
Project Year 2018						
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	45	157	1,224	60	23	21
Tugboats - Cargo Vessel Assist (1)	3	22	42	0	1	1
Terminal Equipment	40	680	690	4	5	4
On-road Trucks	234	1,079	2,971	10	57	53
Trains	192	557	2,700	2	70	70
Railyard Equipment	2	42	38	0	0	0
Commuting	1	52	3	0	0	0
Project Year 2018 Total	784	2,914	10,693	172	216	206
Net Change from 2005 CEQA Baseline	(441)	(2,031)	(11,179)	(2,914)	(859)	(803)
Net Change from NEPA Baseline Year 2018	28	236	1,153	19	31	30
Project Year 2019						
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	39	145	1,072	56	20	19
Tugboats - Cargo Vessel Assist (1)	3	22	41	0	1	1
Terminal Equipment	41	699	703	4	4	4
On-road Trucks	241	1,113	2,973	10	60	56
Trains	196	577	2,761	2	71	71
Railyard Equipment	2	45	40	0	0	0
Commuting	1	48	3	0	0	0
Project Year 2019 Total	761	2,939	10,291	158	210	201
Net Change from 2005 CEQA Baseline	(465)	(2,007)	(11,581)	(2,928)	(864)	(808)
Net Change from NEPA Baseline Year 2019	18	252	997	15	26	26

Project Year 2020						
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	33	133	919	51	17	16
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	42	719	717	4	4	4
On-road Trucks	248	1,147	2,976	11	63	58
Trains	199	597	2,822	2	73	73
Railyard Equipment	3	48	43	0	0	0
Commuting	1	44	3	0	0	0
Project Year 2020 Total	737	2,963	9,888	144	205	195
Net Change from 2005 CEQA Baseline	(488)	(1,983)	(11,984)	(2,942)	(870)	(813)
Net Change from NEPA Baseline Year 2020	8	269	842	11	21	22
Project Year 2030						
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	44	186	1,214	72	23	21
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	84	1,330	1,405	7	15	14
On-road Trucks	244	1,003	2,567	14	70	65
Trains	177	597	2,514	2	46	46
Railyard Equipment	3	52	49	0	1	1
Commuting	0	34	2	0	1	1
Project Year 2030 Total	763	3,478	10,158	172	202	191
Net Change from 2005 CEQA Baseline	(463)	(1,468)	(11,714)	(2,914)	(872)	(818)
Net Change from NEPA Baseline Year 2030	74	671	1,626	13	16	16
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.

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Table A.1.2PD-Alt2M-1. Peak Day Ship Visit/Throughput Data - POLB MHTP Mitigated Alternative 2

Project Scenario/Ship Type	Peak Daily Ship Visists		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 8-9,999 TEU - Pier F		1	5,328	5,328	24
Containerships 6-6,999 TEU - Pier E		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					
Containerships 4,000 - 4,999 TEU	1				
Containerships 3,000 - 3,999 TEU					
Subtotal				11,722	
Project Year 2030					
Containerships 10,000 - 11,999 TEU					
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	6,410	6,410	24
Containerships 4,000 - 4,999 TEU	1				
Containerships 3,000 - 3,999 TEU					
Subtotal				21,795	

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-Alt2M-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.05	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 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 4,000 - 4,999 TEU	0.05	0.07	0.63	0.02	0.01	0.01
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.05	0.07	0.63	0.02	0.01	0.01
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.05	0.07	0.63	0.02	0.01	0.01

Note: (1) VSRP compliance = 100% for future years.

Table A.1.2PD-Alt2M-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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 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 4,000 - 4,999 TEU	0.02	0.02	0.16	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.02	0.16	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.02	0.16	0.00	0.00	0.00

Table A.1.2PD-Alt2M-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Alternative 2.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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 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 4,000 - 4,999 TEU	0.02	0.01	0.09	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.01	0.09	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.01	0.09	0.00	0.00	0.00

Table A.1.2PD-Alt2M-5. Annual Cargo Vessel Emissions for Docking Activities
POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.01	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 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.04	0.00	0.00	0.00

Table A.1.2PD-Alt2M-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.01	0.00	0.00
Subtotal	0.00	0.01	0.10	0.01	0.00	0.00
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 4,000 - 4,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.10	0.00	0.00	0.00

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.1.2PD-Alt2M-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.05	0.00	0.00	0.00
Subtotal	0.00	0.00	0.05	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.05	0.00	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2PD-Alt2M-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	0.00	0.00
Subtotal	0.00	0.01	0.08	0.00	0.00	0.00
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 4,000 - 4,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.08	0.00	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2PD-Alt2M-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.03	0.00	0.00	0.00
Subtotal	0.00	0.00	0.03	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.03	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.03	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.03	0.00	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2PD-Alt2M-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day (1)					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
Subtotal						
Project Year 2010 (2)						
Containerships 8-9,999 TEU - Pier F	0.03	0.07	0.83	0.05	0.02	0.02
Containerships 6-6,999 TEU - Pier E	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.03	0.07	0.90	0.05	0.02	0.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.15	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 8,000 - 9,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.18	0.01	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.02	0.23	0.01	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) In 2010, Pier F uncontrolled and Pier E controlled 90%, otherwise all years controlled 90%.

Table A.1.2PD-Alt2M-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt2M-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt2M-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt2M-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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	-	-	-	-	-	-
Subtotal	0.00	0.04	0.10	0.03	0.00	0.00
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	-	-	-	-	-	-
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 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	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.06	0.14	0.02	0.00	0.00

Table A.1.2PD-Alt2M-15. Peak Daily Tugboat Emissions for Cargo Vessel Assists
POLB MHTP Mitigated Alternative 2.

	Tons Per Day			*Tons Per Day*		
Project Scenario/All Vessels	*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 round trip vessel transit

Table A.1.2PD-Alt2M-16. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists
POLB MHTP Mitigated Alternative 2

	Tons Per Day					
Project Scenario/All Vessels	*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 round trip vessel transit

Table A.1.2PD-Alt2M-17. Peak Day Vessel Emissions - POLB MHTP Mitigated Alternative 2.

	Tons Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - TPY						
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
Project Year 2010						
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	0.01	0.00	0.00
Ships - Docking (1)	0.01	0.01	0.07	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.04	0.11	1.00	0.08	0.02	0.02
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Subtotal	0.14	0.25	2.24	0.13	0.05	0.04
Project Year 2015						
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	0.01	0.05	0.24	0.02	0.00	0.00
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.19	0.28	2.27	0.08	0.04	0.04
Project Year 2020						
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	0.01	0.05	0.28	0.02	0.01	0.00
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.12	0.19	1.48	0.06	0.03	0.03
Project Year 2030						
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	0.01	0.07	0.38	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.12	0.21	1.58	0.07	0.03	0.03

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-Alt2M-18. Peak Daily Vessel Emissions - POLB MHTP Mitigated Alternative 2

	Pounds Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - Annual Average Day						
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
Project Year 2010						
Ships - Fairway Transit (1)	111.1	145.9	1,449.8	56.6	27.5	25.4
Ships - Precautionary Area Transit (1)	41.0	52.6	444.9	18.8	9.1	8.4
Ships - Harbor Transit (1)	38.1	40.0	341.6	14.1	7.7	7.1
Ships - Docking (1)	17.8	15.3	132.6	4.7	3.1	2.9
Ships - Hoteling Aux. Sources	73.7	217.9	1,995.0	169.9	41.2	37.9
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	113.3	0.1	3.8	3.5
Subtotal	285	494	4,477	264	93	85
Project Year 2015						
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	17.3	98.7	489.2	39.0	9.4	8.6
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	45.9	0.1	1.1	1.1
Subtotal	378	555	4,544	163	90	82
Project Year 2020						
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	19.8	103.9	555.4	40.9	10.6	9.7
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	231	380	2,964	117	58	53
Project Year 2030						
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	26.6	149.4	750.3	59.0	14.4	13.2
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	238	425	3,159	135	62	57

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-Alt2M-19 Train Trip Generation Rates - MHTP - 342-acre Alternative 2.

Project Scenario/Rail Yard	*Annual Round Trips*	*Peak Daily Round Trips*	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-Alt2M-20. Peak Day Train Emissions - POLB MHTP Mitigated Alternative 2 Year 2010.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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-Alt2M-21. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Mitigated Alternative 2 Year 2010.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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	0.01	0.00	0.00	0.00

Table A.1.2PD-Alt2M-22. Peak Day Train Emissions - POLB MHTP Mitigated Alternative 2Year 2015.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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-Alt2M-23. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Mitigated Alternative 2 Year 2015.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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-Alt2M-24. Peak Day Train Emissions - POLB MHTP Mitigated Alternative 2Year 2020.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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-Alt2M-25. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Mitigated Alternative 2 Year 2020.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
RTG	12,420	-	-	-	-	-	-
Yard Tractor	8,104	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	20,523	0.00	0.01	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt2M-26. Peak Day Train Emissions - POLB MHTP Mitigated Alternative 2Year 2030.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.02	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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-Alt2M-27. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Mitigated Alternative 2 Year 2030.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
RTG	13,633	-	-	-	-	-	-
Yard Tractor	8,895	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	22,528	0.00	0.01	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt2M-28. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions
POLB MHTP Mitigated Alternative 2.

	Tons per Day					
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline Year 2005						
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
Project Year 2010						
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
Project Year 2015						
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
Project Year 2020						
Trains	0.10	0.30	1.41	0.00	0.04	0.04
Railyard Equipment	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.10	0.31	1.41	0.00	0.04	0.04
Project Year 2030						
Trains - 2026	0.09	0.30	1.26	0.00	0.02	0.02
Railyard Equipment - 2030	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.09	0.31	1.26	0.00	0.02	0.02

Table A.1.2PD-Alt2M-29. Peak DailyTruck Emissions - MHTP Mitigated Alternative 2

	Tons per Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal						
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	0.04	0.06	0.10	0.00	0.00	0.00
Subtotal - Year 2010	0.05	0.09	0.25	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	0.04	0.18	0.00	0.00	0.00
Year 2020 - Idling	0.01	0.03	0.14	0.00	0.00	0.00
Year 2020 - Driving	0.01	0.02	0.04	0.00	0.00	0.00
Subtotal - Year 2020	0.02	0.05	0.19	0.00	0.00	0.00
Year 2030 - Idling	0.01	0.03	0.18	0.00	0.00	0.00
Year 2030 - Driving	0.01	0.02	0.03	0.00	0.00	0.00
Subtotal - Year 2030	0.02	0.05	0.22	0.00	0.00	0.00
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
Off-Terminal						
Subtotal - Year 2005						
Subtotal - Year 2010	0.23	1.12	3.93	0.01	0.03	0.03
Subtotal - Year 2015	0.08	0.43	1.24	0.00	0.02	0.02
Subtotal - Year 2020	0.11	0.51	1.36	0.01	0.03	0.03
Subtotal - Year 2030	0.10	0.10	1.07	0.01	0.03	0.03
Peak Day Truck Emissions by Project Year						
Year 2005						
Year 2010	0.28	1.21	4.18	0.01	0.03	0.03
Year 2015	0.10	0.48	1.42	0.01	0.02	0.02
Year 2020	0.14	0.56	1.54	0.01	0.03	0.03
Year 2030	0.12	0.15	1.28	0.01	0.04	0.03

Table A.1.2PD-Alt2M-30. Peak Daily Terminal Equipment Emissions - POLB MHTP Mitigated Alternative 2

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)	137,328	0.03	0.09	0.75	0.00	0.01	0.01
Top-Pick	38,786	0.01	0.03	0.22	0.00	0.01	0.00
Side-Pick	18,269	0.00	0.01	0.13	0.00	0.00	0.00
Yard Tractor (CY)	53,367	0.00	0.05	0.02	0.00	0.00	0.00
Subtotal	247,749	0.04	0.18	1.13	0.00	0.02	0.02
Pier F							
RTG (CY)	20,285	0.00	0.01	0.11	0.00	0.00	0.00
Top-Pick	6,866	0.00	0.01	0.04	0.00	0.00	0.00
Side-Pick	5,088	0.00	0.00	0.04	0.00	0.00	0.00
Yard Tractor (CY)	16,874	0.00	0.02	0.01	0.00	0.00	0.00
Subtotal	49,113	0.01	0.04	0.19	0.00	0.00	0.00
Subtotal - Project Year 2010	296,862	0.05	0.22	1.32	0.00	0.03	0.02
Project Year 2015							
RTG (CY)	126,606	0.01	0.13	0.20	0.00	0.00	0.00
Top-Pick	43,222	0.00	0.05	0.07	0.00	0.00	0.00
Side-Pick	23,258	0.00	0.05	0.05	0.00	0.00	0.00
Yard Tractor (CY)	70,526	0.00	0.08	0.01	0.00	0.00	0.00
Subtotal - Project Year 2015	263,611	0.02	0.31	0.33	0.00	0.00	0.00
Project Year 2020							
RTG (CY)	128,786	-	-	-	-	-	-
Top-Pick	44,750	0.00	0.05	0.08	0.00	0.00	0.00
Side-Pick	27,404	0.00	0.06	0.06	0.00	0.00	0.00
Yard Tractor (CY)	82,684	0.00	0.10	0.01	0.00	0.00	0.00
Subtotal - Project Year 2020	283,623	0.01	0.22	0.15	0.00	0.00	0.00
Project Year 2030							
RTG (CY)	249,252	-	-	-	-	-	-
Top-Pick	84,224	0.01	0.10	0.15	0.00	0.00	0.00
Side-Pick	47,696	0.01	0.11	0.11	0.00	0.00	0.00
Yard Tractor (CY)	137,798	0.00	0.15	0.02	0.00	0.00	0.00
Subtotal - Project Year 2030	518,971	0.02	0.37	0.28	0.00	0.00	0.00

Table A.1.2PD-Alt2M-30a. Peak Daily Backlands TEU Throughput and Terminal Equipment Usage
POLB MHTP - Mitigated Alternative 2

Project Year/Scenario	*Peak Daily TEUs*			*Annual TEUs*	Peak Daily TEUs/ *Annual TEUs (2)*
	Wharf	*Gate (1)*	*Total*		
2005 - CEQA Baseline				1,264,021	-
Year 2010	9,768	7,144	16,912	1,594,083	0.011
Year 2015	11,366	6,371	17,737	2,185,185	0.008
Year 2020	11,722	6,668	18,390	2,486,157	0.007
Year 2030	21,795	8,528	30,322	2,870,000	0.011

Note: (1) Reduced 50% to simulate that half of the gate throughput is not handled by CHE. This reducing factor is necessarry 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-Alt2M-31. Annual Operational Emissions - POLB - MHTP Mitigated 342-acre Alternative.

	Tons Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
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	0.01	0.00	0.00
Ships - Docking (1)	0.01	0.01	0.07	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.04	0.11	1.00	0.08	0.02	0.02
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Terminal Equipment	0.05	0.22	1.32	0.00	0.03	0.02
On-road Trucks	0.28	1.21	4.18	0.01	0.03	0.03
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
Commuting	0.36	14.11	1.06	0.03	0.05	0.05
Project Year 2010 Total	0.85	15.84	9.08	0.18	0.16	0.15
Project Year 2015						
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	0.01	0.05	0.24	0.02	0.00	0.00
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.02	0.31	0.33	0.00	0.00	0.00
On-road Trucks	0.10	0.48	1.42	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	0.23	11.61	0.78	0.04	0.08	0.07
Project Year 2015 Total	0.63	12.94	6.07	0.13	0.18	0.17
Project Year 2020						
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	0.01	0.05	0.28	0.02	0.01	0.00
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.01	0.22	0.15	0.00	0.00	0.00
On-road Trucks	0.14	0.56	1.54	0.01	0.03	0.03
Trains	0.10	0.30	1.41	0.00	0.04	0.04
Railyard Equipment	0.00	0.01	0.00	0.00	0.00	0.00
Commuting	0.13	8.01	0.50	0.04	0.08	0.07
Project Year 2020 Total	0.49	9.28	5.09	0.10	0.18	0.16
Project Year 2030						
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	0.01	0.07	0.38	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.02	0.37	0.28	0.00	0.00	0.00
On-road Trucks	0.12	0.15	1.28	0.01	0.04	0.03
Trains	0.09	0.30	1.26	0.00	0.02	0.02
Railyard Equipment	0.00	0.01	0.00	0.00	0.00	0.00
Commuting	0.09	6.12	0.34	0.04	0.11	0.10
Project Year 2030 Total	0.44	7.16	4.74	0.12	0.20	0.19

Note: (1) Includes auxiliary generator emissions.

Table A.1.2PD-Alt2M-32. Peak Daily Operational Emissions - POLB MHTP Mitigated Alternative 2

	Pounds Per Day (2)					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
Ships - Fairway Transit (1)	111	146	1,450	57	28	26
Ships - Precautionary Area Transit (1)	41	53	445	19	9	9
Ships - Harbor Transit (1)	38	40	342	14	8	7
Ships - Docking (1)	18	15	133	5	3	3
Ships - Hoteling Aux. Sources	74	218	1,995	170	41	39
Tugboats - Cargo Vessel Assist (1)	3	22	113	0	4	4
Terminal Equipment	92	443	2,644	4	53	49
On-road Trucks	562	2,420	8,361	13	64	59
Trains	39	100	538	12	15	15
Railyard Equipment	1	4	19	0	0	0
Commuting	2	77	6	0	0	0
Project Year 2010 Total	980	3,537	16,044	293	225	210
Net Change from 2005 CEQA Baseline	(245)	(1,409)	(5,828)	(2,793)	(849)	(798)
Net Change from NEPA Baseline Year 2010	6	22	258	0	6	5
Project Year 2015						
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	17	99	489	39	9	9
Tugboats - Cargo Vessel Assist (1)	3	22	46	0	1	1
Terminal Equipment	36	623	651	4	6	6
On-road Trucks	208	954	2,848	11	48	44
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	806	2,726	10,593	179	211	201
Net Change from 2005 CEQA Baseline	(420)	(2,220)	(11,279)	(2,907)	(864)	(808)
Net Change from NEPA Baseline Year 2015	7	69	312	(1)	23	23
Project Year 2020						
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	20	104	555	41	11	10
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	19	433	298	2	4	4
On-road Trucks	272	1,117	3,085	11	57	53
Trains	199	597	2,822	2	73	73
Railyard Equipment	0	20	3	0	0	0
Commuting	1	44	3	0	0	0
Project Year 2020 Total	722	2,591	9,174	133	193	184
Net Change from 2005 CEQA Baseline	(504)	(2,355)	(12,698)	(2,953)	(882)	(824)
Net Change from NEPA Baseline Year 2020	(7)	(103)	128	(1)	9	10
Project Year 2030						
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	27	149	750	59	14	13
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	35	737	561	4	7	7
On-road Trucks	244	305	2,563	15	70	64
Trains	177	597	2,514	2	46	46
Railyard Equipment	0	20	3	0	0	0
Commuting	0	34	2	0	1	1
Project Year 2030 Total	694	2,118	8,802	156	185	175
Net Change from 2005 CEQA Baseline	(532)	(2,828)	(13,070)	(2,930)	(889)	(833)
Net Change from NEPA Baseline Year 2030	4	(688)	269	(2)	(0)	1
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-Alt2M-32. Peak Daily Operational Emissions - POLB MHTP Mitigated Alternative 2

	Pounds Per Day (2)					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - Average Day						
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
Project Year 2009						
Ships - Fairway Transit (1)	89	117	1,160	45	22	21
Ships - Precautionary Area Transit (1)	33	42	356	15	7	7
Ships - Harbor Transit (1)	31	32	273	11	6	6
Ships - Docking (1)	14	12	106	4	3	2
Ships - Hoteling Aux. Sources	80	236	2,265	716	100	96
Tugboats - Cargo Vessel Assist (1)	3	22	114	0	4	4
Terminal Equipment	137	545	3,414	17	73	67
On-road Trucks	597	2,618	8,878	22	162	149
Trains	40	99	568	20	17	17
Railyard Equipment	3	10	69	1	1	1
Commuting	2	86	7	0	0	0
Year 2009 Total	1,029	3,819	17,210	851	395	370
Net Change from 2005 CEQA Baseline	(196)	(1,127)	(4,662)	(2,235)	(679)	(639)
Net Change from NEPA Baseline Year 2009	55	304	1,424	559	176	165
Project Year 2010						
Ships - Fairway Transit (1)	111	146	1,450	57	28	26
Ships - Precautionary Area Transit (1)	41	53	445	19	9	9
Ships - Harbor Transit (1)	38	40	342	14	8	7
Ships - Docking (1)	18	15	133	5	3	3
Ships - Hoteling Aux. Sources	74	218	1,995	170	41	39
Tugboats - Cargo Vessel Assist (1)	3	22	113	0	4	4
Terminal Equipment	92	443	2,644	4	53	49
On-road Trucks	562	2,420	8,361	13	64	59
Trains	39	100	538	12	15	15
Railyard Equipment	1	4	19	0	0	0
Commuting	2	77	6	0	0	0
Project Year 2010 Total	980	3,537	16,044	293	225	210
Net Change from 2005 CEQA Baseline	(245)	(1,409)	(5,828)	(2,793)	(849)	(798)
Net Change from NEPA Baseline Year 2010	6	22	258	0	6	5
Project Year 2011						
Ships - Fairway Transit (1)	129	168	1,644	62	31	29
Ships - Precautionary Area Transit (1)	46	59	503	20	10	10
Ships - Harbor Transit (1)	43	46	396	14	9	8
Ships - Docking (1)	20	17	154	5	4	3
Ships - Hoteling Aux. Sources	62	194	1,694	144	35	33
Tugboats - Cargo Vessel Assist (1)	3	22	100	0	3	3
Terminal Equipment	81	479	2,245	4	44	40
On-road Trucks	491	2,127	7,258	12	61	56
Trains	67	179	933	10	25	25
Railyard Equipment	1	10	21	0	0	0
Commuting	2	75	6	0	0	0
Project Year 2011 Total	945	3,375	14,954	270	222	208
Net Change from 2005 CEQA Baseline	(280)	(1,571)	(6,918)	(2,816)	(852)	(800)
Net Change from NEPA Baseline Year 2011	7	32	269	0	9	9

Project Year 2012						
Ships - Fairway Transit (1)	146	190	1,837	66	35	33
Ships - Precautionary Area Transit (1)	51	65	562	20	11	11
Ships - Harbor Transit (1)	48	51	451	14	10	9
Ships - Docking (1)	23	20	175	5	4	4
Ships - Hoteling Aux. Sources	51	170	1,393	118	28	27
Tugboats - Cargo Vessel Assist (1)	3	22	86	0	3	3
Terminal Equipment	70	515	1,847	4	34	32
On-road Trucks	420	1,833	6,156	12	58	53
Trains	96	259	1,329	8	35	35
Railyard Equipment	1	16	23	0	0	0
Commuting	2	72	5	0	0	0
Project Year 2012 Total	910	3,213	13,864	247	220	206
Net Change from 2005 CEQA Baseline	(315)	(1,733)	(8,008)	(2,839)	(855)	(802)
Net Change from NEPA Baseline Year 2012	7	41	280	(0)	12	12
Project Year 2013						
Ships - Fairway Transit (1)	164	212	2,031	71	39	36
Ships - Precautionary Area Transit (1)	56	71	620	21	12	12
Ships - Harbor Transit (1)	54	57	506	14	11	10
Ships - Docking (1)	25	22	195	5	4	4
Ships - Hoteling Aux. Sources	40	146	1,092	91	22	21
Tugboats - Cargo Vessel Assist (1)	3	22	73	0	2	2
Terminal Equipment	59	551	1,448	4	25	23
On-road Trucks	349	1,540	5,053	11	55	50
Trains	124	338	1,725	6	46	46
Railyard Equipment	1	22	26	0	0	0
Commuting	2	69	5	0	0	0
Project Year 2013 Total	875	3,051	12,774	225	217	205
Net Change from 2005 CEQA Baseline	(350)	(1,895)	(9,098)	(2,861)	(858)	(804)
Net Change from NEPA Baseline Year 2013	7	51	290	(1)	16	16
Project Year 2014						
Ships - Fairway Transit (1)	181	234	2,225	76	43	40
Ships - Precautionary Area Transit (1)	60	78	679	22	13	13
Ships - Harbor Transit (1)	59	63	561	15	12	11
Ships - Docking (1)	27	24	216	5	5	5
Ships - Hoteling Aux. Sources	29	123	790	65	16	15
Tugboats - Cargo Vessel Assist (1)	3	22	59	0	2	2
Terminal Equipment	47	587	1,049	4	16	14
On-road Trucks	279	1,247	3,950	11	51	47
Trains	152	418	2,121	4	56	56
Railyard Equipment	2	27	28	0	0	0
Commuting	1	66	5	0	0	0
Project Year 2014 Total	840	2,888	11,683	202	214	203
Net Change from 2005 CEQA Baseline	(385)	(2,057)	(10,188)	(2,884)	(861)	(806)
Net Change from NEPA Baseline Year 2014	7	60	301	(1)	19	19
Project Year 2015						
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	17	99	489	39	9	9
Tugboats - Cargo Vessel Assist (1)	3	22	46	0	1	1
Terminal Equipment	36	623	651	4	6	6
On-road Trucks	208	954	2,848	11	48	44
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	806	2,726	10,593	179	211	201
Net Change from 2005 CEQA Baseline	(420)	(2,220)	(11,279)	(2,907)	(864)	(808)
Net Change from NEPA Baseline Year 2015	7	69	312	(1)	23	23

Project Year 2016						
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	18	100	502	39	10	9
Tugboats - Cargo Vessel Assist (1)	3	22	45	0	1	1
Terminal Equipment	33	585	580	3	6	5
On-road Trucks	221	986	2,895	11	50	46
Trains	184	518	2,578	2	67	67
Railyard Equipment	2	31	25	0	0	0
Commuting	1	60	4	0	0	0
Project Year 2016 Total	789	2,699	10,309	170	207	197
Net Change from 2005 CEQA Baseline	(437)	(2,247)	(11,562)	(2,916)	(867)	(811)
Net Change from NEPA Baseline Year 2016	4	35	275	(1)	20	20
Project Year 2017						
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	18	101	516	40	10	9
Tugboats - Cargo Vessel Assist (1)	3	22	43	0	1	1
Terminal Equipment	29	547	510	3	5	5
On-road Trucks	233	1,019	2,942	11	52	48
Trains	188	537	2,639	2	69	69
Railyard Equipment	1	28	19	0	0	0
Commuting	1	56	4	0	0	0
Project Year 2017 Total	772	2,672	10,026	161	204	194
Net Change from 2005 CEQA Baseline	(454)	(2,274)	(11,846)	(2,925)	(871)	(814)
Net Change from NEPA Baseline Year 2017	1	0	238	(1)	17	18
Project Year 2018						
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	19	102	529	40	10	9
Tugboats - Cargo Vessel Assist (1)	3	22	42	0	1	1
Terminal Equipment	26	509	439	3	5	5
On-road Trucks	246	1,051	2,990	11	54	49
Trains	192	557	2,700	2	70	70
Railyard Equipment	1	25	14	0	0	0
Commuting	1	52	3	0	0	0
Project Year 2018 Total	755	2,645	9,742	151	200	191
Net Change from 2005 CEQA Baseline	(470)	(2,301)	(12,130)	(2,935)	(875)	(818)
Net Change from NEPA Baseline Year 2018	(2)	(34)	201	(1)	15	15
Project Year 2019						
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	19	103	542	41	10	10
Tugboats - Cargo Vessel Assist (1)	3	22	41	0	1	1
Terminal Equipment	22	471	369	2	5	4
On-road Trucks	259	1,084	3,037	11	56	51
Trains	196	577	2,761	2	71	71
Railyard Equipment	1	23	8	0	0	0
Commuting	1	48	3	0	0	0
Project Year 2019 Total	738	2,618	9,458	142	196	187
Net Change from 2005 CEQA Baseline	(487)	(2,328)	(12,414)	(2,944)	(878)	(821)
Net Change from NEPA Baseline Year 2019	(4)	(68)	165	(1)	12	13

Project Year 2020						
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	20	104	555	41	11	10
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	19	433	298	2	4	4
On-road Trucks	272	1,117	3,085	11	57	53
Trains	199	597	2,822	2	73	73
Railyard Equipment	0	20	3	0	0	0
Commuting	1	44	3	0	0	0
Project Year 2020 Total	722	2,591	9,174	133	193	184
Net Change from 2005 CEQA Baseline	(504)	(2,355)	(12,698)	(2,953)	(882)	(824)
Net Change from NEPA Baseline Year 2020	(7)	(103)	128	(1)	9	10
Project Year 2030						
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	27	149	750	59	14	13
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	35	737	561	4	7	7
On-road Trucks	244	305	2,563	15	70	64
Trains	177	597	2,514	2	46	46
Railyard Equipment	0	20	3	0	0	0
Commuting	0	34	2	0	1	1
Project Year 2030 Total	694	2,118	8,802	156	185	175
Net Change from 2005 CEQA Baseline	(532)	(2,828)	(13,070)	(2,930)	(889)	(833)
Net Change from NEPA Baseline Year 2030	4	(688)	269	(2)	(0)	1
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.

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Table A.1.2PD-Alt 3-1. Peak Day Ship Visit/Throughput Data - POLB MHTP Mitigated Alternative 3

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 8-9,999 TEU - Pier F		1	5,328	5,328	24
Containerships 6-6,999 TEU - Pier E		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					
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 4,000 - 4,999 TEU	1				
Containerships 3,000 - 3,999 TEU					
Subtotal				11,722	
Project Year 2030					
Containerships 10,000 - 11,999 TEU					
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	6,410	6,410	24
Containerships 4,000 - 4,999 TEU	1				
Containerships 3,000 - 3,999 TEU					
Subtotal				21,795	

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-Alt 3-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.05	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 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 4,000 - 4,999 TEU	0.05	0.07	0.63	0.02	0.01	0.01
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.05	0.07	0.63	0.02	0.01	0.01
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.05	0.07	0.63	0.02	0.01	0.01

Note: (1) VSRP compliance = 100% for future years.

Table A.1.2PD-Alt 3-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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 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 4,000 - 4,999 TEU	0.02	0.02	0.16	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.02	0.16	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.02	0.16	0.00	0.00	0.00

Table A.1.2PD-Alt 3-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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 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 4,000 - 4,999 TEU	0.02	0.01	0.09	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.01	0.09	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.01	0.09	0.00	0.00	0.00

Table A.1.2PD-Alt 3-5. Annual Cargo Vessel Emissions for Docking Activities
POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.01	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 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.04	0.00	0.00	0.00

Table A.1.2PD-Alt 3-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.01	0.00	0.00
Subtotal	0.00	0.01	0.10	0.01	0.00	0.00
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 4,000 - 4,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.10	0.00	0.00	0.00

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.1.2PD-Alt 3-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary
POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.05	0.00	0.00	0.00
Subtotal	0.00	0.00	0.05	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.05	0.00	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2PD-Alt 3-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	0.00	0.00
Subtotal	0.00	0.01	0.08	0.00	0.00	0.00
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 4,000 - 4,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.08	0.00	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2PD-Alt 3-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.03	0.00	0.00	0.00
Subtotal	0.00	0.00	0.03	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.03	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.03	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.03	0.00	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

Table A.1.2PD-Alt 3-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day (1)					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
Subtotal						
Project Year 2010 (2)						
Containerships 8-9,999 TEU - Pier F	0.03	0.07	0.83	0.05	0.02	0.02
Containerships 6-6,999 TEU - Pier E	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Subtotal	0.03	0.07	0.90	0.05	0.02	0.02
Project Year 2015						
Containerships 8,000 - 9,999 TEU	-	-	-	-	-	-
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.15	0.00	0.00	0.00
Project Year 2020						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.16	0.00	0.00	0.00
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
Containerships 8,000 - 9,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 7,000 - 7,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 6,000 - 6,999 TEU	0.00	0.01	0.07	0.00	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.02	0.23	0.01	0.00	0.00

Note: (1) Assumes usage of diesel fuel with a sulfur content of 0.2/0.1% in years 2010/2015+.

(2) In 2010, Pier F uncontrolled and Pier E controlled 90%, otherwise all years controlled 90%.

Table A.1.2PD-Alt 3-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt 3-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt 3-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt 3-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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	-	-	-	-	-	-
Subtotal	0.00	0.04	0.10	0.03	0.00	0.00
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	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.04	0.10	0.02	0.00	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	0.02	0.05	0.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.06	0.14	0.02	0.00	0.00

Table A.1.2PD-Alt 3-15. Peak Daily Tugboat Emissions for Cargo Vessel Assists
POLB MHTP Mitigated Alternative 3.

	Tons Per Day			*Tons Per Day*		
Project Scenario/All Vessels	*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 round trip vessel transit

Table A.1.2PD-Alt 3-16. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists
POLB MHTP Mitigated Alternative 3

	Tons Per Day					
Project Scenario/All Vessels	*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 round trip vessel transit

Table A.1.2PD-Alt 3-17. Peak Day Vessel Emissions - POLB MHTP Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - TPY						
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
Project Year 2010						
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	0.01	0.00	0.00
Ships - Docking (1)	0.01	0.01	0.07	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.04	0.11	1.00	0.08	0.02	0.02
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Subtotal	0.14	0.25	2.24	0.13	0.05	0.04
Project Year 2015						
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	0.01	0.05	0.24	0.02	0.00	0.00
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.19	0.28	2.27	0.08	0.04	0.04
Project Year 2020						
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	0.01	0.05	0.25	0.02	0.00	0.00
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.11	0.19	1.46	0.06	0.03	0.03
Project Year 2030						
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	0.01	0.07	0.38	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.12	0.21	1.58	0.07	0.03	0.03

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-Alt 3-18. Peak Daily Vessel Emissions - POLB MHTP Mitigated Alternative 3

	Pounds Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - Annual Average Day						
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
Project Year 2010						
Ships - Fairway Transit (1)	111.1	145.9	1,449.8	56.6	27.5	25.4
Ships - Precautionary Area Transit (1)	41.0	52.6	444.9	18.8	9.1	8.4
Ships - Harbor Transit (1)	38.1	40.0	341.6	14.1	7.7	7.1
Ships - Docking (1)	17.8	15.3	132.6	4.7	3.1	2.9
Ships - Hoteling Aux. Sources	73.7	217.9	1,995.0	169.9	41.2	37.9
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	113.3	0.1	3.8	3.5
Subtotal	285	494	4,477	264	93	85
Project Year 2015						
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	17.3	98.7	489.2	39.0	9.4	8.6
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	45.9	0.1	1.1	1.1
Subtotal	378	555	4,544	163	90	82
Project Year 2020						
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	18.0	100.0	505.7	39.5	9.7	8.9
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	229	376	2,914	115	57	52
Project Year 2030						
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	26.6	149.4	750.3	59.0	14.4	13.2
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	238	425	3,159	135	62	57

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-Alt 3-19 Train Trip Generation Rates - MHTP - 342-acre Alternative.

Project Scenario/Rail Yard	*Annual Round Trips*	*Peak Daily Round Trips*	Factor of Annual TEUs
Year 2005 Baseline			
To/from Middle Harbor Railyard	138	1	0.007
Year 2010			
To/from Middle Harbor Railyard	122	1	0.008
Year 2015			
To/from Middle Harbor Railyard	1,092	3	0.003
Year 2020			
To/from Middle Harbor Railyard	1,412	4	0.003
Year 2030			
To/from Middle Harbor Railyard	1,380	4	0.003

Table A.1.2PD-Alt 3-20. Peak Day Train Emissions - POLB MHTP Mitigated Alternative 3 Year 2010.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	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-Alt 3-21. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Mitigated Alternative 3 Year 2010.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
RTG	1,680	0.00	0.00	0.01	0.00	0.00	0.00
Yard Tractor	1,096	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	2,777	0.00	0.00	0.01	0.00	0.00	0.00

Table A.1.2PD-Alt 3-22. Peak Day Train Emissions - POLB MHTP Mitigated Alternative 3Year 2015.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	0.02	0.06	0.33	0.00	0.01	0.01
Haul Line Locomotive - Swiching	0.00	0.01	0.03	0.00	0.00	0.00
Yard Locomotive	0.00	0.00	0.01	0.00	0.00	0.00
Subtotal	0.03	0.08	0.39	0.00	0.01	0.01
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	0.02	0.06	0.33	0.00	0.01	0.01
Haul Line Locomotive - Swiching	0.00	0.00	0.01	0.00	0.00	0.00
Yard Locomotive	0.00	0.00	0.01	0.00	0.00	0.00
Subtotal	0.03	0.07	0.37	0.00	0.01	0.01
Total Tons Per Year	0.05	0.15	0.75	0.00	0.02	0.02

Table A.1.2PD-Alt 3-23. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Mitigated Alternative 3 Year 2015.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
RTG	8,307	0.00	0.01	0.01	0.00	0.00	0.00
Yard Tractor	5,420	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	13,727	0.00	0.02	0.01	0.00	0.00	0.00

Table A.1.2PD-Alt 3-24. Peak Day Train Emissions - POLB MHTP Mitigated Alternative 3Year 2020.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	0.03	0.09	0.41	0.00	0.01	0.01
Haul Line Locomotive - Swiching	0.00	0.01	0.04	0.00	0.00	0.00
Yard Locomotive	0.00	0.00	0.01	0.00	0.00	0.00
Subtotal	0.03	0.10	0.48	0.00	0.01	0.01
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	0.03	0.09	0.41	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	0.01	0.00	0.00	0.00
Subtotal	0.03	0.10	0.46	0.00	0.01	0.01
Total Tons Per Year	0.07	0.20	0.94	0.00	0.02	0.02

Table A.1.2PD-Alt 3-25. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Mitigated Alternative 3 Year 2020.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
RTG	12,303	-	-	-	-	-	-
Yard Tractor	8,027	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	20,330	0.00	0.01	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt 3-26. Peak Day Train Emissions - POLB MHTP Mitigated Alternative 3Year 2030.

	Tons per Day					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	0.03	0.09	0.37	0.00	0.01	0.01
Haul Line Locomotive - Swiching	0.00	0.01	0.04	0.00	0.00	0.00
Yard Locomotive	0.00	0.00	0.01	0.00	0.00	0.00
Subtotal	0.03	0.10	0.43	0.00	0.01	0.01
Middle Harbor/Inbound						
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.00	0.00	0.00	0.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.00	0.00	0.01	0.00	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB borde	0.03	0.09	0.37	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	0.01	0.00	0.00	0.00
Subtotal	0.03	0.10	0.41	0.00	0.01	0.01
Total Tons Per Year	0.06	0.20	0.84	0.00	0.02	0.02

Table A.1.2PD-Alt 3-27. Peak Day Rail Yard Cargo Handling Equipment Emissions - POLB MHTP Mitigated Alternative 3 Year 2030.

	Hp-Hr	*Tons per Day*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
RTG	13,574	-	-	-	-	-	-
Yard Tractor	8,856	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	22,430	0.00	0.01	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt 3-28. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions
POLB MHTP Mitigated Alternative 3.

	Tons per Day					
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline Year 2005						
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
Project Year 2010						
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
Project Year 2015						
Trains	0.05	0.15	0.75	0.00	0.02	0.02
Railyard Equipment	0.00	0.02	0.01	0.00	0.00	0.00
Subtotal	0.05	0.16	0.77	0.00	0.02	0.02
Project Year 2020						
Trains	0.07	0.20	0.94	0.00	0.02	0.02
Railyard Equipment	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.07	0.21	0.94	0.00	0.02	0.02
Project Year 2030						
Trains - 2026	0.06	0.20	0.84	0.00	0.02	0.02
Railyard Equipment - 2030	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.06	0.21	0.84	0.00	0.02	0.02

Table A.1.2PD-Alt 3-29. Peak DailyTruck Emissions - MHTP Mitigated Alternative 3

	Tons per Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal						
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	0.04	0.06	0.10	0.00	0.00	0.00
Subtotal - Year 2010	0.05	0.09	0.25	0.00	0.00	0.00
Year 2015 - Idling	0.01	0.03	0.17	0.00	0.00	0.00
Year 2015 - Driving	0.01	0.02	0.05	0.00	0.00	0.00
Subtotal - Year 2015	0.02	0.05	0.21	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	0.06	0.27	0.00	0.00	0.00
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
Off-Terminal						
Subtotal - Year 2005						
Subtotal - Year 2010	0.23	1.13	3.97	0.01	0.03	0.03
Subtotal - Year 2015	0.12	0.52	1.60	0.01	0.03	0.02
Subtotal - Year 2020	0.15	0.65	1.73	0.01	0.04	0.03
Subtotal - Year 2030	0.12	0.55	1.31	0.01	0.04	0.04
Peak Day Truck Emissions by Project Year						
Year 2005						
Year 2010	0.28	1.22	4.22	0.01	0.03	0.03
Year 2015	0.14	0.57	1.82	0.01	0.03	0.02
Year 2020	0.17	0.71	1.97	0.01	0.04	0.03
Year 2030	0.15	0.62	1.57	0.01	0.04	0.04

Table A.1.2PD-Alt 3-30. Peak Daily Terminal Equipment Emissions - POLB MHTP Mitigated Alternative 3

	Peak Daily	*Emissions (Tons)*					
Equipment Type	Hp-Hrs	*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)	112,141	0.02	0.07	0.61	0.00	0.01	0.01
Top-Pick	31,596	0.01	0.02	0.18	0.00	0.00	0.00
Side-Pick	16,028	0.00	0.01	0.12	0.00	0.00	0.00
Yard Tractor (CY)	48,421	0.00	0.05	0.02	0.00	0.00	0.00
Subtotal	208,187	0.03	0.15	0.93	0.00	0.02	0.02
Pier F							
RTG (CY)	23,485	0.00	0.02	0.13	0.00	0.00	0.00
Top-Pick	7,856	0.00	0.01	0.05	0.00	0.00	0.00
Side-Pick	5,766	0.00	0.00	0.04	0.00	0.00	0.00
Yard Tractor (CY)	19,020	0.00	0.02	0.01	0.00	0.00	0.00
Subtotal	56,127	0.01	0.04	0.22	0.00	0.00	0.00
Subtotal - Project Year 2010	264,314	0.04	0.20	1.15	0.00	0.02	0.02
Project Year 2015							
RTG (CY)	104,044	0.01	0.11	0.16	0.00	0.00	0.00
Top-Pick	35,579	0.00	0.04	0.06	0.00	0.00	0.00
Side-Pick	24,559	0.00	0.05	0.05	0.00	0.00	0.00
Yard Tractor (CY)	74,583	0.00	0.09	0.01	0.00	0.00	0.00
Subtotal - Project Year 2015	238,766	0.02	0.29	0.28	0.00	0.00	0.00
Project Year 2020							
RTG (CY)	138,748	-	-	-	-	-	-
Top-Pick	48,490	0.00	0.06	0.08	0.00	0.00	0.00
Side-Pick	26,227	0.00	0.06	0.06	0.00	0.00	0.00
Yard Tractor (CY)	79,521	0.00	0.10	0.01	0.00	0.00	0.00
Subtotal - Project Year 2020	292,985	0.01	0.21	0.15	0.00	0.00	0.00
Project Year 2030							
RTG (CY)	253,559	-	-	-	-	-	-
Top-Pick	86,157	0.01	0.11	0.15	0.00	0.00	0.00
Side-Pick	43,626	0.01	0.10	0.10	0.00	0.00	0.00
Yard Tractor (CY)	126,650	0.00	0.14	0.02	0.00	0.00	0.00
Subtotal - Project Year 2030	509,991	0.02	0.35	0.27	0.00	0.00	0.00

Table A.1.2PD-Alt 3-30a Peak Daily Backlands TEU Throughput and Terminal Equipment Usage
POLB - MHTP - Mitigated Alternative 3

	Peak Daily TEUs				Peak Daily TEUs/
Project Year/Scenario	*Wharf*	*Gate (1)*	*Total*	*Annual TEUs*	*Annual TEUs (2)*
2005 - CEQA Baseline				1,264,021	-
Year 2010	9,768	7,221	16,989	1,611,260	0.011
Year 2015	11,366	7,618	18,985	2,165,212	0.009
Year 2020	11,722	8,515	20,236	2,518,396	0.008
Year 2030	21,795	10,444	32,239	2,910,000	0.011

Note: (1) Reduced 50% to simulate that half of the gate throughput is not handled by CHE. This reducing factor is necessarry 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-Alt 3-31. Annual Operational Emissions - POLB - MHTP Mitigated Alternative 3.

	Tons Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
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	0.01	0.00	0.00
Ships - Docking (1)	0.01	0.01	0.07	0.00	0.00	0.00
Ships - Hoteling Aux. Sources	0.04	0.11	1.00	0.08	0.02	0.02
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.06	0.00	0.00	0.00
Terminal Equipment	0.04	0.20	1.15	0.00	0.02	0.02
On-road Trucks	0.28	1.22	4.22	0.01	0.03	0.03
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
Commuting	0.36	14.14	1.06	0.03	0.05	0.05
Project Year 2010 Total	0.85	15.86	8.96	0.18	0.16	0.15
Project Year 2015						
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	0.01	0.05	0.24	0.02	0.00	0.00
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.02	0.29	0.28	0.00	0.00	0.00
On-road Trucks	0.14	0.57	1.82	0.01	0.03	0.02
Trains	0.05	0.15	0.75	0.00	0.02	0.02
Railyard Equipment	0.00	0.02	0.01	0.00	0.00	0.00
Commuting	0.23	11.57	0.77	0.04	0.07	0.07
Project Year 2015 Total	0.63	12.87	5.91	0.13	0.16	0.16
Project Year 2020						
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	0.01	0.05	0.25	0.02	0.00	0.00
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.01	0.21	0.15	0.00	0.00	0.00
On-road Trucks	0.17	0.71	1.97	0.01	0.04	0.03
Trains	0.07	0.20	0.94	0.00	0.02	0.02
Railyard Equipment	0.00	0.01	0.00	0.00	0.00	0.00
Commuting	0.13	8.08	0.51	0.04	0.07	0.07
Project Year 2020 Total	0.50	9.41	5.03	0.10	0.16	0.16
Project Year 2030						
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	0.01	0.07	0.38	0.03	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.02	0.35	0.27	0.00	0.00	0.00
On-road Trucks	0.15	0.62	1.57	0.01	0.04	0.04
Trains	0.06	0.20	0.84	0.00	0.02	0.02
Railyard Equipment	0.00	0.01	0.00	0.00	0.00	0.00
Commuting	0.09	6.40	0.36	0.04	0.11	0.11
Project Year 2030 Total	0.44	7.78	4.62	0.12	0.20	0.19

Note: (1) Includes auxiliary generator emissions.

Table A.1.2PD-Alt 3-32. Peak Daily Operational Emissions - POLB MHTP Mitigated Alternative 3

	Pounds Per Day (2)					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
Ships - Fairway Transit (1)	111	146	1,450	57	28	26
Ships - Precautionary Area Transit (1)	41	53	445	19	9	9
Ships - Harbor Transit (1)	38	40	342	14	8	7
Ships - Docking (1)	18	15	133	5	3	3
Ships - Hoteling Aux. Sources	74	218	1,995	170	41	39
Tugboats - Cargo Vessel Assist (1)	3	22	113	0	4	4
Terminal Equipment	81	397	2,308	4	47	43
On-road Trucks	567	2,442	8,439	13	65	60
Trains	39	100	538	12	15	15
Railyard Equipment	1	4	19	0	0	0
Commuting	2	78	6	0	0	0
Project Year 2010 Total	974	3,515	15,786	292	220	205
Net Change from 2005 CEQA Baseline	(252)	(1,431)	(6,086)	(2,794)	(855)	(804)
Project Year 2015						
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	17	99	489	39	9	9
Tugboats - Cargo Vessel Assist (1)	3	22	46	0	1	1
Terminal Equipment	32	573	563	3	6	5
On-road Trucks	278	1,136	3,633	13	53	49
Trains	108	299	1,510	1	40	40
Railyard Equipment	2	30	27	0	0	0
Commuting	1	63	4	0	0	0
Project Year 2015 Total	798	2,657	10,281	180	188	178
Net Change from 2005 CEQA Baseline	(427)	(2,289)	(11,591)	(2,906)	(886)	(831)
Project Year 2020						
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	18	100	506	40	10	9
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	19	429	305	2	4	4
On-road Trucks	347	1,427	3,941	15	73	68
Trains	133	398	1,882	1	48	48
Railyard Equipment	0	20	3	0	0	0
Commuting	1	44	3	0	0	0
Project Year 2020 Total	729	2,694	9,046	134	184	174
Net Change from 2005 CEQA Baseline	(497)	(2,252)	(12,825)	(2,952)	(891)	(835)
Project Year 2030						
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	27	149	750	59	14	13
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	34	698	546	4	7	6
On-road Trucks	299	1,230	3,147	18	86	79
Trains	118	398	1,676	1	31	31
Railyard Equipment	0	20	2	0	0	0
Commuting	1	35	2	0	1	1
Project Year 2030 Total	689	2,806	8,532	158	186	174
Net Change from 2005 CEQA Baseline	(536)	(2,139)	(13,340)	(2,927)	(889)	(834)
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.1.2-Alt 1-32. Peak Daily Operational Emissions - POLB MHTP Alternative 3

	Pounds Per Day (2)					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - Average Day						
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
Project Year 2009						
Ships - Fairway Transit (1)	89	117	1,160	45	22	21
Ships - Precautionary Area Transit (1)	33	42	356	15	7	7
Ships - Harbor Transit (1)	31	32	273	11	6	6
Ships - Docking (1)	14	12	106	4	3	2
Ships - Hoteling Aux. Sources	80	236	2,265	716	100	96
Tugboats - Cargo Vessel Assist (1)	3	22	114	0	4	4
Terminal Equipment	128	509	3,145	17	68	63
On-road Trucks	601	2,636	8,941	22	162	149
Trains	40	99	568	20	17	17
Railyard Equipment	3	10	69	1	1	1
Commuting	2	86	7	0	0	0
Year 2009 Total	1,024	3,801	17,003	851	391	366
Net Change from 2005 CEQA Baseline	(201)	(1,145)	(4,869)	(2,235)	(684)	(643)
Project Year 2010						
Ships - Fairway Transit (1)	111	146	1,450	57	28	26
Ships - Precautionary Area Transit (1)	41	53	445	19	9	9
Ships - Harbor Transit (1)	38	40	342	14	8	7
Ships - Docking (1)	18	15	133	5	3	3
Ships - Hoteling Aux. Sources	74	218	1,995	170	41	39
Tugboats - Cargo Vessel Assist (1)	3	22	113	0	4	4
Terminal Equipment	81	397	2,308	4	47	43
On-road Trucks	567	2,442	8,439	13	65	60
Trains	39	100	538	12	15	15
Railyard Equipment	1	4	19	0	0	0
Commuting	2	78	6	0	0	0
Project Year 2010 Total	974	3,515	15,786	292	220	205
Net Change from 2005 CEQA Baseline	(252)	(1,431)	(6,086)	(2,794)	(855)	(804)
Project Year 2011						
Ships - Fairway Transit (1)	129	168	1,644	62	31	29
Ships - Precautionary Area Transit (1)	46	59	503	20	10	10
Ships - Harbor Transit (1)	43	46	396	14	9	8
Ships - Docking (1)	20	17	154	5	4	3
Ships - Hoteling Aux. Sources	62	194	1,694	144	35	33
Tugboats - Cargo Vessel Assist (1)	3	22	100	0	3	3
Terminal Equipment	71	433	1,959	3	39	36
On-road Trucks	509	2,181	7,478	13	62	57
Trains	53	139	732	10	20	20
Railyard Equipment	1	9	21	0	0	0
Commuting	2	75	6	0	0	0
Project Year 2011 Total	939	3,343	14,685	270	213	199
Net Change from 2005 CEQA Baseline	(287)	(1,602)	(7,187)	(2,816)	(861)	(809)

Project Year 2012						
Ships - Fairway Transit (1)	146	190	1,837	66	35	33
Ships - Precautionary Area Transit (1)	51	65	562	20	11	11
Ships - Harbor Transit (1)	48	51	451	14	10	9
Ships - Docking (1)	23	20	175	5	4	4
Ships - Hoteling Aux. Sources	51	170	1,393	118	28	27
Tugboats - Cargo Vessel Assist (1)	3	22	86	0	3	3
Terminal Equipment	61	468	1,610	3	30	28
On-road Trucks	451	1,920	6,516	13	60	55
Trains	67	179	926	8	25	25
Railyard Equipment	1	15	23	0	0	0
Commuting	2	72	5	0	0	0
Project Year 2012 Total	904	3,172	13,584	248	207	194
Net Change from 2005 CEQA Baseline	(322)	(1,774)	(8,288)	(2,838)	(867)	(814)
Project Year 2013						
Ships - Fairway Transit (1)	164	212	2,031	71	39	36
Ships - Precautionary Area Transit (1)	56	71	620	21	12	12
Ships - Harbor Transit (1)	54	57	506	14	11	10
Ships - Docking (1)	25	22	195	5	4	4
Ships - Hoteling Aux. Sources	40	146	1,092	91	22	21
Tugboats - Cargo Vessel Assist (1)	3	22	73	0	2	2
Terminal Equipment	51	503	1,261	3	22	20
On-road Trucks	393	1,659	5,555	13	58	53
Trains	81	219	1,121	5	30	30
Railyard Equipment	1	20	24	0	0	0
Commuting	2	69	5	0	0	0
Project Year 2013 Total	869	3,000	12,483	225	201	189
Net Change from 2005 CEQA Baseline	(357)	(1,946)	(9,389)	(2,861)	(874)	(820)
Project Year 2014						
Ships - Fairway Transit (1)	181	234	2,225	76	43	40
Ships - Precautionary Area Transit (1)	60	78	679	22	13	13
Ships - Harbor Transit (1)	59	63	561	15	12	11
Ships - Docking (1)	27	24	216	5	5	5
Ships - Hoteling Aux. Sources	29	123	790	65	16	15
Tugboats - Cargo Vessel Assist (1)	3	22	59	0	2	2
Terminal Equipment	41	538	912	3	14	13
On-road Trucks	336	1,398	4,594	13	55	51
Trains	94	259	1,315	3	35	35
Railyard Equipment	1	25	26	0	0	0
Commuting	1	66	5	0	0	0
Project Year 2014 Total	833	2,828	11,382	203	195	183
Net Change from 2005 CEQA Baseline	(392)	(2,117)	(10,490)	(2,883)	(880)	(825)
Project Year 2015						
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	17	99	489	39	9	9
Tugboats - Cargo Vessel Assist (1)	3	22	46	0	1	1
Terminal Equipment	32	573	563	3	6	5
On-road Trucks	278	1,136	3,633	13	53	49
Trains	108	299	1,510	1	40	40
Railyard Equipment	2	30	27	0	0	0
Commuting	1	63	4	0	0	0
Project Year 2015 Total	798	2,657	10,281	180	188	178
Net Change from 2005 CEQA Baseline	(427)	(2,289)	(11,591)	(2,906)	(886)	(831)

Project Year 2016						
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	17	99	492	39	9	9
Tugboats - Cargo Vessel Assist (1)	3	22	45	0	1	1
Terminal Equipment	29	544	511	3	5	5
On-road Trucks	292	1,194	3,694	13	57	52
Trains	113	318	1,584	1	41	41
Railyard Equipment	1	28	22	0	0	0
Commuting	1	60	4	0	0	0
Project Year 2016 Total	784	2,664	10,034	171	187	177
Net Change from 2005 CEQA Baseline	(441)	(2,282)	(11,838)	(2,915)	(887)	(831)
Project Year 2017						
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	18	99	496	39	9	9
Tugboats - Cargo Vessel Assist (1)	3	22	43	0	1	1
Terminal Equipment	27	515	460	3	5	5
On-road Trucks	305	1,253	3,756	14	61	56
Trains	118	338	1,658	1	43	43
Railyard Equipment	1	26	17	0	0	0
Commuting	1	56	4	0	0	0
Project Year 2017 Total	771	2,672	9,787	162	186	176
Net Change from 2005 CEQA Baseline	(455)	(2,274)	(12,085)	(2,924)	(888)	(832)
Project Year 2018						
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	18	99	499	39	10	9
Tugboats - Cargo Vessel Assist (1)	3	22	42	0	1	1
Terminal Equipment	24	487	408	3	5	4
On-road Trucks	319	1,311	3,818	14	65	60
Trains	123	358	1,733	1	45	45
Railyard Equipment	1	24	13	0	0	0
Commuting	1	52	3	0	0	0
Project Year 2018 Total	757	2,679	9,540	152	185	175
Net Change from 2005 CEQA Baseline	(469)	(2,267)	(12,332)	(2,933)	(889)	(833)
Project Year 2019						
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	18	100	502	39	10	9
Tugboats - Cargo Vessel Assist (1)	3	22	41	0	1	1
Terminal Equipment	22	458	356	2	5	4
On-road Trucks	333	1,369	3,879	14	69	64
Trains	128	378	1,807	1	47	47
Railyard Equipment	1	22	8	0	0	0
Commuting	1	48	3	0	0	0
Project Year 2019 Total	743	2,686	9,293	143	184	175
Net Change from 2005 CEQA Baseline	(483)	(2,259)	(12,578)	(2,943)	(890)	(834)

Project Year 2020						
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	18	100	506	40	10	9
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	19	429	305	2	4	4
On-road Trucks	347	1,427	3,941	15	73	68
Trains	133	398	1,882	1	48	48
Railyard Equipment	0	20	3	0	0	0
Commuting	1	44	3	0	0	0
Project Year 2020 Total	729	2,694	9,046	134	184	174
Net Change from 2005 CEQA Baseline	(497)	(2,252)	(12,825)	(2,952)	(891)	(835)
Project Year 2030						
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	27	149	750	59	14	13
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	34	698	546	4	7	6
On-road Trucks	299	1,230	3,147	18	86	79
Trains	118	398	1,676	1	31	31
Railyard Equipment	0	20	2	0	0	0
Commuting	1	35	2	0	1	1
Project Year 2030 Total	689	2,806	8,532	158	186	174
Net Change from 2005 CEQA Baseline	(536)	(2,139)	(13,340)	(2,927)	(889)	(834)
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.

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Table A.1.2PD-Alt 4-1. Peak Day Ship Visit/Throughput Data - POLB MHTP Alternative 4

Project Scenario/Ship Type	Peak Daily Ship Visists		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	4,973	4,973	24
Containerships 6,000 - 6,999 TEU		1	4,144	4,144	24
Containerships 4,000 - 4,999 TEU	1				
Subtotal				9,117	
Project Year 2015					
Containerships 8,000 - 9,999 TEU	1				
Containerships 7,000 - 7,999 TEU		1	4,973	4,973	24
Containerships 6,000 - 6,999 TEU		1	4,144	4,144	24
Containerships 4,000 - 4,999 TEU					
Containerships 3,000 - 3,999 TEU					
Subtotal				9,117	
Project Year 2020					
Containerships 10,000 - 11,999 TEU					
Containerships 8,000 - 9,999 TEU		1	4,973	4,973	24
Containerships 7,000 - 7,999 TEU		1	4,144	4,144	24
Containerships 4,000 - 4,999 TEU	1				
Containerships 3,000 - 3,999 TEU					
Subtotal				9,117	
Project Year 2030					
Containerships 10,000 - 11,999 TEU					
Containerships 8,000 - 9,999 TEU		1	6,527	6,527	24
Containerships 7,000 - 7,999 TEU		1	5,439	5,439	24
Containerships 6,000 - 6,999 TEU					
Containerships 4,000 - 4,999 TEU	1				
Containerships 3,000 - 3,999 TEU					
Subtotal				11,966	

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-Alt 4-2. Annual Cargo Vessel Emissions within the POLB Fairway Zone
POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.05	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	0.02	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	0.02	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 4,000 - 4,999 TEU	0.05	0.07	0.63	0.01	0.01	0.01
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.05	0.07	0.63	0.01	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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.05	0.07	0.63	0.01	0.01	0.01
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.05	0.07	0.63	0.01	0.01	0.01

Note: (1) VSRP compliance = 100% for future years.

Table A.1.2PD-Alt 4-3. Annual Cargo Vessel Emissions within the POLB Precautionary Area
POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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	0.00	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	0.03	0.26	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 4,000 - 4,999 TEU	0.02	0.02	0.16	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.02	0.16	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.02	0.16	0.00	0.00	0.00

Table A.1.2PD-Alt 4-4. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater
POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.02	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 4,000 - 4,999 TEU	0.02	0.01	0.09	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.02	0.01	0.09	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.02	0.01	0.09	0.00	0.00	0.00

Table A.1.2PD-Alt 4-5. Annual Cargo Vessel Emissions for Docking Activities - POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.01	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 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.01	0.01	0.04	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.04	0.00	0.00	0.00

Table A.1.2PD-Alt 4-6. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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 4,000 - 4,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.10	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.10	0.00	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-Alt 4-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary
POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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 4,000 - 4,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.05	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.05	0.00	0.00	0.00

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD-Alt 4-8. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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 4,000 - 4,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.01	0.08	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.08	0.00	0.00	0.00

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD-Alt 4-9. Annual Auxiliary Generator Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.03	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 4,000 - 4,999 TEU	0.00	0.00	0.03	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.03	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.03	0.00	0.00	0.00

Note: (1) Assumes Usage of diesel fuel with a sulfur content of 1.5/0.1% in years 2010/2015+.

Table A.1.2PD-Alt 4-10. Annual Auxiliary Generator Emissions during Cargo Vessel Hoteling
POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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	-	-	-	-	-	-
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 4,000 - 4,999 TEU	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.02	0.31	0.01	0.01	0.01
Project Year 2030						
Containerships 10,000 - 11,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.01	0.02	0.31	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-Alt 4-11. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt 4-12. Annual Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt 4-13. Annual Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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	0.00	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 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 4,000 - 4,999 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table A.1.2PD-Alt 4-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling
POLB - MHTP - Alternative 4.

	Tons Per Day					
Project Scenario/Vessel Type	*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	-	-	-	-	-	-
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	-	-	-	-	-	-
Containerships 3,000 - 3,999 TEU	-	-	-	-	-	-
Subtotal	0.00	0.04	0.10	0.02	0.00	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	-	-	-	-	-	-
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

Table A.1.2PD-Alt 4-15. Peak Daily Tugboat Emissions for Cargo Vessel Assists - POLB MHTP Alternative 4.

	Tons Per Day			Tons Per Day		
Project Scenario/All Vessels	*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-Alt 4-16. Peak Day Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists POLB MHTP Alternative 4

	Tons Per Day					
Project Scenario/All Vessels	*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-Alt 4-17. Peak Day Vessel Emissions - POLB MHTP Alternative 4.

	Tons Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - TPY						
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
Project Year 2010						
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
Project Year 2015						
Ships - Fairway Transit (1)	0.10	0.13	1.21	0.02	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	0.08	0.05	0.05
Project Year 2020						
Ships - Fairway Transit (1)	0.06	0.07	0.72	0.01	0.01	0.01
Ships - Precautionary Area Transit (1)	0.02	0.03	0.22	0.00	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	0.01	0.06	0.41	0.02	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.12	0.20	1.61	0.05	0.03	0.03
Project Year 2030						
Ships - Fairway Transit (1)	0.06	0.07	0.72	0.01	0.01	0.01
Ships - Precautionary Area Transit (1)	0.02	0.03	0.22	0.00	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	0.01	0.06	0.41	0.02	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Subtotal	0.12	0.20	1.61	0.05	0.03	0.03

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-Alt 4-18. Peak Daily Vessel Emissions - POLB MHTP Alternative 4

	Pounds Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - Annual Average Day						
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
Project Year 2010						
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
Project Year 2015						
Ships - Fairway Transit (1)	198.9	255.9	2,418.4	45.1	41.8	38.4
Ships - Precautionary Area Transit (1)	65.3	83.9	737.2	15.0	13.4	12.3
Ships - Harbor Transit (1)	63.8	68.4	615.8	12.5	12.2	11.2
Ships - Docking (1)	29.7	26.2	237.4	4.2	4.9	4.5
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	150	104	96
Project Year 2020						
Ships - Fairway Transit (1)	111.1	145.9	1,449.8	27.4	24.4	22.4
Ships - Precautionary Area Transit (1)	41.0	52.6	444.9	9.1	8.1	7.4
Ships - Harbor Transit (1)	38.1	40.0	341.6	6.8	6.8	6.3
Ships - Docking (1)	17.8	15.3	132.6	2.3	2.8	2.6
Ships - Hoteling Aux. Sources	29.7	124.9	820.1	48.6	15.3	14.1
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	241	401	3,228	94	58	54
Project Year 2030						
Ships - Fairway Transit (1)	111.1	145.9	1,449.8	27.4	24.4	22.4
Ships - Precautionary Area Transit (1)	41.0	52.6	444.9	9.1	8.1	7.4
Ships - Harbor Transit (1)	38.1	40.0	341.6	6.8	6.8	6.3
Ships - Docking (1)	17.8	15.3	132.6	2.3	2.8	2.6
Ships - Hoteling Aux. Sources	29.7	124.9	820.1	48.6	15.3	14.1
Tugboats - Cargo Vessel Assist (1)	2.9	22.1	39.3	0.1	0.9	0.8
Subtotal	241	401	3,228	94	58	54

Note: (1) Includes auxiliary power emissions.

Table A.1.2PD-Alt 4-19 Train Trip Generation Rates - MHTP - Alternative 4.

Project Scenario/Rail Yard	*Annual Round Trips*	*Peak Daily Round Trips*	Factor of Annual TEUs
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.1.2-Alt4-20. Annual Train Emissions - POLB - MHTP No Project Year 2010.

	Tons per Year					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
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
Middle Harbor/Inbound						
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.

	Hp-Hr	*Tons per Year*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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.

	Tons per Year					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
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
Middle Harbor/Inbound						
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.

	Hp-Hr	*Tons per Year*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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.

	Tons per Year					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
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
Middle Harbor/Inbound						
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.

	Hp-Hr	*Tons per Year*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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.

	Tons per Year					
Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound						
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
Middle Harbor/Inbound						
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.

	Hp-Hr	*Tons per Year*					
Equipment	*per Year*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Middle Harbor/Outbound							
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.1.2PD-Alt 4-28. Summary of Peak Day Train and Rail Yard Cargo Handling Equipment Emissions
POLB MHTP Alternative 4.

	Tons per Day					
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline Year 2005						
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
Project Year 2010						
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
Project Year 2015						
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
Project Year 2020						
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
Project Year 2030						
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-Alt 4-29. Peak DailyTruck Emissions - MHTP Alternative 4

	Tons per Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal						
Year 2005 - Idling						
Year 2005 - Driving						
Subtotal - Year 2005						
Year 2010 - Idling	0.01	0.03	0.14	0.00	0.00	0.00
Year 2010 - Driving	0.04	0.07	0.14	0.00	0.00	0.00
Subtotal - Year 2010	0.06	0.09	0.28	0.00	0.00	0.00
Year 2015 - Idling	0.01	0.03	0.16	0.00	0.00	0.00
Year 2015 - Driving	0.01	0.02	0.05	0.00	0.00	0.00
Subtotal - Year 2015	0.02	0.05	0.20	0.00	0.00	0.00
Year 2020 - Idling	0.01	0.03	0.19	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	0.22	0.00	0.00	0.00
Year 2030 - Driving	0.01	0.02	0.04	0.00	0.00	0.00
Subtotal - Year 2030	0.03	0.06	0.26	0.00	0.00	0.00
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
Off-Terminal						
Subtotal - Year 2005						
Subtotal - Year 2010	0.23	1.14	5.24	0.01	0.04	0.03
Subtotal - Year 2015	0.10	0.52	1.54	0.01	0.03	0.03
Subtotal - Year 2020	0.16	0.71	1.89	0.01	0.04	0.04
Subtotal - Year 2030	0.13	0.58	1.39	0.01	0.04	0.04
Peak Day Truck Emissions by Project Year						
Year 2005						
Year 2010	0.29	1.24	5.52	0.01	0.04	0.04
Year 2015	0.12	0.57	1.74	0.01	0.03	0.03
Year 2020	0.19	0.77	2.13	0.01	0.04	0.04
Year 2030	0.16	0.65	1.65	0.01	0.05	0.04

Table A.1.2PD-Alt 4-30. Peak Daily Terminal Equipment Emissions - POLB MHTP Alternative 4

	Peak Daily	*Emissions (Tons)*					
Equipment Type	Hp-Hrs	*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)	134,968	0.05	0.27	1.21	0.00	0.04	0.03
Top-Pick	38,119	0.01	0.03	0.22	0.00	0.00	0.00
Side-Pick	17,955	0.00	0.01	0.13	0.00	0.00	0.00
Yard Tractor (CY)	52,450	0.00	0.05	0.04	0.00	0.00	0.00
Subtotal	243,492	0.06	0.36	1.60	0.00	0.05	0.04
Pier F							
RTG (CY)	19,937	0.01	0.04	0.18	0.00	0.01	0.01
Top-Pick	6,748	0.00	0.00	0.04	0.00	0.00	0.00
Side-Pick	5,001	0.00	0.00	0.04	0.00	0.00	0.00
Yard Tractor (CY)	16,584	0.00	0.02	0.01	0.00	0.00	0.00
Subtotal	48,269	0.01	0.06	0.27	0.00	0.01	0.01
Subtotal - Project Year 2010	291,761	0.07	0.43	1.86	0.00	0.06	0.05
Project Year 2015							
RTG (CY)	137,213	0.01	0.15	0.21	0.00	0.00	0.00
Top-Pick	46,843	0.00	0.05	0.07	0.00	0.00	0.00
Side-Pick	25,207	0.00	0.05	0.05	0.00	0.00	0.00
Yard Tractor (CY)	76,434	0.00	0.09	0.01	0.00	0.00	0.00
Subtotal - Project Year 2015	285,697	0.02	0.34	0.35	0.00	0.00	0.00
Project Year 2020							
RTG (CY)	136,720	0.01	0.15	0.22	0.00	0.00	0.00
Top-Pick	47,506	0.00	0.06	0.08	0.00	0.00	0.00
Side-Pick	29,092	0.00	0.07	0.06	0.00	0.00	0.00
Yard Tractor (CY)	87,777	0.00	0.11	0.01	0.00	0.00	0.00
Subtotal - Project Year 2020	301,095	0.02	0.38	0.38	0.00	0.00	0.00
Project Year 2030							
RTG (CY)	201,067	0.02	0.23	0.34	0.00	0.00	0.00
Top-Pick	67,942	0.01	0.08	0.12	0.00	0.00	0.00
Side-Pick	38,476	0.00	0.09	0.09	0.00	0.00	0.00
Yard Tractor (CY)	111,159	0.00	0.13	0.02	0.00	0.00	0.00
Subtotal - Project Year 2030	418,644	0.03	0.54	0.57	0.00	0.01	0.01

Table A.1.2PD-Alt 4-30a Peak Daily Backlands TEU Throughput and Terminal Equipment Usage POLB MHTP- Alternative 4

Project Year/Scenario	*Peak Daily TEUs*			*Annual TEUs*	Peak Daily TEUs/ *Annual TEUs (2)*
	Wharf	*Gate (1)*	*Total*		
2005 - CEQA Baseline				1,264,021	-
Year 2010	9,117	6,780	15,897	1,524,550	0.010
Year 2015	9,117	7,158	16,275	1,850,036	0.009
Year 2020	9,117	8,620	17,737	2,258,739	0.008
Year 2030	11,966	10,194	22,159	2,600,000	0.009

Note: (1) Reduced 50% to simulate that half of the gate throughput is not handled by CHE. This reducing factor necessarry 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-Alt 4-31. Annual Operational Emissions - POLB - MHTP Alternative 4.

	Tons Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
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	0.43	1.86	0.00	0.06	0.05
On-road Trucks	0.29	1.24	5.52	0.01	0.04	0.04
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
Commuting	0.00	0.04	0.00	0.00	0.00	0.00
Project Year 2010 Total	0.53	2.07	10.66	1.41	0.30	0.28
Project Year 2015						
Ships - Fairway Transit (1)	0.10	0.13	1.21	0.02	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	0.34	0.35	0.00	0.00	0.00
On-road Trucks	0.12	0.57	1.74	0.01	0.03	0.03
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
Commuting	0.00	0.03	0.00	0.00	0.00	0.00
Project Year 2015 Total	0.39	1.38	5.48	0.08	0.10	0.09
Project Year 2020						
Ships - Fairway Transit (1)	0.06	0.07	0.72	0.01	0.01	0.01
Ships - Precautionary Area Transit (1)	0.02	0.03	0.22	0.00	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	0.01	0.06	0.41	0.02	0.01	0.01
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.02	0.00	0.00	0.00
Terminal Equipment	0.02	0.38	0.38	0.00	0.00	0.00
On-road Trucks	0.19	0.77	2.13	0.01	0.04	0.04
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
Commuting	0.00	0.02	0.00	0.00	0.00	0.00
Project Year 2020 Total	0.38	1.56	4.86	0.06	0.09	0.08

Project Year 2030						
Ships - Fairway Transit (1)	0.06	0.07	0.72	0.01	0.01	0.01
Ships - Precautionary Area Transit (1)	0.02	0.03	0.22	0.00	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	0.01	0.06	0.41	0.02	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	0.54	0.57	0.00	0.01	0.01
On-road Trucks	0.16	0.65	1.65	0.01	0.05	0.04
Trains	0.04	0.15	0.63	0.00	0.01	0.01
Railyard Equipment	0.00	0.03	0.03	0.00	0.00	0.00
Commuting	0.00	0.02	0.00	0.00	0.00	0.00
Project Year 2030 Total	0.36	1.58	4.49	0.06	0.09	0.09

Note: (1) Includes auxiliary generator emissions.

Table A.1.2PD-Alt 4-32. Peak Daily Operational Emissions - POLB MHTP Alternative 4

	Pounds Per Day (2)					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline						
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
Project Year 2010						
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	138	856	3,724	4	114	105
On-road Trucks	574	2,474	11,040	11	79	73
Trains	39	100	538	12	15	15
Railyard Equipment	1	8	27	0	1	1
Commuting	2	72	5	0	0	0
Project Year 2010 Total	1,070	4,136	21,321	2,815	599	559
Net Change from 2005 CEQA Baseline	(156)	(810)	(550)	(271)	(476)	(450)
Net Change from NEPA Baseline Year 2010	454	1,965	12,004	2,644	478	447
Project Year 2015						
Ships - Fairway Transit (1)	199	256	2,418	45	42	39
Ships - Precautionary Area Transit (1)	65	84	737	15	13	13
Ships - Harbor Transit (1)	64	68	616	12	12	11
Ships - Docking (1)	30	26	237	4	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	39	673	705	4	7	6
On-road Trucks	249	1,149	3,479	12	57	53
Trains	72	199	1,007	1	26	26
Railyard Equipment	2	35	32	0	0	0
Commuting	1	57	4	0	0	0
Project Year 2015 Total	786	2,763	10,962	167	195	184
Net Change from 2005 CEQA Baseline	(439)	(2,183)	(10,910)	(2,919)	(879)	(825)
Net Change from NEPA Baseline Year 2015	268	1,113	4,260	61	68	65

Project Year 2020						
Ships - Fairway Transit (1)	111	146	1,450	27	24	23
Ships - Precautionary Area Transit (1)	41	53	445	9	8	8
Ships - Harbor Transit (1)	38	40	342	7	7	6
Ships - Docking (1)	18	15	133	2	3	3
Ships - Hoteling Aux. Sources	30	125	820	49	15	14
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	45	763	761	4	4	4
On-road Trucks	373	1,539	4,270	14	78	72
Trains	100	299	1,411	1	36	36
Railyard Equipment	3	63	56	0	0	0
Commuting	1	47	3	0	0	0
Project Year 2020 Total	762	3,111	9,729	114	178	168
Net Change from 2005 CEQA Baseline	(463)	(1,835)	(12,142)	(2,971)	(897)	(841)
Net Change from NEPA Baseline Year 2020	137	1,181	2,113	(10)	20	21
Project Year 2030						
Ships - Fairway Transit (1)	111	146	1,450	27	24	23
Ships - Precautionary Area Transit (1)	41	53	445	9	8	8
Ships - Harbor Transit (1)	38	40	342	7	7	6
Ships - Docking (1)	18	15	133	2	3	3
Ships - Hoteling Aux. Sources	30	125	820	49	15	14
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	68	1,073	1,133	6	12	11
On-road Trucks	313	1,295	3,296	18	91	84
Trains	88	299	1,257	1	23	23
Railyard Equipment	4	68	64	0	1	1
Commuting	0	32	2	0	1	1
Project Year 2030 Total	714	3,167	8,980	120	186	174
Net Change from 2005 CEQA Baseline	(511)	(1,779)	(12,892)	(2,966)	(889)	(835)
Net Change from NEPA Baseline Year 2030	81	1,269	1,385	(37)	23	23
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-Alt 4-32. Peak Daily Operational Emissions - POLB MHTP Alternative 4

	Pounds Per Day (2)					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2005 Baseline - Average Day						
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
Project Year 2009						
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	174	876	4,278	17	121	112
On-road Trucks	607	2,662	11,022	21	174	160
Trains	40	99	568	20	17	17
Railyard Equipment	3	12	75	1	2	2
Commuting	2	81	6	0	0	0
Year 2009 Total	1,101	4,298	21,432	2,869	694	649
Net Change from 2005 CEQA Baseline	(124)	(648)	(440)	(216)	(381)	(360)
Net Change from NEPA Baseline Year 2009	485	2,127	12,114	2,698	573	537
Project Year 2010						
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	138	856	3,724	4	114	105
On-road Trucks	574	2,474	11,040	11	79	73
Trains	39	100	538	12	15	15
Railyard Equipment	1	8	27	0	1	1
Commuting	2	72	5	0	0	0
Project Year 2010 Total	1,070	4,136	21,321	2,815	599	559
Net Change from 2005 CEQA Baseline	(156)	(810)	(550)	(271)	(476)	(450)
Net Change from NEPA Baseline Year 2010	454	1,965	12,004	2,644	478	447
Project Year 2011						
Ships - Fairway Transit (1)	124	181	1,680	383	82	77
Ships - Precautionary Area Transit (1)	44	63	515	127	27	25
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	118	820	3,120	4	92	85
On-road Trucks	509	2,209	9,528	11	75	69
Trains	46	119	631	10	17	17
Railyard Equipment	1	13	28	0	1	1
Commuting	2	69	5	0	0	0
Project Year 2011 Total	1,013	3,861	19,250	2,286	518	484
Net Change from 2005 CEQA Baseline	(212)	(1,085)	(2,622)	(800)	(557)	(525)
Net Change from NEPA Baseline Year 2011	417	1,795	10,456	2,127	396	370

Project Year 2012						
Ships - Fairway Transit (1)	142	200	1,865	299	72	67
Ships - Precautionary Area Transit (1)	49	68	570	99	24	22
Ships - Harbor Transit (1)	47	53	458	74	20	19
Ships - Docking (1)	22	20	177	24	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	98	783	2,516	4	71	65
On-road Trucks	444	1,944	8,016	11	70	65
Trains	52	139	725	7	19	19
Railyard Equipment	1	19	29	0	1	1
Commuting	2	66	5	0	0	0
Project Year 2012 Total	956	3,587	17,178	1,756	437	409
Net Change from 2005 CEQA Baseline	(269)	(1,359)	(4,694)	(1,330)	(637)	(600)
Net Change from NEPA Baseline Year 2012	379	1,624	8,907	1,611	314	294
Project Year 2013						
Ships - Fairway Transit (1)	161	219	2,049	214	62	58
Ships - Precautionary Area Transit (1)	55	73	626	71	20	19
Ships - Harbor Transit (1)	53	58	510	53	18	16
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	79	746	1,912	4	50	46
On-road Trucks	379	1,679	6,503	11	66	61
Trains	59	159	819	5	22	22
Railyard Equipment	2	24	30	0	1	1
Commuting	1	63	4	0	0	0
Project Year 2013 Total	900	3,312	15,106	1,226	357	334
Net Change from 2005 CEQA Baseline	(326)	(1,634)	(6,766)	(1,860)	(718)	(675)
Net Change from NEPA Baseline Year 2013	342	1,454	7,358	1,094	232	218
Project Year 2014						
Ships - Fairway Transit (1)	180	237	2,234	130	52	48
Ships - Precautionary Area Transit (1)	60	79	682	43	17	16
Ships - Harbor Transit (1)	58	63	563	33	15	14
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	59	710	1,309	4	28	26
On-road Trucks	314	1,414	4,991	12	62	57
Trains	66	179	913	3	24	24
Railyard Equipment	2	30	31	0	0	0
Commuting	1	60	4	0	0	0
Project Year 2014 Total	843	3,037	13,034	697	276	259
Net Change from 2005 CEQA Baseline	(383)	(1,908)	(8,838)	(2,389)	(799)	(750)
Net Change from NEPA Baseline Year 2014	305	1,284	5,809	578	150	142
Project Year 2015						
Ships - Fairway Transit (1)	199	256	2,418	45	42	39
Ships - Precautionary Area Transit (1)	65	84	737	15	13	13
Ships - Harbor Transit (1)	64	68	616	12	12	11
Ships - Docking (1)	30	26	237	4	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	39	673	705	4	7	6
On-road Trucks	249	1,149	3,479	12	57	53
Trains	72	199	1,007	1	26	26
Railyard Equipment	2	35	32	0	0	0
Commuting	1	57	4	0	0	0
Project Year 2015 Total	786	2,763	10,962	167	195	184
Net Change from 2005 CEQA Baseline	(439)	(2,183)	(10,910)	(2,919)	(879)	(825)
Net Change from NEPA Baseline Year 2015	268	1,113	4,260	61	68	65

Project Year 2016						
Ships - Fairway Transit (1)	181	234	2,225	42	38	36
Ships - Precautionary Area Transit (1)	60	78	679	14	12	12
Ships - Harbor Transit (1)	59	63	561	11	11	10
Ships - Docking (1)	27	24	216	4	4	4
Ships - Hoteling Aux. Sources	55	179	1,509	68	28	26
Tugboats - Cargo Vessel Assist (1)	3	22	45	0	1	1
Terminal Equipment	40	691	716	4	6	6
On-road Trucks	274	1,227	3,637	12	61	57
Trains	78	219	1,087	1	28	28
Railyard Equipment	2	41	37	0	0	0
Commuting	1	55	4	0	0	0
Project Year 2016 Total	781	2,832	10,715	156	192	180
Net Change from 2005 CEQA Baseline	(444)	(2,113)	(11,156)	(2,929)	(883)	(828)
Net Change from NEPA Baseline Year 2016	242	1,127	3,831	47	58	56
Project Year 2017						
Ships - Fairway Transit (1)	164	212	2,031	38	35	33
Ships - Precautionary Area Transit (1)	56	71	620	13	11	11
Ships - Harbor Transit (1)	54	57	506	10	10	9
Ships - Docking (1)	25	22	195	3	4	4
Ships - Hoteling Aux. Sources	49	166	1,336	63	25	23
Tugboats - Cargo Vessel Assist (1)	3	22	43	0	1	1
Terminal Equipment	41	709	727	4	6	5
On-road Trucks	299	1,305	3,795	13	66	60
Trains	83	239	1,168	1	30	30
Railyard Equipment	3	46	42	0	0	0
Commuting	1	53	3	0	0	0
Project Year 2017 Total	777	2,902	10,469	146	188	177
Net Change from 2005 CEQA Baseline	(449)	(2,044)	(11,403)	(2,940)	(886)	(831)
Net Change from NEPA Baseline Year 2017	216	1,140	3,402	33	48	48
Project Year 2018						
Ships - Fairway Transit (1)	146	190	1,837	34	31	29
Ships - Precautionary Area Transit (1)	51	65	562	11	10	10
Ships - Harbor Transit (1)	48	51	451	9	9	8
Ships - Docking (1)	23	20	175	3	4	3
Ships - Hoteling Aux. Sources	43	152	1,164	58	22	20
Tugboats - Cargo Vessel Assist (1)	3	22	42	0	1	1
Terminal Equipment	42	727	739	4	5	5
On-road Trucks	323	1,383	3,953	13	70	64
Trains	89	259	1,249	1	32	32
Railyard Equipment	3	52	47	0	0	0
Commuting	1	51	3	0	0	0
Project Year 2018 Total	772	2,972	10,222	135	185	174
Net Change from 2005 CEQA Baseline	(454)	(1,974)	(11,649)	(2,950)	(890)	(835)
Net Change from NEPA Baseline Year 2018	189	1,154	2,972	19	39	39
Project Year 2019						
Ships - Fairway Transit (1)	129	168	1,644	31	28	26
Ships - Precautionary Area Transit (1)	46	59	503	10	9	9
Ships - Harbor Transit (1)	43	46	396	8	8	7
Ships - Docking (1)	20	17	154	3	3	3
Ships - Hoteling Aux. Sources	36	139	992	54	18	17
Tugboats - Cargo Vessel Assist (1)	3	22	41	0	1	1
Terminal Equipment	44	745	750	4	5	4
On-road Trucks	348	1,461	4,112	14	74	68
Trains	94	279	1,330	1	34	34
Railyard Equipment	3	57	51	0	0	0
Commuting	1	49	3	0	0	0
Project Year 2019 Total	767	3,041	9,976	125	181	171
Net Change from 2005 CEQA Baseline	(459)	(1,904)	(11,896)	(2,961)	(893)	(838)
Net Change from NEPA Baseline Year 2019	163	1,168	2,543	4	29	30

Project Year 2020						
Ships - Fairway Transit (1)	111	146	1,450	27	24	23
Ships - Precautionary Area Transit (1)	41	53	445	9	8	8
Ships - Harbor Transit (1)	38	40	342	7	7	6
Ships - Docking (1)	18	15	133	2	3	3
Ships - Hoteling Aux. Sources	30	125	820	49	15	14
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	45	763	761	4	4	4
On-road Trucks	373	1,539	4,270	14	78	72
Trains	100	299	1,411	1	36	36
Railyard Equipment	3	63	56	0	0	0
Commuting	1	47	3	0	0	0
Project Year 2020 Total	762	3,111	9,729	114	178	168
Net Change from 2005 CEQA Baseline	(463)	(1,835)	(12,142)	(2,971)	(897)	(841)
Net Change from NEPA Baseline Year 2020	137	1,181	2,113	(10)	20	21
Project Year 2030						
Ships - Fairway Transit (1)	111	146	1,450	27	24	23
Ships - Precautionary Area Transit (1)	41	53	445	9	8	8
Ships - Harbor Transit (1)	38	40	342	7	7	6
Ships - Docking (1)	18	15	133	2	3	3
Ships - Hoteling Aux. Sources	30	125	820	49	15	14
Tugboats - Cargo Vessel Assist (1)	3	22	39	0	1	1
Terminal Equipment	68	1,073	1,133	6	12	11
On-road Trucks	313	1,295	3,296	18	91	84
Trains	88	299	1,257	1	23	23
Railyard Equipment	4	68	64	0	1	1
Commuting	0	32	2	0	1	1
Project Year 2030 Total	714	3,167	8,980	120	186	174
Net Change from 2005 CEQA Baseline	(511)	(1,779)	(12,892)	(2,966)	(889)	(835)
Net Change from NEPA Baseline Year 2030	81	1,269	1,385	(37)	23	23
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.

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Attachment A.1.2.1
Combined Peak Daily Construction and Operational Emissions Tables

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Table A.1.2.1-1 Peak Daily Mitigated Construction Emissions for Each Project Year - Alt 1

	Pounds per Day					
Year	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009	37	172	756	0.8	89	40
2010	254	1,087	5,177	5.7	252	192
2011	121	550	2,464	2.7	236	103
2012	63	331	1,289	1.4	162	66
2013	70	359	1,428	1.6	367	127
2014	70	359	1,428	1.6	386	139
2015	59	341	1,207	1.3	367	120
2016	46	315	947	1.0	536	141
2017	74	569	1,508	1.7	546	150
2018	74	569	1,508	1.7	461	145
2019	21	125	425	0.5	271	74

Table A.1.2.1-2 Peak Daily Mitigated Construction Emissions for Each Project Year - Alt 2

	Pounds per Day					
Year	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009	37	172	756	0.8	89	40
2010	254	1,087	5,177	5.7	160	106
2011	121	550	2,464	2.7	160	64
2012	63	331	1,289	1.4	131	37
2013	35	256	716	0.8	332	88
2014	54	375	1,106	1.2	332	88
2015	24	154	495	0.5	298	69
2016	17	99	347	0.4	515	122
2017	44	317	898	1.0	426	113
2018	36	277	725	0.8	113	24
2019	0	0	0	0.0	0	0

Table A.1.2.1-3 Peak Daily Mitigated Construction Emissions for Each Project Year - Alt 3

	Pounds per Day					
Year	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009	0	0	0	0.0	0	0
2010	6	33	117	0.1	62	62
2011	6	46	117	0.1	180	181
2012	11	62	217	0.2	124	123
2013	11	77	217	0.2	309	308
2014	8	173	173	0.2	311	310
2015	17	99	347	0.4	315	314
2016	17	99	347	0.4	503	502
2017	17	99	347	0.4	503	502
2018	8	49	173	0.2	397	396
2019	0	0	0	0	0	0

Table A.1.2.1-4 Peak Daily Operational Emissions for Each Project Year - Unmitigated Alt 1

	Pounds per Day					
Year	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009	1,154	4,321	22,544	2,870.5	707	661
2010	1,136	4,164	22,712	2,816.7	615	574
2011	1,081	3,904	20,562	2,295.9	539	503
2012	1,025	3,643	18,411	1,775.2	463	433
2013	970	3,382	16,261	1,254.4	386	363
2014	915	3,121	14,111	733.6	310	292
2015	859	2,860	11,960	212.9	233	222
2016	853	2,988	11,814	204.7	233	221
2017	846	3,116	11,668	196.5	232	221
2018	840	3,244	11,521	188.3	231	220
2019	833	3,372	11,375	180.1	231	219

Table A.1.2.1-5 Peak Daily Operational Emissions for Each Project Year - Mitigated Alt 1

	Pounds per Day					
Year	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009	1,051	3,922	17,519	851.8	397	371
2010	1,008	3,666	16,431	293.3	228	212
2011	968	3,481	15,275	270.5	224	210
2012	929	3,297	14,119	247.7	221	208
2013	889	3,113	12,963	224.9	218	206
2014	849	2,928	11,807	202.1	215	204
2015	810	2,744	10,651	179.3	212	202
2016	809	2,804	10,580	174.6	212	202
2017	808	2,863	10,509	169.9	213	202
2018	807	2,923	10,438	165.3	213	203
2019	807	2,982	10,367	160.6	213	203

Table A.1.2.1-6 Peak Daily Operational Emissions for Each Project Year - Unmitigated Alt 2

	Pounds per Day					
Year	VOC	CO	NOx	SOx	PM10	PM2.5
2009	1,131	4,229	22,108	2,870.1	705	659
2010	1,107	4,050	22,166	2,816.1	613	572
2011	1,057	3,808	20,113	2,295.4	537	502
2012	1,006	3,567	18,060	1,774.7	461	432
2013	956	3,325	16,007	1,254.1	385	361
2014	905	3,084	13,953	733.4	309	291
2015	855	2,842	11,900	212.7	232	221
2016	831	2,866	11,498	199.0	227	216
2017	808	2,890	11,095	185.4	221	211
2018	784	2,914	10,693	171.7	216	206
2019	761	2,939	10,291	158.0	210	201

Table A.1.2.1-7 Peak Daily Operational Emissions for Each Project Year - Mitigated Alt 2

	Pounds per Day					
Year	VOC	CO	NOx	SOx	PM10	PM2.5
2009	1,029	3,819	17,210	851.3	395	370
2010	980	3,537	16,044	292.7	225	210
2011	945	3,375	14,954	270.0	222	208
2012	910	3,213	13,864	247.3	220	206
2013	875	3,051	12,774	224.5	217	205
2014	840	2,888	11,683	201.8	214	203
2015	806	2,726	10,593	179.1	211	201
2016	789	2,699	10,309	169.9	207	197
2017	772	2,672	10,026	160.6	204	194
2018	755	2,645	9,742	151.4	200	191
2019	738	2,618	9,458	142.1	196	187

Table A.1.2.1-8 Peak Daily Operational Emissions for Each Project Year - Mitigated Alt 3

	Pounds per Day					
Year	VOC	CO	NOx	SOx	PM10	PM2.5
2009	1,024	3,801	17,003	851.1	391	366
2010	974	3,515	15,786	292.4	220	205
2011	939	3,343	14,685	270.0	213	199
2012	904	3,172	13,584	247.5	207	194
2013	869	3,000	12,483	225.1	201	189
2014	833	2,828	11,382	202.7	195	183
2015	798	2,657	10,281	180.2	188	178
2016	784	2,664	10,034	171.0	187	177
2017	771	2,672	9,787	161.7	186	176
2018	757	2,679	9,540	152.4	185	175
2019	743	2,686	9,293	143.1	184	175

Table A.1.2.1-9 Peak Daily Operational Emissions for Each Project Year - No Project Alt 4

	Pounds per Day					
Year	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009	1,101	4,298	21,432	2,869	694	649
Net Change from CEQA Baseline	(124)	(648)	(440)	(216)	(381)	(360)
2010	1,070	4,136	21,321	2,815	599	559
Net Change from CEQA Baseline	(156)	(810)	(550)	(271)	(476)	(450)
2011	1,013	3,861	19,250	2,286	518	484
Net Change from CEQA Baseline	(212)	(1,085)	(2,622)	(800)	(557)	(525)
2012	956	3,587	17,178	1,756	437	409
Net Change from CEQA Baseline	(269)	(1,359)	(4,694)	(1,330)	(637)	(600)
2013	900	3,312	15,106	1,226	357	334
Net Change from CEQA Baseline	(326)	(1,634)	(6,766)	(1,860)	(718)	(675)
2014	843	3,037	13,034	697	276	259
Net Change from CEQA Baseline	(383)	(1,908)	(8,838)	(2,389)	(799)	(750)
2015	786	2,763	10,962	167	195	184
Net Change from CEQA Baseline	(439)	(2,183)	(10,910)	(2,919)	(879)	(825)
2016	781	2,832	10,715	156	192	180
Net Change from CEQA Baseline	(444)	(2,113)	(11,156)	(2,929)	(883)	(828)
2017	777	2,902	10,469	146	188	177
Net Change from CEQA Baseline	(449)	(2,044)	(11,403)	(2,940)	(886)	(831)
2018	772	2,972	10,222	135	185	174
Net Change from CEQA Baseline	(454)	(1,974)	(11,649)	(2,950)	(890)	(835)
2019	767	3,041	9,976	125	181	171
Net Change from CEQA Baseline	(459)	(1,904)	(11,896)	(2,961)	(893)	(838)
CEQA Baseline - 2005	1,226	4,946	21,872	3,086	1,075	1,008

Table A.1.2.1-10 Peak Daily Construction + Operational Emissions for Project Years 2009 - 2019 - Unmitigated Alternative 1

	Pounds per Day					
Year/Activity	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009						
Construction	37	172	756	1	89	40
Operation	1,154	4,321	22,544	2,871	707	661
Project Year 2009 Total	1,191	4,492	23,300	2,871	796	701
Net Change from CEQA Baseline	(35)	(453)	1,428	(215)	(278)	(307)
2010						
Construction	254	1,087	5,177	6	252	192
Operation	1,136	4,164	22,712	2,817	615	574
Project Year 2010 Total	1,390	5,252	27,890	2,822	867	766
Net Change from CEQA Baseline	164	306	6,018	(264)	(207)	(242)
2011						
Construction	121	550	2,464	3	236	103
Operation	1,081	3,904	20,562	2,296	539	503
Project Year 2011 Total	1,201	4,453	23,026	2,299	775	607
Net Change from CEQA Baseline	(24)	(493)	1,154	(787)	(300)	(402)
2012						
Construction	63	331	1,289	1	162	66
Operation	1,025	3,643	18,411	1,775	463	433
Project Year 2012 Total	1,089	3,973	19,701	1,777	625	499
Net Change from CEQA Baseline	(137)	(972)	(2,171)	(1,309)	(450)	(510)
2013						
Construction	70	359	1,428	2	367	127
Operation	970	3,382	16,261	1,254	386	363
Project Year 2013 Total	1,040	3,741	17,689	1,256	753	490
Net Change from CEQA Baseline	(186)	(1,204)	(4,183)	(1,830)	(322)	(519)
2014						
Construction	70	359	1,428	2	386	139
Operation	915	3,121	14,111	734	310	292
Project Year 2014 Total	985	3,480	15,538	735	696	431
Net Change from CEQA Baseline	(241)	(1,465)	(6,334)	(2,351)	(379)	(577)
2015						
Construction	59	341	1,207	1	367	120
Operation	859	2,860	11,960	213	233	222
Project Year 2015 Total	918	3,202	13,167	214	601	342
Net Change from CEQA Baseline	(307)	(1,744)	(8,705)	(2,872)	(474)	(667)
2016						
Construction	46	315	947	1	536	141
Operation	853	2,988	11,814	205	233	221
Project Year 2016 Total	899	3,303	12,761	206	769	363
Net Change from CEQA Baseline	(326)	(1,643)	(9,111)	(2,880)	(306)	(646)
2017						
Construction	74	569	1,508	2	546	150
Operation	846	3,116	11,668	196	232	221
Project Year 2017 Total	920	3,685	13,176	198	778	371
Net Change from CEQA Baseline	(305)	(1,260)	(8,696)	(2,888)	(297)	(638)
2018						
Construction	74	569	1,508	2	461	145
Operation	840	3,244	11,521	188	231	220
Project Year 2018 Total	914	3,813	13,030	190	692	365
Net Change from CEQA Baseline	(312)	(1,132)	(8,842)	(2,896)	(383)	(644)
2019						
Construction	21	125	425	0	271	74
Operation	833	3,372	11,375	180	231	219
Project Year 2019 Total	854	3,497	11,800	181	502	293
Net Change from CEQA Baseline	(372)	(1,449)	(10,072)	(2,905)	(572)	(716)
CEQA Baseline - 2005	1,226	4,946	21,872	3,086	1,075	1,008
SCAQMD Daily Significance Thresholds	75	550	100	150	150	55

Table A.1.2.1-11 Peak Daily Construction + Operational Emissions for Project Years 2009 - 2019 - Mitigated Alternative 1

	Pounds per Day					
Year/Activity	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009						
Construction	37	172	756	1	89	40
Operation	1,051	3,922	17,519	852	397	371
Project Year 2009 Total	1,088	4,094	18,275	853	486	412
Net Change from CEQA Baseline	(137)	(852)	(3,597)	(2,233)	(588)	(597)
2010						
Construction	254	1,087	5,177	6	252	192
Operation	1,008	3,666	16,431	293	228	212
Project Year 2010 Total	1,262	4,753	21,608	299	480	404
Net Change from CEQA Baseline	36	(193)	(264)	(2,787)	(595)	(604)
2011						
Construction	121	550	2,464	3	236	103
Operation	968	3,481	15,275	270	224	210
Project Year 2011 Total	1,089	4,031	17,738	273	460	313
Net Change from CEQA Baseline	(137)	(915)	(4,133)	(2,813)	(614)	(695)
2012						
Construction	63	331	1,289	1	162	66
Operation	929	3,297	14,119	248	221	208
Project Year 2012 Total	992	3,628	15,408	249	384	274
Net Change from CEQA Baseline	(234)	(1,318)	(6,464)	(2,837)	(691)	(735)
2013						
Construction	70	359	1,428	2	367	127
Operation	889	3,113	12,963	225	218	206
Project Year 2013 Total	959	3,472	14,390	226	585	333
Net Change from CEQA Baseline	(267)	(1,474)	(7,481)	(2,859)	(490)	(676)
2014						
Construction	70	359	1,428	2	386	139
Operation	849	2,928	11,807	202	215	204
Project Year 2014 Total	919	3,288	13,234	204	601	343
Net Change from CEQA Baseline	(306)	(1,658)	(8,637)	(2,882)	(473)	(666)
2015						
Construction	59	341	1,207	1	367	120
Operation	810	2,744	10,651	179	212	202
Project Year 2015 Total	869	3,085	11,857	181	579	322
Net Change from CEQA Baseline	(357)	(1,860)	(10,015)	(2,905)	(496)	(687)
2016						
Construction	46	315	947	1	536	141
Operation	809	2,804	10,580	175	212	202
Project Year 2016 Total	855	3,118	11,527	176	749	343
Net Change from CEQA Baseline	(370)	(1,828)	(10,345)	(2,910)	(326)	(665)
2017						
Construction	74	569	1,508	2	546	150
Operation	808	2,863	10,509	170	213	202
Project Year 2017 Total	882	3,432	12,017	172	758	352
Net Change from CEQA Baseline	(343)	(1,514)	(9,855)	(2,914)	(317)	(656)
2018						
Construction	74	569	1,508	2	461	145
Operation	807	2,923	10,438	165	213	203
Project Year 2018 Total	881	3,492	11,946	167	673	347
Net Change from CEQA Baseline	(344)	(1,454)	(9,925)	(2,919)	(401)	(661)
2019						
Construction	21	125	425	0	271	74
Operation	807	2,982	10,367	161	213	203
Project Year 2019 Total	827	3,107	10,792	161	485	277
Net Change from CEQA Baseline	(398)	(1,839)	(11,080)	(2,925)	(590)	(732)
CEQA Baseline - 2005	1,226	4,946	21,872	3,086	1,075	1,008
SCAQMD Daily Significance Thresholds	75	550	100	150	150	55

Table A.1.2.1-12. Peak Daily Construction + Operational Emissions for Project Years 2009 - 2019 - Unmitigated Alternative 2

	Pounds per Day					
Year/Activity	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009						
Construction	37	172	756	1	89	40
Operation	1,131	4,229	22,108	2,870	705	659
Project Year 2009 Total	1,168	4,401	22,863	2,871	795	700
Net Change from CEQA Baseline	(58)	(545)	992	(215)	(280)	(309)
2010						
Construction	254	1,087	5,177	6	160	106
Operation	1,107	4,050	22,166	2,816	613	572
Project Year 2010 Total	1,361	5,137	27,344	2,822	773	678
Net Change from CEQA Baseline	135	191	5,472	(264)	(301)	(330)
2011						
Construction	121	550	2,464	3	160	64
Operation	1,057	3,808	20,113	2,295	537	502
Project Year 2011 Total	1,177	4,358	22,577	2,298	697	565
Net Change from CEQA Baseline	(48)	(588)	705	(788)	(377)	(443)
2012						
Construction	63	331	1,289	1	131	37
Operation	1,006	3,567	18,060	1,775	461	432
Project Year 2012 Total	1,069	3,897	19,349	1,776	592	468
Net Change from CEQA Baseline	(156)	(1,049)	(2,522)	(1,310)	(482)	(540)
2013						
Construction	35	256	716	1	332	88
Operation	956	3,325	16,007	1,254	385	361
Project Year 2013 Total	991	3,581	16,723	1,255	717	449
Net Change from CEQA Baseline	(235)	(1,365)	(5,149)	(1,831)	(358)	(559)
2014						
Construction	54	375	1,106	1	332	88
Operation	905	3,084	13,953	733	309	291
Project Year 2014 Total	960	3,458	15,060	735	641	379
Net Change from CEQA Baseline	(266)	(1,488)	(6,812)	(2,351)	(434)	(629)
2015						
Construction	24	154	495	1	298	69
Operation	855	2,842	11,900	213	232	221
Project Year 2015 Total	879	2,996	12,395	213	531	290
Net Change from CEQA Baseline	(346)	(1,949)	(9,477)	(2,873)	(544)	(719)
2016						
Construction	17	99	347	0	515	122
Operation	831	2,866	11,498	199	227	216
Project Year 2016 Total	848	2,965	11,845	199	742	338
Net Change from CEQA Baseline	(377)	(1,981)	(10,027)	(2,886)	(332)	(671)
2017						
Construction	44	317	898	1	426	113
Operation	808	2,890	11,095	185	221	211
Project Year 2017 Total	852	3,207	11,994	186	648	324
Net Change from CEQA Baseline	(374)	(1,738)	(9,878)	(2,900)	(427)	(685)
2018						
Construction	36	277	725	1	113	24
Operation	784	2,914	10,693	172	216	206
Project Year 2018 Total	820	3,191	11,418	172	329	229
Net Change from CEQA Baseline	(406)	(1,754)	(10,454)	(2,913)	(746)	(779)
2019						
Construction	-	-	-	-	-	-
Operation	761	2,939	10,291	158	210	201
Project Year 2019 Total	761	2,939	10,291	158	210	201
Net Change from CEQA Baseline	(465)	(2,007)	(11,581)	(2,928)	(864)	(808)
CEQA Baseline - 2005	1,226	4,946	21,872	3,086	1,075	1,008
SCAQMD Daily Significance Thresholds	75	550	100	150	150	55

Table A.1.2.1-13 Peak Daily Construction + Operational Emissions for Project Years 2009 - 2019 - Mitigated Alternative 2

	Pounds per Day					
Year/Activity	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009						
Construction	37	172	756	1	89	40
Operation	1,029	3,819	17,210	851	395	370
Project Year 2009 Total	1,066	3,991	17,966	852	484	410
Net Change from CEQA Baseline	(159)	(955)	(3,906)	(2,234)	(590)	(598)
2010						
Construction	254	1,087	5,177	6	160	106
Operation	980	3,537	16,044	293	225	210
Project Year 2010 Total	1,234	4,624	21,222	298	385	316
Net Change from CEQA Baseline	8	(321)	(650)	(2,787)	(689)	(692)
2011						
Construction	121	550	2,464	3	160	64
Operation	945	3,375	14,954	270	222	208
Project Year 2011 Total	1,066	3,925	17,418	273	383	272
Net Change from CEQA Baseline	(160)	(1,021)	(4,454)	(2,813)	(692)	(737)
2012						
Construction	63	331	1,289	1	131	37
Operation	910	3,213	13,864	247	220	206
Project Year 2012 Total	974	3,543	15,153	249	351	243
Net Change from CEQA Baseline	(252)	(1,402)	(6,719)	(2,837)	(724)	(765)
2013						
Construction	35	256	716	1	332	88
Operation	875	3,051	12,774	225	217	205
Project Year 2013 Total	910	3,307	13,490	225	549	292
Net Change from CEQA Baseline	(315)	(1,639)	(8,382)	(2,861)	(526)	(716)
2014						
Construction	54	375	1,106	1	332	88
Operation	840	2,888	11,683	202	214	203
Project Year 2014 Total	895	3,263	12,790	203	546	290
Net Change from CEQA Baseline	(331)	(1,683)	(9,082)	(2,883)	(528)	(718)
2015						
Construction	24	154	495	1	298	69
Operation	806	2,726	10,593	179	211	201
Project Year 2015 Total	830	2,881	11,088	180	509	270
Net Change from CEQA Baseline	(396)	(2,065)	(10,784)	(2,906)	(565)	(739)
2016						
Construction	17	99	347	0	515	122
Operation	789	2,699	10,309	170	207	197
Project Year 2016 Total	806	2,798	10,656	170	722	319
Net Change from CEQA Baseline	(420)	(2,148)	(11,216)	(2,916)	(352)	(689)
2017						
Construction	44	317	898	1	426	113
Operation	772	2,672	10,026	161	204	194
Project Year 2017 Total	816	2,989	10,924	162	630	307
Net Change from CEQA Baseline	(410)	(1,957)	(10,948)	(2,924)	(445)	(702)
2018						
Construction	36	277	725	1	113	24
Operation	755	2,645	9,742	151	200	191
Project Year 2018 Total	791	2,922	10,467	152	313	214
Net Change from CEQA Baseline	(435)	(2,024)	(11,405)	(2,934)	(762)	(794)
2019						
Construction	-	-	-	-	-	-
Operation	738	2,618	9,458	142	196	187
Project Year 2019 Total	738	2,618	9,458	142	196	187
Net Change from CEQA Baseline	(487)	(2,328)	(12,414)	(2,944)	(878)	(821)
CEQA Baseline - 2005	1,226	4,946	21,872	3,086	1,075	1,008
SCAQMD Daily Significance Thresholds	75	550	100	150	150	55

Table A.1.2.1-14 Peak Daily Construction + Operational Emissions for Project Years 2009 - 2019 - Alternative 3

	Pounds per Day					
Year/Activity	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
2009						
Construction	-	-	-	-	-	-
Operation	1,024	3,801	17,003	851	391	366
Project Year 2009 Total	1,024	3,801	17,003	851	391	366
Net Change from CEQA Baseline	(201)	(1,145)	(4,869)	(2,235)	(684)	(643)
2010						
Construction	6	33	117	0	62	62
Operation	974	3,515	15,786	292	220	205
Project Year 2010 Total	980	3,548	15,903	293	281	266
Net Change from CEQA Baseline	(246)	(1,398)	(5,969)	(2,793)	(793)	(742)
2011						
Construction	6	46	117	0	180	181
Operation	939	3,343	14,685	270	213	199
Project Year 2011 Total	944	3,389	14,802	270	393	380
Net Change from CEQA Baseline	(281)	(1,557)	(7,070)	(2,816)	(681)	(628)
2012						
Construction	11	62	217	0	124	123
Operation	904	3,172	13,584	248	207	194
Project Year 2012 Total	914	3,234	13,801	248	331	317
Net Change from CEQA Baseline	(311)	(1,712)	(8,070)	(2,838)	(744)	(691)
2013						
Construction	11	77	217	0	309	308
Operation	869	3,000	12,483	225	201	189
Project Year 2013 Total	879	3,077	12,700	225	509	497
Net Change from CEQA Baseline	(346)	(1,869)	(9,171)	(2,861)	(565)	(511)
2014						
Construction	8	173	173	0	311	310
Operation	833	2,828	11,382	203	195	183
Project Year 2014 Total	842	3,002	11,556	203	505	494
Net Change from CEQA Baseline	(384)	(1,944)	(10,316)	(2,883)	(569)	(515)
2015						
Construction	17	99	347	0	315	314
Operation	798	2,657	10,281	180	188	178
Project Year 2015 Total	815	2,755	10,628	181	503	492
Net Change from CEQA Baseline	(410)	(2,190)	(11,244)	(2,905)	(572)	(516)
2016						
Construction	17	99	347	0	503	502
Operation	784	2,664	10,034	171	187	177
Project Year 2016 Total	801	2,763	10,381	171	690	679
Net Change from CEQA Baseline	(424)	(2,183)	(11,491)	(2,915)	(384)	(329)
2017						
Construction	17	99	347	0	503	502
Operation	771	2,672	9,787	162	186	176
Project Year 2017 Total	788	2,770	10,134	162	689	679
Net Change from CEQA Baseline	(438)	(2,176)	(11,738)	(2,924)	(385)	(330)
2018						
Construction	8	49	173	0	397	396
Operation	757	2,679	9,540	152	185	175
Project Year 2018 Total	765	2,728	9,714	153	582	572
Net Change from CEQA Baseline	(460)	(2,217)	(12,158)	(2,933)	(492)	(437)
2019						
Construction	-	-	-	-	-	-
Operation	743	2,686	9,293	143	184	175
Project Year 2019 Total	743	2,686	9,293	143	184	175
Net Change from CEQA Baseline	(483)	(2,259)	(12,578)	(2,943)	(890)	(834)
CEQA Baseline - 2005	1,226	4,946	21,872	3,086	1,075	1,008
SCAQMD Daily Significance Thresholds	75	550	100	150	150	55

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Attachment A-1.3.1
Operational GHG Emissions Within the California Domain

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Table A.1.3.1-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
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						

Table A.1.3.1-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
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						
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						

Table A.1.3.1-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
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						

Table A.1.3.1-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
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						
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						

Table A.1.3.1-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
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						
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	620.00	0.08	0.01	2,884.87	0.38	0.03

Table A.1.3.1-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
1	Bulk	27,259	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343	620.00	0.08	0.01	6.39	0.00	0.00
2	Bulk	28,503	6,895	9,243	14.52	12.00	0.56	22.0	1.8	7,135				4.88	0.00	0.00
3	Bulk	32,400	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
4	Bulk	48,661	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
5	Bulk/Container	23,736	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
6	Bulk/Container	23,736	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
7	Bulk/Container	23,736	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
8	Chemical Oil	11,668	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
9	Chemical Oil	14,003	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
10	Chemical Oil	19,365	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
11	Chemical Oil	19,386	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
12	Chemical Oil	19,997	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
13	Chemical Oil	19,998	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
14	Chemical Oil	19,998	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
15	Chemical Tanker	7,930	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
16	Chemical Tanker	15,247	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
17	Chemical Tanker	15,247	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
18	Chemical Tanker	15,265	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
19	Chemical Tanker	17,845	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
20	Chemical Tanker	19,997	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
21	Chemical Tanker	19,999	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
22	Chemical Tanker	19,999	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
23	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944	620.00	0.08	0.01	6.11	0.00	0.00
24	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
25	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
26	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
27	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
28	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
29	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
30	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
31	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
32	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
33	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
34	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
35	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00

Table A.1.3.1-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)		
											CO2	CH4	N2O	0.00	0.00	0.00
36	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
37	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
38	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
39	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
40	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
41	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
42	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018	620.00	0.08	0.01	8.21	0.00	0.00
43	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
44	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
45	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
46	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
47	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
48	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
49	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
50	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
51	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
52	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
53	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
54	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
55	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
56	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
57	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
58	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
59	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
60	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
61	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
62	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
63	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
64	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
65	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
66	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
67	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
68	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
69	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
70	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00

Table A.1.3.1-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)		
											CO2	CH4	N2O	0.00	0.00	0.00
71	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
72	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
73	General Cargo	23,731	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936	620.00	0.08	0.01	4.74	0.00	0.00
74	General Cargo	23,731	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
75	General Cargo	23,731	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
76	General Cargo	23,737	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
77	General Cargo	23,737	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
78	General Cargo	29,152	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
79	General Cargo	29,152	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
80	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
81	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
82	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
83	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
84	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
85	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
86	General Cargo	29,512	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
87	General Cargo	29,512	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
88	General Cargo	29,512	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
89	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
90	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
91	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
92	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
93	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
94	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
95	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
96	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
97	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
98	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
99	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
100	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
101	General Cargo	29,912	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
102	Product Tanker	17,485	5,700	7,641	14.34	12.00	0.59	22.0	1.8	6,124				4.19	0.00	0.00
103	Product Tanker		13,196	17,689	14.81	12.00	0.53	22.0	1.8	12,870				8.80	0.00	0.00
104	Container	85,810	64,655	86,669	25.50	12.00	0.10	22.0	1.8	12,353	620.00	0.08	0.01	8.44	0.00	0.00
105	Container	88,669	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411	620.00	0.08	0.01	8.48	0.00	0.00

Table A.1.3.1-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)		
											CO2	CH4	N2O	0.00	0.00	0.00
106	Container	88,669	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411				8.48	0.00	0.00
107	Container	88,669	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411				8.48	0.00	0.00
108	Container	88,700	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411				8.48	0.00	0.00
109	Container	88,700	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411				8.48	0.00	0.00
110	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
111	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
112	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
113	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
114	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
115	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
116	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
117	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
118	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
119	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
120	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
121	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
122	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
123	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
124	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
125	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
126	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
127	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
128	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
129	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
130	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
131	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
132	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
133	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
134	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
135	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
136	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
137	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
138	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
139	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
140	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00

Table A.1.3.1-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) CO2	CH4	N2O	Main Engine Emissions (Tons) 0.00	0.00	0.00
141	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
142	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
143	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
144	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
145	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
146	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
147	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
148	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
149	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
150	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
151	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
											Main Engines within Fairway VSRP Zone - 1-way			1,134.17	0.15	0.01
											Main Engines outside of Fairway VSRP Zone - 1-way			2,884.87	0.38	0.03
											Main Engines Total Fairway - 1-way Trip			4,019.04	0.53	0.04
											Main Engines Total Fairway - Round Trip			8,038.08	1.06	0.07

Note: (1) Assumes all non-shifted vessels comply with the VSRP.

Table A.1.3.1-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)		
								CO2	CH4	N2O	CO2	CH4	N2O
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						

Table A.1.3.1-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)		
								CO2	CH4	N2O	CO2	CH4	N2O
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						
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						

Table A.1.3.1-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)		
								CO2	CH4	N2O	CO2	CH4	N2O
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						
76	General Cargo	23,737	3,379	0.17		3.0	1,750						
77	General Cargo	23,737	3,379	0.17		3.0	1,750						
78	General Cargo	29,152	1,776	0.17		3.0	920						
79	General Cargo	29,152	1,776	0.17		3.0	920						
80	General Cargo	29,500	1,776	0.17		3.0	920						
81	General Cargo	29,500	1,776	0.17		3.0	920						
82	General Cargo	29,500	1,776	0.17		3.0	920						
83	General Cargo	29,500	1,776	0.17		3.0	920						
84	General Cargo	29,500	1,776	0.17		3.0	920						
85	General Cargo	29,500	1,776	0.17		3.0	920						
86	General Cargo	29,512	1,776	0.17		3.0	920						
87	General Cargo	29,512	1,776	0.17		3.0	920						
88	General Cargo	29,512	1,776	0.17		3.0	920						
89	General Cargo	29,516	1,776	0.17		3.0	920						
90	General Cargo	29,516	1,776	0.17		3.0	920						
91	General Cargo	29,516	1,776	0.17		3.0	920						
92	General Cargo	29,516	1,776	0.17		3.0	920						
93	General Cargo	29,538	1,776	0.17		3.0	920						

Table A.1.3.1-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)		
								CO2	CH4	N2O	CO2	CH4	N2O
94	General Cargo	29,538	1,776	0.17		3.0	920						
95	General Cargo	29,538	1,776	0.17		3.0	920						
96	General Cargo	29,538	1,776	0.17		3.0	920						
97	General Cargo	29,538	1,776	0.17		3.0	920						
98	General Cargo	29,538	1,776	0.17		3.0	920						
99	General Cargo	29,538	1,776	0.17		3.2	954						
100	General Cargo	29,538	1,776	0.17		3.1	942						
101	General Cargo	29,912	1,776	0.17		2.6	779						
102	Product Tanker	17,485	1,985	0.24		2.6	1,231						
103	Product Tanker		1,985	0.24		2.6	1,231						
104	Container	85,810	6,800	0.13		2.6	2,283						
105	Container	88,669	15,725	0.13		2.6	5,280						
106	Container	88,669	15,725	0.13		2.6	5,280						
107	Container	88,669	15,725	0.13		2.6	5,305						
108	Container	88,700	11,830	0.13		2.6	3,991						
109	Container	88,700	11,830	0.13		2.6	3,991						
110	Container	99,500	6,800	0.13		2.6	2,294						
111	Container	99,500	6,800	0.13		2.6	2,294						
112	Container	99,500	6,800	0.13		2.6	2,294						
113	Container	99,500	6,800	0.13		2.6	2,294						
114	Container	99,500	6,800	0.13		2.6	2,294						
115	Container	99,500	6,800	0.13		2.6	2,294						
116	Container	99,500	6,800	0.13		2.6	2,294						
117	Container	99,500	6,800	0.13		2.6	2,294						
118	Container	99,500	6,800	0.13		2.6	2,294						
119	Container	99,500	6,800	0.13		2.6	2,294						
120	Container	99,500	6,800	0.13		2.6	2,294						
121	Container	99,500	6,800	0.13		2.6	2,294						
122	Container	99,500	6,800	0.13		2.6	2,294						
123	Container	99,500	6,800	0.13		2.6	2,294						
124	Container	99,500	6,800	0.13		2.6	2,294						

Table A.1.3.1-CB-4. Total Vessel Emissions for CUT and LBCT - Baseline Year 2005

	Emissions (Tons)			
Activity/Source	CO2	CH4	N2O	CO2e
Fairway				
Main Engines	8,038.1	1.063	0.0713	8,082.5
Aux Generators	564.8	0.001	0.0001	564.8
Fairway Total	8,602.9	1.064	0.0714	8,647.3
Precautionary Area				
Main Engines	858.9	0.114	0.0076	863.6
Aux Generators	397.5	0.001	0.0001	397.5
Aux Boilers	136.0	0.017	0.0001	136.4
Precautionary Area Total	1,392.4	0.132	0.0078	1,397.6
Harbor Transit				
Main Engines	347.6	0.046	0.0031	349.5
Aux Generators	875.0	0.002	0.0001	875.1
Aux Boilers	94.9	0.012	0.0001	95.2
Harbor Transit Total	1,317.5	0.060	0.0033	1,319.8
Hotelling				
Aux Generators	15,827.9	0.033	0.0022	15,829.3
Aux Boilers	7,291.4	0.927	0.0065	7,312.9
Hotelling Total	23,119.3	0.960	0.0087	23,142.2
Tugboats				
Tugboat Main Engines	517.0	0.071	0.0051	520.0
Tugboat Aux. Gens.	63.2	0.009	0.0006	63.6
Tugboat Total	580.2	0.080	0.0058	583.7
Total Vessel Emissions	35,012.3	2.296	0.0970	35,090.5

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Table A.1.3.1-Alt1U-1. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Ship Type	*Annual Ship Visits*	*Annual Shifts*	*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 fu
Middle Harbor. Thrghput 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.1.3.1-Alt1U-1a. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Fairway Zone - POLB - MHTP Alternatives.

		Fairway (1)							
Vessel Type	*Propulsion Max Hp (2)*	*Load Factor (3)*	*Modal Hp*	*Distance (NM)*	*Max Speed (kts)*	*Speed (Kts) (4)*	*Hours Per Trip*	*Hp-Hrs/ Trip*	*kW-Hrs/ Trip (5)*
Non-Compliance with VSRP Entire Route (6)									
Containerships 10,000 - 11,999 TEU	93,120	0.83	77,383	157.4	26.8	25.2	6.25	483,488	360,682
Containerships 8,000 - 9,999 TEU	93,120	0.83	77,383	157.4	26.6	25.0	6.30	487,307	363,531
Containerships 7,000 - 7,999 TEU	85,623	0.83	71,153	157.4	26.8	25.2	6.25	444,565	331,645
Containerships 6,000 - 6,999 TEU	85,623	0.83	71,153	157.4	27.1	25.5	6.17	439,319	327,732
Containerships 5,000 - 5,999 TEU	74,016	0.83	61,507	157.4	27.2	25.5	6.16	378,927	282,679
Containerships 4,000 - 4,999 TEU	57,396	0.83	47,696	157.4	26.2	24.6	6.40	305,177	227,662
Containerships 3,000 - 3,999 TEU	44,746	0.83	37,184	157.4	24.6	23.1	6.80	252,897	188,661
Non-Compliance with VSRP outside Fairway (7)									
Containership 10,000 - 11,999 TEU - Outside VSRPZ	93,120	0.83	77,344	117.5	26.8	25.2	4.66	360,746	269,117
Containership 10,000 - 11,999 TEU - In VSRPZ	93,120	0.09	8,360	39.9		12.0	3.33	27,795	20,735
Containership 10,000 - 11,999 TEU - Total kW-Hrs									289,852
Containership 8,000 - 9,999 TEU - Outside VSRPZ	93,120	0.83	77,344	117.5	26.6	25.0	4.70	363,595	271,242
Containership 8,000 - 9,999 TEU - In VSRPZ	93,120	0.09	8,559	39.9		12.0	3.33	28,459	21,231
Containership 8,000 - 9,999 TEU - Total kW-Hrs									292,473
Containership 7,000 - 7,999 TEU - Outside VSRPZ	85,623	0.83	71,117	117.5	26.8	25.2	4.66	331,704	247,451
Containership 7,000 - 7,999 TEU - In VSRPZ	85,623	0.09	7,687	39.9		12.0	3.33	25,558	19,066
Containership 7,000 - 7,999 TEU - Total kW-Hrs									266,517
Containership 6,000 - 6,999 TEU - Outside VSRPZ	85,623	0.83	71,117	117.5	27.1	25.5	4.61	327,790	244,531
Containership 6,000 - 6,999 TEU - In VSRPZ	85,623	0.09	7,418	39.9		12.0	3.33	24,664	18,399
Containership 6,000 - 6,999 TEU - Total kW-Hrs									262,931
Containership 5,000 - 5,999 TEU - Outside VSRPZ	74,016	0.83	61,477	117.5	27.2	25.5	4.60	282,730	210,916
Containership 5,000 - 5,999 TEU - In VSRPZ	74,016	0.09	6,370	39.9		12.0	3.33	21,179	15,800
Containership 5,000 - 5,999 TEU - Total kW-Hrs									226,716
Containership 4,000 - 4,999 TEU - Outside VSRPZ	57,396	0.83	47,672	117.5	26.2	24.6	4.78	227,703	169,866
Containership 4,000 - 4,999 TEU - In VSRPZ	57,396	0.10	5,534	39.9		12.0	3.33	18,399	13,726
Containership 4,000 - 4,999 TEU - Total kW-Hrs									183,592
Containership 3,000 - 3,999 TEU - Outside VSRPZ	44,746	0.83	37,165	117.5	24.6	23.1	5.08	188,695	140,766
Containership 3,000 - 3,999 TEU - In VSRPZ	44,746	0.12	5,181	39.9		12.0	3.33	17,228	12,852
Containership 3,000 - 3,999 TEU - Total kW-Hrs									153,618

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.1.3.1-Alt1U-1b. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the POLB Precautionary Area - POLB - MHTP Alternatives.

	Precautionary Area (1)								
Vessel Type	*Propulsion Max Hp*	*Load Factor (2)*	*Modal Hp*	*Distance (NM)*	*Max Speed (kts)*	*Speed (Kts) (3)*	*Hours*	*Hp-Hrs/ Trip*	*kW-Hrs/ Trip*
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.1.3.1-Alt1U-1c. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip within the POLB Breakwater - POLB - MHTP Alternatives.

Operational Mode/Vessel Type	*Propulsion Max Hp*	*Load Factor (2)*	*Modal Hp*	*Hours/ Mode (3)*	*Hp-Hrs/ Trip*	*kW-Hrs/ Trip*
Transit (1)						
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
Docking						
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.1.3.1-Alt1U-1d Cargo Vessel Propulsion Engine Usage for Shifts within the POLB Breakwater - POLB - MHTP Alternatives.

Operational Mode/Vessel Type (1)	*Propulsion Max Hp*	*Load Factor (2)*	*Modal Hp*	*Hours/ Mode (3)*	*Hp-Hrs/ Trip*	*kW-Hrs/ Trip*
Transit						
Containership < 3,000 TEU	23,481	0.037	869	0.75	652	486
Docking						
Containership < 3,000 TEU	23,481	0.020	470	0.21	96	72

Notes: (1) Vessel usage within the POLB and to Middle Harbor. Equal to 1 transit + docking operation estimated in Table4.

Table A.1.3.1-Alt1U-1e Cargo Vessel Transit Distances within the Fairway and Precautionary Areas - POLB - MHTP Alternatives.

	Fairway 1-way Route Length (1)/ Percent in Route (2)			
	North	*West*	*South*	*Ave.*
Vessel Type	39.5	43.5	36.0	*Length*
Container	90.0	10.0	-	157.4
General Cargo	60.0	10.0	30.0	38.9
Auto	80.0	10.0	10.0	39.6
	VSRP Zone 1-way Distance within Fairway/Percent in Route (2)			
	North	*West*	*South*	*Ave.*
Vessel Type	22.4	19.2	13.6	*Length*
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
	Precautionary Area 1-way Route Length (1)/Percent in Route (2)			
	North (3)	*West (3)*	*South (3)*	*Ave.*
	10.5	10.5	7.5	*Length*
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 Dept. of Commerce 2003).

Table A.1.3.1-Alt1U-1f. Cargo Vessel Auxiliary Generator Usage per One-Way Fairway Transit - POLB - MHTP Alternatives.

Vessel Type	*Auxiliary kW per Vessel (1)*	*Load Factor (2)*	*Hours/ Transit*	*kW-Hrs/ Transit*
Non-Compliance with VSRP Entire Route (6)				
Containerships 10,000 - 11,999 TEU	18,000	0.13	6.25	14,620
Containerships 8,000 - 9,999 TEU	15,000	0.13	6.30	12,280
Containerships 7,000 - 7,999 TEU	13,501	0.13	6.25	10,966
Containerships 6,000 - 6,999 TEU	13,501	0.13	6.17	10,837
Containerships 5,000 - 5,999 TEU	10,366	0.13	6.16	8,302
Containerships 4,000 - 4,999 TEU	7,347	0.13	6.40	6,111
Containerships 3,000 - 3,999 TEU	5,298	0.13	6.80	4,684
Non-Compliance with VSRP outside Fairway (7)				
Containerships 10,000 - 11,999 TEU	18,000	0.13	7.99	18,695
Containerships 8,000 - 9,999 TEU	15,000	0.13	8.03	15,651
Containerships 7,000 - 7,999 TEU	13,501	0.13	7.99	14,022
Containerships 6,000 - 6,999 TEU	13,501	0.13	7.93	13,925
Containerships 5,000 - 5,999 TEU	10,366	0.13	7.92	10,678
Containerships 4,000 - 4,999 TEU	7,347	0.13	8.10	7,737
Containerships 3,000 - 3,999 TEU	5,298	0.13	8.40	5,787

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.1.3.1-Alt1U-1g. Cargo Vessel Auxiliary Generator Usage per One-Way Precautionary Area Transit - POLB - MHTP Alternatives.

Vessel Type	*Auxiliary kW per Vessel*	*Load Factor (1)*	*Hours/ Transit*	*kW-Hrs/ Transit*
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.1.3.1-Alt1U-1h. Cargo Vessel Auxiliary Generator Usage per One-Way Transit and Docking within the POLB Breakwater - POLB - MHTP Alternatives.

Vessel Type	*Auxiliary kW per Vessel*	*Load Factor (1)*	*Hours/ Mode (2)*	*kW-Hrs/ Transit*
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.1.3.1-Alt1U-1i. Cargo Vessel Hoteling Auxiliary Generator Usage per Ship Visit - POLB - MHTP Alternatives.

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.1.3.1-Alt1U-1j. Cargo Vessel Auxiliary Generator Usage per Shift within the POLB Breakwater - POLB - MHTP Alternatives.

Vessel Type	*Auxiliary kW per Vessel*	*Load Factor (1)*	*Hours/ Visit (1)*	*kW-Hrs/ Year*
Transit (1)				
Containership < 3,000 TEU	3,681	0.50	0.72	1,325
Docking				
Containership < 3,000 TEU	3,681	0.50	0.25	460

Notes: (1) From Table8.

Table A.1.3.1-Alt1U-1k. Cargo Vessel Auxiliary Generator Usage during Hoteling per Shift - POLB - MHTP Alternatives.

Vessel Type	*Auxiliary kW per Vessel (1)*	*Load Factor (2)*	*Hours/ Visit (1)*	*kW-Hrs/ Transit*
Containership < 3,000 TEU				

Notes: (1) From Table9.

Table A.1.3.1-Alt1U-1l. Cargo Vessel Auxiliary Boiler Usage per Ship Visit - POLB - MHTP Alternatives.

Vessel Type	*Hourly Fuel Usage (1)*
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.1.3.1-Alt1U-1m. Cargo Vessel Tugboat Assist Usage - POLB - MHTP Alternatives.

Vessel Type	*Tugboat Max Hp (1)*	*Load Factor (2)*	*Hours/ Assist (3)*	*Hp-Hr/ Assist*	*Annual # of Assists (4)*	*Annual Hp-Hrs*	*Annual kW-Hrs*
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.1.3.1-Alt1U-1n. Tugboat Aux. Generator Usage during Cargo Vessel Assists - POLB - MHTP Alternatives.

Vessel Type	*Aux. Engine Hp (1)*	*Load Factor (2)*	*Hours/ Assist (3)*	*Hp-Hr/ Assist*	*Annual # of Assists (4)*	*Annual Hp-Hrs*	*Annual kW-Hrs*
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.1.3.1-Alt1U-1o. Unmitigated Emissions Factors for Vessels - Middle Harbor Project Alte

Operational Mode/Ship-Engine Type	*Emission Factors (Gm/kW-Hr)*			*Source*
	CO2	*CH4*	*N2O*	
Cruise/Main Engine				
OGVs - Slow Speed Diesel Main Engines - 2.5% S RFO	620	0.082	0.006	(1)
<20% Main Engine Load Emission Factors				
OGVs - Slow Speed Diesel 2% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 3% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 4% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 5% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 6% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 7% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 8% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 9% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 10% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 11% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 12% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 13% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 15% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 16% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 17% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 18% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 19% Load Adjustment Factor	620	0.08	0.01	(2)
OGVs - Slow Speed Diesel 2% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 3% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 4% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 5% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 6% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 7% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 8% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 9% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 10% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 11% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 12% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 13% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 15% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 16% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 17% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 18% Load Emission Factor	620	0.08	0.01	(3)
OGVs - Slow Speed Diesel 19% Load Emission Factor	620	0.08	0.01	(3)
Tugboats - Diesel Main Engines Year 2005	645.00	0.09	0.01	(4)
Tugboats - Diesel Main Engines Year 2010	645.00	0.09	0.01	(4)
Tugboats - Diesel Main Engines Year 2015	645.00	0.09	0.01	(4)
Tugboats - Diesel Main Engines Year 2020	645.00	0.09	0.01	(4)
Tugboats - Diesel Main Engines Year 2030	645.00	0.09	0.01	(4)
Auxiliary Generators				
OGVs - Medium Speed Diesel - Residual Oil @ 2.7% S	722.00	0.10	0.01	(7)
OGVs - Medium Speed Diesel - Marine Gas Oil @ 0.5% S	690.00	0.10	0.01	(7)
OGVs - Medium Speed Diesel - Marine Gas Oil @ 0.2% S	690.00	0.10	0.01	(7)
Tugboats - High Speed Diesel - Year 2005	690.00	0.10	0.01	(4)
Tugboats - High Speed Diesel - Year 2010	690.00	0.10	0.01	(4)
Tugboats - High Speed Diesel - Year 2015	690.00	0.10	0.01	(4)
Tugboats - High Speed Diesel - Year 2020	690.00	0.10	0.01	(4)
Tugboats - High Speed Diesel - Year 2030	690.00	0.10	0.01	(4)
Auxiliary Boilers				
Commercial Vessels	6,596.00	0.84	0.01	(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 fact 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% (PI year 2003 and 15 ppm in year 2007+

(5) Table 2.22 (Starcrest 2004). PM emission factors for medium speed diesel engnies burning 0.2% S ma 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 (T

Table A.1.3.1-Alt1U-1p 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.1.3.1-Alt1U-2. Annual Cargo Vessel GHGs within theFairway

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 6,000 - 6,999 TEU	18,688.01	2.47	0.17
Containerships 4,000 - 4,999 TEU	26,097.92	3.45	0.23
Subtotal	65,573.67	8.67	0.58
Project Year 2015			
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 7,000 - 7,999 TEU	18,942.94	2.51	0.17
Containerships 6,000 - 6,999 TEU	18,688.01	2.47	0.17
Containerships 4,000 - 4,999 TEU	13,048.96	1.73	0.12
Containerships 3,000 - 3,999 TEU	10,918.52	1.44	0.10
Subtotal	82,386.18	10.90	0.73
Project Year 2020			
Containerships 10,000 - 11,999 TEU	20,601.48	2.72	0.18
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 7,000 - 7,999 TEU	18,942.94	2.51	0.17
Containerships 6,000 - 6,999 TEU	18,688.01	2.47	0.17
Containerships 4,000 - 4,999 TEU	26,097.92	3.45	0.23
Subtotal	105,118.10	13.90	0.93
Project Year 2030			
Containerships 10,000 - 11,999 TEU	20,601.48	2.72	0.18
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 7,000 - 7,999 TEU	18,942.94	2.51	0.17
Containerships 6,000 - 6,999 TEU	18,688.01	2.47	0.17
Containerships 5,000 - 5,999 TEU	16,114.03	2.13	0.14
Containerships 4,000 - 4,999 TEU	26,097.92	3.45	0.23
Subtotal	121,232.13	16.03	1.08

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt1U-3. Annual OGV GHGs within the Precautionary Area - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	431.45	0.06	0.00
Subtotal	1,054.30	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	215.73	0.03	0.00
Containerships 3,000 - 3,999 TEU	201.99	0.03	0.00
Subtotal	1,340.22	0.18	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	325.89	0.04	0.00
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	431.45	0.06	0.00
Subtotal	1,679.85	0.22	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	325.89	0.04	0.00
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 5,000 - 5,999 TEU	248.32	0.03	0.00
Containerships 4,000 - 4,999 TEU	431.45	0.06	0.00
Subtotal	1,928.17	0.26	0.02

Table A.1.3.1-Alt1U-4. Annual Cargo Vessel GHGs for Transit within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.84	0.01	0.00
Subtotal	283.58	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	56.42	0.01	0.00
Containerships 3,000 - 3,999 TEU	52.10	0.01	0.00
Subtotal	360.98	0.05	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	90.65	0.01	0.00
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.84	0.01	0.00
Subtotal	455.95	0.06	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	90.65	0.01	0.00
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 5,000 - 5,999 TEU	69.23	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.84	0.01	0.00
Subtotal	525.18	0.07	0.00

Table A.1.3.1-Alt1U-5. Annual Cargo Vessel GHGs for Docking Activities - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	30.43	0.00	0.00
Subtotal	77.82	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	15.22	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.86	0.00	0.00
Subtotal	97.17	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	24.69	0.00	0.00
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	30.43	0.00	0.00
Subtotal	125.21	0.02	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	24.69	0.00	0.00
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 5,000 - 5,999 TEU	19.62	0.00	0.00
Containerships 4,000 - 4,999 TEU	30.43	0.00	0.00
Subtotal	144.83	0.02	0.00

Table A.1.3.1-Alt1U-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 6,000 - 6,999 TEU	1,101.51	0.15	0.01
Containerships 4,000 - 4,999 TEU	1,224.07	0.17	0.01
Subtotal	3,563.56	0.49	0.04
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 7,000 - 7,999 TEU	1,109.15	0.15	0.01
Containerships 6,000 - 6,999 TEU	1,101.51	0.15	0.01
Containerships 4,000 - 4,999 TEU	612.04	0.08	0.01
Containerships 3,000 - 3,999 TEU	457.75	0.06	0.00
Subtotal	4,518.43	0.62	0.04
Project Year 2020			
Containerships 10,000 - 11,999 TEU	1,478.76	0.20	0.01
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 7,000 - 7,999 TEU	1,109.15	0.15	0.01
Containerships 6,000 - 6,999 TEU	1,101.51	0.15	0.01
Containerships 4,000 - 4,999 TEU	1,224.07	0.17	0.01
Subtotal	6,151.47	0.85	0.06
Project Year 2030			
Containerships 10,000 - 11,999 TEU	1,478.76	0.20	0.01
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 7,000 - 7,999 TEU	1,109.15	0.15	0.01
Containerships 6,000 - 6,999 TEU	1,101.51	0.15	0.01
Containerships 5,000 - 5,999 TEU	844.65	0.12	0.01
Containerships 4,000 - 4,999 TEU	1,224.07	0.17	0.01
Subtotal	6,996.12	0.96	0.07

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt1U-7. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	1,409.97	0.19	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 5,000 - 5,999 TEU	195.67	0.03	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	1,605.64	0.22	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt1U-8. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 10,000 - 11,999 TEU	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	2,127.04	0.29	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TEU	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 5,000 - 5,999 TEU	295.18	0.04	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	2,422.22	0.33	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt1U-9. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	738.56	0.10	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 5,000 - 5,999 TEU	102.49	0.01	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	841.05	0.12	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt1U-10. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	3,746.40	0.52	0.04
Containerships 6,000 - 6,999 TEU	3,372.01	0.46	0.03
Containerships 4,000 - 4,999 TEU	4,159.11	0.57	0.04
Subtotal	11,277.52	1.55	0.11
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,766.86	0.24	0.02
Containerships 7,000 - 7,999 TEU	1,590.29	0.22	0.02
Containerships 6,000 - 6,999 TEU	1,590.29	0.22	0.02
Containerships 4,000 - 4,999 TEU	980.75	0.14	0.01
Containerships 3,000 - 3,999 TEU	832.07	0.11	0.01
Subtotal	6,760.26	0.93	0.07
Project Year 2020			
Containerships 10,000 - 11,999 TEU	825.03	0.11	0.01
Containerships 8,000 - 9,999 TEU	687.52	0.09	0.01
Containerships 7,000 - 7,999 TEU	618.82	0.09	0.01
Containerships 6,000 - 6,999 TEU	618.82	0.09	0.01
Containerships 4,000 - 4,999 TEU	763.26	0.11	0.01
Subtotal	3,513.44	0.48	0.03
Project Year 2030			
Containerships 10,000 - 11,999 TEU	825.03	0.11	0.01
Containerships 8,000 - 9,999 TEU	687.52	0.09	0.01
Containerships 7,000 - 7,999 TEU	618.82	0.09	0.01
Containerships 6,000 - 6,999 TEU	618.82	0.09	0.01
Containerships 5,000 - 5,999 TEU	490.96	0.07	0.00
Containerships 4,000 - 4,999 TEU	763.26	0.11	0.01
Subtotal	4,004.40	0.55	0.04

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in

Table A.1.3.1-Alt1U-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	334.18	0.04	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 5,000 - 5,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	389.88	0.05	0.00

Table A.1.3.1-Alt1U-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	252.07	0.03	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 5,000 - 5,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	294.08	0.04	0.00

Table A.1.3.1-Alt1U-13. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	87.52	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 5,000 - 5,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	102.11	0.01	0.00

Table A.1.3.1-Alt1U-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,228.24	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,228.24	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,456.48	0.31	0.00
Subtotal	4,912.96	0.62	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,158.51	0.15	0.00
Containerships 7,000 - 7,999 TEU	1,158.51	0.15	0.00
Containerships 6,000 - 6,999 TEU	1,158.51	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,158.51	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,158.51	0.15	0.00
Subtotal	5,792.57	0.74	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	2,254.01	0.29	0.00
Subtotal	6,762.03	0.86	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,127.01	0.14	0.00
Containerships 5,000 - 5,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	2,254.01	0.29	0.00
Subtotal	7,889.04	1.00	0.01

Table A.1.3.1-Alt1U-15. Annual Tugboat Emissions for Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	795.67	0.11	0.01
Project Year 2030	928.28	0.13	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt1U-16. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/All Vessels	*Tons Per Year*		
	CO2	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	97.33	0.01	0.00
Project Year 2030	113.56	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt1U-17. Annual Vessel Emissions - POLB - MHTP - Unmitigated

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
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			
Project Year 2010			
Ships - Fairway Transit (1)	69,137.24	9.16	0.62
Ships - Precautionary Area Transit (1)	2,092.43	0.28	0.02
Ships - Harbor Transit (1)	1,681.64	0.23	0.01
Ships - Docking (1)	563.26	0.08	0.00
Ships - Hoteling Aux. Sources	16,190.48	2.18	0.12
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	90,260.38	12.01	0.78
Project Year 2015			
Ships - Fairway Transit (1)	86,904.61	11.52	0.78
Ships - Precautionary Area Transit (1)	2,650.23	0.35	0.02
Ships - Harbor Transit (1)	2,116.60	0.29	0.02
Ships - Docking (1)	706.76	0.10	0.01
Ships - Hoteling Aux. Sources	12,552.83	1.67	0.07
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	105,675.19	14.03	0.90
Project Year 2020			
Ships - Fairway Transit (1)	111,269.57	14.75	0.99
Ships - Precautionary Area Transit (1)	3,424.00	0.46	0.03
Ships - Harbor Transit (1)	2,835.06	0.39	0.03
Ships - Docking (1)	951.29	0.13	0.01
Ships - Hoteling Aux. Sources	10,275.47	1.34	0.04
Tugboats - Cargo Vessel Assist (1)	893.00	0.12	0.01
Subtotal	129,648.39	17.19	1.11
Project Year 2030			
Ships - Fairway Transit (1)	128,228.26	17.00	1.14
Ships - Precautionary Area Transit (1)	3,923.69	0.53	0.03
Ships - Harbor Transit (1)	3,241.48	0.44	0.03
Ships - Docking (1)	1,087.99	0.15	0.01
Ships - Hoteling Aux. Sources	11,893.44	1.55	0.05
Tugboats - Cargo Vessel Assist (1)	1,041.83	0.14	0.01
Subtotal	149,416.69	19.81	1.27

Note: (1) Includes auxiliary power emissions.

Table A.1.3.1-Alt1U-18. Equipment Usage Associated with One Outbound Train Trip at the Middle Harbor Railyard - POLB - MHTP Alternatives.

Equipment Type	*Hp (1)*	*Load Factor (2)*	*Number Active*	*Hourly Hp-Hr*	*Hours/ Trip*	*Total Hp-Hrs*
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 borde	4,244	0.47	3	5,982	6.2	37,091
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.1.3.1-Alt1U-18a. Equipment Usage Associated with One Inbound Train Trip at the Middle Harbor Railyard - POLB - MHTP Alternatives.

Equipment Type (1)	*Hp*	*Load Factor*	*Number Active*	*Hourly Hp-Hr*	*Hours/ Trip*	*Total Hp-Hrs*
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 borde	4,244	0.47	3	5,982	6.2	37,091
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.1.3.1-Alt1U-18b. Mitigated Emission Factors for Rail Equipment - POLB Middle Harbor Project Alternatives.

	Emission Factors (Gm/Hp-Hr)			
Project Scenario/Equipment	*CO2*	*CH4*	*N2O*	*References*
Baseline - Year 2005				
RTG				
Yard Tractor				
Line Haul Locomotive - Year 2005	507.10	0.07	0.01	
Switch Yard Locomotive - Year 2005	502.50	0.07	0.01	
Year 2010				
RTG	568.30	0.08	0.01	
Yard Tractor	568.30	0.08	0.01	
Line Haul Locomotive - Year 2010	507.10	0.07	0.01	
Switch Yard Locomotive - Year 2010	502.50	0.07	0.01	(4)
Year 2015				
RTG	568.30	0.08	0.01	
Yard Tractor	568.30	0.08	0.01	
Line Haul Locomotive - Year 2015	507.10	0.07	0.01	(3)
Switch Yard Locomotive - Year 2015	502.50	0.07	0.01	(4)
Year 2020				
RTG	568.30	0.08	0.01	
Yard Tractor	568.30	0.08	0.01	
Line Haul Locomotive - Year 2020	507.10	0.07	0.01	
Switch Yard Locomotive - Year 2020	502.50	0.07	0.01	
Year 2025				
RTG	568.30	0.08	0.01	
Yard Tractor	568.30	0.08	0.01	
Line Haul Locomotive - Tier 3	507.10	0.07	0.01	(5)
Switch Yard Locomotive - Tier 3	502.50	0.07	0.01	(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 CAAF

Table A.1.3.1-Alt1U-18c. Train Trip Generation Rates - Unmitigated Alternative 1.

Project Scenario/Rail Yard	*Annual Round Trips*
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	2,061

Table A.1.3.1-Alt1U-19 Annual Train Emissions - POLB - MHTP 342-acre Alternative Baseline Year 2005.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	14.24	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	32.26	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	2,861.16	0.40	0.03
Haul Line Locomotive - Swiching	122.77	0.02	0.00
Yard Locomotive	28.02	0.00	0.00
Subtotal	3,058.44	0.43	0.03
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	14.24	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	32.26	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	2,861.16	0.40	0.03
Haul Line Locomotive - Swiching	49.11	0.01	0.00
Yard Locomotive	28.02	0.00	0.00
Subtotal	2,984.78	0.42	0.03
Total Tons Per Year	6,043.23	0.85	0.06

Table A.1.3.1-Alt1U-19a Annual Rail Yard Cargo Handling Equipment Emissions
POLB - MHTP 342-acre Alternative Baseline Year 2005.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	661,484	-	-	-
Yard Tractor	431,602	-	-	-
Subtotal	1,093,087	0.83	2.14	18.51

Table A.1.3.1-Alt1U-19b. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 1 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	13.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	29.45	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	2,612.36	0.37	0.03
Haul Line Locomotive - Swiching	112.09	0.02	0.00
Yard Locomotive	25.59	0.00	0.00
Subtotal	2,792.49	0.39	0.03
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	13.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	29.45	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	2,612.36	0.37	0.03
Haul Line Locomotive - Swiching	44.84	0.01	0.00
Yard Locomotive	25.59	0.00	0.00
Subtotal	2,725.24	0.38	0.03
Total Tons Per Year	5,517.73	0.77	0.05

Table A.1.3.1-Alt1U-20. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	204,990	128.41	0.02	0.00
Yard Tractor	133,751	83.79	0.01	0.00
Subtotal	338,741	212.20	0.03	0.00

Table A.1.3.1-Alt1U-21. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 1 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.04	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	385.20	0.05	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	34,168.04	4.78	0.34
Haul Line Locomotive - Swiching	1,466.07	0.21	0.01
Yard Locomotive	334.67	0.05	0.00
Subtotal	36,524.02	5.11	0.36
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.04	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	385.20	0.05	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	34,168.04	4.78	0.34
Haul Line Locomotive - Swiching	586.43	0.08	0.01
Yard Locomotive	334.67	0.05	0.00
Subtotal	35,644.38	4.99	0.35
Total Tons Per Year	72,168.39	10.11	0.71

Table A.1.3.1-Alt1U-22. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP- Unmitigated Alternative 1 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,023,640	1,894.11	0.27	0.02
Yard Tractor	1,972,850	1,235.86	0.18	0.01
Subtotal	4,996,490	3,129.97	0.45	0.03

Table A.1.3.1-Alt1U-23. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 1 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.47	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	490.39	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	43,497.90	6.09	0.43
Haul Line Locomotive - Swiching	1,866.39	0.26	0.02
Yard Locomotive	426.05	0.06	0.00
Subtotal	46,497.20	6.51	0.46
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.47	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	490.39	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	43,497.90	6.09	0.43
Haul Line Locomotive - Swiching	746.56	0.10	0.01
Yard Locomotive	426.05	0.06	0.00
Subtotal	45,377.37	6.35	0.45
Total Tons Per Year	91,874.57	12.86	0.91

Table A.1.3.1-Alt1U-24. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,342,795	2,720.47	0.39	0.03
Yard Tractor	2,833,566	1,775.04	0.26	0.02
Subtotal	7,176,361	4,495.51	0.65	0.05

Table A.1.3.1-Alt1U-25. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 1 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	212.65	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	481.74	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	42,730.78	5.98	0.42
Haul Line Locomotive - Swiching	1,833.48	0.26	0.02
Yard Locomotive	418.54	0.06	0.00
Subtotal	45,677.18	6.40	0.45
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	212.65	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	481.74	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	42,730.78	5.98	0.42
Haul Line Locomotive - Swiching	733.39	0.10	0.01
Yard Locomotive	418.54	0.06	0.00
Subtotal	44,577.10	6.24	0.44
Total Tons Per Year	90,254.28	12.64	0.89

Table A.1.3.1-Alt1U-26. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,682,863	2,933.50	0.42	0.03
Yard Tractor	3,055,452	1,914.04	0.28	0.02
Subtotal	7,738,315	4,847.54	0.70	0.05

Table A.1.3.1-Alt1U-27. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions -

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	6,043.23	0.85	0.06
Railyard Equipment	0.83	2.14	18.51
Subtotal	6,044.06	2.98	18.57
Project Year 2010			
Trains	5,517.73	0.77	0.05
Railyard Equipment	212.20	0.03	0.00
Subtotal	5,729.93	0.80	0.06
Project Year 2015			
Trains	72,168.39	10.11	0.71
Railyard Equipment	3,129.97	0.45	0.03
Subtotal	75,298.36	10.56	0.74
Project Year 2020			
Trains	91,874.57	12.86	0.91
Railyard Equipment	4,495.51	0.65	0.05
Subtotal	96,370.08	13.51	0.95
Project Year 2030			
Trains - 2026	90,254.28	12.64	0.89
Railyard Equipment - 2030	4,847.54	0.70	0.05
Subtotal	95,101.82	13.34	0.94

Table A.1.3.1-Alt1U-28. Annual Truck Emissions for the MHTP - Unmitigated Alternative 1.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,085	22.1	11.0
Year 2005 - Driving	2,098	5.5	2.7
Subtotal - Year 2005	5,183	27.51	13.75
Year 2010 - Idling	1,924	13.8	6.9
Year 2010 - Driving	2,734	7.1	3.6
Subtotal - Year 2010	4,658	20.87	10.43
Year 2015 - Idling	1,676	12.0	6.0
Year 2015 - Driving	2,380	6.2	3.1
Subtotal - Year 2015	4,056	18.17	9.08
Year 2020 - Idling	2,166	15.5	7.7
Year 2020 - Driving	3,077	8.0	4.0
Subtotal - Year 2020	5,243	23.49	11.74
Year 2030 - Idling	2,768	19.8	9.9
Year 2030 - Driving	3,933	10.2	5.1
Subtotal - Year 2030	6,701	30.02	15.01
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	5.85	2.92
Subtotal - Year 2010	125,369	7.27	3.64
Subtotal - Year 2015	103,699	6.02	3.01
Subtotal - Year 2020	141,265	7.90	3.95
Subtotal - Year 2030	183,292	10.25	5.13
Off-Terminal - Between SCAB and Cal Border			
Subtotal - Year 2005	29,814	1.77	0.89
Subtotal - Year 2010	32,098	1.91	0.95
Subtotal - Year 2015	27,948	1.66	0.83
Subtotal - Year 2020	36,129	2.15	1.07
Subtotal - Year 2030	46,177	2.74	1.37

Table A.1.3.1-Alt1U-28a. On-Road Truck Operational Data - Outside SCAB Project - Proposed Project.

Activity/Project Scenario	*Miles/ Trip (2)*	*Annual Trips*	*% of Trips Outside SCAB*	*Annual Miles*
Off-Terminal				
Year 2005 - Baseline	111	1,997,000	0.07	16,070,858
Year 2010	111	2,150,000	0.07	17,302,125
Year 2015	111	1,872,000	0.07	15,064,920
Year 2020	111	2,420,000	0.07	19,474,950
Year 2030	111	3,093,000	0.07	24,890,918

Table A.1.3.1-Alt1U-28b -NEPA Baseline-Mit-31. On-Road Truck
Mitigated GHG Emission Factors - Berths 136-147 Terminal Project

	GHG Emission Factors (Grams/Mile)			
Project Year/Mode - Diesel	*CO2*	*CH4*	*N2O*	*References*
All Years				
On-road Truck - 40 mph	1,788	0.10	0.05	(1)(2)
On-road Truck - 45 mph	1,724	0.10	0.05	(1)(2)
On-road Truck - 50 mph	1,683	0.10	0.05	(1)(2)

(1) K:\WORK\POLB - Middle Harbor\AQ Data\Starcrest\Regional with 2040 Rework(04Jan08).xls had speeds ~ ave of 45 mph for years 2005 - 2015 and 40 mph afte
(2) K:\WORK\POLB - Middle Harbor\AQ Data\Starcrest\Draft Composite EFs with CARB's drayage reg for MH(08 feb 08) sent.xls

Table A.1.3.1-Alt1U-29 Unmitigated Emission Factors for Terminal Equipment - POLB MHTP Alternatives.

	Emission Factors (1)			
Project Scenario/Equipment	*CO2*	*CH4*	*N2O*	*References*
Project Year 2010				
RTG	568.3	0.082	0.0058	(1)
Top-Pick	568.3	0.082	0.0058	(1)
Side-Pick	568.3	0.082	0.0058	(1)
Yard Tractor	568.3	0.082	0.0058	(1)
Project Year 2015				
RTG	568.3	0.082	0.0058	(1)
Top-Pick	568.3	0.082	0.0058	(1)
Side-Pick	568.3	0.082	0.0058	(1)
Yard Tractor	568.3	0.082	0.0058	(1)
Project Year 2020				
RTG	568.3	0.082	0.0058	(1)
Top-Pick	568.3	0.082	0.0058	(1)
Side-Pick	568.3	0.082	0.0058	(1)
Yard Tractor	568.3	0.082	0.0058	(1)
Project Year 2025				
RTG	568.3	0.082	0.0058	(1)
Top-Pick	568.3	0.082	0.0058	(1)
Side-Pick	568.3	0.082	0.0058	(1)
Yard Tractor	568.3	0.082	0.0058	(1)

Notes: (1) = ARB Reg only (Raw data provided by Starcrest Feb 14, 2008, then converted by SAIC t

Table A.1.3.1-Alt1U-29a. Terminal Equipment Annual Emissions - POLB - MHTP - Unmitigated Alternative 1.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	12,944,007	8,108.55	1.17	0.08
Top-Pick	3,655,804	2,290.12	0.33	0.02
Side-Pick	1,721,939	1,078.68	0.16	0.01
Yard Tractor (CY)	5,030,150	3,151.05	0.45	0.03
Subtotal	23,351,900	14,628.40	2.11	0.15
Pier F				
RTG (CY)	1,912,022	1,197.75	0.17	0.01
Top-Pick	647,153	405.40	0.06	0.00
Side-Pick	479,589	300.43	0.04	0.00
Yard Tractor (CY)	1,590,438	996.30	0.14	0.01
Subtotal	4,629,202	2,899.88	0.42	0.03
Subtotal - Project Year 2010	27,981,102	17,528.29	2.53	0.18
Project Year 2015				
RTG (CY)	15,597,658	9,770.89	1.41	0.10
Top-Pick	5,324,820	3,335.64	0.48	0.03
Side-Pick	2,865,352	1,794.95	0.26	0.02
Yard Tractor (CY)	8,688,619	5,442.84	0.79	0.06
Subtotal - Project Year 2015	32,476,448	20,344.32	2.94	0.21
Project Year 2020				
RTG (CY)	17,410,878	10,906.75	1.57	0.11
Top-Pick	6,049,810	3,789.80	0.55	0.04
Side-Pick	3,704,734	2,320.77	0.33	0.02
Yard Tractor (CY)	11,178,134	7,002.35	1.01	0.07
Subtotal - Project Year 2020	38,343,556	24,019.67	3.47	0.25
Project Year 2030				
RTG (CY)	23,591,541	14,778.52	2.13	0.15
Top-Pick	7,971,770	4,993.78	0.72	0.05
Side-Pick	4,514,420	2,827.98	0.41	0.03
Yard Tractor (CY)	13,042,454	8,170.22	1.18	0.08
Subtotal - Project Year 2030	49,120,185	30,770.50	4.44	0.31

Table A.1.3.1-Alt1U-30. GHG Emissions from Cold-ironing Electricity Consumption - Unmitigated Alternative 1

Project Year	Cold-ironing Usage (MWh/yr)	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2010	*14,827*	5,965	0.050	0.027
2015	8,888	3,575	0.030	0.016
2020	18,478	7,433	0.062	0.034
2030	21,060	8,472	0.071	0.039

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.1-Alt1U-31. GHG Emissions from Terminal Electricity Consumption - POLB - MHTP - Unmitigated Alternative 1.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	44,509	17,905	0.15	0.08
2015	65,872	26,498	0.22	0.12
2020	89,522	36,012	0.30	0.17
2030	98,168	39,490	0.33	0.18

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A.1.3.1-Alt1U-32. Annual Operational Emissions - POLB - MHTP - Unmitigated Alternative 1.

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Year 2005 Baseline							
Ships - Fairway Transit (1)	7,095	0.88	0.06	-	-	-	7,132
Ships - Precautionary Area Transit (1)	1,148	0.11	0.01	-	-	-	1,153
Ships - Harbor Transit (1)	815	0.04	0.00	-	-	-	816
Ships - Docking (1)	272	0.01	0.00	-	-	-	272
Ships - Hoteling Aux. Sources	19,067	0.79	0.01	-	-	-	19,086
Ships Sub Total	28,397	1.83	0.08	-	-	-	28,458
Tugboats - Cargo Vessel Assist (1)	478	0.07	0.00	-	-	-	481
Terminal Equipment	9,910	1.43	0.10	-	-	-	9,971
On-road Trucks	123,451	31.93	15.97	-	-	-	129,071
Trains	6,213	0.87	0.06	-	-	-	6,250
Railyard Equipment	575	0.08	0.01	-	-	-	579
Commuting	1,690	0.31	0.30	-	-	-	1,789
Reefers Refrigerant Losses	-	-	-	0.06	0.13	0.06	620
On-Terminal Electrical Consumption	13,131	0.11	0.06	-	-	-	13,152
Year 2005 Total	183,844	37	17	0.06	0.13	0.06	190,371
Project Year 2010							
Ships - Fairway Transit (1)	62,852	8.33	0.56	-	-	-	63,201
Ships - Precautionary Area Transit (1)	1,902	0.25	0.02	-	-	-	1,913
Ships - Harbor Transit (1)	1,529	0.21	0.01	-	-	-	1,537
Ships - Docking (1)	512	0.07	0.00	-	-	-	515
Ships - Hoteling Aux. Sources	14,719	1.98	0.11	-	-	-	14,793
Ships Sub Total	81,514	10.84	0.70	-	-	-	81,958
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	15,935	2.30	0.16	-	-	-	16,034
On-road Trucks	147,386	27.31	13.66	-	-	-	152,194
Trains	5,016	0.70	0.05	-	-	-	5,046
Railyard Equipment	193	0.03	0.00	-	-	-	194
Commuting	2,035	0.37	0.36	-	-	-	2,155
Cold-Iron Usage	5,422	0.045	0.025	-	-	-	5,431
Reefers Refrigerant Losses	-	-	-	0.07	0.18	0.08	817
On-Terminal Electrical Consumption	16,277	0.14	0.07	-	-	-	16,303
Project Year 2010 Total	274,320	42	15	0.07	0.18	0.08	280,676
Net Change from 2005 CEQA Baseline	90,475	5	(2)	0.02	0.04	0.02	90,305
Net Change from NEPA Baseline Year 2010	55,697	7	1	0.002	0.01	0.003	56,147
Project Year 2015							
Ships - Fairway Transit (1)	79,004	10.47	0.70	-	-	-	79,443
Ships - Precautionary Area Transit (1)	2,409	0.32	0.02	-	-	-	2,422
Ships - Harbor Transit (1)	1,924	0.26	0.02	-	-	-	1,935
Ships - Docking (1)	643	0.09	0.01	-	-	-	646
Ships - Hoteling Aux. Sources	11,412	1.52	0.07	-	-	-	11,464
Ships Sub Total	95,392	12.66	0.81	-	-	-	95,910
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	18,495	2.67	0.19	-	-	-	18,609
On-road Trucks	123,366	23.50	11.75	-	-	-	127,501
Trains	65,608	9.19	0.65	-	-	-	66,001
Railyard Equipment	2,845	0.41	0.03	-	-	-	2,863
Commuting	2,353	0.43	0.42	-	-	-	2,491
Cold-Iron Usage	3,250	0.027	0.015	-	-	-	3,256
Reefers Refrigerant Losses	-	-	-	0.10	0.23	0.10	1,084
On-Terminal Electrical Consumption	24,089	0.20	0.11	-	-	-	24,128
Project Year 2015 Total	336,075	49	14	0.10	0.23	0.10	342,523
Net Change from 2005 CEQA Baseline	152,230	13	(3)	0.04	0.10	0.04	152,152
Net Change from NEPA Baseline Year 2015	54,992	6	(1)	0.002	0.005	0.002	54,709

Project Year 2020							
Ships - Fairway Transit (1)	101,154	13.41	0.90	-	-	-	101,716
Ships - Precautionary Area Transit (1)	3,113	0.42	0.03	-	-	-	3,130
Ships - Harbor Transit (1)	2,577	0.35	0.02	-	-	-	2,592
Ships - Docking (1)	865	0.12	0.01	-	-	-	870
Ships - Hoteling Aux. Sources	9,341	1.22	0.04	-	-	-	9,378
Ships Sub Total	117,050	15.52	1.00	-	-	-	117,685
Tugboats - Cargo Vessel Assist (1)	812	0.11	0.01	-	-	-	817
Terminal Equipment	21,836	3.15	0.22	-	-	-	21,971
On-road Trucks	166,034	30.49	15.24	-	-	-	171,399
Trains	83,522	11.70	0.82	-	-	-	84,023
Railyard Equipment	4,087	0.59	0.04	-	-	-	4,112
Commuting	2,710	0.50	0.48	-	-	-	2,869
Cold-Iron Usage	6,757	0.056	0.031	-	-	-	6,768
Reefers Refrigerant Losses	-	-	-	0.13	0.30	0.13	1,395
On-Terminal Electrical Consumption	32,738	0.27	0.15	-	-	-	32,791
Project Year 2020 Total	435,547	62	18	0.13	0.30	0.13	443,830
Net Change from 2005 CEQA Baseline	251,702	26	1	0.07	0.17	0.07	253,459
Net Change from NEPA Baseline Year 2020	105,883	14	1	0.01	0.03	0.02	106,597
Project Year 2030							
Ships - Fairway Transit (1)	116,571	15.45	1.04	-	-	-	117,218
Ships - Precautionary Area Transit (1)	3,567	0.48	0.03	-	-	-	3,586
Ships - Harbor Transit (1)	2,947	0.40	0.03	-	-	-	2,963
Ships - Docking (1)	989	0.13	0.01	-	-	-	995
Ships - Hoteling Aux. Sources	10,812	1.41	0.04	-	-	-	10,855
Ships Sub Total	134,886	17.88	1.15	-	-	-	135,618
Tugboats - Cargo Vessel Assist (1)	947	0.13	0.01	-	-	-	953
Terminal Equipment	27,973	4.04	0.29	-	-	-	28,146
On-road Trucks	214,700	39.10	19.55	-	-	-	221,583
Trains	82,049	11.49	0.81	-	-	-	82,541
Railyard Equipment	4,407	0.64	0.04	-	-	-	4,434
Commuting	3,595	0.66	0.64	-	-	-	3,806
Cold-Iron Usage	7,702	0.064	0.035	-	-	-	7,714
Reefers Refrigerant Losses	-	-	-	0.15	0.35	0.15	1,627
On-Terminal Electrical Consumption	35,900	0.30	0.17	-	-	-	35,958
Project Year 2030 Total	512,160	74	23	0.15	0.35	0.15	522,380
Net Change from 2005 CEQA Baseline	328,315	38	6	0.09	0.22	0.10	332,008
Net Change from NEPA Baseline Year 2030	121,556	17	2	0.02	0.04	0.02	122,622

Note: (1) Includes auxiliary generator emissions.

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Table A.1.3.1-Alt1M-1. Ship Visit and Throughput Data - POLB - MHTP - Mitigated Alternative 1.

Project Scenario/Ship Type	*Annual Ship Visits*		*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 c
Middle Harbor. Thrghput 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.1.3.1-Alt1M-2. Annual Cargo Vessel Emissions within Fairway Zone - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 4,000 - 4,999 TEU	7,299.80	1.01	0.07
Subtotal	17,837.85	2.46	0.18
Project Year 2015			
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 7,000 - 7,999 TEU	5,069.92	0.70	0.05
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 4,000 - 4,999 TEU	3,649.90	0.50	0.04
Containerships 3,000 - 3,999 TEU	3,417.46	0.47	0.03
Subtotal	22,675.34	3.13	0.22
Project Year 2020			
Containerships 10,000 - 11,999 TE	5,513.82	0.76	0.05
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 7,000 - 7,999 TEU	5,069.92	0.70	0.05
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 4,000 - 4,999 TEU	7,299.80	1.01	0.07
Subtotal	28,421.59	3.92	0.28
Project Year 2030			
Containerships 10,000 - 11,999 TE	5,513.82	0.76	0.05
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 7,000 - 7,999 TEU	5,069.92	0.70	0.05
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 5,000 - 5,999 TEU	4,201.38	0.58	0.04
Containerships 4,000 - 4,999 TEU	7,299.80	1.01	0.07
Subtotal	32,622.97	4.50	0.32

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt1M-3. Annual Cargo Vessel GHGs - Precautionary Area - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	999.88	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,271.05	0.18	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TE	309.07	0.04	0.00
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	1,593.15	0.22	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TE	309.07	0.04	0.00
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 5,000 - 5,999 TEU	235.50	0.03	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	1,828.65	0.25	0.02

Table A.1.3.1-Alt1M-4. Annual Cargo Vessel GHGs for Transit within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	268.94	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	342.35	0.05	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TE	85.97	0.01	0.00
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	432.42	0.06	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TE	85.97	0.01	0.00
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 5,000 - 5,999 TEU	65.66	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	498.07	0.07	0.00

Table A.1.3.1-Alt1M-5. Annual Cargo Vessel GHGs for Docking Activities - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	73.80	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	92.15	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TE	23.41	0.00	0.00
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	118.74	0.02	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TE	23.41	0.00	0.00
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 5,000 - 5,999 TEU	18.61	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	137.35	0.02	0.00

Table A.1.3.1-Alt1M-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 4,000 - 4,999 TEU	1,981.83	0.27	0.02
Subtotal	5,826.03	0.80	0.06
Project Year 2015			
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 7,000 - 7,999 TEU	1,821.01	0.25	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 4,000 - 4,999 TEU	990.92	0.14	0.01
Containerships 3,000 - 3,999 TEU	714.59	0.10	0.01
Subtotal	7,370.72	1.01	0.07
Project Year 2020			
Containerships 10,000 - 11,999 TE	2,427.83	0.33	0.02
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 7,000 - 7,999 TEU	1,821.01	0.25	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 4,000 - 4,999 TEU	1,981.83	0.27	0.02
Subtotal	10,074.88	1.39	0.10
Project Year 2030			
Containerships 10,000 - 11,999 TE	2,427.83	0.33	0.02
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 7,000 - 7,999 TEU	1,821.01	0.25	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 5,000 - 5,999 TEU	1,398.16	0.19	0.01
Containerships 4,000 - 4,999 TEU	1,981.83	0.27	0.02
Subtotal	11,473.04	1.58	0.11

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt1M-7. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TE	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	1,409.97	0.19	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TE	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 5,000 - 5,999 TEU	195.67	0.03	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	1,605.64	0.22	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt1M-8. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 10,000 - 11,999 TE	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	2,127.04	0.29	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TE	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 5,000 - 5,999 TEU	295.18	0.04	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	2,422.22	0.33	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt1M-9. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TE	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	738.56	0.10	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TE	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 5,000 - 5,999 TEU	102.49	0.01	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	841.05	0.12	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt1M-10. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	2,633.72	0.36	0.03
Containerships 6,000 - 6,999 TEU	2,370.52	0.33	0.02
Containerships 4,000 - 4,999 TEU	2,923.86	0.40	0.03
Subtotal	7,928.10	1.09	0.08
Project Year 2015			
Containerships 8,000 - 9,999 TEU	353.37	0.05	0.00
Containerships 7,000 - 7,999 TEU	318.06	0.04	0.00
Containerships 6,000 - 6,999 TEU	318.06	0.04	0.00
Containerships 4,000 - 4,999 TEU	196.15	0.03	0.00
Containerships 3,000 - 3,999 TEU	166.41	0.02	0.00
Subtotal	1,352.05	0.19	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TE	412.51	0.06	0.00
Containerships 8,000 - 9,999 TEU	343.76	0.05	0.00
Containerships 7,000 - 7,999 TEU	309.41	0.04	0.00
Containerships 6,000 - 6,999 TEU	309.41	0.04	0.00
Containerships 4,000 - 4,999 TEU	381.63	0.05	0.00
Subtotal	1,756.72	0.24	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TE	412.51	0.06	0.00
Containerships 8,000 - 9,999 TEU	343.76	0.05	0.00
Containerships 7,000 - 7,999 TEU	309.41	0.04	0.00
Containerships 6,000 - 6,999 TEU	309.41	0.04	0.00
Containerships 5,000 - 5,999 TEU	245.48	0.03	0.00
Containerships 4,000 - 4,999 TEU	381.63	0.05	0.00
Subtotal	2,002.20	0.28	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths v
year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducting hoteling aux. gen. emissions

Table A.1.3.1-Alt1M-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TE	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	334.18	0.04	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TE	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 5,000 - 5,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	389.88	0.05	0.00

Table A.1.3.1-Alt1M-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TE	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	252.07	0.03	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TE	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 5,000 - 5,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	294.08	0.04	0.00

Table A.1.3.1-Alt1M-13. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TE	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	87.52	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TE	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 5,000 - 5,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	102.11	0.01	0.00

Table A.1.3.1-Alt1M-14. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,228.24	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,228.24	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,456.48	0.31	0.00
Subtotal	4,912.96	0.62	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,158.51	0.15	0.00
Containerships 7,000 - 7,999 TEU	1,158.51	0.15	0.00
Containerships 6,000 - 6,999 TEU	1,158.51	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,158.51	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,158.51	0.15	0.00
Subtotal	5,792.57	0.74	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TE	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	2,254.01	0.29	0.00
Subtotal	6,762.03	0.86	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TE	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,127.01	0.14	0.00
Containerships 5,000 - 5,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	2,254.01	0.29	0.00
Subtotal	7,889.04	1.00	0.01

Table A.1.3.1-Alt1M-15. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	795.67	0.11	0.01
Project Year 2030	928.28	0.13	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt1M-16. Annual Auxiliary Generator GHGs for Tugboats during Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	97.33	0.01	0.00
Project Year 2030	113.56	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt1M-17. Annual Vessel GHGs - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Ships - Fairway Transit (1)	.	21.91	254.41
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38
Ships - Harbor Transit (1)	2.76	4.26	32.76
Ships - Docking (1)	0.92	1.42	10.92
Ships - Hoteling Aux. Sources	9.72	34.60	348.50
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02
Subtotal	15.83	69.07	697.99
Project Year 2010			
Ships - Fairway Transit (1)	23,663.89	3.26	0.23
Ships - Precautionary Area Transit (1)	2,038.02	0.28	0.02
Ships - Harbor Transit (1)	1,667.00	0.23	0.01
Ships - Docking (1)	559.24	0.08	0.00
Ships - Hoteling Aux. Sources	12,841.06	1.72	0.08
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	41,364.53	5.64	0.36
Project Year 2015			
Ships - Fairway Transit (1)	30,046.05	4.14	0.30
Ships - Precautionary Area Transit (1)	2,581.05	0.35	0.02
Ships - Harbor Transit (1)	2,097.97	0.29	0.02
Ships - Docking (1)	701.74	0.10	0.01
Ships - Hoteling Aux. Sources	7,144.62	0.92	0.02
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	43,315.61	5.90	0.37
Project Year 2020			
Ships - Fairway Transit (1)	38,496.47	5.31	0.38
Ships - Precautionary Area Transit (1)	3,337.29	0.46	0.03
Ships - Harbor Transit (1)	2,811.52	0.38	0.03
Ships - Docking (1)	944.82	0.13	0.01
Ships - Hoteling Aux. Sources	8,518.75	1.10	0.02
Tugboats - Cargo Vessel Assist (1)	893.00	0.12	0.01
Subtotal	55,001.86	7.50	0.48
Project Year 2030			
Ships - Fairway Transit (1)	44,096.01	6.08	0.43
Ships - Precautionary Area Transit (1)	3,824.17	0.52	0.03
Ships - Harbor Transit (1)	3,214.38	0.44	0.03
Ships - Docking (1)	1,080.51	0.15	0.01
Ships - Hoteling Aux. Sources	9,891.24	1.28	0.03
Tugboats - Cargo Vessel Assist (1)	1,041.83	0.14	0.01
Subtotal	63,148.14	8.61	0.54

Note: (1) Includes auxiliary power emissions.

Table A.1.3.1-Alt1M-18. Train Trip Generation Rates - POLB - MHTP - Mitigated Alternative 1.

Project Scenario/Rail Yard	*Annual Round Trips*
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	2,061

Table A.1.3.1-Alt1M-19. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 1 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	13.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	29.45	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	2,612.36	0.37	0.03
Haul Line Locomotive - Swiching	112.09	0.02	0.00
Yard Locomotive	25.59	0.00	0.00
Subtotal	2,792.49	0.39	0.03
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	13.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	29.45	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	2,612.36	0.37	0.03
Haul Line Locomotive - Swiching	44.84	0.01	0.00
Yard Locomotive	25.59	0.00	0.00
Subtotal	2,725.24	0.38	0.03
Total Tons Per Year	5,517.73	0.77	0.05

Table A.1.3.1-Alt1M-20. Annual Rail Yard Cargo Handling Equipment GHGs- Mitigated Alternative 1 Year 2010.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	204,990	128.41	0.02	0.00
Yard Tractor	133,751	83.79	0.01	0.00
Subtotal	338,741	212.20	0.03	0.00

Table A.1.3.1-Alt1M-21. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 1 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.04	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	385.20	0.05	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	34,168.04	4.78	0.34
Haul Line Locomotive - Swiching	1,466.07	0.21	0.01
Yard Locomotive	334.67	0.05	0.00
Subtotal	36,524.02	5.11	0.36
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.04	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	385.20	0.05	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	34,168.04	4.78	0.34
Haul Line Locomotive - Swiching	586.43	0.08	0.01
Yard Locomotive	334.67	0.05	0.00
Subtotal	35,644.38	4.99	0.35
Total Tons Per Year	72,168.39	10.11	0.71

Table A.1.3.1-Alt1M-22. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 1 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,023,640	1,894.11	0.27	0.02
Yard Tractor	1,972,850	1,235.86	0.18	0.01
Subtotal	4,996,490	3,129.97	0.45	0.03

Table A.1.3.1-Alt1M-23. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 1 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.47	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	490.39	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	43,497.90	6.09	0.43
Haul Line Locomotive - Swiching	1,866.39	0.26	0.02
Yard Locomotive	426.05	0.06	0.00
Subtotal	46,497.20	6.51	0.46
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.47	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	490.39	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	43,497.90	6.09	0.43
Haul Line Locomotive - Swiching	746.56	0.10	0.01
Yard Locomotive	426.05	0.06	0.00
Subtotal	45,377.37	6.35	0.45
Total Tons Per Year	91,874.57	12.86	0.91

Table A.1.3.1-Alt1M-24. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 1 Year 2020.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,342,795	-	-	-
Yard Tractor	2,833,566	1,775.04	0.26	0.02
Subtotal	7,176,361	1,775.04	0.26	0.02

Table A.1.3.1-Alt1M-25. Annual Train GHGs - POLB - MHT - Mitigated Alternative 1 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	212.65	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	481.74	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	42,730.78	5.98	0.42
Haul Line Locomotive - Swiching	1,833.48	0.26	0.02
Yard Locomotive	418.54	0.06	0.00
Subtotal	45,677.18	6.40	0.45
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	212.65	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	481.74	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	42,730.78	5.98	0.42
Haul Line Locomotive - Swiching	733.39	0.10	0.01
Yard Locomotive	418.54	0.06	0.00
Subtotal	44,577.10	6.24	0.44
Total Tons Per Year	90,254.28	12.64	0.89

Table A.1.3.1-Alt1M-26. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 1 Year 2030.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,682,863	-	-	-
Yard Tractor	3,055,452	1,914.04	0.28	0.02
Subtotal	7,738,315	1,914.04	0.28	0.02

Table A.1.3.1-Alt1M-27. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Mitigated Alternative 1.

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	7.04	15.32	106.08
Railyard Equipment	0.83	2.14	18.51
Subtotal	7.87	17.45	124.59
Project Year 2010			
Trains	5,517.73	0.77	0.05
Railyard Equipment	212.20	0.03	0.00
Subtotal	5,729.93	0.80	0.06
Project Year 2015			
Trains	72,168.39	10.11	0.71
Railyard Equipment	3,129.97	0.45	0.03
Subtotal	75,298.36	10.56	0.74
Project Year 2020			
Trains	91,874.57	12.86	0.91
Railyard Equipment	1,775.04	0.26	0.02
Subtotal	93,649.61	13.12	0.92
Project Year 2030			
Trains - 2026	90,254.28	12.64	0.89
Railyard Equipment - 2030	1,914.04	0.28	0.02
Subtotal	92,168.32	12.91	0.91

Table A.1.3.1-Alt1M-28. Annual Truck GHGs for the Middle Harbor Terminal Project - Mitigated Alternative 1.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,085	22.1	11.0
Year 2005 - Driving	2,098	5.5	2.7
Subtotal - Year 2005	5,183	27.5	13.8
Year 2010 - Idling	1,924	13.8	6.9
Year 2010 - Driving	2,734	7.1	3.6
Subtotal - Year 2010	4,658	20.9	10.4
Year 2015 - Idling	1,676	12.0	6.0
Year 2015 - Driving	2,380	6.2	3.1
Subtotal - Year 2015	4,056	18.2	9.1
Year 2020 - Idling	2,166	15.5	7.7
Year 2020 - Driving	3,077	8.0	4.0
Subtotal - Year 2020	5,243	23.5	11.7
Year 2030 - Idling	2,768	19.8	9.9
Year 2030 - Driving	3,933	10.2	5.1
Subtotal - Year 2030	6,701	30.0	15.0
Off-Terminal			
Subtotal - Year 2005	100,799	6	3
Subtotal - Year 2010	501,009	29	15
Subtotal - Year 2015	480,257	28	14
Subtotal - Year 2020	620,845	35	17
Subtotal - Year 2030	748,595	42	21
Total Annual Truck Emissions by Project Year			
Year 2005	105,982	33	17
Year 2010	505,667	50	25
Year 2015	484,313	46	23
Year 2020	626,088	58	29
Year 2030	755,297	72	36

Table A.1.3.1-Alt1M-29. Terminal Equipment Annual GHGs - POLB - MHTP - Mitigated Alternative 1.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,423	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	12,944,007	8,109	1.17	0.08
Top-Pick	3,655,804	2,290	0.33	0.02
Side-Pick	1,721,939	1,079	0.16	0.01
Yard Tractor (CY)	5,030,150	3,151	0.45	0.03
Subtotal	23,351,900	14,628	2.11	0.15
Pier F				
RTG (CY)	1,912,022	1,198	0.17	0.01
Top-Pick	647,153	405	0.06	0.00
Side-Pick	479,589	300	0.04	0.00
Yard Tractor (CY)	1,590,438	996	0.14	0.01
Subtotal	4,629,202	2,900	0.42	0.03
Subtotal - Project Year 2010	27,981,102	17,528	2.53	0.18
Project Year 2015				
RTG (CY)	15,597,658	9,771	1.41	0.10
Top-Pick	5,324,820	3,336	0.48	0.03
Side-Pick	2,865,352	1,795	0.26	0.02
Yard Tractor (CY)	8,688,619	5,443	0.79	0.06
Subtotal - Project Year 2015	32,476,448	20,344	2.94	0.21
Project Year 2020				
RTG (CY)	17,410,878	-	-	-
Top-Pick	6,049,810	3,790	0.55	0.04
Side-Pick	3,704,734	2,321	0.33	0.02
Yard Tractor (CY)	11,178,134	7,002	1.01	0.07
Subtotal - Project Year 2020	38,343,556	13,113	1.89	0.13
Project Year 2030				
RTG (CY)	23,591,541	-	-	-
Top-Pick	7,971,770	4,994	0.72	0.05
Side-Pick	4,514,420	2,828	0.41	0.03
Yard Tractor (CY)	13,042,454	8,170	1.18	0.08
Subtotal - Project Year 2030	49,120,185	15,992	2.31	0.16

Table A.1.3.1-Alt1M-30. GHG Emissions from Cold-ironing and RMG Electricity Consumption - POLB MHTP - Mitigated Alternative 1.

Application/Project Year	*Electrical Usage (MW-Hr/yr)*	*CO2*	*CH4*	*N2O*
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
Cold-Ironing				
2010	4,404	1,772	0.01	0.01
2015	8,888	3,575	0.03	0.02
2020	20,787	8,362	0.07	0.04
2030	23,692	9,531	0.08	0.04
Electrify RMGs				
Container Yard - 2020	12,993	5,227	0.04	0.02
Rail Yard - 2020	3,241	1,304	0.01	0.01
Container Yard - 2030	17,606	7,082	0.06	0.03
Rail Yard - 2030	3,495	1,406	0.01	0.01
Annual Totals				
2010	4,404	1,772	0.01	0.01
2015	8,888	3,575	0.03	0.02
2020	37,021	14,893	0.12	0.07
2030	44,792	18,019	0.15	0.08

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.1-Alt1M-31. GHG Emissions from Terminal Electricity Consumption - POLB - MHTP - Mitigated Alternative 1.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	44,509	17,905	0.15	0.08
2015	65,872	26,498	0.22	0.12
2020	89,522	36,012	0.30	0.17
2030	98,168	39,490	0.33	0.18

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A.1.3.1-Alt1M-32 . On-Road Truck Trip Vehicle Miles Travelled in California - POLB - MHTP - Mitigated Alternative 1.

Year	Throughput (TEUs)	ICTF Thruput (TEUs) (1)	TEUs to Offsite Railyard (2)	TEUs to Local Deilveries	Truck Trips to Offsite Railyard (2)	Local Truck Trips (3)	Truck Miles to Offsite Railyard (4)	To Cal Border Truck Trip Miles (5)	Composite VMT/ Truck Trip	Annual Truck Trips
Baseline - 2005	1,264,021	84,318	358,089	821,614	210,641	1,786,359	14.0	135.0	122.2	1,997,000
2010	1,666,946	76,986	506,445	1,083,515	297,909	1,852,091	14.0	135.0	118.2	2,150,000
2015	2,211,751	1,006,928	-	1,204,823	-	1,872,000	14.0	135.0	135.0	1,872,000
2020	2,845,333	1,281,878	-	1,563,455	-	2,420,000	14.0	135.0	135.0	2,420,000
2030	3,320,000	1,259,271	332,000	1,728,729	195,294	2,897,706	14.0	135.0	127.4	3,093,000

(1) from POLB

(2) = 10% for year 2030, from Chapter 1, pg 42

(5) Average of local/external-CA trip lengths (20/250) that originate from/are destined to the POLA.

Table A.1.3.1-Alt1M-33. Annual Operational GHG Emissions - MHTP - DEIS/R Mitigated Alternative 1 California Only Domain

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Year 2005 Baseline							
Ships - Fairway Transit (1)	7,095	0.88	0.06	-	-	-	7,132
Ships - Precautionary Area Transit (1)	1,148	0.11	0.01	-	-	-	1,153
Ships - Harbor Transit (1)	815	0.04	0.00	-	-	-	816
Ships - Docking (1)	272	0.01	0.00	-	-	-	272
Ships - Hoteling Aux. Sources	19,067	0.79	0.01	-	-	-	19,086
Ships Sub Total	28,397	1.83	0.08	-	-	-	28,458
Tugboats - Cargo Vessel Assist (1)	478	0.07	0.00	-	-	-	481
Terminal Equipment	9,910	1.43	0.10	-	-	-	9,971
On-road Trucks	123,451	31.93	15.97	-	-	-	129,071
Trains	6,213	0.87	0.06	-	-	-	6,250
Railyard Equipment	575	0.08	0.01	-	-	-	579
Commuting	1,690	0.31	0.30	-	-	-	1,789
Reefers	-	-	-	0.06	0.13	0.06	620
Terminal Electrical Consumption	13,131	0.11	0.06	-	-	-	13,152
Year 2005 Total	183,844	37	17	0.06	0.13	0.06	190,371
Project Year 2010							
Ships - Fairway Transit (1)	21,513	2.97	0.21	-	-	-	21,641
Ships - Precautionary Area Transit (1)	1,853	0.25	0.02	-	-	-	1,863
Ships - Harbor Transit (1)	1,515	0.21	0.01	-	-	-	1,524
Ships - Docking (1)	508	0.07	0.00	-	-	-	511
Ships - Hoteling Aux. Sources	11,674	1.56	0.08	-	-	-	11,730
Ships Sub Total	37,063	5.06	0.32	-	-	-	37,269
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	15,935	2.30	0.16	-	-	-	16,034
On-road Trucks	147,386	27.31	13.66	-	-	-	152,194
Trains	5,016	0.70	0.05	-	-	-	5,046
Railyard Equipment	193	0.03	0.00	-	-	-	194
Commuting	2,035	0.37	0.36	-	-	-	2,155
Cold-Iron	1,610	0.013	0.007	-	-	-	1,613
Reefers	-	-	-	0.07	0.18	0.08	817
Terminal Electrical Consumption	16,277	0.14	0.07	-	-	-	16,303
Project Year 2010 Total	226,057	36	15	0.07	0.18	0.08	232,169
Net Change from 2005 CEQA Baseline	42,213	(1)	(2)	0.02	0.04	0.02	41,797
Net Change from NEPA Baseline Year 2010	7,434	1	0	0.002	0.01	0.003	7,640
Project Year 2015							
Ships - Fairway Transit (1)	27,315	3.77	0.27	-	-	-	27,477
Ships - Precautionary Area Transit (1)	2,346	0.32	0.02	-	-	-	2,360
Ships - Harbor Transit (1)	1,907	0.26	0.02	-	-	-	1,918
Ships - Docking (1)	638	0.09	0.01	-	-	-	642
Ships - Hoteling Aux. Sources	6,495	0.84	0.02	-	-	-	6,518
Ships Sub Total	38,701	5.27	0.33	-	-	-	38,914
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	18,495	2.67	0.19	-	-	-	18,609
On-road Trucks	123,366	23.50	11.75	-	-	-	127,501
Trains	65,608	9.19	0.65	-	-	-	66,001
Railyard Equipment	2,845	0.41	0.03	-	-	-	2,863
Commuting	2,353	0.43	0.42	-	-	-	2,491
Cold-Iron	3,250	0.027	0.015	-	-	-	3,256
Reefers	-	-	-	0.10	0.23	0.10	1,084
Terminal Electrical Consumption	24,089	0.20	0.11	-	-	-	24,128
Project Year 2015 Total	279,384	42	13	0.10	0.23	0.10	285,528
Net Change from 2005 CEQA Baseline	95,540	5	(3)	0.04	0.10	0.04	95,157
Net Change from NEPA Baseline Year 2015	(1,698)	(1)	(2)	0.002	0.00	0.002	(2,287)
Project Year 2020							
Ships - Fairway Transit (1)	34,997	4.82	0.35	-	-	-	35,205
Ships - Precautionary Area Transit (1)	3,034	0.41	0.03	-	-	-	3,051

Ships - Harbor Transit (1)	2,556	0.35	0.02	-	-	-	2,570
Ships - Docking (1)	859	0.12	0.01	-	-	-	864
Ships - Hoteling Aux. Sources	7,744	1.00	0.02	-	-	-	7,772
Ships Sub Total	49,190	6.71	0.42	-	-	-	49,462
Tugboats - Cargo Vessel Assist (1)	812	0.11	0.01	-	-	-	817
Terminal Equipment	11,921	1.72	0.12	-	-	-	11,995
On-road Trucks	166,034	30.49	15.24	-	-	-	171,399
Trains	83,522	11.70	0.82	-	-	-	84,023
Railyard Equipment	1,614	0.23	0.02	-	-	-	1,624
Commuting	2,710	0.50	0.48	-	-	-	2,869
Cold-Iron	13,539	0.113	0.062	-	-	-	13,560
Reefers	-	-	-	0.13	0.30	0.13	1,395
Terminal Electrical Consumption	32,738	0.27	0.15	-	-	-	32,791
Project Year 2020 Total	362,080	52	17	0.13	0.30	0.13	369,935
Net Change from 2005 CEQA Baseline	178,235	15	1	0.07	0.17	0.07	179,563
Net Change from NEPA Baseline Year 2020	32,416	4	0	0.01	0.03	0.02	32,701
Project Year 2030							
Ships - Fairway Transit (1)	40,087	5.53	0.40	-	-	-	40,326
Ships - Precautionary Area Transit (1)	3,477	0.48	0.03	-	-	-	3,496
Ships - Harbor Transit (1)	2,922	0.40	0.03	-	-	-	2,939
Ships - Docking (1)	982	0.13	0.01	-	-	-	988
Ships - Hoteling Aux. Sources	8,992	1.16	0.02	-	-	-	9,024
Ships Sub Total	56,460	7.70	0.49	-	-	-	56,773
Tugboats - Cargo Vessel Assist (1)	947	0.13	0.01	-	-	-	953
Terminal Equipment	14,538	2.10	0.15	-	-	-	14,628
On-road Trucks	214,700	39.10	19.55	-	-	-	221,583
Trains	82,049	11.49	0.81	-	-	-	82,541
Railyard Equipment	1,740	0.25	0.02	-	-	-	1,751
Commuting	3,595	0.66	0.64	-	-	-	3,806
Cold-Iron	16,381	0.136	0.075	-	-	-	16,407
Reefers	-	-	-	0.15	0.35	0.15	1,627
Terminal Electrical Consumption	35,900	0.30	0.17	-	-	-	35,958
Project Year 2030 Total	426,311	62	22	0.15	0.35	0.15	436,026
Net Change from 2005 CEQA Baseline	242,467	25	5	0.09	0.22	0.10	245,655
Net Change from NEPA Baseline Year 2030	35,707	5	1	0.02	0.04	0.02	36,268

Note: (1) Includes auxiliary generator emissions.

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Table A.1.3.1-Alt2U-1. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 2.

Project Scenario/Ship Type	*Annual Ship Visits*	*Annual Shifts*	*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 curre
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.1.3.1-Alt2U-2. Annual Cargo Vessel GHGs within the POLB Fairway Zone - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 6,000 - 6,999 TEU	18,688.01	2.47	0.17
Containerships 4,000 - 4,999 TEU	26,097.92	3.45	0.23
Subtotal	65,573.67	8.67	0.58
Project Year 2015			
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 7,000 - 7,999 TEU	18,942.94	2.51	0.17
Containerships 6,000 - 6,999 TEU	18,688.01	2.47	0.17
Containerships 4,000 - 4,999 TEU	13,048.96	1.73	0.12
Containerships 3,000 - 3,999 TEU	10,918.52	1.44	0.10
Subtotal	82,386.18	10.90	0.73
Project Year 2020			
Containerships 10,000 - 11,999 TEU	20,601.48	2.72	0.18
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 7,000 - 7,999 TEU	18,942.94	2.51	0.17
Containerships 4,000 - 4,999 TEU	13,048.96	1.73	0.12
Containerships 3,000 - 3,999 TEU	10,918.52	1.44	0.10
Subtotal	84,299.64	11.15	0.75
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 7,000 - 7,999 TEU	18,942.94	2.51	0.17
Containerships 6,000 - 6,999 TEU	37,376.03	4.94	0.33
Containerships 4,000 - 4,999 TEU	13,048.96	1.73	0.12
Containerships 3,000 - 3,999 TEU	21,837.04	2.89	0.19
Subtotal	111,992.71	14.81	0.99

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt2U-3. Annual Cargo Vessel GHGs within the Precautionary Area - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	431.45	0.06	0.00
Subtotal	1,054.30	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	215.73	0.03	0.00
Containerships 3,000 - 3,999 TEU	201.99	0.03	0.00
Subtotal	1,340.22	0.18	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	325.89	0.04	0.00
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 4,000 - 4,999 TEU	215.73	0.03	0.00
Containerships 3,000 - 3,999 TEU	201.99	0.03	0.00
Subtotal	1,376.94	0.18	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	578.35	0.08	0.01
Containerships 4,000 - 4,999 TEU	215.73	0.03	0.00
Containerships 3,000 - 3,999 TEU	403.98	0.05	0.00
Subtotal	1,831.38	0.24	0.02

Table A.1.3.1-Alt2U-4. Annual Cargo Vessel GHGs for Transit within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.84	0.01	0.00
Subtotal	283.58	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	56.42	0.01	0.00
Containerships 3,000 - 3,999 TEU	52.10	0.01	0.00
Subtotal	360.98	0.05	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	90.65	0.01	0.00
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 4,000 - 4,999 TEU	56.42	0.01	0.00
Containerships 3,000 - 3,999 TEU	52.10	0.01	0.00
Subtotal	371.55	0.05	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	160.17	0.02	0.00
Containerships 4,000 - 4,999 TEU	56.42	0.01	0.00
Containerships 3,000 - 3,999 TEU	104.20	0.01	0.00
Subtotal	493.17	0.07	0.00

Table A.1.3.1-Alt2U-5. Annual OGV GHGs for Docking Activities - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	30.43	0.00	0.00
Subtotal	77.82	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	15.22	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.86	0.00	0.00
Subtotal	97.17	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	24.69	0.00	0.00
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	15.22	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.86	0.00	0.00
Subtotal	99.15	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	45.40	0.01	0.00
Containerships 4,000 - 4,999 TEU	15.22	0.00	0.00
Containerships 3,000 - 3,999 TEU	23.73	0.00	0.00
Subtotal	131.73	0.02	0.00

Table A.1.3.1-Alt2U-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 6,000 - 6,999 TEU	1,101.51	0.15	0.01
Containerships 4,000 - 4,999 TEU	1,224.07	0.17	0.01
Subtotal	3,563.56	0.49	0.04
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 7,000 - 7,999 TEU	1,109.15	0.15	0.01
Containerships 6,000 - 6,999 TEU	1,101.51	0.15	0.01
Containerships 4,000 - 4,999 TEU	612.04	0.08	0.01
Containerships 3,000 - 3,999 TEU	457.75	0.06	0.00
Subtotal	4,518.43	0.62	0.04
Project Year 2020			
Containerships 10,000 - 11,999 TEU	1,478.76	0.20	0.01
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 7,000 - 7,999 TEU	1,109.15	0.15	0.01
Containerships 4,000 - 4,999 TEU	612.04	0.08	0.01
Containerships 3,000 - 3,999 TEU	457.75	0.06	0.00
Subtotal	4,895.67	0.67	0.05
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 7,000 - 7,999 TEU	1,109.15	0.15	0.01
Containerships 6,000 - 6,999 TEU	2,203.02	0.30	0.02
Containerships 4,000 - 4,999 TEU	612.04	0.08	0.01
Containerships 3,000 - 3,999 TEU	915.50	0.13	0.01
Subtotal	6,077.69	0.84	0.06

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt2U-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,116.45	0.15	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	509.70	0.07	0.01
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	200.01	0.03	0.00
Subtotal	1,386.38	0.19	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt2U-8. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 10,000 - 11,999 TEU	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,673.68	0.23	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	768.91	0.11	0.01
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	280.61	0.04	0.00
Subtotal	2,070.33	0.29	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt2U-9. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	581.14	0.08	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	266.98	0.04	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	97.43	0.01	0.00
Subtotal	718.87	0.10	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt2U-10. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year			
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*	Annual MW-Hrs for Cold-Ironing
Year 2005 Baseline				
Subtotal				
Project Year 2010				
Containerships 8,000 - 9,999 TEU	3,746.40	0.52	0.04	4,926
Containerships 6,000 - 6,999 TEU	3,372.01	0.46	0.03	4,433
Containerships 4,000 - 4,999 TEU	4,159.11	0.57	0.04	5,468
Subtotal	11,277.52	1.55	0.11	14,827
Project Year 2015				
Containerships 8,000 - 9,999 TEU	1,766.86	0.24	0.02	2,323
Containerships 7,000 - 7,999 TEU	1,590.29	0.22	0.02	2,091
Containerships 6,000 - 6,999 TEU	1,590.29	0.22	0.02	2,091
Containerships 4,000 - 4,999 TEU	980.75	0.14	0.01	1,289
Containerships 3,000 - 3,999 TEU	832.07	0.11	0.01	1,094
Subtotal	6,760.26	0.93	0.07	8,888
Project Year 2020				
Containerships 10,000 - 11,999 TEU	825.03	0.11	0.01	4,339
Containerships 8,000 - 9,999 TEU	687.52	0.09	0.01	3,616
Containerships 7,000 - 7,999 TEU	618.82	0.09	0.01	3,254
Containerships 4,000 - 4,999 TEU	381.63	0.05	0.00	2,007
Containerships 3,000 - 3,999 TEU	323.78	0.04	0.00	1,703
Subtotal	2,836.77	0.39	0.03	14,919
Project Year 2030				
Containerships 10,000 - 11,999 TEU	-	-	-	-
Containerships 8,000 - 9,999 TEU	687.52	0.09	0.01	3,616
Containerships 7,000 - 7,999 TEU	618.82	0.09	0.01	3,254
Containerships 6,000 - 6,999 TEU	1,237.63	0.17	0.01	6,509
Containerships 4,000 - 4,999 TEU	381.63	0.05	0.00	2,007
Containerships 3,000 - 3,999 TEU	647.55	0.09	0.01	3,406
Subtotal	3,573.15	0.49	0.04	18,792

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in years 2015/2020+

Table A.1.3.1-Alt2U-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	111.39	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	111.39	0.01	0.00
Subtotal	389.88	0.05	0.00

Table A.1.3.1-Alt2U-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	84.02	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	84.02	0.01	0.00
Subtotal	294.08	0.04	0.00

Table A.1.3.1-Alt2U-13. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	29.17	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	29.17	0.00	0.00
Subtotal	102.11	0.01	0.00

Table A.1.3.1-Alt2U-14. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,228.24	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,228.24	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,456.48	0.31	0.00
Subtotal	4,912.96	0.62	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,158.51	0.15	0.00
Containerships 7,000 - 7,999 TEU	1,158.51	0.15	0.00
Containerships 6,000 - 6,999 TEU	1,158.51	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,158.51	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,158.51	0.15	0.00
Subtotal	5,792.57	0.74	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	1,127.01	0.14	0.00
Containerships 3,000 - 3,999 TEU	1,127.01	0.14	0.00
Subtotal	5,635.03	0.72	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	2,254.01	0.29	0.00
Containerships 4,000 - 4,999 TEU	1,127.01	0.14	0.00
Containerships 3,000 - 3,999 TEU	2,254.01	0.29	0.00
Subtotal	7,889.04	1.00	0.01

Table A.1.3.1-Alt2U-15. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	663.06	0.09	0.01
Project Year 2030	928.28	0.13	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt2U-16. Annual Auxiliary Generator GHGs for Tugboats during Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	81.11	0.01	0.00
Project Year 2030	113.56	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt2U-17. Annual Vessel GHGs - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Ships - Fairway Transit (1)	9.61	21.91	254.41
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38
Ships - Harbor Transit (1)	2.76	4.26	32.76
Ships - Docking (1)	0.92	1.42	10.92
Ships - Hoteling Aux. Sources	9.72	34.60	348.50
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02
Subtotal	25.44	69.07	697.99
Project Year 2010			
Ships - Fairway Transit (1)	69,137.24	9.16	0.62
Ships - Precautionary Area Transit (1)	2,092.43	0.28	0.02
Ships - Harbor Transit (1)	1,681.64	0.23	0.01
Ships - Docking (1)	563.26	0.08	0.00
Ships - Hoteling Aux. Sources	16,190.48	2.18	0.12
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	90,260.38	12.01	0.78
Project Year 2015			
Ships - Fairway Transit (1)	86,904.61	11.52	0.78
Ships - Precautionary Area Transit (1)	2,650.23	0.35	0.02
Ships - Harbor Transit (1)	2,116.60	0.29	0.02
Ships - Docking (1)	706.76	0.10	0.01
Ships - Hoteling Aux. Sources	12,552.83	1.67	0.07
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	105,675.19	14.03	0.90
Project Year 2020			
Ships - Fairway Transit (1)	89,195.32	11.82	0.80
Ships - Precautionary Area Transit (1)	2,771.87	0.37	0.02
Ships - Harbor Transit (1)	2,255.28	0.31	0.02
Ships - Docking (1)	753.23	0.10	0.01
Ships - Hoteling Aux. Sources	8,471.80	1.11	0.03
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	104,191.67	13.81	0.89
Project Year 2030			
Ships - Fairway Transit (1)	118,070.40	15.65	1.05
Ships - Precautionary Area Transit (1)	3,607.63	0.48	0.03
Ships - Harbor Transit (1)	2,857.57	0.39	0.03
Ships - Docking (1)	952.70	0.13	0.01
Ships - Hoteling Aux. Sources	11,462.19	1.50	0.04
Tugboats - Cargo Vessel Assist (1)	1,041.83	0.14	0.01
Subtotal	137,992.34	18.29	1.17

Note: (1) Includes auxiliary power emissions.

Table A.1.3.1-Alt2U-18. Train Trip Generation Rates - POLB - MHTP - Unmitigated Alternative 2.

Project Scenario/Rail Yard	*Annual Round Trips*
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.1.3.1-Alt2U-19. Annual Train GHGs - POLB - MHTP Unmitigated Alternative 2 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.38	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.05	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	2,487.96	0.35	0.02
Haul Line Locomotive - Switching	106.75	0.01	0.00
Yard Locomotive	24.37	0.00	0.00
Subtotal	2,659.52	0.37	0.03
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.38	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.05	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	2,487.96	0.35	0.02
Haul Line Locomotive - Switching	42.70	0.01	0.00
Yard Locomotive	24.37	0.00	0.00
Subtotal	2,595.46	0.36	0.03
Total Tons Per Year	5,254.98	0.74	0.05

Table A.1.3.1-Alt2U-20. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 2 Year 2010.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	196,119	122.86	0.02	0.00
Yard Tractor	127,963	80.16	0.01	0.00
Subtotal	324,081	203.02	0.03	0.00

Table A.1.3.1-Alt2U-21. Annual Train GHGs - POLB - MHTP Unmitigated Alternative 2 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.55	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	386.37	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	34,271.70	4.80	0.34
Haul Line Locomotive - Switching	1,470.52	0.21	0.01
Yard Locomotive	335.68	0.05	0.00
Subtotal	36,634.83	5.13	0.36
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.55	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	386.37	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	34,271.70	4.80	0.34
Haul Line Locomotive - Switching	588.21	0.08	0.01
Yard Locomotive	335.68	0.05	0.00
Subtotal	35,752.52	5.01	0.35
Total Tons Per Year	72,387.35	10.14	0.71

Table A.1.3.1-Alt2U-22. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 2 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	2,987,284	1,871.33	0.27	0.02
Yard Tractor	1,949,128	1,221.00	0.18	0.01
Subtotal	4,936,412	3,092.33	0.45	0.03

Table A.1.3.1-Alt2U-23. Annual Train GHGs - POLB - MHTP Unmitigated Alternative 2 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	218.12	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	494.13	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	43,829.63	6.14	0.43
Haul Line Locomotive - Switching	1,880.62	0.26	0.02
Yard Locomotive	429.30	0.06	0.00
Subtotal	46,851.80	6.56	0.46
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	218.12	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	494.13	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	43,829.63	6.14	0.43
Haul Line Locomotive - Switching	752.25	0.11	0.01
Yard Locomotive	429.30	0.06	0.00
Subtotal	45,723.43	6.40	0.45
Total Tons Per Year	92,575.23	12.96	0.91

Table A.1.3.1-Alt2U-24. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 2 Year 2020.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,794,215	2,376.82	0.34	0.02
Yard Tractor	2,475,631	1,550.82	0.22	0.02
Subtotal	6,269,847	3,927.64	0.57	0.04

Table A.1.3.1-Alt2U-25. Annual Train GHGs - POLB - MHTP Unmitigated Alternative 2 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.16	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	489.69	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	43,435.71	6.08	0.43
Haul Line Locomotive - Switching	1,863.72	0.26	0.02
Yard Locomotive	425.44	0.06	0.00
Subtotal	46,430.71	6.50	0.46
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.16	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	489.69	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	43,435.71	6.08	0.43
Haul Line Locomotive - Switching	745.49	0.10	0.01
Yard Locomotive	425.44	0.06	0.00
Subtotal	45,312.48	6.34	0.45
Total Tons Per Year	91,743.19	12.85	0.90

Table A.1.3.1-Alt2U-26. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 2 Year 2030.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,048,199	2,535.93	0.37	0.03
Yard Tractor	2,641,349	1,654.63	0.24	0.02
Subtotal	6,689,548.38	4,190.55	0.60	0.04

Table A.1.3.1-Alt2U-27. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP Unmitigated Alternative 2.

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	7.04	15.32	106.08
Railyard Equipment	0.83	2.14	18.51
Subtotal	7.87	17.45	124.59
Project Year 2010			
Trains	5,254.98	0.74	0.05
Railyard Equipment	203.02	0.03	0.00
Subtotal	5,458.00	0.77	0.05
Project Year 2015			
Trains	72,387.35	10.14	0.71
Railyard Equipment	3,092.33	0.45	0.03
Subtotal	75,479.68	10.58	0.75
Project Year 2020			
Trains	92,575.23	12.96	0.91
Railyard Equipment	3,927.64	0.57	0.04
Subtotal	96,502.87	13.53	0.95
Project Year 2030			
Trains - 2030	91,743.19	12.85	0.90
Railyard Equipment - 2030	4,190.55	0.60	0.04
Subtotal	95,933.75	13.45	0.95

Table A.1.2-Alt 2-28. Annual Truck GHGs for the MHTP - Unmitigated Alternative 2.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,084.7	22.1	11.0
Year 2005 - Driving	2,098.5	5.5	2.7
Subtotal - Year 2005	5,183.18	27.51	13.75
Year 2010 - Idling	1,840.29	13.2	6.6
Year 2010 - Driving	2,614.25	6.8	3.4
Subtotal - Year 2010	4,454.54	19.95	9.98
Year 2015 - Idling	1,641.58	11.7	5.9
Year 2015 - Driving	2,331.97	6.1	3.0
Subtotal - Year 2015	3,973.55	17.80	8.90
Year 2020 - Idling	1,718.56	12.3	6.1
Year 2020 - Driving	2,441.32	6.3	3.2
Subtotal - Year 2020	4,159.88	18.63	9.32
Year 2030 - Idling	2,197.42	15.7	7.9
Year 2030 - Driving	3,121.59	8.1	4.1
Subtotal - Year 2030	5,319.01	23.83	11.91
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	5.85	2.92
Subtotal - Year 2010	118,881	6.90	3.45
Subtotal - Year 2015	101,513	5.89	2.94
Subtotal - Year 2020	111,959	6.26	3.13
Subtotal - Year 2030	145,404	8.13	4.07
Off-Terminal - Between SCAB and Cal Border			
Subtotal - Year 2005	29,814	1.77	0.89
Subtotal - Year 2010	39,432	2.34	1.17
Subtotal - Year 2015	27,379	1.63	0.81
Subtotal - Year 2020	28,658	1.70	0.85
Subtotal - Year 2030	36,648	2.18	1.09

Table A.1.3.1-Alt2U-29. Terminal Equipment Annual GHGs - Unmitigated Alternative 2.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	12,375,969	7,752.71	1.12	0.08
Top-Pick	3,494,694	2,189.19	0.32	0.02
Side-Pick	1,646,729	1,031.57	0.15	0.01
Yard Tractor (CY)	4,809,405	3,012.77	0.43	0.03
Subtotal	22,326,797	13,986.24	2.02	0.14
Pier F				
RTG (CY)	1,810,343	1,134.06	0.16	0.01
Top-Pick	617,459	386.80	0.06	0.00
Side-Pick	456,408	285.91	0.04	0.00
Yard Tractor (CY)	1,521,609	953.19	0.14	0.01
Subtotal	4,405,819	2,759.95	0.40	0.03
Subtotal - Project Year 2010	26,732,616	16,746.19	2.42	0.17
Project Year 2015				
RTG (CY)	15,402,340	9,648.53	1.39	0.10
Top-Pick	5,259,508	3,294.73	0.48	0.03
Side-Pick	2,830,414	1,773.06	0.26	0.02
Yard Tractor (CY)	8,584,146	5,377.39	0.78	0.05
Subtotal - Project Year 2015	32,076,408	20,093.72	2.90	0.21
Project Year 2020				
RTG (CY)	15,139,138	9,483.66	1.37	0.10
Top-Pick	5,291,798	3,314.96	0.48	0.03
Side-Pick	3,220,663	2,017.53	0.29	0.02
Yard Tractor (CY)	9,766,118	6,117.82	0.88	0.06
Subtotal - Project Year 2020	33,417,717	20,933.96	3.02	0.21
Project Year 2030				
RTG (CY)	20,306,600	12,720.72	1.84	0.13
Top-Pick	6,891,582	4,317.11	0.62	0.04
Side-Pick	3,889,070	2,436.24	0.35	0.02
Yard Tractor (CY)	11,274,822	7,062.92	1.02	0.07
Subtotal - Project Year 2030	42,362,074	26,537.00	3.83	0.27

Table A.1.3.1-Alt2U-30. GHG Emissions from Cold-ironing Electricity Consumption - Unmitigated Alternative 2.

Project Year	Cold-ironing Usage (MWh/yr)	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2010	*14,827*	*5,965*	*0.050*	*0.027*
2015	8,888	*3,575*	*0.030*	*0.016*
2020	14,919	*6,001*	*0.050*	*0.028*
2030	18,792	*7,559*	*0.063*	*0.035*

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.1-Alt2U-31. GHG Emissions from Terminal Electricity Consumption - POLB - MHTP - Unmitigated Alternative 2.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	42,563	17,122	0.14	0.08
2015	65,080	26,180	0.22	0.12
2020	78,221	31,466	0.26	0.14
2030	84,862	34,138	0.28	0.16

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A1.3- Alt2U-32. On-Road Truck Trip Vehicle Miles Travelled in California - POLB - MHTP - Unmitigated Alternative 2.

Year	Throughput (TEUs)	ICTF Thruput (TEUs) (1)	TEUs to Offsite Railyard (2)	TEUs to Local Deilveries	Truck Trips to Offsite Railyard (2)	Local Truck Trips (3)	Truck Miles to Offsite Railyard (4)	To Cal Border Truck Trip Miles (5)	Composite VMT/ Truck Trip	Annual Truck Trips
Baseline - 2005	1,264,021	84,318	358,089	821,614	210,641	1,786,359	14.0	135.0	122.2	1,997,000
2010	1,594,083	76,986	480,943	1,036,154	282,908	1,773,092	14.0	135.0	118.4	2,056,000
2015	2,185,185	1,006,928	-	1,178,257	-	1,834,000	14.0	135.0	135.0	1,834,000
2020	2,486,157	1,281,878	-	1,204,279	-	1,920,000	14.0	135.0	135.0	1,920,000
2030	2,870,000	1,259,271	287,000	1,323,729	168,824	2,286,176	14.0	135.0	126.7	2,455,000

(1) from POLB

(2) = 10% for year 2030, from Chapter 1, pg 42

(5) Average of local/external-CA trip lengths (20/250) that originate from/are destined to the POLA.

Table A.1.3.1-Alt2U-33. Annual Operational GHGs - POLB - MHTP - Unmitigated Alternative 2.

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Year 2005 Baseline							
Ships - Fairway Transit (1)	7,095	0.88	0.06	-	-	-	7,132
Ships - Precautionary Area Transit (1)	1,148	0.11	0.01	-	-	-	1,153
Ships - Harbor Transit (1)	815	0.04	0.00	-	-	-	816
Ships - Docking (1)	272	0.01	0.00	-	-	-	272
Ships - Hoteling Aux. Sources	19,067	0.79	0.01	-	-	-	19,086
Ships Sub Total	28,397	1.83	0.08	-	-	-	28,458
Tugboats - Cargo Vessel Assist (1)	478	0.07	0.00	-	-	-	481
Terminal Equipment	9,910	1.43	0.10	-	-	-	9,971
On-road Trucks	123,451	31.93	15.97	-	-	-	129,071
Trains	6,213	0.87	0.06	-	-	-	6,250
Railyard Equipment	575	0.08	0.01	-	-	-	579
Commuting	1,690	0.31	0.30	-	-	-	1,789
Reefers	-	-	-	0.06	0.13	0.06	620
Terminal Electrical Consumption	13,131	0.11	0.06	-	-	-	13,152
Year 2005 Total	183,844	37	17	0.06	0.13	0.06	190,371
Project Year 2010							
Ships - Fairway Transit (1)	62,852	8.33	0.56	-	-	-	63,201
Ships - Precautionary Area Transit (1)	1,902	0.25	0.02	-	-	-	1,913
Ships - Harbor Transit (1)	1,529	0.21	0.01	-	-	-	1,537
Ships - Docking (1)	512	0.07	0.00	-	-	-	515
Ships - Hoteling Aux. Sources	14,719	1.98	0.11	-	-	-	14,793
Ships Sub Total	81,514	10.84	0.70	-	-	-	81,958
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	15,224	2.20	0.16	-	-	-	15,318
On-road Trucks	147,971	26.54	13.27	-	-	-	152,641
Trains	4,777	0.67	0.05	-	-	-	4,806
Railyard Equipment	185	0.03	0.00	-	-	-	186
Commuting	1,824	0.33	0.32	-	-	-	1,931
Cold-Iron	5,422	0.045	0.025	-	-	-	5,431
Reefers	-	-	-	0.07	0.17	0.07	781
Terminal Electrical Consumption	15,565	0.13	0.07	-	-	-	15,590
Project Year 2010 Total	273,023	41	15	0.07	0.17	0.07	279,188
Net Change from 2005 CEQA Baseline	89,178	4	(2)	0.01	0.03	0.02	88,816
Net Change from NEPA Baseline Year 2010	54,400	6	0	(0.001)	(0.002)	(0.001)	54,659
Project Year 2015							
Ships - Fairway Transit (1)	79,004	10.47	0.70	-	-	-	79,443
Ships - Precautionary Area Transit (1)	2,409	0.32	0.02	-	-	-	2,422
Ships - Harbor Transit (1)	1,924	0.26	0.02	-	-	-	1,935
Ships - Docking (1)	643	0.09	0.01	-	-	-	646
Ships - Hoteling Aux. Sources	11,412	1.52	0.07	-	-	-	11,464
Ships Sub Total	95,392	12.66	0.81	-	-	-	95,910
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	18,267	2.64	0.19	-	-	-	18,380
On-road Trucks	120,787	23.01	11.51	-	-	-	124,838
Trains	65,807	9.21	0.65	-	-	-	66,201
Railyard Equipment	2,811	0.41	0.03	-	-	-	2,829
Commuting	2,327	0.43	0.41	-	-	-	2,464
Cold-Iron	3,250	0.027	0.015	-	-	-	3,256
Reefers	-	-	-	0.10	0.23	0.10	1,071
Terminal Electrical Consumption	23,800	0.20	0.11	-	-	-	23,838
Project Year 2015 Total	333,118	49	14	0.10	0.23	0.10	339,466
Net Change from 2005 CEQA Baseline	149,274	12	(3)	0.04	0.10	0.04	149,095
Net Change from NEPA Baseline Year 2015	52,035	6	(2)	0.001	0.002	0.001	51,652

Project Year 2020							
Ships - Fairway Transit (1)	81,087	10.75	0.72	-	-	-	81,537
Ships - Precautionary Area Transit (1)	2,520	0.34	0.02	-	-	-	2,534
Ships - Harbor Transit (1)	2,050	0.28	0.02	-	-	-	2,062
Ships - Docking (1)	685	0.09	0.01	-	-	-	689
Ships - Hoteling Aux. Sources	7,702	1.01	0.03	-	-	-	7,732
Ships Sub Total	94,043	12.46	0.80	-	-	-	94,553
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	19,031	2.75	0.19	-	-	-	19,149
On-road Trucks	131,616	24.18	12.09	-	-	-	135,872
Trains	84,159	11.78	0.83	-	-	-	84,664
Railyard Equipment	3,571	0.52	0.04	-	-	-	3,593
Commuting	2,328	0.43	0.41	-	-	-	2,465
Cold-Iron	5,456	0.045	0.025	-	-	-	5,465
Reefers	-	-	-	0.11	0.26	0.12	1,218
Terminal Electrical Consumption	28,606	0.24	0.13	-	-	-	28,651
Project Year 2020 Total	369,486	52	15	0.11	0.26	0.12	376,310
Net Change from 2005 CEQA Baseline	185,641	16	(2)	0.05	0.13	0.06	185,938
Net Change from NEPA Baseline Year 2020	39,822	5	(3)	(0.001)	(0.003)	(0.002)	39,076
Project Year 2030							
Ships - Fairway Transit (1)	107,337	14.23	0.96	-	-	-	107,932
Ships - Precautionary Area Transit (1)	3,280	0.44	0.03	-	-	-	3,297
Ships - Harbor Transit (1)	2,598	0.35	0.02	-	-	-	2,612
Ships - Docking (1)	866	0.12	0.01	-	-	-	871
Ships - Hoteling Aux. Sources	10,420	1.36	0.04	-	-	-	10,461
Ships Sub Total	124,500	16.49	1.05	-	-	-	125,174
Tugboats - Cargo Vessel Assist (1)	947	0.13	0.01	-	-	-	953
Terminal Equipment	24,125	3.48	0.25	-	-	-	24,274
On-road Trucks	170,337	31.03	15.52	-	-	-	175,799
Trains	83,403	11.68	0.82	-	-	-	83,903
Railyard Equipment	3,810	0.55	0.04	-	-	-	3,833
Commuting	2,958	0.54	0.52	-	-	-	3,132
Cold-Iron	6,872	0.057	0.032	-	-	-	6,883
Reefers	-	-	-	0.13	0.30	0.13	1,407
Terminal Electrical Consumption	31,034	0.26	0.14	-	-	-	31,084
Project Year 2030 Total	447,987	64	18	0.13	0.30	0.13	456,442
Net Change from 2005 CEQA Baseline	264,142	28	2	0.07	0.17	0.07	266,070
Net Change from NEPA Baseline Year 2030	57,383	7	(3)	(0.002)	(0.004)	(0.002)	56,684

Note: (1) Includes auxiliary generator emissions.

Daily Emissions	CO2	CH4	N2O	HFC-125	HFC-134a	HFC-143a	CO2e
NEPA Baseline - Year 2010	218,623	35	14	0.07	0.17	0.08	224,529
NEPA Baseline - Year 2015	281,083	43	15	0.10	0.23	0.10	287,815
NEPA Baseline - Year 2020	329,664	48	17	0.11	0.27	0.12	337,234
NEPA Baseline - Year 2030	390,604	57	21	0.13	0.31	0.14	399,758

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Table A.1.3.1-Alt2M-1. Ship Visit and Throughput Data - POLB - MHTP - Mitigated Alternative 2.

Project Scenario/Ship Type	*Annual Ship Visits*		*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 u
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.1.3.1-Alt2M-2. Annual Cargo Vessel GHGs within the POLB Fairway Zone - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 4,000 - 4,999 TEU	7,299.80	1.01	0.07
Subtotal	17,837.85	2.46	0.18
Project Year 2015			
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 7,000 - 7,999 TEU	5,069.92	0.70	0.05
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 4,000 - 4,999 TEU	3,649.90	0.50	0.04
Containerships 3,000 - 3,999 TEU	3,417.46	0.47	0.03
Subtotal	22,675.34	3.13	0.22
Project Year 2020			
Containerships 10,000 - 11,999 TEU	5,513.82	0.76	0.05
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 7,000 - 7,999 TEU	5,069.92	0.70	0.05
Containerships 4,000 - 4,999 TEU	3,649.90	0.50	0.04
Containerships 3,000 - 3,999 TEU	3,417.46	0.47	0.03
Subtotal	23,296.59	3.21	0.23
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 7,000 - 7,999 TEU	5,069.92	0.70	0.05
Containerships 6,000 - 6,999 TEU	9,785.13	1.35	0.10
Containerships 4,000 - 4,999 TEU	3,649.90	0.50	0.04
Containerships 3,000 - 3,999 TEU	6,834.92	0.94	0.07
Subtotal	30,985.36	4.27	0.31

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt2M-3. Annual Cargo Vessel GHGs within the POLB Precautionary Area - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	999.88	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,271.05	0.18	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	309.07	0.04	0.00
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,305.87	0.18	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	548.50	0.08	0.01
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	383.13	0.05	0.00
Subtotal	1,736.86	0.24	0.02

Table A.1.3.1-Alt2M-4. Annual Cargo Vessel GHGs for Transit within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	268.94	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	342.35	0.05	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	85.97	0.01	0.00
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	352.37	0.05	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	151.90	0.02	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	98.82	0.01	0.00
Subtotal	467.71	0.06	0.00

Table A.1.3.1-Alt2M-5. Annual Cargo Vessel GHGs for Docking Activities - POLB - MHTP - Mitigated Alternative 2

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	73.80	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	92.15	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	23.41	0.00	0.00
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	94.04	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	43.06	0.01	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	22.50	0.00	0.00
Subtotal	124.93	0.02	0.00

Table A.1.3.1-Alt2M-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 4,000 - 4,999 TEU	1,981.83	0.27	0.02
Subtotal	5,826.03	0.80	0.06
Project Year 2015			
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 7,000 - 7,999 TEU	1,821.01	0.25	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 4,000 - 4,999 TEU	990.92	0.14	0.01
Containerships 3,000 - 3,999 TEU	714.59	0.10	0.01
Subtotal	7,370.72	1.01	0.07
Project Year 2020			
Containerships 10,000 - 11,999 TEU	2,427.83	0.33	0.02
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 7,000 - 7,999 TEU	1,821.01	0.25	0.02
Containerships 4,000 - 4,999 TEU	990.92	0.14	0.01
Containerships 3,000 - 3,999 TEU	714.59	0.10	0.01
Subtotal	7,977.54	1.10	0.08
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 7,000 - 7,999 TEU	1,821.01	0.25	0.02
Containerships 6,000 - 6,999 TEU	3,642.02	0.50	0.04
Containerships 4,000 - 4,999 TEU	990.92	0.14	0.01
Containerships 3,000 - 3,999 TEU	1,429.18	0.20	0.01
Subtotal	9,906.32	1.36	0.10

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt2M-7. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,116.45	0.15	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	509.70	0.07	0.01
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	200.01	0.03	0.00
Subtotal	1,386.38	0.19	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt2M-8. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 10,000 - 11,999 TEU	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,673.68	0.23	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	768.91	0.11	0.01
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	280.61	0.04	0.00
Subtotal	2,070.33	0.29	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt2M-9. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	581.14	0.08	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	266.98	0.04	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	97.43	0.01	0.00
Subtotal	718.87	0.10	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt2M-10. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	2,633.72	0.36	0.03
Containerships 6,000 - 6,999 TEU	2,370.52	0.33	0.02
Containerships 4,000 - 4,999 TEU	2,923.86	0.40	0.03
Subtotal	7,928.10	1.09	0.08
Project Year 2015			
Containerships 8,000 - 9,999 TEU	353.37	0.05	0.00
Containerships 7,000 - 7,999 TEU	318.06	0.04	0.00
Containerships 6,000 - 6,999 TEU	318.06	0.04	0.00
Containerships 4,000 - 4,999 TEU	196.15	0.03	0.00
Containerships 3,000 - 3,999 TEU	166.41	0.02	0.00
Subtotal	1,352.05	0.19	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	412.51	0.06	0.00
Containerships 8,000 - 9,999 TEU	343.76	0.05	0.00
Containerships 7,000 - 7,999 TEU	309.41	0.04	0.00
Containerships 4,000 - 4,999 TEU	190.82	0.03	0.00
Containerships 3,000 - 3,999 TEU	161.89	0.02	0.00
Subtotal	1,418.39	0.20	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	343.76	0.05	0.00
Containerships 7,000 - 7,999 TEU	309.41	0.04	0.00
Containerships 6,000 - 6,999 TEU	618.82	0.09	0.01
Containerships 4,000 - 4,999 TEU	190.82	0.03	0.00
Containerships 3,000 - 3,999 TEU	323.78	0.04	0.00
Subtotal	1,786.58	0.25	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths will be completed year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducting hoteling aux. gen. emissions by 90%.

Table A.1.3.1-Alt2M-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	111.39	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	111.39	0.01	0.00
Subtotal	389.88	0.05	0.00

Table A.1.3.1-Alt2M-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	84.02	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	84.02	0.01	0.00
Subtotal	294.08	0.04	0.00

Table A.1.3.1-Alt2M-13. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	29.17	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	29.17	0.00	0.00
Subtotal	102.11	0.01	0.00

Table A.1.3.1-Alt2M-14. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,228.24	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,228.24	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,456.48	0.31	0.00
Subtotal	4,912.96	0.62	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,158.51	0.15	0.00
Containerships 7,000 - 7,999 TEU	1,158.51	0.15	0.00
Containerships 6,000 - 6,999 TEU	1,158.51	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,158.51	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,158.51	0.15	0.00
Subtotal	5,792.57	0.74	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	1,127.01	0.14	0.00
Containerships 3,000 - 3,999 TEU	1,127.01	0.14	0.00
Subtotal	5,635.03	0.72	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	2,254.01	0.29	0.00
Containerships 4,000 - 4,999 TEU	1,127.01	0.14	0.00
Containerships 3,000 - 3,999 TEU	2,254.01	0.29	0.00
Subtotal	7,889.04	1.00	0.01

Table A.1.3.1-Alt2M-15. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	663.06	0.09	0.01
Project Year 2030	928.28	0.13	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt2M-16. Annual Auxiliary Generator GHGs for Tugboats during Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	81.11	0.01	0.00
Project Year 2030	113.56	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt2M-17. Annual Vessel GHGs - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Ships - Fairway Transit (1)	9.61	21.91	254.41
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38
Ships - Harbor Transit (1)	2.76	4.26	32.76
Ships - Docking (1)	0.92	1.42	10.92
Ships - Hoteling Aux. Sources	9.72	34.60	348.50
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02
Subtotal	25.44	69.07	697.99
Project Year 2010			
Ships - Fairway Transit (1)	23,663.89	3.26	0.23
Ships - Precautionary Area Transit (1)	2,038.02	0.28	0.02
Ships - Harbor Transit (1)	1,667.00	0.23	0.01
Ships - Docking (1)	559.24	0.08	0.00
Ships - Hoteling Aux. Sources	12,841.06	1.72	0.08
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	41,364.53	5.64	0.36
Project Year 2015			
Ships - Fairway Transit (1)	30,046.05	4.14	0.30
Ships - Precautionary Area Transit (1)	2,581.05	0.35	0.02
Ships - Harbor Transit (1)	2,097.97	0.29	0.02
Ships - Docking (1)	701.74	0.10	0.01
Ships - Hoteling Aux. Sources	7,144.62	0.92	0.02
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	43,315.61	5.90	0.37
Project Year 2020			
Ships - Fairway Transit (1)	31,274.13	4.31	0.31
Ships - Precautionary Area Transit (1)	2,700.80	0.37	0.02
Ships - Harbor Transit (1)	2,236.11	0.31	0.02
Ships - Docking (1)	748.11	0.10	0.01
Ships - Hoteling Aux. Sources	7,053.41	0.91	0.02
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	44,756.73	6.10	0.39
Project Year 2030			
Ships - Fairway Transit (1)	40,891.68	5.64	0.40
Ships - Precautionary Area Transit (1)	3,513.11	0.48	0.03
Ships - Harbor Transit (1)	2,832.12	0.39	0.03
Ships - Docking (1)	945.91	0.13	0.01
Ships - Hoteling Aux. Sources	9,675.62	1.25	0.02
Tugboats - Cargo Vessel Assist (1)	1,041.83	0.14	0.01
Subtotal	58,900.27	8.03	0.50

Note: (1) Includes auxiliary power emissions.

Table A.1.3.1-Alt2M-18. Train Trip Generation Rates - POLB - MHTP - Mitigated Alternative 2..

Project Scenario/Rail Yard	*Annual Round Trips*
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.1.3.1-Alt2M-19. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 2 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.38	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.05	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	2,487.96	0.35	0.02
Haul Line Locomotive - Swiching	106.75	0.01	0.00
Yard Locomotive	24.37	0.00	0.00
Subtotal	2,659.52	0.37	0.03
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.38	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.05	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	2,487.96	0.35	0.02
Haul Line Locomotive - Swiching	42.70	0.01	0.00
Yard Locomotive	24.37	0.00	0.00
Subtotal	2,595.46	0.36	0.03
Total Tons Per Year	5,254.98	0.74	0.05

Table A.1.3.1-Alt2M-20. Annual Rail Yard Cargo Handling Equipment Emissions - Mitigated Alternative 2 Year 2010.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	196,119	122.86	0.02	0.00
Yard Tractor	127,963	80.16	0.01	0.00
Subtotal	324,081	203.02	0.03	0.00

Table A.1.3.1-Alt2M-21. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 2 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.55	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	386.37	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	34,271.70	4.80	0.34
Haul Line Locomotive - Swiching	1,470.52	0.21	0.01
Yard Locomotive	335.68	0.05	0.00
Subtotal	36,634.83	5.13	0.36
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.55	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	386.37	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	34,271.70	4.80	0.34
Haul Line Locomotive - Swiching	588.21	0.08	0.01
Yard Locomotive	335.68	0.05	0.00
Subtotal	35,752.52	5.01	0.35
Total Tons Per Year	72,387.35	10.14	0.71

Table A.1.3.1-Alt2M-22. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 2 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	2,987,284	1,871.33	0.27	0.02
Yard Tractor	1,949,128	1,221.00	0.18	0.01
Subtotal	4,936,412	3,092.33	0.45	0.03

Table A.1.3.1-Alt2M-23. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 2 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	218.12	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	494.13	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	43,829.63	6.14	0.43
Haul Line Locomotive - Swiching	1,880.62	0.26	0.02
Yard Locomotive	429.30	0.06	0.00
Subtotal	46,851.80	6.56	0.46
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	218.12	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	494.13	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	43,829.63	6.14	0.43
Haul Line Locomotive - Swiching	752.25	0.11	0.01
Yard Locomotive	429.30	0.06	0.00
Subtotal	45,723.43	6.40	0.45
Total Tons Per Year	92,575.23	12.96	0.91

Table A.1.3.1-Alt2M-24. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 2 Year 2020.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,794,215	-	-	-
Yard Tractor	2,475,631	1,550.82	0.22	0.02
Subtotal	6,269,847	1,550.82	0.22	0.02

Table A.1.3.1-Alt2M-25. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 2 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.16	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	489.69	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	43,435.71	6.08	0.43
Haul Line Locomotive - Swiching	1,863.72	0.26	0.02
Yard Locomotive	425.44	0.06	0.00
Subtotal	46,430.71	6.50	0.46
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.16	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	489.69	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	43,435.71	6.08	0.43
Haul Line Locomotive - Swiching	745.49	0.10	0.01
Yard Locomotive	425.44	0.06	0.00
Subtotal	45,312.48	6.34	0.45
Total Tons Per Year	91,743.19	12.85	0.90

Table A.1.3.1-Alt2M-26. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 2 Year 2030.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,048,199	-	-	-
Yard Tractor	2,641,349	1,654.63	0.24	0.02
Subtotal	6,689,548.38	1,654.63	0.24	0.02

Table A.1.3.1-Alt2M-27. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Mitigated Alternative 2.

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	7.04	15.32	106.08
Railyard Equipment	0.83	2.14	18.51
Subtotal	7.87	17.45	124.59
Project Year 2010			
Trains	5,254.98	0.74	0.05
Railyard Equipment	203.02	0.03	0.00
Subtotal	5,458.00	0.77	0.05
Project Year 2015			
Trains	72,387.35	10.14	0.71
Railyard Equipment	3,092.33	0.45	0.03
Subtotal	75,479.68	10.58	0.75
Project Year 2020			
Trains	92,575.23	12.96	0.91
Railyard Equipment	1,550.82	0.22	0.02
Subtotal	94,126.05	13.19	0.93
Project Year 2030			
Trains - 2030	91,743.19	12.85	0.90
Railyard Equipment - 2030	1,654.63	0.24	0.02
Subtotal	93,397.82	13.08	0.92

Table A.1.3.1-Alt2M-28. Annual Truck GHGs for the Middle Harbor Terminal Project - Mitigated Alternative 2.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,085	22.1	11.0
Year 2005 - Driving	2,098	5.5	2.7
Subtotal - Year 2005	5,183	27.51	13.75
Year 2010 - Idling	1,840	13.2	6.6
Year 2010 - Driving	2,614	6.8	3.4
Subtotal - Year 2010	4,455	19.95	9.98
Year 2015 - Idling	1,642	11.7	5.9
Year 2015 - Driving	2,332	6.1	3.0
Subtotal - Year 2015	3,974	17.80	8.90
Year 2020 - Idling	1,719	12.3	6.1
Year 2020 - Driving	2,441	6.3	3.2
Subtotal - Year 2020	4,160	18.63	9.32
Year 2030 - Idling	2,197	15.7	7.9
Year 2030 - Driving	3,122	8.1	4.1
Subtotal - Year 2030	5,319	23.83	11.91
Off-Terminal			
Subtotal - Year 2005	100,799	6	3
Subtotal - Year 2010	479,233	27	13
Subtotal - Year 2015	470,508	27	14
Subtotal - Year 2020	492,571	29	14
Subtotal - Year 2030	591,005	34	17
Total Annual Truck Emissions by Project Year			
Year 2005	105,982	33	17
Year 2010	483,687	47	23
Year 2015	474,482	45	23
Year 2020	496,731	47	24
Year 2030	596,324	58	29

Table A.1.3.1-Alt2M-29. Terminal Equipment Annual GHGs - POLB - MHTP - Mitigated Alternative 2.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	12,375,969	7,752.71	1.12	0.08
Top-Pick	3,494,694	2,189.19	0.32	0.02
Side-Pick	1,646,729	1,031.57	0.15	0.01
Yard Tractor (CY)	4,809,405	3,012.77	0.43	0.03
Subtotal	22,326,797	13,986.24	2.02	0.14
Pier F				
RTG (CY)	1,810,343	1,134.06	0.16	0.01
Top-Pick	617,459	386.80	0.06	0.00
Side-Pick	456,408	285.91	0.04	0.00
Yard Tractor (CY)	1,521,609	953.19	0.14	0.01
Subtotal	4,405,819	2,759.95	0.40	0.03
Subtotal - Project Year 2010	26,732,616	16,746.19	2.42	0.17
Project Year 2015				
RTG (CY)	15,402,340	9,648.53	1.39	0.10
Top-Pick	5,259,508	3,294.73	0.48	0.03
Side-Pick	2,830,414	1,773.06	0.26	0.02
Yard Tractor (CY)	8,584,146	5,377.39	0.78	0.05
Subtotal - Project Year 2015	32,076,408	20,093.72	2.90	0.21
Project Year 2020				
RTG (CY)	15,139,138	-	-	-
Top-Pick	5,291,798	3,314.96	0.48	0.03
Side-Pick	3,220,663	2,017.53	0.29	0.02
Yard Tractor (CY)	9,766,118	6,117.82	0.88	0.06
Subtotal - Project Year 2020	33,417,717	11,450.30	1.65	0.12
Project Year 2030				
RTG (CY)	20,306,600	-	-	-
Top-Pick	6,891,582	4,317.11	0.62	0.04
Side-Pick	3,889,070	2,436.24	0.35	0.02
Yard Tractor (CY)	11,274,822	7,062.92	1.02	0.07
Subtotal - Project Year 2030	42,362,074	13,816.28	1.99	0.14

Table A.1.3.1-Alt1M-30. GHG Emissions from Cold-ironing and RMG Electricity Consumption - POLB MHTP - Mitigated Alternative 2.

Application/Project Year	Electrical Usage (MW-Hr/yr)	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
Cold-Ironing				
2010	4,404	1,772	0.015	0.008
2015	8,888	3,575	0.030	0.016
2020	16,784	6,752	0.056	0.031
2030	21,141	8,504	0.071	0.039
Electrify RMGs				
Container Yard - 2020	11,298	4,545	0.04	0.02
Rail Yard - 2020	2,832	1,139	0.01	0.01
Container Yard - 2030	15,154	6,096	0.05	0.03
Rail Yard - 2030	3,021	1,215	0.01	0.01
Annual Totals				
2010	4,404	1,772	0.01	0.01
2015	8,888	3,575	0.03	0.02
2020	30,913	12,435	0.10	0.06
2030	39,316	15,816	0.13	0.07

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.1-Alt2M-31. GHG Emissions from Terminal Electricity Consumption - POLB - MHTP - Mitigated Alternative 2.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	42,563	17,122	0.14	0.08
2015	65,080	26,180	0.22	0.12
2020	78,221	31,466	0.26	0.14
2030	84,862	34,138	0.28	0.16

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A.1.3.1-Alt2M-32. On-Road Truck Trip Vehicle Miles Travelled in California - POLB - MHTP - Mitigated Alternative 2.

Year	Throughput (TEUs)	ICTF Thruput (TEUs) (1)	TEUs to Offsite Railyard (2)	TEUs to Local Deilveries	Truck Trips to Offsite Railyard (2)	Local Truck Trips (3)	Truck Miles to Offsite Railyard (4)	To Cal Border Truck Trip Miles (5)	Composite VMT/ Truck Trip	Annual Truck Trips
Baseline - 2005	1,264,021	84,318	358,089	821,614	210,641	1,786,359	14.0	135.0	122.2	1,997,000
2010	1,594,083	74,542	483,387	1,036,154	284,345	1,771,655	14.0	135.0	118.3	2,056,000
2015	2,185,185	667,212	-	1,517,973	-	1,834,000	14.0	135.0	135.0	1,834,000
2020	2,486,157	862,732	-	1,623,425	-	1,920,000	14.0	135.0	135.0	1,920,000
2030	2,870,000	843,180	287,000	1,739,820	168,824	2,286,176	14.0	135.0	126.7	2,455,000

(1) from POLB

(2) = 10% for year 2030, from Chapter 1, pg 42

(5) Average of local/external-CA trip lengths (20/250) that originate from/are destined to the POLA.

Table A.1.3.1-Alt2M-33. Annual Operational GHGs - POLB - MHTP - Mitigated Alternative 2.

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Year 2005 Baseline							
Ships - Fairway Transit (1)	7,095	0.88	0.06	-	-	-	7,132
Ships - Precautionary Area Transit (1)	1,148	0.11	0.01	-	-	-	1,153
Ships - Harbor Transit (1)	815	0.04	0.00	-	-	-	816
Ships - Docking (1)	272	0.01	0.00	-	-	-	272
Ships - Hoteling Aux. Sources	19,067	0.79	0.01	-	-	-	19,086
Ships Sub Total	28,397	1.83	0.08	-	-	-	28,458
Tugboats - Cargo Vessel Assist (1)	478	0.07	0.00	-	-	-	481
Terminal Equipment	9,910	1.43	0.10	-	-	-	9,971
On-road Trucks	123,451	31.93	15.97	-	-	-	129,071
Trains	6,213	0.87	0.06	-	-	-	6,250
Railyard Equipment	575	0.08	0.01	-	-	-	579
Commuting	1,690	0.31	0.30	-	-	-	1,789
Reefers	-	-	-	0.06	0.13	0.06	620
Terminal Electrical Consumption	13,131	0.11	0.06	-	-	-	13,152
Year 2005 Total	183,844	37	17	0.06	0.13	0.06	190,371
Project Year 2010							
Ships - Fairway Transit (1)	21,513	2.97	0.21	-	-	-	21,641
Ships - Precautionary Area Transit (1)	1,853	0.25	0.02	-	-	-	1,863
Ships - Harbor Transit (1)	1,515	0.21	0.01	-	-	-	1,524
Ships - Docking (1)	508	0.07	0.00	-	-	-	511
Ships - Hoteling Aux. Sources	11,674	1.56	0.08	-	-	-	11,730
Ships Sub Total	37,063	5.06	0.32	-	-	-	37,269
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	15,224	2.20	0.16	-	-	-	15,318
On-road Trucks	147,971	26.54	13.27	-	-	-	152,641
Trains	4,777	0.67	0.05	-	-	-	4,806
Railyard Equipment	185	0.03	0.00	-	-	-	186
Commuting	1,824	0.33	0.32	-	-	-	1,931
Cold-Iron	1,610	0.013	0.007	-	-	-	1,613
Reefers	-	-	-	0.07	0.17	0.07	781
Terminal Electrical Consumption	15,565	0.13	0.07	-	-	-	15,590
Project Year 2010 Total	224,760	35	14	0.07	0.17	0.07	230,680
Net Change from 2005 CEQA Baseline	40,916	(2)	(2)	0.01	0.03	0.02	40,309
Net Change from NEPA Baseline Year 2010	6,137	0	0	(0.001)	(0.002)	(0.001)	6,151
Project Year 2015							
Ships - Fairway Transit (1)	27,315	3.77	0.27	-	-	-	27,477
Ships - Precautionary Area Transit (1)	2,346	0.32	0.02	-	-	-	2,360
Ships - Harbor Transit (1)	1,907	0.26	0.02	-	-	-	1,918
Ships - Docking (1)	638	0.09	0.01	-	-	-	642
Ships - Hoteling Aux. Sources	6,495	0.84	0.02	-	-	-	6,518
Ships Sub Total	38,701	5.27	0.33	-	-	-	38,914
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	18,267	2.64	0.19	-	-	-	18,380
On-road Trucks	120,787	23.01	11.51	-	-	-	124,838
Trains	65,807	9.21	0.65	-	-	-	66,201
Railyard Equipment	2,811	0.41	0.03	-	-	-	2,829
Commuting	2,327	0.43	0.41	-	-	-	2,464
Cold-Iron	3,250	0.027	0.015	-	-	-	3,256
Reefers	-	-	-	0.10	0.23	0.10	1,071
Terminal Electrical Consumption	23,800	0.20	0.11	-	-	-	23,838
Project Year 2015 Total	276,428	41	13	0.10	0.23	0.10	282,471
Net Change from 2005 CEQA Baseline	92,583	5	(3)	0.04	0.10	0.04	92,100
Net Change from NEPA Baseline Year 2015	(4,655)	(1)	(2)	0.001	0.002	0.001	(5,344)

Project Year 2020							
Ships - Fairway Transit (1)	28,431	3.92	0.28	-	-	-	28,600
Ships - Precautionary Area Transit (1)	2,455	0.34	0.02	-	-	-	2,469
Ships - Harbor Transit (1)	2,033	0.28	0.02	-	-	-	2,044
Ships - Docking (1)	680	0.09	0.01	-	-	-	684
Ships - Hoteling Aux. Sources	6,412	0.83	0.02	-	-	-	6,435
Ships Sub Total	40,011	5.46	0.34	-	-	-	40,233
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	10,409	1.50	0.11	-	-	-	10,474
On-road Trucks	131,616	24.18	12.09	-	-	-	135,872
Trains	84,159	11.78	0.83	-	-	-	84,664
Railyard Equipment	1,410	0.20	0.01	-	-	-	1,419
Commuting	2,328	0.43	0.41	-	-	-	2,465
Cold-Iron + Electrify RMGs	11,305	0.094	0.052	-	-	-	11,323
Reefers	-	-	-	0.11	0.26	0.12	1,218
Terminal Electrical Consumption	28,606	0.24	0.13	-	-	-	28,651
Project Year 2020 Total	310,521	44	14	0.11	0.26	0.12	316,999
Net Change from 2005 CEQA Baseline	126,676	7	(3)	0.05	0.13	0.06	126,628
Net Change from NEPA Baseline Year 2020	(19,143)	(4)	(3)	(0.001)	(0.003)	(0.002)	(20,235)
Project Year 2030							
Ships - Fairway Transit (1)	37,174	5.13	0.37	-	-	-	37,396
Ships - Precautionary Area Transit (1)	3,194	0.44	0.03	-	-	-	3,212
Ships - Harbor Transit (1)	2,575	0.35	0.02	-	-	-	2,589
Ships - Docking (1)	860	0.12	0.01	-	-	-	865
Ships - Hoteling Aux. Sources	8,796	1.14	0.02	-	-	-	8,827
Ships Sub Total	52,599	7.17	0.45	-	-	-	52,888
Tugboats - Cargo Vessel Assist (1)	947	0.13	0.01	-	-	-	953
Terminal Equipment	12,560	1.81	0.13	-	-	-	12,638
On-road Trucks	170,337	31.03	15.52	-	-	-	175,799
Trains	83,403	11.68	0.82	-	-	-	83,903
Railyard Equipment	1,504	0.22	0.02	-	-	-	1,514
Commuting	2,958	0.54	0.52	-	-	-	3,132
Cold-Iron + Electrify RMGs	14,378	0.120	0.066	-	-	-	14,401
Reefers	-	-	-	0.13	0.30	0.13	1,407
Terminal Electrical Consumption	31,034	0.26	0.14	-	-	-	31,084
Project Year 2030 Total	369,721	53	18	0.13	0.30	0.13	377,718
Net Change from 2005 CEQA Baseline	185,877	16	1	0.07	0.17	0.07	187,347
Net Change from NEPA Baseline Year 2030	(20,883)	(4)	(3)	(0.002)	(0.004)	(0.002)	(22,040)

Note: (1) Includes auxiliary generator emissions.

Daily Emissions	CO2	CH4	N2O	HFC-125	HFC-134a	HFC-143a	CO2e
NEPA Baseline - Year 2010	218,623	35	14	0.07	0.17	0.08	224,529
NEPA Baseline - Year 2015	281,083	43	15	0.10	0.23	0.10	287,815
NEPA Baseline - Year 2020	329,664	48	17	0.11	0.27	0.12	337,234
NEPA Baseline - Year 2030	390,604	57	21	0.13	0.31	0.14	399,758

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Table A.1.3.1-Alt3-1. Annual Cargo Vessel GHGs within the Fairway Zone - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 4,000 - 4,999 TEU	7,299.80	1.01	0.07
Subtotal	17,837.85	2.46	0.18
Project Year 2015			
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 7,000 - 7,999 TEU	5,069.92	0.70	0.05
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 4,000 - 4,999 TEU	3,649.90	0.50	0.04
Containerships 3,000 - 3,999 TEU	3,417.46	0.47	0.03
Subtotal	22,675.34	3.13	0.22
Project Year 2020			
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 7,000 - 7,999 TEU	5,069.92	0.70	0.05
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 5,000 - 5,999 TEU	4,201.38	0.58	0.04
Containerships 4,000 - 4,999 TEU	3,649.90	0.50	0.04
Containerships 3,000 - 3,999 TEU	3,417.46	0.47	0.03
Subtotal	26,876.72	3.71	0.27
Project Year 2030			
Containerships 8,000 - 9,999 TEU	5,645.49	0.78	0.06
Containerships 7,000 - 7,999 TEU	5,069.92	0.70	0.05
Containerships 6,000 - 6,999 TEU	4,892.57	0.67	0.05
Containerships 5,000 - 5,999 TEU	4,201.38	0.58	0.04
Containerships 4,000 - 4,999 TEU	7,299.80	1.01	0.07
Containerships 3,000 - 3,999 TEU	6,834.92	0.94	0.07
Subtotal	33,944.08	4.68	0.33

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt3-2. Annual OGV GHGs - Precautionary Area - POLB - MHTP- Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	999.88	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,271.05	0.18	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 5,000 - 5,999 TEU	235.50	0.03	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,506.55	0.21	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 5,000 - 5,999 TEU	235.50	0.03	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Containerships 3,000 - 3,999 TEU	383.13	0.05	0.00
Subtotal	1,902.70	0.26	0.02

Table A.1.3.1-Alt3-3. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	268.94	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	342.35	0.05	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 5,000 - 5,999 TEU	65.66	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	408.00	0.06	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 5,000 - 5,999 TEU	65.66	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Containerships 3,000 - 3,999 TEU	98.82	0.01	0.00
Subtotal	510.93	0.07	0.01

Table A.1.3.1-Alt3-4. Annual Cargo Vessel GHGs for Docking Activities - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	73.80	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	92.15	0.01	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 5,000 - 5,999 TEU	18.61	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	110.76	0.02	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 5,000 - 5,999 TEU	18.61	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Containerships 3,000 - 3,999 TEU	22.50	0.00	0.00
Subtotal	136.44	0.02	0.00

Table A.1.3.1-Alt3-5. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 4,000 - 4,999 TEU	1,981.83	0.27	0.02
Subtotal	5,826.03	0.80	0.06
Project Year 2015			
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 7,000 - 7,999 TEU	1,821.01	0.25	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 4,000 - 4,999 TEU	990.92	0.14	0.01
Containerships 3,000 - 3,999 TEU	714.59	0.10	0.01
Subtotal	7,370.72	1.01	0.07
Project Year 2020			
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 7,000 - 7,999 TEU	1,821.01	0.25	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 5,000 - 5,999 TEU	1,398.16	0.19	0.01
Containerships 4,000 - 4,999 TEU	990.92	0.14	0.01
Containerships 3,000 - 3,999 TEU	714.59	0.10	0.01
Subtotal	8,768.88	1.21	0.09
Project Year 2030			
Containerships 8,000 - 9,999 TEU	2,023.19	0.28	0.02
Containerships 7,000 - 7,999 TEU	1,821.01	0.25	0.02
Containerships 6,000 - 6,999 TEU	1,821.01	0.25	0.02
Containerships 5,000 - 5,999 TEU	1,398.16	0.19	0.01
Containerships 4,000 - 4,999 TEU	1,981.83	0.27	0.02
Containerships 3,000 - 3,999 TEU	1,429.18	0.20	0.01
Subtotal	10,474.39	1.44	0.10

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt3-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 5,000 - 5,999 TEU	195.67	0.03	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,227.20	0.17	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 5,000 - 5,999 TEU	195.67	0.03	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Containerships 3,000 - 3,999 TEU	200.01	0.03	0.00
Subtotal	1,465.88	0.20	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt3-7. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 5,000 - 5,999 TEU	295.18	0.04	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,840.75	0.25	0.02
Project Year 2030			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 5,000 - 5,999 TEU	295.18	0.04	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Containerships 3,000 - 3,999 TEU	280.61	0.04	0.00
Subtotal	2,190.26	0.30	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt3-8. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 5,000 - 5,999 TEU	102.49	0.01	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	639.15	0.09	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 5,000 - 5,999 TEU	102.49	0.01	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Containerships 3,000 - 3,999 TEU	97.43	0.01	0.00
Subtotal	760.51	0.10	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt3-9. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	2,803.88	0.39	0.03
Containerships 6,000 - 6,999 TEU	2,523.68	0.35	0.02
Containerships 4,000 - 4,999 TEU	3,112.76	0.43	0.03
Subtotal	8,440.32	1.16	0.08
Project Year 2015			
Containerships 8,000 - 9,999 TEU	398.84	0.05	0.00
Containerships 7,000 - 7,999 TEU	358.99	0.05	0.00
Containerships 6,000 - 6,999 TEU	358.99	0.05	0.00
Containerships 4,000 - 4,999 TEU	221.39	0.03	0.00
Containerships 3,000 - 3,999 TEU	187.83	0.03	0.00
Subtotal	1,526.04	0.21	0.02
Project Year 2020			
Containerships 8,000 - 9,999 TEU	398.84	0.05	0.00
Containerships 7,000 - 7,999 TEU	358.99	0.05	0.00
Containerships 6,000 - 6,999 TEU	358.99	0.05	0.00
Containerships 5,000 - 5,999 TEU	277.76	0.04	0.00
Containerships 4,000 - 4,999 TEU	221.39	0.03	0.00
Containerships 3,000 - 3,999 TEU	183.18	0.03	0.00
Subtotal	1,799.15	0.25	0.02
Project Year 2030			
Containerships 8,000 - 9,999 TEU	388.97	0.05	0.00
Containerships 7,000 - 7,999 TEU	350.10	0.05	0.00
Containerships 6,000 - 6,999 TEU	350.10	0.05	0.00
Containerships 5,000 - 5,999 TEU	277.76	0.04	0.00
Containerships 4,000 - 4,999 TEU	431.82	0.06	0.00
Containerships 3,000 - 3,999 TEU	366.36	0.05	0.00
Subtotal	2,165.09	0.30	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths
year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducting hoteling aux. gen. emissions

Table A.1.3.1-Alt3-10. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 5,000 - 5,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	334.18	0.04	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 5,000 - 5,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Containerships 3,000 - 3,999 TEU	111.39	0.01	0.00
Subtotal	445.57	0.06	0.00

Table A.1.3.1-Alt3-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 5,000 - 5,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	252.07	0.03	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 5,000 - 5,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Containerships 3,000 - 3,999 TEU	84.02	0.01	0.00
Subtotal	336.09	0.04	0.00

Table A.1.3.1-Alt3-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 5,000 - 5,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	87.52	0.01	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 5,000 - 5,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Containerships 3,000 - 3,999 TEU	29.17	0.00	0.00
Subtotal	116.70	0.01	0.00

Table A.1.3.1-Alt3-13. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 6,000 - 6,999 TEU	1,307.59	0.17	0.00
Containerships 4,000 - 4,999 TEU	2,615.19	0.33	0.00
Subtotal	5,230.38	0.67	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 7,000 - 7,999 TEU	1,307.59	0.17	0.00
Containerships 6,000 - 6,999 TEU	1,307.59	0.17	0.00
Containerships 4,000 - 4,999 TEU	1,307.59	0.17	0.00
Containerships 3,000 - 3,999 TEU	1,307.59	0.17	0.00
Subtotal	6,537.97	0.83	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 7,000 - 7,999 TEU	1,307.59	0.17	0.00
Containerships 6,000 - 6,999 TEU	1,307.59	0.17	0.00
Containerships 5,000 - 5,999 TEU	1,275.21	0.16	0.00
Containerships 4,000 - 4,999 TEU	1,307.59	0.17	0.00
Containerships 3,000 - 3,999 TEU	1,275.21	0.16	0.00
Subtotal	7,780.80	0.99	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	1,275.21	0.16	0.00
Containerships 7,000 - 7,999 TEU	1,275.21	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,275.21	0.16	0.00
Containerships 5,000 - 5,999 TEU	1,275.21	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,550.42	0.32	0.00
Containerships 3,000 - 3,999 TEU	2,550.42	0.32	0.00
Subtotal	10,201.69	1.30	0.01

Table A.1.3.1-Alt3-14. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	795.67	0.11	0.01
Project Year 2030	1,060.89	0.15	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt3-15. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	97.33	0.01	0.00
Project Year 2030	129.78	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt3-16. Annual Vessel GHGs - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
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			
Project Year 2010			
Ships - Fairway Transit (1)	23,663.89	3.26	0.23
Ships - Precautionary Area Transit (1)	2,038.02	0.28	0.02
Ships - Harbor Transit (1)	1,667.00	0.23	0.01
Ships - Docking (1)	559.24	0.08	0.00
Ships - Hoteling Aux. Sources	13,670.70	1.83	0.09
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	42,194.17	5.75	0.37
Project Year 2015			
Ships - Fairway Transit (1)	30,046.05	4.14	0.30
Ships - Precautionary Area Transit (1)	2,581.05	0.35	0.02
Ships - Harbor Transit (1)	2,097.97	0.29	0.02
Ships - Docking (1)	701.74	0.10	0.01
Ships - Hoteling Aux. Sources	8,064.01	1.04	0.02
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	44,235.00	6.02	0.37
Project Year 2020			
Ships - Fairway Transit (1)	35,645.60	4.91	0.35
Ships - Precautionary Area Transit (1)	3,067.93	0.42	0.03
Ships - Harbor Transit (1)	2,500.82	0.34	0.02
Ships - Docking (1)	837.43	0.11	0.01
Ships - Hoteling Aux. Sources	9,579.95	1.24	0.02
Tugboats - Cargo Vessel Assist (1)	893.00	0.12	0.01
Subtotal	52,524.73	7.15	0.44
Project Year 2030			
Ships - Fairway Transit (1)	44,418.46	6.12	0.44
Ships - Precautionary Area Transit (1)	3,814.16	0.52	0.03
Ships - Harbor Transit (1)	3,037.28	0.41	0.03
Ships - Docking (1)	1,013.65	0.14	0.01
Ships - Hoteling Aux. Sources	12,366.78	1.60	0.03
Tugboats - Cargo Vessel Assist (1)	1,190.67	0.16	0.01
Subtotal	65,841.00	8.96	0.55

Note: (1) Includes auxiliary power emissions.

Table A.1.3.1-Alt3-17. Annual Operational GHGs - POLB - MHTP - Mitigated Alternative 3.

Project Scenario/Ship Type	*Annual Ship Visits*	*Annual Shifts*	*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 3,000-5,00
Middle Harbor. Thrghput 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.1.3.1-Alt3-18. Train Trip Generation Rates - Mitigated Alternative 3

Project Scenario/Rail Yard	*Annual Round Trips*
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.1.3.1-Alt3-19. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 3 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.59	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.52	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	2,529.43	0.35	0.02
Haul Line Locomotive - Swiching	108.53	0.02	0.00
Yard Locomotive	24.78	0.00	0.00
Subtotal	2,703.84	0.38	0.03
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.59	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.52	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	2,529.43	0.35	0.02
Haul Line Locomotive - Swiching	43.41	0.01	0.00
Yard Locomotive	24.78	0.00	0.00
Subtotal	2,638.72	0.37	0.03
Total Tons Per Year	5,342.56	0.75	0.05

Table A.1.3.1-Alt3-20. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Mitigated Alternative 3 Year 2010.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	232,501	145.65	0.02	0.00
Yard Tractor	151,701	95.03	0.01	0.00
Subtotal	384,203	240.68	0.03	0.00

Table A.1.3.1-Alt3-21. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 3 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	112.67	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	255.24	0.04	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	22,640.47	3.17	0.22
Haul Line Locomotive - Swiching	971.45	0.14	0.01
Yard Locomotive	221.76	0.03	0.00
Subtotal	24,201.59	3.39	0.24
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	112.67	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	255.24	0.04	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	22,640.47	3.17	0.22
Haul Line Locomotive - Swiching	388.58	0.05	0.00
Yard Locomotive	221.76	0.03	0.00
Subtotal	23,618.72	3.31	0.23
Total Tons Per Year	47,820.32	6.70	0.47

Table A.1.3.1-Alt3-22. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Mitigated Alternative 3 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	2,960,195	1,854.36	0.27	0.02
Yard Tractor	1,931,453	1,209.93	0.17	0.01
Subtotal	4,891,648	3,064.29	0.44	0.03

Table A.1.3.1-Alt3-23. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 3 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	145.69	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	330.04	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	29,275.04	4.10	0.29
Haul Line Locomotive - Swiching	1,256.12	0.18	0.01
Yard Locomotive	286.74	0.04	0.00
Subtotal	31,293.64	4.38	0.31
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	145.69	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	330.04	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	29,275.04	4.10	0.29
Haul Line Locomotive - Swiching	502.45	0.07	0.00
Yard Locomotive	286.74	0.04	0.00
Subtotal	30,539.96	4.28	0.30
Total Tons Per Year	61,833.60	8.66	0.61

Table A.1.3.1-Alt3-24. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Mitigated Alternative 3 Year 2020.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,844,752	-	-	-
Yard Tractor	2,508,605	1,571.47	0.23	0.02
Subtotal	6,353,357	1,571.47	0.23	0.02

Table A.1.3.1-Alt3-25. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 3 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	142.39	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	322.56	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	28,611.59	4.01	0.28
Haul Line Locomotive - Swiching	1,227.65	0.17	0.01
Yard Locomotive	280.24	0.04	0.00
Subtotal	30,584.43	4.28	0.30
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	142.39	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	322.56	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	28,611.59	4.01	0.28
Haul Line Locomotive - Swiching	491.06	0.07	0.00
Yard Locomotive	280.24	0.04	0.00
Subtotal	29,847.84	4.18	0.29
Total Tons Per Year	60,432.27	8.46	0.60

Table A.1.3.1-Alt3-26. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Project Mitigated Alternative 3 Year 2030.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,376,627	-	-	-
Yard Tractor	2,678,109	1,677.66	0.24	0.02
Subtotal	7,054,736	1,677.66	0.24	0.02

Table A.1.3.1-Alt3-27. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 3.

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	7.04	15.32	106.08
Railyard Equipment	0.83	2.14	18.51
Subtotal	7.87	17.45	124.59
Project Year 2010			
Trains	5,342.56	0.75	0.05
Railyard Equipment	240.68	0.03	0.00
Subtotal	5,583.24	0.78	0.06
Project Year 2015			
Trains	47,820.32	6.70	0.47
Railyard Equipment	3,064.29	0.44	0.03
Subtotal	50,884.61	7.14	0.50
Project Year 2020			
Trains	61,833.60	8.66	0.61
Railyard Equipment	1,571.47	0.23	0.02
Subtotal	63,405.07	8.88	0.63
Project Year 2030			
Trains - 2026	60,432.27	8.46	0.60
Railyard Equipment - 2030	1,677.66	0.24	0.02
Subtotal	62,109.93	8.70	0.61

Table A.1.3.1-Alt3-28. Annual Truck GHGs - POLB - MHTP - Mitigated Alternative 3.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,084.68	22.1	11.0
Year 2005 - Driving	2,098.50	5.5	2.7
Subtotal - Year 2005	5,183.18	27.51	13.75
Year 2010 - Idling	1,860.87	13.3	6.7
Year 2010 - Driving	2,643.50	6.9	3.4
Subtotal - Year 2010	4,504.37	20.18	10.09
Year 2015 - Idling	1,962.91	14.0	7.0
Year 2015 - Driving	2,788.45	7.3	3.6
Subtotal - Year 2015	4,751.36	21.28	10.64
Year 2020 - Idling	2,193.84	15.7	7.8
Year 2020 - Driving	3,116.50	8.1	4.1
Subtotal - Year 2020	5,310.35	23.79	11.89
Year 2030 - Idling	2,690.61	19.2	9.6
Year 2030 - Driving	3,822.20	9.9	5.0
Subtotal - Year 2030	6,512.81	29.18	14.59
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	5.85	2.92
Subtotal - Year 2010	120,030	6.96	3.48
Subtotal - Year 2015	126,957	7.36	3.68
Subtotal - Year 2020	143,017	8.00	4.00
Subtotal - Year 2030	178,571	9.99	4.99
Off-Terminal - Between SCAB and Cal Border			
Subtotal - Year 2005	29,814	1.77	0.89
Subtotal - Year 2010	31,038	1.84	0.92
Subtotal - Year 2015	32,740	1.95	0.97
Subtotal - Year 2020	36,592	2.17	1.09
Subtotal - Year 2030	44,878	2.67	1.33

Table A.1.3.1-Alt3-29. Terminal Equipment Annual GHGs - POLB - MHTP - Mitigated Alternative 3.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	10,635,802	6,662.62	0.96	0.07
Top-Pick	2,996,680	1,877.22	0.27	0.02
Side-Pick	1,520,160	952.28	0.14	0.01
Yard Tractor (CY)	4,592,402	2,876.83	0.42	0.03
Subtotal	19,745,043	12,368.95	1.78	0.13
Pier F				
RTG (CY)	2,227,348	1,395.28	0.20	0.01
Top-Pick	745,076	466.74	0.07	0.00
Side-Pick	546,883	342.59	0.05	0.00
Yard Tractor (CY)	1,803,890	1,130.02	0.16	0.01
Subtotal	5,323,196	3,334.63	0.48	0.03
Subtotal - Project Year 2010	25,068,239	15,703.57	2.27	0.16
Project Year 2015				
RTG (CY)	11,866,408	7,433.51	1.07	0.08
Top-Pick	4,057,824	2,541.95	0.37	0.03
Side-Pick	2,801,045	1,754.67	0.25	0.02
Yard Tractor (CY)	8,506,304	5,328.63	0.77	0.05
Subtotal - Project Year 2015	27,231,581	17,058.76	2.46	0.17
Project Year 2020				
RTG (CY)	17,266,969	-	-	-
Top-Pick	6,034,521	3,780.22	0.55	0.04
Side-Pick	3,263,845	2,044.58	0.30	0.02
Yard Tractor (CY)	9,896,196	6,199.30	0.89	0.06
Subtotal - Project Year 2020	36,461,531	12,024.11	1.73	0.12
Project Year 2030				
RTG (CY)	22,886,895	-	-	-
Top-Pick	7,776,791	4,871.64	0.70	0.05
Side-Pick	3,937,795	2,466.76	0.36	0.03
Yard Tractor (CY)	11,431,735	7,161.22	1.03	0.07
Subtotal - Project Year 2030	46,033,216	14,499.62	2.09	0.15

Table A.1.3.1-Alt3-30. GHG Emissions from Cold-ironing and RMG Electricity Consumption - POLB MHTP - Mitigated Alternative 3.

Application/Project Year	Electrical Usage (MW-Hr/yr)	CO2	CH4	N2O
		GHG Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		GHG (Tons Per Year)		
Cold-Ironing				
2010	4,688	1,886	0.016	0.009
2015	10,032	4,036	0.034	0.019
2020	21,289	8,564	0.071	0.039
2030	26,101	10,500	0.087	0.048
Electrify RMGs				
Container Yard - 2020	12,886	5,184	0.04	0.02
Rail Yard - 2020	2,869	1,154	0.01	0.01
Container Yard - 2030	17,080	6,871	0.06	0.03
Rail Yard - 2030	3,266	1,314	0.01	0.01
Annual Totals				
2010	4,688	1,886	0.02	0.01
2015	10,032	4,036	0.03	0.02
2020	37,044	14,902	0.12	0.07
2030	46,447	18,684	0.16	0.09

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.1-Alt3-31. Annual Operational GHGs - POLB - MHTP - Mitigated Alternative 3.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	43,022	17,306	0.14	0.08
2015	64,485	25,941	0.22	0.12
2020	79,236	31,874	0.27	0.15
2030	86,045	34,613	0.29	0.16

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subse
scaled up by the relative number of annual TEU movements.

Table A.1.3.1-Alt3-32. Annual Operational GHGs - POLB - MHTP - Mitigated Alternative 3.

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Year 2005 Baseline							
Ships - Fairway Transit (1)	7,095	0.88	0.06	-	-	-	7,132
Ships - Precautionary Area Transit (1)	1,148	0.11	0.01	-	-	-	1,153
Ships - Harbor Transit (1)	815	0.04	0.00	-	-	-	816
Ships - Docking (1)	272	0.01	0.00	-	-	-	272
Ships - Hoteling Aux. Sources	19,067	0.79	0.01	-	-	-	19,086
Ships Sub Total	28,397	1.83	0.08	-	-	-	28,458
Tugboats - Cargo Vessel Assist (1)	478	0.07	0.00	-	-	-	481
Terminal Equipment	9,910	1.43	0.10	-	-	-	9,971
On-road Trucks	123,451	31.93	15.97	-	-	-	129,071
Trains	6,213	0.87	0.06	-	-	-	6,250
Railyard Equipment	575	0.08	0.01	-	-	-	579
Commuting	1,690	0.31	0.30	-	-	-	1,789
Reefers	-	-	-	0.06	0.13	0.06	620
Terminal Electrical Consumption	13,131	0.11	0.06	-	-	-	13,152
Year 2005 Total	183,844	37	17	0.06	0.13	0.06	190,371
Project Year 2010							
Ships - Fairway Transit (1)	21,513	2.97	0.21	-	-	-	21,641
Ships - Precautionary Area Transit (1)	1,853	0.25	0.02	-	-	-	1,863
Ships - Harbor Transit (1)	1,515	0.21	0.01	-	-	-	1,524
Ships - Docking (1)	508	0.07	0.00	-	-	-	511
Ships - Hoteling Aux. Sources	12,428	1.66	0.08	-	-	-	12,488
Ships Sub Total	37,817	5.16	0.33	-	-	-	38,027
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	14,276	2.06	0.15	-	-	-	14,364
On-road Trucks	141,430	26.35	13.17	-	-	-	146,067
Trains	4,857	0.68	0.05	-	-	-	4,886
Railyard Equipment	219	0.03	0.00	-	-	-	220
Commuting	2,035	0.37	0.36	-	-	-	2,155
Cold-Iron	1,715	0.014	0.008	-	-	-	1,717
Reefers	-	-	-	0.07	0.17	0.08	790
Terminal Electrical Consumption	15,733	0.13	0.07	-	-	-	15,758
Project Year 2010 Total	218,623	35	14	0.07	0.17	0.08	224,529
Net Change from 2005 CEQA Baseline	34,778	(2)	(2)	0.02	0.04	0.02	34,158
Net Change from NEPA Baseline Year 2010	-	-	-	-	-	-	-
Project Year 2015							
Ships - Fairway Transit (1)	27,315	3.77	0.27	-	-	-	27,477
Ships - Precautionary Area Transit (1)	2,346	0.32	0.02	-	-	-	2,360
Ships - Harbor Transit (1)	1,907	0.26	0.02	-	-	-	1,918
Ships - Docking (1)	638	0.09	0.01	-	-	-	642
Ships - Hoteling Aux. Sources	7,331	0.95	0.02	-	-	-	7,357
Ships Sub Total	39,537	5.38	0.33	-	-	-	39,753
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	15,508	2.24	0.16	-	-	-	15,604
On-road Trucks	149,498	27.81	13.91	-	-	-	154,393
Trains	43,473	6.09	0.43	-	-	-	43,734
Railyard Equipment	2,786	0.40	0.03	-	-	-	2,803
Commuting	2,353	0.43	0.42	-	-	-	2,491
Cold-Iron	3,669	0.031	0.017	-	-	-	3,675
Reefers	-	-	-	0.10	0.23	0.10	1,061
Terminal Electrical Consumption	23,582	0.20	0.11	-	-	-	23,620
Project Year 2015 Total	281,083	43	15	0.10	0.23	0.10	287,815
Net Change from 2005 CEQA Baseline	97,238	6	(1)	0.04	0.10	0.04	97,443
Net Change from NEPA Baseline Year 2015	-	-	-	0.00	0.00	0.00	-

Project Year 2020							
Ships - Fairway Transit (1)	32,405	4.47	0.32	-	-	-	32,598
Ships - Precautionary Area Transit (1)	2,789	0.38	0.02	-	-	-	2,805
Ships - Harbor Transit (1)	2,273	0.31	0.02	-	-	-	2,286
Ships - Docking (1)	761	0.10	0.01	-	-	-	766
Ships - Hoteling Aux. Sources	8,709	1.12	0.02	-	-	-	8,740
Ships Sub Total	46,938	6.39	0.39	-	-	-	47,194
Tugboats - Cargo Vessel Assist (1)	812	0.11	0.01	-	-	-	817
Terminal Equipment	10,931	1.58	0.11	-	-	-	10,999
On-road Trucks	168,108	30.87	15.44	-	-	-	173,542
Trains	56,212	7.87	0.55	-	-	-	56,549
Railyard Equipment	1,429	0.21	0.01	-	-	-	1,437
Commuting	2,710	0.50	0.48	-	-	-	2,869
Cold-Iron + RMG Electrification	13,547	0.113	0.062	-	-	-	13,569
Reefers	-	-	-	0.11	0.27	0.12	1,234
Terminal Electrical Consumption	28,977	0.24	0.13	-	-	-	29,023
Project Year 2020 Total	329,664	48	17	0.11	0.27	0.12	337,234
Net Change from 2005 CEQA Baseline	145,819	11	1	0.06	0.13	0.06	146,862
Net Change from NEPA Baseline Year 2020	-	-	-	-	-	-	-
Project Year 2030							
Ships - Fairway Transit (1)	40,380	5.57	0.40	-	-	-	40,621
Ships - Precautionary Area Transit (1)	3,467	0.47	0.03	-	-	-	3,487
Ships - Harbor Transit (1)	2,761	0.38	0.02	-	-	-	2,777
Ships - Docking (1)	921	0.13	0.01	-	-	-	927
Ships - Hoteling Aux. Sources	11,243	1.45	0.03	-	-	-	11,282
Ships Sub Total	58,773	7.99	0.49	-	-	-	59,093
Tugboats - Cargo Vessel Assist (1)	1,082	0.15	0.01	-	-	-	1,089
Terminal Equipment	13,181	1.90	0.13	-	-	-	13,263
On-road Trucks	209,056	38.03	19.01	-	-	-	215,748
Trains	54,938	7.69	0.54	-	-	-	55,268
Railyard Equipment	1,525	0.22	0.02	-	-	-	1,535
Commuting	3,595	0.66	0.64	-	-	-	3,806
Cold-Iron + RMG Electrification	16,986	0.141	0.078	-	-	-	17,013
Reefers	-	-	-	0.13	0.31	0.14	1,426
Terminal Electrical Consumption	31,467	0.26	0.14	-	-	-	31,517
Project Year 2030 Total	390,604	57	21	0.13	0.31	0.14	399,758
Net Change from 2005 CEQA Baseline	206,759	20	4	0.07	0.17	0.08	209,386
Net Change from NEPA Baseline Year 2030	-	-	-	-	-	-	-

Note: (1) Includes auxiliary generator emissions.

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Table A.1.3.1-Alt4U-1. Annual Cargo Vessel GHGs within the Fairway Zone - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 6,000 - 6,999 TEU	15,094.16	2.00	0.13
Containerships 4,000 - 4,999 TEU	28,607.34	3.78	0.25
Subtotal	64,489.24	8.53	0.57
Project Year 2015			
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 7,000 - 7,999 TEU	8,378.61	1.11	0.07
Containerships 6,000 - 6,999 TEU	26,953.87	3.56	0.24
Containerships 4,000 - 4,999 TEU	7,528.25	1.00	0.07
Containerships 3,000 - 3,999 TEU	5,879.20	0.78	0.05
Subtotal	69,527.66	9.20	0.62
Project Year 2020			
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 7,000 - 7,999 TEU	11,657.20	1.54	0.10
Containerships 6,000 - 6,999 TEU	28,750.79	3.80	0.26
Containerships 5,000 - 5,999 TEU	8,057.02	1.07	0.07
Containerships 4,000 - 4,999 TEU	10,539.55	1.39	0.09
Containerships 3,000 - 3,999 TEU	5,879.20	0.78	0.05
Subtotal	85,671.49	11.33	0.76
Project Year 2030			
Containerships 8,000 - 9,999 TEU	20,787.74	2.75	0.18
Containerships 7,000 - 7,999 TEU	16,028.65	2.12	0.14
Containerships 6,000 - 6,999 TEU	26,235.10	3.47	0.23
Containerships 5,000 - 5,999 TEU	14,874.49	1.97	0.13
Containerships 4,000 - 4,999 TEU	12,296.14	1.63	0.11
Containerships 3,000 - 3,999 TEU	9,658.69	1.28	0.09
Subtotal	99,880.80	13.21	0.89

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt4U-2. Annual OGV GHGs - Precautionary Area - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 6,000 - 6,999 TEU	233.56	0.03	0.00
Containerships 4,000 - 4,999 TEU	472.94	0.06	0.00
Subtotal	1,040.18	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	132.54	0.02	0.00
Containerships 6,000 - 6,999 TEU	417.08	0.06	0.00
Containerships 4,000 - 4,999 TEU	124.46	0.02	0.00
Containerships 3,000 - 3,999 TEU	108.76	0.01	0.00
Subtotal	1,116.51	0.15	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	184.40	0.02	0.00
Containerships 6,000 - 6,999 TEU	444.88	0.06	0.00
Containerships 5,000 - 5,999 TEU	124.16	0.02	0.00
Containerships 4,000 - 4,999 TEU	174.24	0.02	0.00
Containerships 3,000 - 3,999 TEU	108.76	0.01	0.00
Subtotal	1,370.12	0.18	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	253.56	0.03	0.00
Containerships 6,000 - 6,999 TEU	405.96	0.05	0.00
Containerships 5,000 - 5,999 TEU	229.22	0.03	0.00
Containerships 4,000 - 4,999 TEU	203.28	0.03	0.00
Containerships 3,000 - 3,999 TEU	178.68	0.02	0.00
Subtotal	1,604.37	0.21	0.01

Table A.1.3.1-Alt4U-3. Annual OGH GHGs for Transit - POLB Breakwater POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 6,000 - 6,999 TEU	64.68	0.01	0.00
Containerships 4,000 - 4,999 TEU	123.69	0.02	0.00
Subtotal	279.03	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	36.15	0.00	0.00
Containerships 6,000 - 6,999 TEU	115.51	0.02	0.00
Containerships 4,000 - 4,999 TEU	32.55	0.00	0.00
Containerships 3,000 - 3,999 TEU	28.05	0.00	0.00
Subtotal	302.91	0.04	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	50.29	0.01	0.00
Containerships 6,000 - 6,999 TEU	123.21	0.02	0.00
Containerships 5,000 - 5,999 TEU	34.61	0.00	0.00
Containerships 4,000 - 4,999 TEU	45.57	0.01	0.00
Containerships 3,000 - 3,999 TEU	28.05	0.00	0.00
Subtotal	372.39	0.05	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	69.15	0.01	0.00
Containerships 6,000 - 6,999 TEU	112.43	0.01	0.00
Containerships 5,000 - 5,999 TEU	63.90	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.17	0.01	0.00
Containerships 3,000 - 3,999 TEU	46.09	0.01	0.00
Subtotal	435.39	0.06	0.00

Table A.1.3.1-Alt4U-4. Annual Cargo Vessel GHGs for Docking Activities - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 6,000 - 6,999 TEU	18.33	0.00	0.00
Containerships 4,000 - 4,999 TEU	33.36	0.00	0.00
Subtotal	76.38	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	10.04	0.00	0.00
Containerships 6,000 - 6,999 TEU	32.74	0.00	0.00
Containerships 4,000 - 4,999 TEU	8.78	0.00	0.00
Containerships 3,000 - 3,999 TEU	6.39	0.00	0.00
Subtotal	82.63	0.01	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	13.97	0.00	0.00
Containerships 6,000 - 6,999 TEU	34.92	0.00	0.00
Containerships 5,000 - 5,999 TEU	9.81	0.00	0.00
Containerships 4,000 - 4,999 TEU	12.29	0.00	0.00
Containerships 3,000 - 3,999 TEU	6.39	0.00	0.00
Subtotal	102.07	0.01	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	19.21	0.00	0.00
Containerships 6,000 - 6,999 TEU	31.87	0.00	0.00
Containerships 5,000 - 5,999 TEU	18.11	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.34	0.00	0.00
Containerships 3,000 - 3,999 TEU	10.49	0.00	0.00
Subtotal	118.71	0.02	0.00

Table A.1.3.1-Alt4U-5. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 6,000 - 6,999 TEU	889.68	0.12	0.01
Containerships 4,000 - 4,999 TEU	1,341.77	0.18	0.01
Subtotal	3,469.43	0.48	0.03
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 7,000 - 7,999 TEU	490.59	0.07	0.00
Containerships 6,000 - 6,999 TEU	1,588.72	0.22	0.02
Containerships 4,000 - 4,999 TEU	353.10	0.05	0.00
Containerships 3,000 - 3,999 TEU	246.48	0.03	0.00
Subtotal	3,916.86	0.54	0.04
Project Year 2020			
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 7,000 - 7,999 TEU	682.55	0.09	0.01
Containerships 6,000 - 6,999 TEU	1,694.63	0.23	0.02
Containerships 5,000 - 5,999 TEU	422.32	0.06	0.00
Containerships 4,000 - 4,999 TEU	494.34	0.07	0.00
Containerships 3,000 - 3,999 TEU	246.48	0.03	0.00
Subtotal	4,778.31	0.66	0.05
Project Year 2030			
Containerships 8,000 - 9,999 TEU	1,237.98	0.17	0.01
Containerships 7,000 - 7,999 TEU	938.51	0.13	0.01
Containerships 6,000 - 6,999 TEU	1,546.35	0.21	0.02
Containerships 5,000 - 5,999 TEU	779.68	0.11	0.01
Containerships 4,000 - 4,999 TEU	576.73	0.08	0.01
Containerships 3,000 - 3,999 TEU	404.93	0.06	0.00
Subtotal	5,484.18	0.76	0.05

Note: (1) Assumes 100% usage of RFO @ 2.7% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.1-Alt4U-6. Annual Auxiliary Generator GHGs for Cargo Vesse
Transiting the Precautionary Area - POLB - MHTP -
Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	205.84	0.03	0.00
Containerships 4,000 - 4,999 TEU	304.02	0.04	0.00
Subtotal	793.01	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	112.72	0.02	0.00
Containerships 6,000 - 6,999 TEU	367.57	0.05	0.00
Containerships 4,000 - 4,999 TEU	80.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	53.85	0.01	0.00
Subtotal	897.29	0.12	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	156.83	0.02	0.00
Containerships 6,000 - 6,999 TEU	392.07	0.05	0.00
Containerships 5,000 - 5,999 TEU	97.84	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.01	0.02	0.00
Containerships 3,000 - 3,999 TEU	53.85	0.01	0.00
Subtotal	1,095.74	0.15	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	215.64	0.03	0.00
Containerships 6,000 - 6,999 TEU	357.77	0.05	0.00
Containerships 5,000 - 5,999 TEU	180.62	0.02	0.00
Containerships 4,000 - 4,999 TEU	130.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	88.47	0.01	0.00
Subtotal	1,256.32	0.17	0.01

Note: (1) Assumes 71/29% usage of RFO/MGO @ 2.7/0.5% sulfur (AEI page 72).

Table A.1.3.1-Alt4U-7. Annual Auxiliary Generator GHGs for Cargo Vesse
Transiting within the POLB Breakwater - POLB - MHTP -
Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	310.52	0.04	0.00
Containerships 4,000 - 4,999 TEU	458.64	0.06	0.00
Subtotal	1,196.31	0.16	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	170.05	0.02	0.00
Containerships 6,000 - 6,999 TEU	554.51	0.08	0.01
Containerships 4,000 - 4,999 TEU	120.70	0.02	0.00
Containerships 3,000 - 3,999 TEU	75.55	0.01	0.00
Subtotal	1,347.94	0.19	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	236.59	0.03	0.00
Containerships 6,000 - 6,999 TEU	591.47	0.08	0.01
Containerships 5,000 - 5,999 TEU	147.59	0.02	0.00
Containerships 4,000 - 4,999 TEU	168.97	0.02	0.00
Containerships 3,000 - 3,999 TEU	75.55	0.01	0.00
Subtotal	1,647.32	0.23	0.02
Project Year 2030			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	325.31	0.04	0.00
Containerships 6,000 - 6,999 TEU	539.72	0.07	0.01
Containerships 5,000 - 5,999 TEU	272.48	0.04	0.00
Containerships 4,000 - 4,999 TEU	197.14	0.03	0.00
Containerships 3,000 - 3,999 TEU	124.12	0.02	0.00
Subtotal	1,885.90	0.26	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt4U-8. Annual Auxiliary Generator GHGs for Cargo Vesse
Docking within the POLB Breakwater - POLB - MHTP -
Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	107.82	0.01	0.00
Containerships 4,000 - 4,999 TEU	159.25	0.02	0.00
Subtotal	415.38	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	59.04	0.01	0.00
Containerships 6,000 - 6,999 TEU	192.54	0.03	0.00
Containerships 4,000 - 4,999 TEU	41.91	0.01	0.00
Containerships 3,000 - 3,999 TEU	26.23	0.00	0.00
Subtotal	468.04	0.06	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	82.15	0.01	0.00
Containerships 6,000 - 6,999 TEU	205.37	0.03	0.00
Containerships 5,000 - 5,999 TEU	51.25	0.01	0.00
Containerships 4,000 - 4,999 TEU	58.67	0.01	0.00
Containerships 3,000 - 3,999 TEU	26.23	0.00	0.00
Subtotal	571.99	0.08	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	112.95	0.02	0.00
Containerships 6,000 - 6,999 TEU	187.40	0.03	0.00
Containerships 5,000 - 5,999 TEU	94.61	0.01	0.00
Containerships 4,000 - 4,999 TEU	68.45	0.01	0.00
Containerships 3,000 - 3,999 TEU	43.10	0.01	0.00
Subtotal	654.83	0.09	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.1-Alt4U-9. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	3,988.45	0.55	0.04
Containerships 6,000 - 6,999 TEU	2,899.51	0.40	0.03
Containerships 4,000 - 4,999 TEU	4,853.58	0.67	0.05
Subtotal	11,741.53	1.62	0.12
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,994.22	0.27	0.02
Containerships 7,000 - 7,999 TEU	793.91	0.11	0.01
Containerships 6,000 - 6,999 TEU	2,588.85	0.36	0.03
Containerships 4,000 - 4,999 TEU	638.63	0.09	0.01
Containerships 3,000 - 3,999 TEU	505.69	0.07	0.00
Subtotal	6,521.31	0.90	0.06
Project Year 2020			
Containerships 8,000 - 9,999 TEU	797.69	0.11	0.01
Containerships 7,000 - 7,999 TEU	441.83	0.06	0.00
Containerships 6,000 - 6,999 TEU	1,104.57	0.15	0.01
Containerships 5,000 - 5,999 TEU	277.76	0.04	0.00
Containerships 4,000 - 4,999 TEU	357.63	0.05	0.00
Containerships 3,000 - 3,999 TEU	197.27	0.03	0.00
Subtotal	3,176.76	0.44	0.03
Project Year 2030			
Containerships 8,000 - 9,999 TEU	777.93	0.11	0.01
Containerships 7,000 - 7,999 TEU	592.47	0.08	0.01
Containerships 6,000 - 6,999 TEU	982.96	0.14	0.01
Containerships 5,000 - 5,999 TEU	512.79	0.07	0.01
Containerships 4,000 - 4,999 TEU	406.90	0.06	0.00
Containerships 3,000 - 3,999 TEU	324.08	0.04	0.00
Subtotal	3,597.15	0.50	0.04

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in

Table A.1.3.1-Alt4U-10. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	44.99	0.01	0.00
Containerships 4,000 - 4,999 TEU	122.10	0.02	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	24.63	0.00	0.00
Containerships 6,000 - 6,999 TEU	80.33	0.01	0.00
Containerships 4,000 - 4,999 TEU	32.13	0.00	0.00
Containerships 3,000 - 3,999 TEU	29.99	0.00	0.00
Subtotal	222.79	0.03	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	34.27	0.00	0.00
Containerships 6,000 - 6,999 TEU	85.69	0.01	0.00
Containerships 5,000 - 5,999 TEU	27.85	0.00	0.00
Containerships 4,000 - 4,999 TEU	44.99	0.01	0.00
Containerships 3,000 - 3,999 TEU	29.99	0.00	0.00
Subtotal	278.48	0.04	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	47.13	0.01	0.00
Containerships 6,000 - 6,999 TEU	78.19	0.01	0.00
Containerships 5,000 - 5,999 TEU	51.41	0.01	0.00
Containerships 4,000 - 4,999 TEU	52.48	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.27	0.01	0.00
Subtotal	334.18	0.04	0.00

Table A.1.3.1-Alt4U-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	33.93	0.00	0.00
Containerships 4,000 - 4,999 TEU	92.10	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	18.58	0.00	0.00
Containerships 6,000 - 6,999 TEU	60.59	0.01	0.00
Containerships 4,000 - 4,999 TEU	24.24	0.00	0.00
Containerships 3,000 - 3,999 TEU	22.62	0.00	0.00
Subtotal	168.04	0.02	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	25.85	0.00	0.00
Containerships 6,000 - 6,999 TEU	64.63	0.01	0.00
Containerships 5,000 - 5,999 TEU	21.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	33.93	0.00	0.00
Containerships 3,000 - 3,999 TEU	22.62	0.00	0.00
Subtotal	210.06	0.03	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	35.55	0.00	0.00
Containerships 6,000 - 6,999 TEU	58.98	0.01	0.00
Containerships 5,000 - 5,999 TEU	38.78	0.00	0.00
Containerships 4,000 - 4,999 TEU	39.59	0.01	0.00
Containerships 3,000 - 3,999 TEU	37.16	0.00	0.00
Subtotal	252.07	0.03	0.00

Table A.1.3.1-Alt4U-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	11.78	0.00	0.00
Containerships 4,000 - 4,999 TEU	31.98	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	6.45	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.04	0.00	0.00
Containerships 4,000 - 4,999 TEU	8.42	0.00	0.00
Containerships 3,000 - 3,999 TEU	7.85	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	8.98	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.44	0.00	0.00
Containerships 5,000 - 5,999 TEU	7.29	0.00	0.00
Containerships 4,000 - 4,999 TEU	11.78	0.00	0.00
Containerships 3,000 - 3,999 TEU	7.85	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	12.34	0.00	0.00
Containerships 6,000 - 6,999 TEU	20.48	0.00	0.00
Containerships 5,000 - 5,999 TEU	13.47	0.00	0.00
Containerships 4,000 - 4,999 TEU	13.75	0.00	0.00
Containerships 3,000 - 3,999 TEU	12.90	0.00	0.00
Subtotal	87.52	0.01	0.00

Table A.1.3.1-Alt4U-13. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 4. Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 6,000 - 6,999 TEU	1,056.13	0.13	0.00
Containerships 4,000 - 4,999 TEU	2,866.65	0.36	0.00
Subtotal	5,230.38	0.67	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 7,000 - 7,999 TEU	578.36	0.07	0.00
Containerships 6,000 - 6,999 TEU	1,885.95	0.24	0.00
Containerships 4,000 - 4,999 TEU	754.38	0.10	0.00
Containerships 3,000 - 3,999 TEU	704.09	0.09	0.00
Subtotal	5,230.38	0.67	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 7,000 - 7,999 TEU	804.67	0.10	0.00
Containerships 6,000 - 6,999 TEU	2,011.68	0.26	0.00
Containerships 5,000 - 5,999 TEU	637.61	0.08	0.00
Containerships 4,000 - 4,999 TEU	1,056.13	0.13	0.00
Containerships 3,000 - 3,999 TEU	686.65	0.09	0.00
Subtotal	6,504.34	0.83	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	1,275.21	0.16	0.00
Containerships 7,000 - 7,999 TEU	1,079.02	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,790.20	0.23	0.00
Containerships 5,000 - 5,999 TEU	1,177.12	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,201.64	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,128.07	0.14	0.00
Subtotal	7,651.27	0.97	0.01

Table A.1.3.1-Alt4U-14. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 4. Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	530.45	0.07	0.01
Project Year 2020	663.06	0.09	0.01
Project Year 2030	795.67	0.11	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt4U-15. Annual Auxiliary Generator GHGs for Tugboats during Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	64.89	0.01	0.00
Project Year 2020	81.11	0.01	0.00
Project Year 2030	97.33	0.01	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.1-Alt4U-16. Annual Vessel GHGs - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Ships - Fairway Transit (1)	9.61	21.91	254.41
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38
Ships - Harbor Transit (1)	2.76	4.26	32.76
Ships - Docking (1)	0.92	1.42	10.92
Ships - Hoteling Aux. Sources	9.72	34.60	348.50
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02
Subtotal	25.44	69.07	697.99
Project Year 2010			
Ships - Fairway Transit (1)	67,958.67	9.01	0.61
Ships - Precautionary Area Transit (1)	2,055.97	0.28	0.02
Ships - Harbor Transit (1)	1,643.38	0.22	0.01
Ships - Docking (1)	550.11	0.07	0.00
Ships - Hoteling Aux. Sources	16,971.91	2.28	0.12
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	89,775.39	11.94	0.77
Project Year 2015			
Ships - Fairway Transit (1)	73,444.53	9.73	0.66
Ships - Precautionary Area Transit (1)	2,236.59	0.30	0.02
Ships - Harbor Transit (1)	1,818.90	0.25	0.02
Ships - Docking (1)	609.02	0.08	0.01
Ships - Hoteling Aux. Sources	11,751.68	1.56	0.07
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	90,456.05	12.01	0.77
Project Year 2020			
Ships - Fairway Transit (1)	90,449.80	11.99	0.81
Ships - Precautionary Area Transit (1)	2,744.35	0.37	0.02
Ships - Harbor Transit (1)	2,229.76	0.30	0.02
Ships - Docking (1)	746.99	0.10	0.01
Ships - Hoteling Aux. Sources	9,681.10	1.26	0.04
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	106,596.17	14.13	0.90
Project Year 2030			
Ships - Fairway Transit (1)	105,364.98	13.97	0.94
Ships - Precautionary Area Transit (1)	3,194.86	0.43	0.03
Ships - Harbor Transit (1)	2,573.35	0.35	0.02
Ships - Docking (1)	861.06	0.12	0.01
Ships - Hoteling Aux. Sources	11,248.41	1.47	0.04
Tugboats - Cargo Vessel Assist (1)	893.00	0.12	0.01
Subtotal	124,135.67	16.45	1.05

Note: (1) Includes auxiliary power emissions.

Table A.1.3.1-Alt4U-17. Daily Vessel GHGs - POLB - MHTP - Unmitigated Alternative 4.

	Pounds Per Day		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Ships - Fairway Transit (1)	52.7	120.0	1,394.0
Ships - Precautionary Area Transit (1)	11.7	25.4	215.8
Ships - Harbor Transit (1)	15.1	23.4	179.5
Ships - Docking (1)	5.0	7.8	59.8
Ships - Hoteling Aux. Sources	53.3	189.6	1,909.6
Tugboats - Cargo Vessel Assist (1)	1.6	12.3	65.9
Subtotal	139	378	3,825
Project Year 2010			
Ships - Fairway Transit (1)	372,376.3	49.4	3.3
Ships - Precautionary Area Transit (1)	11,265.6	1.5	0.1
Ships - Harbor Transit (1)	9,004.8	1.2	0.1
Ships - Docking (1)	3,014.3	0.4	0.0
Ships - Hoteling Aux. Sources	92,996.8	12.5	0.7
Tugboats - Cargo Vessel Assist (1)	3,262.1	0.5	0.0
Subtotal	491,920	65	4
Project Year 2015			
Ships - Fairway Transit (1)	402,435.8	53.3	3.6
Ships - Precautionary Area Transit (1)	12,255.3	1.6	0.1
Ships - Harbor Transit (1)	9,966.6	1.4	0.1
Ships - Docking (1)	3,337.1	0.5	0.0
Ships - Hoteling Aux. Sources	64,392.8	8.6	0.4
Tugboats - Cargo Vessel Assist (1)	3,262.1	0.5	0.0
Subtotal	495,650	66	4
Project Year 2020			
Ships - Fairway Transit (1)	495,615.3	65.7	4.4
Ships - Precautionary Area Transit (1)	15,037.5	2.0	0.1
Ships - Harbor Transit (1)	12,217.9	1.7	0.1
Ships - Docking (1)	4,093.1	0.6	0.0
Ships - Hoteling Aux. Sources	53,047.1	6.9	0.2
Tugboats - Cargo Vessel Assist (1)	4,077.6	0.6	0.0
Subtotal	584,089	77	5
Project Year 2030			
Ships - Fairway Transit (1)	577,342.4	76.5	5.2
Ships - Precautionary Area Transit (1)	17,506.1	2.3	0.1
Ships - Harbor Transit (1)	14,100.6	1.9	0.1
Ships - Docking (1)	4,718.1	0.6	0.0
Ships - Hoteling Aux. Sources	61,635.1	8.0	0.2
Tugboats - Cargo Vessel Assist (1)	4,893.2	0.7	0.0
Subtotal	680,195	90	6

Note: (1) Includes auxiliary power emissions.

Table A.1.3.1-Alt4U-18. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 4.

Project Scenario/Ship Type	*Annual Ship Visits*	*Annual Shifts*	*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 T
Middle Harbor. Thrghput 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.1.3.1-Alt4U-19. Train Trip Generation Rates - Unmitigated Alternative 4.

Project Scenario/Rail Yard	*Annual Round Trips*
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.1.3.1-Alt4U-20. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	14.86	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corrido	33.66	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB bor	2,985.56	0.42	0.03
Haul Line Locomotive - Swiching	128.10	0.02	0.00
Yard Locomotive	29.24	0.00	0.00
Subtotal	3,191.42	0.45	0.03
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	14.86	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corrido	33.66	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB bor	2,985.56	0.42	0.03
Haul Line Locomotive - Swiching	51.24	0.01	0.00
Yard Locomotive	29.24	0.00	0.00
Subtotal	3,114.56	0.44	0.03
Total Tons Per Year	6,305.98	0.88	0.06

Table A.1.3.1-Alt4U-21. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2010.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	690,245	432.39	0.06	0.00
Yard Tractor	450,367	282.13	0.04	0.00
Subtotal	1,140,612	714.52	0.10	0.01

Table A.1.3.1-Alt4U-22. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	63.87	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corrido	144.69	0.02	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB bor	12,833.75	1.80	0.13
Haul Line Locomotive - Swiching	550.67	0.08	0.01
Yard Locomotive	125.70	0.02	0.00
Subtotal	13,718.67	1.92	0.14
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	63.87	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corrido	144.69	0.02	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB bor	12,833.75	1.80	0.13
Haul Line Locomotive - Swiching	220.27	0.03	0.00
Yard Locomotive	125.70	0.02	0.00
Subtotal	13,388.27	1.87	0.13
Total Tons Per Year	27,106.94	3.80	0.27

Table A.1.3.1-Alt4U-23. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 4 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	2,967,093	1,858.68	0.27	0.02
Yard Tractor	1,935,954	1,212.75	0.17	0.01
Subtotal	4,903,048	3,071.43	0.44	0.03

Table A.1.3.1-Alt4U-24. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	82.65	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corrido	187.23	0.03	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB bor	16,607.16	2.33	0.16
Haul Line Locomotive - Swiching	712.57	0.10	0.01
Yard Locomotive	162.66	0.02	0.00
Subtotal	17,752.27	2.49	0.18
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	82.65	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corrido	187.23	0.03	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB bor	16,607.16	2.33	0.16
Haul Line Locomotive - Swiching	285.03	0.04	0.00
Yard Locomotive	162.66	0.02	0.00
Subtotal	17,324.72	2.43	0.17
Total Tons Per Year	35,076.99	4.91	0.35

Table A.1.3.1-Alt4U-25. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2020.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,839,486	2,405.18	0.35	0.02
Yard Tractor	2,505,169	1,569.32	0.23	0.02
Subtotal	6,344,654	3,974.50	0.57	0.04

Table A.1.3.1-Alt4U-26. Annual Train GHGs - POLB - MHT - Project Unmitigated Alternative 4 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	81.10	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corrido	183.72	0.03	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB bor	16,296.16	2.28	0.16
Haul Line Locomotive - Swiching	699.23	0.10	0.01
Yard Locomotive	159.62	0.02	0.00
Subtotal	17,419.83	2.44	0.17
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	81.10	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corrido	183.72	0.03	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB bor	16,296.16	2.28	0.16
Haul Line Locomotive - Swiching	279.69	0.04	0.00
Yard Locomotive	159.62	0.02	0.00
Subtotal	17,000.29	2.38	0.17
Total Tons Per Year	34,420.12	4.82	0.34

Table A.1.3.1-Alt4U-27. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP- Unmitigated Alternative 4 Year 2030.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,767,585	2,360.14	0.34	0.02
Yard Tractor	2,458,256	1,539.93	0.22	0.02
Subtotal	6,225,841	3,900.07	0.56	0.04

Table A.1.3.1-Alt4U-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated Alternative 4.

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	7.04	15.32	106.08
Railyard Equipment	0.83	2.14	18.51
Subtotal	7.87	17.45	124.59
Project Year 2010			
Trains	6,305.98	0.88	0.06
Railyard Equipment	714.52	0.10	0.01
Subtotal	7,020.49	0.99	0.07
Project Year 2015			
Trains	27,106.94	3.80	0.27
Railyard Equipment	3,071.43	0.44	0.03
Subtotal	30,178.37	4.24	0.30
Project Year 2020			
Trains	35,076.99	4.91	0.35
Railyard Equipment	3,974.50	0.57	0.04
Subtotal	39,051.49	5.49	0.39
Project Year 2030			
Trains - 2026	34,420.12	4.82	0.34
Railyard Equipment - 2030	3,900.07	0.56	0.04
Subtotal	38,320.19	5.38	0.38

Table A.1.3.1-Alt4U-29. Annual Truck Emissions for the MHTP - Unmitigated Alternative 4.

Location/Project Scenario - Mode	Tons per Year		
	CO2	CH4	N2O
On-Terminal			
Year 2005 - Idling	3,084.68	22.1	11.0
Year 2005 - Driving	2,098.50	5.5	2.7
Subtotal - Year 2005	5,183.18	27.51	13.75
Year 2010 - Idling	1,747.23	12.5	6.2
Year 2010 - Driving	2,482.05	6.5	3.2
Subtotal - Year 2010	4,229.28	18.95	9.47
Year 2015 - Idling	1,844.71	13.2	6.6
Year 2015 - Driving	2,620.53	6.8	3.4
Subtotal - Year 2015	4,465.23	20.00	10.00
Year 2020 - Idling	2,221.48	15.9	7.9
Year 2020 - Driving	3,155.76	8.2	4.1
Subtotal - Year 2020	5,377.23	24.09	12.04
Year 2030 - Idling	2,627.00	18.8	9.4
Year 2030 - Driving	3,731.83	9.7	4.9
Subtotal - Year 2030	6,358.83	28.49	14.24
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	5.85	2.92
Subtotal - Year 2010	111,672	3.48	1.74
Subtotal - Year 2015	119,900	3.67	1.84
Subtotal - Year 2020	152,688	4.42	2.21
Subtotal - Year 2030	198,377	5.23	2.62
Off-Terminal - Between SCAB and Cal Border			
Subtotal - Year 2005	29,814	1.77	0.89
Subtotal - Year 2010	29,143	1.73	0.87
Subtotal - Year 2015	30,769	1.83	0.91
Subtotal - Year 2020	37,053	2.20	1.10
Subtotal - Year 2030	43,817	2.60	1.30

Table A.1.2-NB-30. Terminal Equipment Annual Emissions - POLB - MHTP - Unmitigated Alternative 4.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	4,140,183	2,593.55	0.37	0.03
Top-Pick	1,133,950	710.34	0.10	0.01
Side-Pick	861,436	539.63	0.08	0.01
Yard Tractor (CY)	2,745,917	1,720.13	0.25	0.02
Subtotal	8,881,486	5,563.66	0.80	0.06
Pier F				
RTG (CY)	3,971,171	2,487.67	0.36	0.03
Top-Pick	1,621,266	1,015.61	0.15	0.01
Side-Pick	883,044	553.17	0.08	0.01
Yard Tractor (CY)	3,307,639	2,072.01	0.30	0.02
Subtotal	9,783,120	6,128.47	0.88	0.06
Subtotal - Project Year 2010	18,664,606	11,692.12	1.69	0.12
Project Year 2015				
RTG (CY)	9,843,099	6,166.04	0.89	0.06
Top-Pick	3,343,445	2,094.44	0.30	0.02
Side-Pick	2,116,921	1,326.11	0.19	0.01
Yard Tractor (CY)	7,345,969	4,601.76	0.66	0.05
Subtotal - Project Year 2015	22,649,433	14,188.35	2.05	0.14
Project Year 2020				
RTG (CY)	12,017,599	7,528.22	1.09	0.08
Top-Pick	4,082,066	2,557.14	0.37	0.03
Side-Pick	2,584,583	1,619.07	0.23	0.02
Yard Tractor (CY)	8,968,812	5,618.36	0.81	0.06
Subtotal - Project Year 2020	27,653,061	17,322.79	2.50	0.18
Project Year 2030				
RTG (CY)	13,833,275	8,665.62	1.25	0.09
Top-Pick	4,698,804	2,943.49	0.42	0.03
Side-Pick	2,975,074	1,863.68	0.27	0.02
Yard Tractor (CY)	10,323,863	6,467.21	0.93	0.07
Subtotal - Project Year 2030	31,831,016	19,940.00	2.88	0.20

Table A.1.3.1-Alt4U-31. GHGs from Cold-ironing Electricity Consumption - POLB - MHTP - Unmitigated Alternative 4.

Project Year	Cold-ironing Usage (MWh/yr)	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2010	*15,438*	*6,210*	*0.052*	*0.029*
2015	8,574	*3,449*	*0.029*	*0.016*
2020	16,707	*6,721*	*0.056*	*0.031*
2030	18,918	*7,610*	*0.063*	*0.035*

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.1-Alt4U-32. GHGs from Terminal Electricity Consumption - POLB - MHTP - Unmitigated Alternative 4.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	40,707	16,375	0.14	0.08
2015	55,099	22,165	0.18	0.10
2020	71,066	28,588	0.24	0.13
2030	76,879	30,926	0.26	0.14

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A.1.3.1-Alt4U-33. Annual Operational GHGs - POLB - MHTP - Unmitigated Alternative 4.

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Year 2005 Baseline							
Ships - Fairway Transit (1)	7,095	0.88	0.06	-	-	-	7,132
Ships - Precautionary Area Transit (1)	1,148	0.11	0.01	-	-	-	1,153
Ships - Harbor Transit (1)	815	0.04	0.00	-	-	-	816
Ships - Docking (1)	272	0.01	0.00	-	-	-	272
Ships - Hoteling Aux. Sources	19,067	0.79	0.01	-	-	-	19,086
Ships Sub Total	28,397	1.83	0.08	-	-	-	28,458
Tugboats - Cargo Vessel Assist (1)	478	0.07	0.00	-	-	-	481
Terminal Equipment	9,910	1.43	0.10	-	-	-	9,971
On-road Trucks	123,451	31.93	15.97	-	-	-	129,071
Trains	6,213	0.87	0.06	-	-	-	6,250
Railyard Equipment	575	0.08	0.01	-	-	-	579
Commuting	1,690	0.31	0.30	-	-	-	1,789
Reefers	-	-	-	0.06	0.13	0.06	620
Terminal Electrical Consumption	13,131	0.11	0.06	-	-	-	13,152
Year 2005 Total	183,844	37	17	0.06	0.13	0.06	190,371
Project Year 2010							
Ships - Fairway Transit (1)	61,781	8.19	0.55	-	-	-	62,123
Ships - Precautionary Area Transit (1)	1,869	0.25	0.02	-	-	-	1,879
Ships - Harbor Transit (1)	1,494	0.20	0.01	-	-	-	1,502
Ships - Docking (1)	500	0.07	0.00	-	-	-	503
Ships - Hoteling Aux. Sources	15,429	2.07	0.11	-	-	-	15,507
Ships Sub Total	81,073	10.78	0.69	-	-	-	81,514
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	10,629	1.53	0.11	-	-	-	10,695
On-road Trucks	131,858	21.96	10.98	-	-	-	135,723
Trains	5,733	0.80	0.06	-	-	-	5,767
Railyard Equipment	650	0.09	0.01	-	-	-	654
Commuting	1,698	0.31	0.30	-	-	-	1,797
Cold-Iron	5,646	0.047	0.026	-	-	-	5,655
Reefers	-	-	-	0.07	0.16	0.07	747
Terminal Electrical Consumption	14,886	0.12	0.07	-	-	-	14,910
Project Year 2010 Total	252,713	36	12	0.07	0.16	0.07	258,007
Net Change from 2005 CEQA Baseline	68,869	(1)	(4)	0.01	0.03	0.01	67,635
Net Change from NEPA Baseline Year 2010	34,090	1	(2)	(0.004)	(0.01)	(0.004)	33,478
Project Year 2015							
Ships - Fairway Transit (1)	66,768	8.85	0.60	-	-	-	67,138
Ships - Precautionary Area Transit (1)	2,033	0.27	0.02	-	-	-	2,044
Ships - Harbor Transit (1)	1,654	0.22	0.01	-	-	-	1,663
Ships - Docking (1)	554	0.08	0.00	-	-	-	557
Ships - Hoteling Aux. Sources	10,683	1.42	0.06	-	-	-	10,733
Ships Sub Total	81,692	10.84	0.70	-	-	-	82,135
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	12,899	1.86	0.13	-	-	-	12,978
On-road Trucks	141,031	23.19	11.59	-	-	-	145,111
Trains	24,643	3.45	0.24	-	-	-	24,790
Railyard Equipment	2,792	0.40	0.03	-	-	-	2,810
Commuting	2,088	0.38	0.37	-	-	-	2,211
Cold-Iron	3,136	0.026	0.014	-	-	-	3,141
Reefers	-	-	-	0.08	0.20	0.09	907
Terminal Electrical Consumption	20,150	0.17	0.09	-	-	-	20,182
Project Year 2015 Total	288,970	40	13	0.08	0.20	0.09	294,809
Net Change from 2005 CEQA Baseline	105,126	4	(3)	0.03	0.06	0.03	104,437
Net Change from NEPA Baseline Year 2015	7,887	(2)	(2)	(0.01)	(0.03)	(0.01)	6,994

Project Year 2020							
Ships - Fairway Transit (1)	82,227	10.90	0.73	-	-	-	82,683
Ships - Precautionary Area Transit (1)	2,495	0.33	0.02	-	-	-	2,508
Ships - Harbor Transit (1)	2,027	0.28	0.02	-	-	-	2,038
Ships - Docking (1)	679	0.09	0.01	-	-	-	683
Ships - Hoteling Aux. Sources	8,801	1.15	0.03	-	-	-	8,836
Ships Sub Total	96,229	12.75	0.81	-	-	-	96,749
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	15,748	2.27	0.16	-	-	-	15,846
On-road Trucks	177,380	27.92	13.96	-	-	-	182,294
Trains	31,888	4.47	0.31	-	-	-	32,079
Railyard Equipment	3,613	0.52	0.04	-	-	-	3,636
Commuting	2,519	0.46	0.45	-	-	-	2,667
Cold-Iron	6,110	0.051	0.028	-	-	-	6,120
Reefers	-	-	-	0.10	0.24	0.11	1,107
Terminal Electrical Consumption	25,989	0.22	0.12	-	-	-	26,031
Project Year 2020 Total	360,153	49	16	0.10	0.24	0.11	367,208
Net Change from 2005 CEQA Baseline	176,309	12	(1)	0.04	0.11	0.05	176,837
Net Change from NEPA Baseline Year 2020	30,489	1	(1)	(0.01)	(0.03)	(0.01)	29,974
Project Year 2030							
Ships - Fairway Transit (1)	95,786	12.70	0.85	-	-	-	96,318
Ships - Precautionary Area Transit (1)	2,904	0.39	0.02	-	-	-	2,920
Ships - Harbor Transit (1)	2,339	0.32	0.02	-	-	-	2,352
Ships - Docking (1)	783	0.11	0.01	-	-	-	787
Ships - Hoteling Aux. Sources	10,226	1.33	0.04	-	-	-	10,266
Ships Sub Total	112,039	14.84	0.95	-	-	-	112,643
Tugboats - Cargo Vessel Assist (1)	812	0.11	0.01	-	-	-	817
Terminal Equipment	18,127	2.62	0.19	-	-	-	18,240
On-road Trucks	225,957	33.02	16.51	-	-	-	231,768
Trains	31,291	4.38	0.31	-	-	-	31,479
Railyard Equipment	3,546	0.51	0.04	-	-	-	3,567
Commuting	2,834	0.52	0.50	-	-	-	3,001
Cold-Iron	6,918	0.058	0.032	-	-	-	6,929
Reefers	-	-	-	0.12	0.28	0.12	1,274
Terminal Electrical Consumption	28,115	0.23	0.13	-	-	-	28,160
Project Year 2030 Total	429,639	56	19	0.12	0.28	0.12	437,878
Net Change from 2005 CEQA Baseline	245,794	20	2	0.06	0.14	0.06	247,506
Net Change from NEPA Baseline Year 2030	39,035	(1)	(2)	(0.01)	(0.03)	(0.01)	38,120

Note: (1) Includes auxiliary generator emissions.

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Attachment A-1.3.2
Operational GHG Emission Within the Global Domain

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Table A.1.3.2-CB-1. Cargo Vessel Propulsion Engine Usage per One-Way Ship Transit from 22nm VSRP Zone to TransPacific- 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)		
											CO2	CH4	N2O	CO2	CH4	N2O
1	Bulk	27,259	9,028	12,102	14.52	13.65	0.83	5,553	406.8	3,050,762						
2	Bulk	28,503	6,895	9,243	14.52	13.65	0.83	5,553	406.8	2,329,974						
3	Bulk	32,400	9,028	12,102	14.52	13.65	0.83	5,553	406.8	3,050,762						
4	Bulk	48,661	9,028	12,102	14.52	13.65	0.83	5,553	406.8	3,050,762						
5	Bulk/Container	23,736	9,028	12,102	14.52	13.65	0.83	5,553	406.8	3,050,762						
6	Bulk/Container	23,736	9,028	12,102	14.52	13.65	0.83	5,553	406.8	3,050,762						
7	Bulk/Container	23,736	9,028	12,102	14.52	13.65	0.83	5,553	406.8	3,050,762						
8	Chemical Oil	11,668	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
9	Chemical Oil	14,003	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
10	Chemical Oil	19,365	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
11	Chemical Oil	19,386	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
12	Chemical Oil	19,997	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
13	Chemical Oil	19,998	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
14	Chemical Oil	19,998	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
15	Chemical Tanker	7,930	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
16	Chemical Tanker	15,247	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
17	Chemical Tanker	15,247	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
18	Chemical Tanker	15,265	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
19	Chemical Tanker	17,845	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
20	Chemical Tanker	19,997	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
21	Chemical Tanker	19,999	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
22	Chemical Tanker	19,999	13,196	17,689	14.34	13.48	0.83	5,553	412.0	4,515,195						
23	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
24	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
25	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
26	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
27	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
28	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
29	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
30	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
31	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
32	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
33	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						

Table A.1.3.2-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
34	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
35	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
36	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
37	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
38	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
39	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
40	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
41	Container	60,494	38,543	51,666	23.90	22.47	0.83	5,553	247.2	7,912,815						
42	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
43	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
44	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
45	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
46	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
47	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
48	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
49	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
50	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
51	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
52	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
53	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
54	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
55	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
56	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
57	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
58	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
59	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
60	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
61	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
62	Container	80,551	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						

Table A.1.3.2-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
63	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
64	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
65	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
66	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
67	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
68	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
69	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
70	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
71	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
72	Container	80,596	65,149	87,331	25.80	24.25	0.83	5,553	229.0	12,390,003						
73	General Cargo	23,731	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
74	General Cargo	23,731	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
75	General Cargo	23,731	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
76	General Cargo	23,737	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
77	General Cargo	23,737	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
78	General Cargo	29,152	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
79	General Cargo	29,152	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
80	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
81	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
82	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
83	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
84	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
85	General Cargo	29,500	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
86	General Cargo	29,512	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
87	General Cargo	29,512	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
88	General Cargo	29,512	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
89	General Cargo	29,516	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
90	General Cargo	29,516	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
91	General Cargo	29,516	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						

Table A.1.3.2-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
92	General Cargo	29,516	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
93	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
94	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
95	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
96	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
97	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
98	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
99	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
100	General Cargo	29,538	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
101	General Cargo	29,912	8,473	11,358	15.70	14.76	0.83	5,553	376.3	2,648,018						
102	Product Tanker	17,485	5,700	7,641	14.34	13.48	0.83	5,553	412.0	1,950,334						
103	Product Tanker		13,196	17,689	14.81	13.92	0.83	5,553	398.9	4,371,904						
104	Container	85,810	64,655	86,669	25.50	23.97	0.83	5,553	231.7	12,440,714						
105	Container	88,669	64,200	86,059	25.40	23.88	0.83	5,553	232.6	12,401,799						
106	Container	88,669	64,200	86,059	25.40	23.88	0.83	5,553	232.6	12,401,799						
107	Container	88,669	64,200	86,059	25.40	23.88	0.83	5,553	232.6	12,401,799						
108	Container	88,700	64,200	86,059	25.40	23.88	0.83	5,553	232.6	12,401,799						
109	Container	88,700	64,200	86,059	25.40	23.88	0.83	5,553	232.6	12,401,799						
110	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
111	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
112	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
113	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
114	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
115	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
116	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
117	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
118	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
119	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
120	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						

Table A.1.3.2-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
121	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
122	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
123	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
124	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
125	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
126	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
127	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
128	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
129	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
130	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
131	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
132	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
133	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
134	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
135	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
136	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
137	Container	99,500	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
138	Container	99,508	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
139	Container	99,508	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
140	Container	99,508	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
141	Container	99,508	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
142	Container	99,508	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
143	Container	99,508	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
144	Container	99,518	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
145	Container	99,518	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
146	Container	99,518	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
147	Container	99,518	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
148	Container	99,518	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
149	Container	99,518	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
150	Container	99,518	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
151	Container	99,518	64,194	86,051	25.00	23.50	0.83	5,553	236.3	12,599,050						
Total kW-Hrs										1,309,520,645	620.00	0.08	0.01	894,954.59	118.36	7.94

Table A.1.3.2-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)		
											CO2	CH4	N2O	CO2	CH4	N2O
1	Bulk	27,259	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343	620.00	0.08	0.01	6.39	0.00	0.00
2	Bulk	28,503	6,895	9,243	14.52	12.00	0.56	22.0	1.8	7,135				4.88	0.00	0.00
3	Bulk	32,400	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
4	Bulk	48,661	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
5	Bulk/Container	23,736	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
6	Bulk/Container	23,736	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
7	Bulk/Container	23,736	9,028	12,102	14.52	12.00	0.56	22.0	1.8	9,343				6.39	0.00	0.00
8	Chemical Oil	11,668	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
9	Chemical Oil	14,003	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
10	Chemical Oil	19,365	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
11	Chemical Oil	19,386	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
12	Chemical Oil	19,997	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
13	Chemical Oil	19,998	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
14	Chemical Oil	19,998	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
15	Chemical Tanker	7,930	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
16	Chemical Tanker	15,247	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
17	Chemical Tanker	15,247	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
18	Chemical Tanker	15,265	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
19	Chemical Tanker	17,845	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
20	Chemical Tanker	19,997	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
21	Chemical Tanker	19,999	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
22	Chemical Tanker	19,999	13,196	17,689	14.34	12.00	0.59	22.0	1.8	14,177				9.69	0.00	0.00
23	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944	620.00	0.08	0.01	6.11	0.00	0.00
24	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
25	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
26	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
27	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
28	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
29	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
30	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
31	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
32	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
33	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
34	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
35	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00

Table A.1.3.2-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)		
											0	0	0	0.00	0.00	0.00
36	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
37	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
38	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
39	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
40	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
41	Container	60,494	38,543	51,666	23.90	12.00	0.13	22.0	1.8	8,944				6.11	0.00	0.00
42	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018	620.00	0.08	0.01	8.21	0.00	0.00
43	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
44	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
45	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
46	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
47	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
48	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
49	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
50	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
51	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
52	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
53	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
54	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
55	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
56	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
57	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
58	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
59	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
60	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
61	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
62	Container	80,551	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
63	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
64	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
65	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
66	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
67	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
68	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
69	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
70	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00

Table A.1.3.2-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)		
											0	0	0	0.00	0.00	0.00
71	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
72	Container	80,596	65,149	87,331	25.80	12.00	0.10	22.0	1.8	12,018				8.21	0.00	0.00
73	General Cargo	23,731	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936	620.00	0.08	0.01	4.74	0.00	0.00
74	General Cargo	23,731	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
75	General Cargo	23,731	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
76	General Cargo	23,737	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
77	General Cargo	23,737	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
78	General Cargo	29,152	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
79	General Cargo	29,152	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
80	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
81	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
82	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
83	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
84	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
85	General Cargo	29,500	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
86	General Cargo	29,512	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
87	General Cargo	29,512	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
88	General Cargo	29,512	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
89	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
90	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
91	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
92	General Cargo	29,516	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
93	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
94	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
95	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
96	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
97	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
98	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
99	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
100	General Cargo	29,538	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
101	General Cargo	29,912	8,473	11,358	15.70	12.00	0.45	22.0	1.8	6,936				4.74	0.00	0.00
102	Product Tanker	17,485	5,700	7,641	14.34	12.00	0.59	22.0	1.8	6,124				4.19	0.00	0.00
103	Product Tanker		13,196	17,689	14.81	12.00	0.53	22.0	1.8	12,870				8.80	0.00	0.00
104	Container	85,810	64,655	86,669	25.50	12.00	0.10	22.0	1.8	12,353	620.00	0.08	0.01	8.44	0.00	0.00
105	Container	88,669	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411	620.00	0.08	0.01	8.48	0.00	0.00

Table A.1.3.2-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)		
											0	0	0	0.00	0.00	0.00
106	Container	88,669	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411				8.48	0.00	0.00
107	Container	88,669	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411				8.48	0.00	0.00
108	Container	88,700	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411				8.48	0.00	0.00
109	Container	88,700	64,200	86,059	25.40	12.00	0.11	22.0	1.8	12,411				8.48	0.00	0.00
110	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
111	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
112	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
113	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
114	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
115	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
116	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
117	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
118	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
119	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
120	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
121	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
122	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
123	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
124	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
125	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
126	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
127	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
128	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
129	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
130	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
131	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
132	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
133	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
134	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
135	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
136	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
137	Container	99,500	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
138	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
139	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
140	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00

Table A.1.3.2-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)		
											0	0	0	0.00	0.00	0.00
141	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
142	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
143	Container	99,508	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
144	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
145	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
146	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
147	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
148	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
149	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
150	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
151	Container	99,518	64,194	86,051	25.00	12.00	0.11	22.0	1.8	13,015				8.90	0.00	0.00
											Main Engines within Fairway VSR			1,134.17	0.15	0.01
											Main Engines outside of Fairway '			894,954.59	118.36	7.94
											Main Engines Total Fairway - 1-wa			896,088.75	118.51	7.95
											Main Engines Total Fairway - Rou			1,792,177.51	237.03	15.90

Note: (1) Assumes all non-shifted vessels comply with the VSRP.

Table A.1.3.2-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)		
								CO2	CH4	N2O	CO2	CH4	N2O
1	Bulk	27,259	1,776	0.17		408.7	123,389						
2	Bulk	28,503	1,776	0.17		408.7	123,389						
3	Bulk	32,400	1,776	0.17		408.7	123,389						
4	Bulk	48,661	1,776	0.17		408.7	123,389						
5	Bulk/Container	23,736	1,776	0.17		413.8	124,931						
6	Bulk/Container	23,736	1,776	0.17		413.8	124,931						
7	Bulk/Container	23,736	1,776	0.17		413.8	124,931						
8	Chemical Oil	11,668	1,985	0.24		413.8	197,129						
9	Chemical Oil	14,003	1,985	0.24		413.8	197,129						
10	Chemical Oil	19,365	1,985	0.24		413.8	197,129						
11	Chemical Oil	19,386	1,985	0.24		413.8	197,129						
12	Chemical Oil	19,997	1,985	0.24		413.8	197,129						
13	Chemical Oil	19,998	1,985	0.24		413.8	197,129						
14	Chemical Oil	19,998	1,985	0.24		413.8	197,129						
15	Chemical Tanker	7,930	1,985	0.24		413.8	197,129						
16	Chemical Tanker	15,247	1,985	0.24		413.8	197,129						
17	Chemical Tanker	15,247	1,985	0.24		413.8	197,129						
18	Chemical Tanker	15,265	1,985	0.24		413.8	197,129						
19	Chemical Tanker	17,845	1,985	0.24		413.8	197,129						
20	Chemical Tanker	19,997	1,985	0.24		249.0	118,627						
21	Chemical Tanker	19,999	1,985	0.24		249.0	118,627						
22	Chemical Tanker	19,999	1,985	0.24		249.0	118,627						
23	Container	60,494	12,853	0.13		249.0	416,063						
24	Container	60,494	12,853	0.13		249.0	416,063						
25	Container	60,494	12,853	0.13		249.0	416,063						
26	Container	60,494	12,853	0.13		249.0	416,063						
27	Container	60,494	12,853	0.13		249.0	416,063						
28	Container	60,494	12,853	0.13		249.0	416,063						
29	Container	60,494	12,853	0.13		249.0	416,063						
30	Container	60,494	12,853	0.13		249.0	416,063						
31	Container	60,494	12,853	0.13		249.0	416,063						
32	Container	60,494	12,853	0.13		249.0	416,063						

Table A.1.3.2-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)		
								CO2	CH4	N2O	CO2	CH4	N2O
33	Container	60,494	12,853	0.13		249.0	416,063						
34	Container	60,494	12,853	0.13		249.0	416,063						
35	Container	60,494	12,853	0.13		249.0	416,063						
36	Container	60,494	12,853	0.13		249.0	416,063						
37	Container	60,494	12,853	0.13		249.0	416,063						
38	Container	60,494	12,853	0.13		249.0	416,063						
39	Container	60,494	12,853	0.13		230.8	385,648						
40	Container	60,494	12,853	0.13		230.8	385,648						
41	Container	60,494	12,853	0.13		230.8	385,648						
42	Container	80,551	6,800	0.13		230.8	204,031						
43	Container	80,551	6,800	0.13		230.8	204,031						
44	Container	80,551	6,800	0.13		230.8	204,031						
45	Container	80,551	6,800	0.13		230.8	204,031						
46	Container	80,551	6,800	0.13		230.8	204,031						
47	Container	80,551	6,800	0.13		230.8	204,031						
48	Container	80,551	6,800	0.13		230.8	204,031						
49	Container	80,551	6,800	0.13		230.8	204,031						
50	Container	80,551	6,800	0.13		230.8	204,031						
51	Container	80,551	6,800	0.13		230.8	204,031						
52	Container	80,551	6,800	0.13		230.8	204,031						
53	Container	80,551	12,853	0.13		230.8	385,648						
54	Container	80,551	12,853	0.13		230.8	385,648						
55	Container	80,551	12,853	0.13		230.8	385,648						
56	Container	80,551	12,853	0.13		230.8	385,648						
57	Container	80,551	12,853	0.13		230.8	385,648						
58	Container	80,551	12,853	0.13		230.8	385,648						
59	Container	80,551	12,853	0.13		230.8	385,648						
60	Container	80,551	12,853	0.13		230.8	385,648						
61	Container	80,551	12,853	0.13		230.8	385,648						
62	Container	80,551	12,853	0.13		230.8	385,648						
63	Container	80,596	6,800	0.13		230.8	204,031						
64	Container	80,596	6,800	0.13		230.8	204,031						

Table A.1.3.2-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)		
								CO2	CH4	N2O	CO2	CH4	N2O
65	Container	80,596	6,800	0.13		230.8	204,031						
66	Container	80,596	6,800	0.13		230.8	204,031						
67	Container	80,596	6,800	0.13		230.8	204,031						
68	Container	80,596	6,800	0.13		230.8	204,031						
69	Container	80,596	6,800	0.13		230.8	204,031						
70	Container	80,596	6,800	0.13		378.1	334,244						
71	Container	80,596	6,800	0.13		378.1	334,244						
72	Container	80,596	6,800	0.13		378.1	334,244						
73	General Cargo	23,731	1,776	0.17		378.1	114,157						
74	General Cargo	23,731	1,776	0.17		378.1	114,157						
75	General Cargo	23,731	1,776	0.17		378.1	114,157						
76	General Cargo	23,737	3,379	0.17		378.1	217,194						
77	General Cargo	23,737	3,379	0.17		378.1	217,194						
78	General Cargo	29,152	1,776	0.17		378.1	114,157						
79	General Cargo	29,152	1,776	0.17		378.1	114,157						
80	General Cargo	29,500	1,776	0.17		378.1	114,157						
81	General Cargo	29,500	1,776	0.17		378.1	114,157						
82	General Cargo	29,500	1,776	0.17		378.1	114,157						
83	General Cargo	29,500	1,776	0.17		378.1	114,157						
84	General Cargo	29,500	1,776	0.17		378.1	114,157						
85	General Cargo	29,500	1,776	0.17		378.1	114,157						
86	General Cargo	29,512	1,776	0.17		378.1	114,157						
87	General Cargo	29,512	1,776	0.17		378.1	114,157						
88	General Cargo	29,512	1,776	0.17		378.1	114,157						
89	General Cargo	29,516	1,776	0.17		378.1	114,157						
90	General Cargo	29,516	1,776	0.17		378.1	114,157						
91	General Cargo	29,516	1,776	0.17		378.1	114,157						
92	General Cargo	29,516	1,776	0.17		378.1	114,157						
93	General Cargo	29,538	1,776	0.17		378.1	114,157						
94	General Cargo	29,538	1,776	0.17		378.1	114,157						
95	General Cargo	29,538	1,776	0.17		378.1	114,157						
96	General Cargo	29,538	1,776	0.17		378.1	114,157						

Table A.1.3.2-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)		
								CO2	CH4	N2O	CO2	CH4	N2O
97	General Cargo	29,538	1,776	0.17		378.1	114,157						
98	General Cargo	29,538	1,776	0.17		378.1	114,157						
99	General Cargo	29,538	1,776	0.17		413.8	124,931						
100	General Cargo	29,538	1,776	0.17		400.7	120,984						
101	General Cargo	29,912	1,776	0.17		233.5	70,498						
102	Product Tanker	17,485	1,985	0.24		234.4	111,673						
103	Product Tanker		1,985	0.24		234.4	111,673						
104	Container	85,810	6,800	0.13		234.4	207,218						
105	Container	88,669	15,725	0.13		234.4	479,193						
106	Container	88,669	15,725	0.13		234.4	479,193						
107	Container	88,669	15,725	0.13		238.1	486,800						
108	Container	88,700	11,830	0.13		238.1	366,222						
109	Container	88,700	11,830	0.13		238.1	366,222						
110	Container	99,500	6,800	0.13		238.1	210,508						
111	Container	99,500	6,800	0.13		238.1	210,508						
112	Container	99,500	6,800	0.13		238.1	210,508						
113	Container	99,500	6,800	0.13		238.1	210,508						
114	Container	99,500	6,800	0.13		238.1	210,508						
115	Container	99,500	6,800	0.13		238.1	210,508						
116	Container	99,500	6,800	0.13		238.1	210,508						
117	Container	99,500	6,800	0.13		238.1	210,508						
118	Container	99,500	6,800	0.13		238.1	210,508						
119	Container	99,500	6,800	0.13		238.1	210,508						
120	Container	99,500	6,800	0.13		238.1	210,508						
121	Container	99,500	6,800	0.13		238.1	210,508						
122	Container	99,500	6,800	0.13		238.1	210,508						
123	Container	99,500	6,800	0.13		238.1	210,508						
124	Container	99,500	6,800	0.13		238.1	210,508						
125	Container	99,500	6,800	0.13		238.1	210,508						
126	Container	99,500	6,800	0.13		238.1	210,508						
127	Container	99,500	6,800	0.13		238.1	210,508						
128	Container	99,500	6,800	0.13		238.1	210,508						

Table A.1.3.2-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)		
								CO2	CH4	N2O	CO2	CH4	N2O
129	Container	99,500	6,800	0.13		238.1	210,508						
130	Container	99,500	6,800	0.13		238.1	210,508						
131	Container	99,500	6,800	0.13		238.1	210,508						
132	Container	99,500	6,800	0.13		238.1	210,508						
133	Container	99,500	6,800	0.13		238.1	210,508						
134	Container	99,500	6,800	0.13		238.1	210,508						
135	Container	99,500	6,800	0.13		238.1	210,508						
136	Container	99,500	6,800	0.13		238.1	210,508						
137	Container	99,500	6,800	0.13		238.1	210,508						
138	Container	99,508	6,800	0.13		238.1	210,508						
139	Container	99,508	6,800	0.13		238.1	210,508						
140	Container	99,508	6,800	0.13		238.1	210,508						
141	Container	99,508	6,800	0.13		238.1	210,508						
142	Container	99,508	6,800	0.13		238.1	210,508						
143	Container	99,508	6,800	0.13		238.1	210,508						
144	Container	99,518	6,800	0.13		238.1	210,508						
145	Container	99,518	6,800	0.13		238.1	210,508						
146	Container	99,518	6,800	0.13		238.1	210,508						
147	Container	99,518	6,800	0.13		238.1	210,508						
148	Container	99,518	6,800	0.13		238.1	210,508						
149	Container	99,518	6,800	0.13		1.8	1,621						
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)							34,248,944	722	0.0015	0.0001	27,257.21	0.0566	0.00378
Total kW-Hrs - MGO (2)								690	0.0014	0.0001	0.00	0.00	0.00
								Fairway Aux Gen. Emissions - 1-way Transit			27,257.21	0.0566	0.00
								Fairway Aux Gen. Emissions - Round Trip			54,514.41	0.1133	0.01

Note: (1) 2005 PEI Table 2.12.

(2) Assumes 100% HFO fuel usage (Per.comm. with Starcrest 6/07).

Table A.1.3.2-CB-4. Total Vessel Emissions for CUT and LBCT - Baseline Year 2005

	Emissions (Tons)			
Activity/Source	CO2	CH4	N2O	CO2e
Fairway				
Main Engines	1,792,178	237.03	15.90	1,802,084
Aux Generators	54,514	0.11	0.01	54,519
Fairway Total	1,846,692	237.14	15.91	1,856,603
Precautionary Area				
Main Engines	859	0.11	0.01	864
Aux Generators	398	0.00	0.00	398
Aux Boilers	136	0.02	0.00	136
Precautionary Area Total	1,392	0.13	0.01	1,398
Harbor Transit				
Main Engines	348	0.05	0.00	350
Aux Generators	875	0.00	0.00	875
Aux Boilers	95	0.01	0.00	95
Harbor Transit Total	1,317	0.06	0.00	1,320
Hotelling				
Aux Generators	15,828	0.03	0.00	15,829
Aux Boilers	7,291	0.93	0.01	7,313
Hotelling Total	23,119	0.96	0.01	23,142
Tugboats				
Tugboat Main Engines	517	0.07	0.01	520
Tugboat Aux. Gens.	63	0.01	0.00	64
Tugboat Total	580	0.08	0.01	584
Total Vessel Emissions	1,873,101	238.37	15.93	1,883,046

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Table A.1.3.2-Alt1U-1. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 1.

Project Scenario/Ship Type	*Annual Ship Visits*	*Annual Shifts*	*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 ar
Middle Harbor. Thrghput 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.1.3.2-Alt1U-1a. Cargo Vessel Propulsion Engine Usage per One-Way Ship Trip in the Global Domain - POLB - MHTPAlternatives.

		Fairway (1)							
Vessel Type	*Propulsion Max Hp (2)*	*Load Factor (3)*	*Modal Hp*	*Distance (NM)*	*Max Speed (kts)*	*Speed (Kts) (4)*	*Hours Per Trip*	*Hp-Hrs/ Trip*	*kW-Hrs/ Trip (5)*
Non-Compliance with VSRP Entire Route (6)									
Containerships 10,000 - 11,999 TEU	93,120	0.83	77,383	5,525	26.8	25.2	219	16,971,242	12,660,547
Containerships 8,000 - 9,999 TEU	93,120	0.83	77,383	5,525	26.6	25.0	221	17,105,276	12,760,536
Containerships 7,000 - 7,999 TEU	85,623	0.83	71,153	5,525	26.8	25.2	219	15,604,962	11,641,302
Containerships 6,000 - 6,999 TEU	85,623	0.83	71,153	5,525	27.1	25.5	217	15,420,833	11,503,941
Containerships 5,000 - 5,999 TEU	74,016	0.83	61,507	5,525	27.2	25.5	216	13,300,961	9,922,517
Containerships 4,000 - 4,999 TEU	57,396	0.83	47,696	5,525	26.2	24.6	225	10,712,232	7,991,325
Containerships 3,000 - 3,999 TEU	44,746	0.83	37,184	5,525	24.6	23.1	239	8,877,101	6,622,317
Non-Compliance with VSRP outside Fairway (7)									
Containership 10,000 - 11,999 TEU - Outside VSRP	93,120	0.83	77,344	5,485.1	26.8	25.2	217.73	16,840,246	12,562,823
Containership 10,000 - 11,999 TEU - In VSRPZ	93,120	0.09	8,360	39.9		12.0	3.33	27,795	20,735
Containership 10,000 - 11,999 TEU - Total kW-Hrs									12,583,559
Containership 8,000 - 9,999 TEU - Outside VSRPZ	93,120	0.83	77,344	5,485.1	26.6	25.0	219.45	16,973,245	12,662,041
Containership 8,000 - 9,999 TEU - In VSRPZ	93,120	0.09	8,559	39.9		12.0	3.33	28,459	21,231
Containership 8,000 - 9,999 TEU - Total kW-Hrs									12,683,272
Containership 7,000 - 7,999 TEU - Outside VSRPZ	85,623	0.83	71,117	5,485.1	26.8	25.2	217.73	15,484,512	11,551,446
Containership 7,000 - 7,999 TEU - In VSRPZ	85,623	0.09	7,687	39.9		12.0	3.33	25,558	19,066
Containership 7,000 - 7,999 TEU - Total kW-Hrs									11,570,512
Containership 6,000 - 6,999 TEU - Outside VSRPZ	85,623	0.83	71,117	5,485.1	27.1	25.5	215.16	15,301,804	11,415,146
Containership 6,000 - 6,999 TEU - In VSRPZ	85,623	0.09	7,418	39.9		12.0	3.33	24,664	18,399
Containership 6,000 - 6,999 TEU - Total kW-Hrs									11,433,545
Containership 5,000 - 5,999 TEU - Outside VSRPZ	74,016	0.83	61,477	5,485.1	27.2	25.5	214.69	13,198,295	9,845,928
Containership 5,000 - 5,999 TEU - In VSRPZ	74,016	0.09	6,370	39.9		12.0	3.33	21,179	15,800
Containership 5,000 - 5,999 TEU - Total kW-Hrs									9,861,728
Containership 4,000 - 4,999 TEU - Outside VSRPZ	57,396	0.83	47,672	5,485.1	26.2	24.6	222.97	10,629,547	7,929,642
Containership 4,000 - 4,999 TEU - In VSRPZ	57,396	0.10	5,534	39.9		12.0	3.33	18,399	13,726
Containership 4,000 - 4,999 TEU - Total kW-Hrs									7,943,368
Containership 3,000 - 3,999 TEU - Outside VSRPZ	44,746	0.83	37,165	5,485.1	24.6	23.1	237.01	8,808,581	6,571,201
Containership 3,000 - 3,999 TEU - In VSRPZ	44,746	0.12	5,181	39.9		12.0	3.33	17,228	12,852
Containership 3,000 - 3,999 TEU - Total kW-Hrs									6,584,053

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.1.3.2-Alt1U-1b. Cargo Vessel Auxiliary Generator Usage per One-Way Global Transit - POLB - MHTPAlternatives.

Vessel Type	*Auxiliary kW per Vessel (1)*	*Load Factor (2)*	*Hours/ Transit*	*kW-Hrs/ Transit*
Non-Compliance with VSRP Entire Route (6)				
Containerships 10,000 - 11,999 TEU	18,000	0.13	219.32	513,199
Containerships 8,000 - 9,999 TEU	15,000	0.13	221.05	431,043
Containerships 7,000 - 7,999 TEU	13,501	0.13	219.32	384,927
Containerships 6,000 - 6,999 TEU	13,501	0.13	216.73	380,386
Containerships 5,000 - 5,999 TEU	10,366	0.13	216.25	291,413
Containerships 4,000 - 4,999 TEU	7,347	0.13	224.60	214,504
Containerships 3,000 - 3,999 TEU	5,298	0.13	238.74	164,426
Non-Compliance with VSRP outside Fairway (7)				
Containerships 10,000 - 11,999 TEU	18,000	0.13	221.06	517,273
Containerships 8,000 - 9,999 TEU	15,000	0.13	222.78	434,414
Containerships 7,000 - 7,999 TEU	13,501	0.13	221.06	387,983
Containerships 6,000 - 6,999 TEU	13,501	0.13	218.49	383,474
Containerships 5,000 - 5,999 TEU	10,366	0.13	218.01	293,790
Containerships 4,000 - 4,999 TEU	7,347	0.13	226.30	216,130
Containerships 3,000 - 3,999 TEU	5,298	0.13	240.34	165,529

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.1.3.2-Alt1U-2. Annual Cargo Vessel GHGs within theFairway Zone - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 6,000 - 6,999 TEU	812,648.78	107.48	7.21
Containerships 4,000 - 4,999 TEU	1,129,163.07	149.34	10.02
Subtotal	2,843,286.00	376.05	25.22
Project Year 2015			
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 7,000 - 7,999 TEU	822,383.84	108.77	7.30
Containerships 6,000 - 6,999 TEU	812,648.78	107.48	7.21
Containerships 4,000 - 4,999 TEU	564,581.53	74.67	5.01
Containerships 3,000 - 3,999 TEU	467,967.09	61.89	4.15
Subtotal	3,569,055.40	472.04	31.66
Project Year 2020			
Containerships 10,000 - 11,999 TEU	894,386.99	118.29	7.93
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 7,000 - 7,999 TEU	822,383.84	108.77	7.30
Containerships 6,000 - 6,999 TEU	812,648.78	107.48	7.21
Containerships 4,000 - 4,999 TEU	1,129,163.07	149.34	10.02
Subtotal	4,560,056.83	603.10	40.45
Project Year 2030			
Containerships 10,000 - 11,999 TEU	894,386.99	118.29	7.93
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 7,000 - 7,999 TEU	822,383.84	108.77	7.30
Containerships 6,000 - 6,999 TEU	812,648.78	107.48	7.21
Containerships 5,000 - 5,999 TEU	700,930.56	92.70	6.22
Containerships 4,000 - 4,999 TEU	1,129,163.07	149.34	10.02
Subtotal	5,260,987.40	695.81	46.67

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt1U-3. Annual OGV GHGs within the Precautionary Area - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	431.45	0.06	0.00
Subtotal	1,054.30	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	215.73	0.03	0.00
Containerships 3,000 - 3,999 TEU	201.99	0.03	0.00
Subtotal	1,340.22	0.18	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	325.89	0.04	0.00
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	431.45	0.06	0.00
Subtotal	1,679.85	0.22	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	325.89	0.04	0.00
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 5,000 - 5,999 TEU	248.32	0.03	0.00
Containerships 4,000 - 4,999 TEU	431.45	0.06	0.00
Subtotal	1,928.17	0.26	0.02

Table A.1.3.2-Alt1U-4. Annual Cargo Vessel GHGs for Transit within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.84	0.01	0.00
Subtotal	283.58	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	56.42	0.01	0.00
Containerships 3,000 - 3,999 TEU	52.10	0.01	0.00
Subtotal	360.98	0.05	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	90.65	0.01	0.00
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.84	0.01	0.00
Subtotal	455.95	0.06	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	90.65	0.01	0.00
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 5,000 - 5,999 TEU	69.23	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.84	0.01	0.00
Subtotal	525.18	0.07	0.00

Table A.1.3.2-Alt1U-5. Annual Cargo Vessel GHGs for Docking Activities
POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	30.43	0.00	0.00
Subtotal	77.82	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	15.22	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.86	0.00	0.00
Subtotal	97.17	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	24.69	0.00	0.00
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	30.43	0.00	0.00
Subtotal	125.21	0.02	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	24.69	0.00	0.00
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 5,000 - 5,999 TEU	19.62	0.00	0.00
Containerships 4,000 - 4,999 TEU	30.43	0.00	0.00
Subtotal	144.83	0.02	0.00

Table A.1.3.2-Alt1U-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 6,000 - 6,999 TEU	30,333.02	4.18	0.30
Containerships 4,000 - 4,999 TEU	34,192.00	4.71	0.34
Subtotal	98,887.40	13.61	0.97
Project Year 2015			
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 7,000 - 7,999 TEU	30,689.70	4.23	0.30
Containerships 6,000 - 6,999 TEU	30,333.02	4.18	0.30
Containerships 4,000 - 4,999 TEU	17,096.00	2.35	0.17
Containerships 3,000 - 3,999 TEU	13,093.44	1.80	0.13
Subtotal	125,574.53	17.29	1.24
Project Year 2020			
Containerships 10,000 - 11,999 TEU	40,916.56	5.63	0.40
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 7,000 - 7,999 TEU	30,689.70	4.23	0.30
Containerships 6,000 - 6,999 TEU	30,333.02	4.18	0.30
Containerships 4,000 - 4,999 TEU	34,192.00	4.71	0.34
Subtotal	170,493.66	23.47	1.68
Project Year 2030			
Containerships 10,000 - 11,999 TEU	40,916.56	5.63	0.40
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 7,000 - 7,999 TEU	30,689.70	4.23	0.30
Containerships 6,000 - 6,999 TEU	30,333.02	4.18	0.30
Containerships 5,000 - 5,999 TEU	23,238.91	3.20	0.23
Containerships 4,000 - 4,999 TEU	34,192.00	4.71	0.34
Subtotal	193,732.57	26.67	1.91

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt1U-7. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	1,409.97	0.19	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 5,000 - 5,999 TEU	195.67	0.03	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	1,605.64	0.22	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt1U-8. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 10,000 - 11,999 TEU	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	2,127.04	0.29	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TEU	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 5,000 - 5,999 TEU	295.18	0.04	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	2,422.22	0.33	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt1U-9. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	738.56	0.10	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 5,000 - 5,999 TEU	102.49	0.01	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	841.05	0.12	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt1U-10. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	3,746.40	0.52	0.04
Containerships 6,000 - 6,999 TEU	3,372.01	0.46	0.03
Containerships 4,000 - 4,999 TEU	4,159.11	0.57	0.04
Subtotal	11,277.52	1.55	0.11
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,766.86	0.24	0.02
Containerships 7,000 - 7,999 TEU	1,590.29	0.22	0.02
Containerships 6,000 - 6,999 TEU	1,590.29	0.22	0.02
Containerships 4,000 - 4,999 TEU	980.75	0.14	0.01
Containerships 3,000 - 3,999 TEU	832.07	0.11	0.01
Subtotal	6,760.26	0.93	0.07
Project Year 2020			
Containerships 10,000 - 11,999 TEU	825.03	0.11	0.01
Containerships 8,000 - 9,999 TEU	687.52	0.09	0.01
Containerships 7,000 - 7,999 TEU	618.82	0.09	0.01
Containerships 6,000 - 6,999 TEU	618.82	0.09	0.01
Containerships 4,000 - 4,999 TEU	763.26	0.11	0.01
Subtotal	3,513.44	0.48	0.03
Project Year 2030			
Containerships 10,000 - 11,999 TEU	825.03	0.11	0.01
Containerships 8,000 - 9,999 TEU	687.52	0.09	0.01
Containerships 7,000 - 7,999 TEU	618.82	0.09	0.01
Containerships 6,000 - 6,999 TEU	618.82	0.09	0.01
Containerships 5,000 - 5,999 TEU	490.96	0.07	0.00
Containerships 4,000 - 4,999 TEU	763.26	0.11	0.01
Subtotal	4,004.40	0.55	0.04

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in

Table A.1.3.2-Alt1U-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	334.18	0.04	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 5,000 - 5,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	389.88	0.05	0.00

Table A.1.3.2-Alt1U-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	252.07	0.03	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 5,000 - 5,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	294.08	0.04	0.00

Table A.1.3.2-Alt1U-13. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	87.52	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 5,000 - 5,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	102.11	0.01	0.00

Table A.1.3.2-Alt1U-14. Annual Auxiliary Boiler Emissions during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,228.24	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,228.24	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,456.48	0.31	0.00
Subtotal	4,912.96	0.62	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,158.51	0.15	0.00
Containerships 7,000 - 7,999 TEU	1,158.51	0.15	0.00
Containerships 6,000 - 6,999 TEU	1,158.51	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,158.51	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,158.51	0.15	0.00
Subtotal	5,792.57	0.74	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	2,254.01	0.29	0.00
Subtotal	6,762.03	0.86	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,127.01	0.14	0.00
Containerships 5,000 - 5,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	2,254.01	0.29	0.00
Subtotal	7,889.04	1.00	0.01

Table A.1.3.2-Alt1U-15. Annual Tugboat Emissions for Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	795.67	0.11	0.01
Project Year 2030	928.28	0.13	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt1U-16. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	97.33	0.01	0.00
Project Year 2030	113.56	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt1U-17. Annual Vessel Emissions - POLB - MHTP - Unmitigated Alternative 1.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
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			
Project Year 2010			
Ships - Fairway Transit (1)	2,942,173.40	389.66	26.20
Ships - Precautionary Area Transit (1)	2,092.43	0.28	0.02
Ships - Harbor Transit (1)	1,681.64	0.23	0.01
Ships - Docking (1)	563.26	0.08	0.00
Ships - Hoteling Aux. Sources	16,190.48	2.18	0.12
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	2,963,296.54	392.51	26.36
Project Year 2015			
Ships - Fairway Transit (1)	3,694,629.93	489.33	32.90
Ships - Precautionary Area Transit (1)	2,650.23	0.35	0.02
Ships - Harbor Transit (1)	2,116.60	0.29	0.02
Ships - Docking (1)	706.76	0.10	0.01
Ships - Hoteling Aux. Sources	12,552.83	1.67	0.07
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	3,713,400.52	491.83	33.02
Project Year 2020			
Ships - Fairway Transit (1)	4,730,550.49	626.58	42.13
Ships - Precautionary Area Transit (1)	3,424.00	0.46	0.03
Ships - Harbor Transit (1)	2,835.06	0.39	0.03
Ships - Docking (1)	951.29	0.13	0.01
Ships - Hoteling Aux. Sources	10,275.47	1.34	0.04
Tugboats - Cargo Vessel Assist (1)	893.00	0.12	0.01
Subtotal	4,748,929.31	629.02	42.24
Project Year 2030			
Ships - Fairway Transit (1)	5,454,719.97	722.48	48.58
Ships - Precautionary Area Transit (1)	3,923.69	0.53	0.03
Ships - Harbor Transit (1)	3,241.48	0.44	0.03
Ships - Docking (1)	1,087.99	0.15	0.01
Ships - Hoteling Aux. Sources	11,893.44	1.55	0.05
Tugboats - Cargo Vessel Assist (1)	1,041.83	0.14	0.01
Subtotal	5,475,908.40	725.29	48.71

Note: (1) Includes auxiliary power emissions.

Table A.1.3.2-Alt1U-18. Equipment Usage Associated with One US Outbound Train Trip at the Middle Harbor Railyard - POLB - MHTPAlternatives.

Equipment Type	*Hp (1)*	*Load Factor (2)*	*Number Active*	*Hourly Hp-Hr*	*Hours/ Trip*	*Total Hp-Hrs*
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 MidWest	4,244	0.47	3	5,982	42.1	251,687
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.1.3.2-Alt1U-18a. Equipment Usage Associated with One US Inbound Train Trip at the Middle Harbor Railyard - POLB - MHTPAlternatives.

Equipment Type (1)	*Hp*	*Load Factor*	*Number Active*	*Hourly Hp-Hr*	*Hours/ Trip*	*Total Hp-Hrs*
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 MidWest	4,244	0.47	3	5,982	42.1	251,687
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.1.3.2-Alt1U-18b. Train Trip Generation Rates - Unmitigated Alternative

Project Scenario/Rail Yard	*Annual Round Trips*
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	2,061

Table A.1.3.2-Alt1U-18c. Annual Train Emissions - POLB - MHTP342-acre Alternative Baseline Year 2005.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.02	0.04	0.25
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.04	0.08	0.56
Haul Line Locomotive - 40 mph - PCH to SCAB border	22.37	49.01	337.68
Haul Line Locomotive - Swiching	0.14	0.31	2.14
Yard Locomotive	0.07	0.10	0.97
Subtotal	22.63	49.54	341.59
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.02	0.04	0.25
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.04	0.08	0.56
Haul Line Locomotive - 40 mph - PCH to SCAB border	22.37	49.01	337.68
Haul Line Locomotive - Swiching	0.06	0.12	0.85
Yard Locomotive	0.07	0.10	0.97
Subtotal	22.55	49.35	340.31
Total Tons Per Year	45.18	98.88	681.91

Table A.1.3.2-Alt1U-18d. Annual Rail Yard Cargo Handling Equipment Emissions
POLB - MHTP342-acre Alternative Baseline Year 2005.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	661,484	-	-	-
Yard Tractor	431,602	-	-	-
Subtotal	1,093,087	0.83	2.14	18.51

Table A.1.3.2-Alt1U-19. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 1 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	13.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	29.45	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	17,726.46	2.48	0.17
Haul Line Locomotive - Swiching	112.09	0.02	0.00
Yard Locomotive	25.59	0.00	0.00
Subtotal	17,906.59	2.51	0.18
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	13.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	29.45	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	17,726.46	2.48	0.17
Haul Line Locomotive - Swiching	44.84	0.01	0.00
Yard Locomotive	25.59	0.00	0.00
Subtotal	17,839.33	2.50	0.18
Total Tons Per Year	35,745.92	5.00	0.35

Table A.1.3.2-Alt1U-20. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	204,990	128.41	0.02	0.00
Yard Tractor	133,751	83.79	0.01	0.00
Subtotal	338,741	212.20	0.03	0.00

Table A.1.3.2-Alt1U-21. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 1 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.04	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	385.20	0.05	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	231,850.81	32.46	2.29
Haul Line Locomotive - Swiching	1,466.07	0.21	0.01
Yard Locomotive	334.67	0.05	0.00
Subtotal	234,206.79	32.79	2.31
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.04	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	385.20	0.05	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	231,850.81	32.46	2.29
Haul Line Locomotive - Swiching	586.43	0.08	0.01
Yard Locomotive	334.67	0.05	0.00
Subtotal	233,327.15	32.67	2.30
Total Tons Per Year	467,533.94	65.46	4.61

Table A.1.3.2-Alt1U-22. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP- Unmitigated Alternative 1 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,023,640	1,894.11	0.27	0.02
Yard Tractor	1,972,850	1,235.86	0.18	0.01
Subtotal	4,996,490	3,129.97	0.45	0.03

Table A.1.3.2-Alt1U-23. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 1 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.47	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	490.39	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	295,159.59	41.33	2.91
Haul Line Locomotive - Swiching	1,866.39	0.26	0.02
Yard Locomotive	426.05	0.06	0.00
Subtotal	298,158.89	41.75	2.94
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.47	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	490.39	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	295,159.59	41.33	2.91
Haul Line Locomotive - Swiching	746.56	0.10	0.01
Yard Locomotive	426.05	0.06	0.00
Subtotal	297,039.05	41.59	2.93
Total Tons Per Year	595,197.94	83.34	5.87

Table A.1.3.2-Alt1U-24. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,342,795	2,720.47	0.39	0.03
Yard Tractor	2,833,566	1,775.04	0.26	0.02
Subtotal	7,176,361	4,495.51	0.65	0.05

Table A.1.3.2-Alt1U-25. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 1 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	212.65	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	481.74	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	289,954.20	40.60	2.86
Haul Line Locomotive - Swiching	1,833.48	0.26	0.02
Yard Locomotive	418.54	0.06	0.00
Subtotal	292,900.60	41.01	2.89
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	212.65	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	481.74	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	289,954.20	40.60	2.86
Haul Line Locomotive - Swiching	733.39	0.10	0.01
Yard Locomotive	418.54	0.06	0.00
Subtotal	291,800.52	40.86	2.88
Total Tons Per Year	584,701.12	81.87	5.77

Table A.1.3.2-Alt1U-26. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,682,863	2,933.50	0.42	0.03
Yard Tractor	3,055,452	1,914.04	0.28	0.02
Subtotal	7,738,315	4,847.54	0.70	0.05

Table A.1.3.2-Alt1U-27. Summary of Annual Train and Rail Yard Cargo Handling Equipment Emissions -

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	45.18	98.88	681.91
Railyard Equipment	0.83	2.14	18.51
Subtotal	46.01	101.02	700.42
Project Year 2010			
Trains	35,745.92	5.00	0.35
Railyard Equipment	212.20	0.03	0.00
Subtotal	35,958.12	5.04	0.35
Project Year 2015			
Trains	467,533.94	65.46	4.61
Railyard Equipment	3,129.97	0.45	0.03
Subtotal	470,663.91	65.91	4.64
Project Year 2020			
Trains	595,197.94	83.34	5.87
Railyard Equipment	4,495.51	0.65	0.05
Subtotal	599,693.45	83.98	5.91
Project Year 2030			
Trains - 2026	584,701.12	81.87	5.77
Railyard Equipment - 2030	4,847.54	0.70	0.05
Subtotal	589,548.66	82.57	5.81

Table A.1.3.2-Alt1U-28. Annual Truck Emissions for the MHTP- Unmitigated Alternative 1.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,085	22.1	11.0
Year 2005 - Driving	2,098	5.5	2.7
Subtotal - Year 2005	5,183	27.51	13.75
Year 2010 - Idling	1,924	13.8	6.9
Year 2010 - Driving	2,734	7.1	3.6
Subtotal - Year 2010	4,658	20.87	10.43
Year 2015 - Idling	1,676	12.0	6.0
Year 2015 - Driving	2,380	6.2	3.1
Subtotal - Year 2015	4,056	18.17	9.08
Year 2020 - Idling	2,166	15.5	7.7
Year 2020 - Driving	3,077	8.0	4.0
Subtotal - Year 2020	5,243	23.49	11.74
Year 2030 - Idling	2,768	19.8	9.9
Year 2030 - Driving	3,933	10.2	5.1
Subtotal - Year 2030	6,701	30.02	15.01
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	5.85	2.92
Subtotal - Year 2010	125,369	7.27	3.64
Subtotal - Year 2015	103,699	6.02	3.01
Subtotal - Year 2020	141,265	7.90	3.95
Subtotal - Year 2030	183,292	10.25	5.13
Off-Terminal outside SCAB			
Subtotal - Year 2005	59,897	3.56	1.78
Subtotal - Year 2010	64,486	3.83	1.92
Subtotal - Year 2015	56,147	3.34	1.67
Subtotal - Year 2020	72,584	4.31	2.16
Subtotal - Year 2030	92,769	5.51	2.76
Total Annual Truck Emissions by Project Year			
Year 2005	165,878	36.92	18.46
Year 2010	194,512	31.97	15.99
Year 2015	163,902	27.52	13.76
Year 2020	219,092	35.70	17.85
Year 2030	282,763	45.78	22.89

Table A.1.3.2-Alt1U-28a. On-Road Truck Operational Data - Outside SCAB Project - Proposed Project.

Activity/Project Scenario	*Miles/ Trip (2)*	*Annual Trips*	*% of Trips Outside SCAB*	*Annual Miles*
Off-Terminal				
Year 2005 - Baseline	223	1,997,000	0.07	32,286,498
Year 2010	223	2,150,000	0.07	34,760,125
Year 2015	223	1,872,000	0.07	30,265,560
Year 2020	223	2,420,000	0.07	39,125,350
Year 2030	223	3,093,000	0.07	50,006,078

Table A.1.3.2-Alt1U-29. Terminal Equipment Annual Emissions - POLB - MHTP - Unmitigated Alternative 1.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	12,944,007	8,108.55	1.17	0.08
Top-Pick	3,655,804	2,290.12	0.33	0.02
Side-Pick	1,721,939	1,078.68	0.16	0.01
Yard Tractor (CY)	5,030,150	3,151.05	0.45	0.03
Subtotal	23,351,900	14,628.40	2.11	0.15
Pier F				
RTG (CY)	1,912,022	1,197.75	0.17	0.01
Top-Pick	647,153	405.40	0.06	0.00
Side-Pick	479,589	300.43	0.04	0.00
Yard Tractor (CY)	1,590,438	996.30	0.14	0.01
Subtotal	4,629,202	2,899.88	0.42	0.03
Subtotal - Project Year 2010	27,981,102	17,528.29	2.53	0.18
Project Year 2015				
RTG (CY)	15,597,658	9,770.89	1.41	0.10
Top-Pick	5,324,820	3,335.64	0.48	0.03
Side-Pick	2,865,352	1,794.95	0.26	0.02
Yard Tractor (CY)	8,688,619	5,442.84	0.79	0.06
Subtotal - Project Year 2015	32,476,448	20,344.32	2.94	0.21
Project Year 2020				
RTG (CY)	17,410,878	10,906.75	1.57	0.11
Top-Pick	6,049,810	3,789.80	0.55	0.04
Side-Pick	3,704,734	2,320.77	0.33	0.02
Yard Tractor (CY)	11,178,134	7,002.35	1.01	0.07
Subtotal - Project Year 2020	38,343,556	24,019.67	3.47	0.25
Project Year 2030				
RTG (CY)	23,591,541	14,778.52	2.13	0.15
Top-Pick	7,971,770	4,993.78	0.72	0.05
Side-Pick	4,514,420	2,827.98	0.41	0.03
Yard Tractor (CY)	13,042,454	8,170.22	1.18	0.08
Subtotal - Project Year 2030	49,120,185	30,770.50	4.44	0.31

Table A.1.3.2-Alt1U-30. GHG Emissions from Cold-ironing Electricity Consumption - Unmitigated Alternative 1

Project Year	Cold-ironing Usage (MWh/yr)	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2010	*14,827*	5,965	0.050	0.027
2015	8,888	3,575	0.030	0.016
2020	18,478	7,433	0.062	0.034
2030	21,060	8,472	0.071	0.039

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.2-Alt1U-31. GHG Emissions from Terminal Electricity Consumption - POLB - MHTP - Unmitigated Alternative 1.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	44,509	17,905	0.15	0.08
2015	65,872	26,498	0.22	0.12
2020	89,522	36,012	0.30	0.17
2030	98,168	39,490	0.33	0.18

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A.1.3.2-Alt1U-32. Annual Operational GHG Emissions - POLB Middle Harbor Project - Unmitigated Alternative 1.

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Year 2005 Baseline							
Ships - Fairway Transit (1)	1,678,811	215.58	14.46	-	-	-	1,687,821
Ships - Precautionary Area Transit (1)	1,266	0.12	0.01	-	-	-	1,271
Ships - Harbor Transit (1)	898	0.04	0.00	-	-	-	900
Ships - Docking (1)	299	0.01	0.00	-	-	-	300
Ships - Hoteling Aux. Sources	21,018	0.87	0.01	-	-	-	21,038
Ships Sub Total	1,702,292	216.63	14.48	-	-	-	1,711,329
Tugboats - Cargo Vessel Assist (1)	527	0.07	0.01	-	-	-	531
Terminal Equipment	10,924	1.58	0.11	-	-	-	10,991
On-road Trucks	150,798	33.56	16.78	-	-	-	156,705
Trains	36,310	5.08	0.36	-	-	-	36,528
Railyard Equipment	634	0.09	0.01	-	-	-	638
Commuting	1,690	0.31	0.30	-	-	-	1,789
Reefers Refrigerant Losses	-	-	-	0.06	0.13	0.06	620
On-Terminal Electrical Consumption	13,131	0.11	0.06	-	-	-	13,152
Year 2005 Total	1,916,307	257	32	0.06	0.13	0.06	1,932,283
Project Year 2010							
Ships - Fairway Transit (1)	2,674,703	354.24	23.82	-	-	-	2,689,525
Ships - Precautionary Area Transit (1)	1,902	0.25	0.02	-	-	-	1,913
Ships - Harbor Transit (1)	1,529	0.21	0.01	-	-	-	1,537
Ships - Docking (1)	512	0.07	0.00	-	-	-	515
Ships - Hoteling Aux. Sources	14,719	1.98	0.11	-	-	-	14,793
Ships Sub Total	2,693,365	356.75	23.95	-	-	-	2,708,282
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	15,935	2.30	0.16	-	-	-	16,034
On-road Trucks	176,829	29.06	14.53	-	-	-	181,945
Trains	32,496	4.55	0.32	-	-	-	32,691
Railyard Equipment	193	0.03	0.00	-	-	-	194
Commuting	2,035	0.37	0.36	-	-	-	2,155
Cold-Iron Usage	5,422	0.05	0.02	-	-	-	5,431
Reefers Refrigerant Losses	-	-	-	0.07	0.18	0.08	817
On-Terminal Electrical Consumption	16,277	0.14	0.07	-	-	-	16,303
Project Year 2010 Total	2,943,094	393	39	0.07	0.18	0.08	2,964,396
Net Change from 2005 CEQA Baseline	1,026,787	136	7	0.02	0.04	0.02	1,032,113
Net Change from NEPA Baseline Year 2010	177,940	11	(0)	-	-	-	178,060
Project Year 2015							
Ships - Fairway Transit (1)	3,358,754	444.84	29.91	-	-	-	3,377,368
Ships - Precautionary Area Transit (1)	2,409	0.32	0.02	-	-	-	2,422
Ships - Harbor Transit (1)	1,924	0.26	0.02	-	-	-	1,935
Ships - Docking (1)	643	0.09	0.01	-	-	-	646
Ships - Hoteling Aux. Sources	11,412	1.52	0.07	-	-	-	11,464
Ships Sub Total	3,375,142	447.03	30.02	-	-	-	3,393,835
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	18,495	2.67	0.19	-	-	-	18,609
On-road Trucks	149,002	25.02	12.51	-	-	-	153,405
Trains	425,031	59.51	4.19	-	-	-	427,580
Railyard Equipment	2,845	0.41	0.03	-	-	-	2,863
Commuting	2,353	0.43	0.42	-	-	-	2,491
Cold-Iron Usage	3,250	0.03	0.01	-	-	-	3,256
Reefers Refrigerant Losses	-	-	-	0.10	0.23	0.10	1,084
On-Terminal Electrical Consumption	24,089	0.20	0.11	-	-	-	24,128
Project Year 2015 Total	4,000,884	535	47	0.10	0.23	0.10	4,027,931
Net Change from 2005 CEQA Baseline	2,084,578	278	15	0.04	0.10	0.04	2,095,648
Net Change from NEPA Baseline Year 2015	325,781	28	(2)	-	-	-	325,761

Project Year 2020							
Ships - Fairway Transit (1)	4,300,500	569.62	38.30	-	-	-	4,324,336
Ships - Precautionary Area Transit (1)	3,113	0.42	0.03	-	-	-	3,130
Ships - Harbor Transit (1)	2,577	0.35	0.02	-	-	-	2,592
Ships - Docking (1)	865	0.12	0.01	-	-	-	870
Ships - Hoteling Aux. Sources	9,341	1.22	0.04	-	-	-	9,378
Ships Sub Total	4,316,397	571.72	38.40	-	-	-	4,340,306
Tugboats - Cargo Vessel Assist (1)	812	0.11	0.01	-	-	-	817
Terminal Equipment	21,836	3.15	0.22	-	-	-	21,971
On-road Trucks	199,174	32.46	16.23	-	-	-	204,886
Trains	541,089	75.76	5.34	-	-	-	544,334
Railyard Equipment	4,087	0.59	0.04	-	-	-	4,112
Commuting	2,710	0.50	0.48	-	-	-	2,869
Cold-Iron Usage	6,757	0.06	0.03	-	-	-	6,768
Reefers Refrigerant Losses	-	-	-	0.13	0.30	0.13	1,395
On-Terminal Electrical Consumption	32,738	0.27	0.15	-	-	-	32,791
Project Year 2020 Total	5,125,600	685	61	0.13	0.30	0.13	5,160,249
Net Change from 2005 CEQA Baseline	3,209,294	427	29	0.07	0.17	0.07	3,227,966
Net Change from NEPA Baseline Year 2020	728,796	78	3	-	-	-	731,327
Project Year 2030							
Ships - Fairway Transit (1)	4,958,836	656.80	44.16	-	-	-	4,986,320
Ships - Precautionary Area Transit (1)	3,567	0.48	0.03	-	-	-	3,586
Ships - Harbor Transit (1)	2,947	0.40	0.03	-	-	-	2,963
Ships - Docking (1)	989	0.13	0.01	-	-	-	995
Ships - Hoteling Aux. Sources	10,812	1.41	0.04	-	-	-	10,855
Ships Sub Total	4,977,151	659.23	44.27	-	-	-	5,004,719
Tugboats - Cargo Vessel Assist (1)	947	0.13	0.01	-	-	-	953
Terminal Equipment	27,973	4.04	0.29	-	-	-	28,146
On-road Trucks	257,057	41.62	20.81	-	-	-	264,382
Trains	531,546	74.42	5.24	-	-	-	534,734
Railyard Equipment	4,407	0.64	0.04	-	-	-	4,434
Commuting	3,595	0.66	0.64	-	-	-	3,806
Cold-Iron Usage	7,702	0.06	0.04	-	-	-	7,714
Reefers Refrigerant Losses	-	-	-	0.15	0.35	0.15	1,627
On-Terminal Electrical Consumption	35,900	0.30	0.17	-	-	-	35,958
Project Year 2030 Total	5,846,279	781	71	0.15	0.35	0.15	5,886,474
Net Change from 2005 CEQA Baseline	3,929,972	524	39	0.09	0.22	0.10	3,954,191
Net Change from NEPA Baseline Year 2030	538,766	42	1	-	-	-	539,922

Note: (1) Includes auxiliary generator emissions.

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Table A.1.3.2-Alt1M-1. Ship Visit and Throughput Data - POLB - MHTP - Mitigated Alternative 1.

Project Scenario/Ship Type	*Annual Ship Visits*		*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 future expected operations at the Middle Harbor. Thrghput 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.1.3.2-Alt1M-2. Annual Cargo Vessel Emissions within Fairway Zone - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 4,000 - 4,999 TEU	1,053,491.95	145.30	10.39
Subtotal	2,652,335.36	365.82	26.16
Project Year 2015			
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 7,000 - 7,999 TEU	767,086.80	105.80	7.57
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 4,000 - 4,999 TEU	526,745.98	72.65	5.20
Containerships 3,000 - 3,999 TEU	436,900.04	60.26	4.31
Subtotal	3,329,576.23	459.23	32.84
Project Year 2020			
Containerships 10,000 - 11,999 TE	834,248.46	115.06	8.23
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 7,000 - 7,999 TEU	767,086.80	105.80	7.57
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 4,000 - 4,999 TEU	1,053,491.95	145.30	10.39
Subtotal	4,253,670.63	586.69	41.96
Project Year 2030			
Containerships 10,000 - 11,999 TE	834,248.46	115.06	8.23
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 7,000 - 7,999 TEU	767,086.80	105.80	7.57
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 5,000 - 5,999 TEU	653,710.26	90.16	6.45
Containerships 4,000 - 4,999 TEU	1,053,491.95	145.30	10.39
Subtotal	4,907,380.89	676.85	48.41

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt1M-3. Annual Cargo Vessel GHGs - Precautionary Area - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	999.88	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,271.05	0.18	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TE	309.07	0.04	0.00
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	1,593.15	0.22	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TE	309.07	0.04	0.00
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 5,000 - 5,999 TEU	235.50	0.03	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	1,828.65	0.25	0.02

Table A.1.3.2-Alt1M-4. Annual Cargo Vessel GHGs for Transit within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	268.94	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	342.35	0.05	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	85.97	0.01	0.00
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	432.42	0.06	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	85.97	0.01	0.00
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 5,000 - 5,999 TEU	65.66	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	498.07	0.07	0.00

Table A.1.3.2-Alt1M-5. Annual Cargo Vessel GHGs for Docking Activities - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	73.80	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	92.15	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	23.41	0.00	0.00
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	118.74	0.02	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	23.41	0.00	0.00
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 5,000 - 5,999 TEU	18.61	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	137.35	0.02	0.00

Table A.1.3.2-Alt1M-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 4,000 - 4,999 TEU	34,947.18	4.81	0.34
Subtotal	101,142.17	13.93	1.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 7,000 - 7,999 TEU	31,399.13	4.32	0.31
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 4,000 - 4,999 TEU	17,473.59	2.41	0.17
Containerships 3,000 - 3,999 TEU	13,349.41	1.84	0.13
Subtotal	128,417.11	17.68	1.27
Project Year 2020			
Containerships 10,000 - 11,999 TEU	41,862.41	5.76	0.41
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 7,000 - 7,999 TEU	31,399.13	4.32	0.31
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 4,000 - 4,999 TEU	34,947.18	4.81	0.34
Subtotal	174,403.70	24.01	1.72
Project Year 2030			
Containerships 10,000 - 11,999 TEU	41,862.41	5.76	0.41
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 7,000 - 7,999 TEU	31,399.13	4.32	0.31
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 5,000 - 5,999 TEU	23,790.54	3.28	0.23
Containerships 4,000 - 4,999 TEU	34,947.18	4.81	0.34
Subtotal	198,194.25	27.29	1.95

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt1M-7. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	1,409.97	0.19	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 5,000 - 5,999 TEU	195.67	0.03	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	1,605.64	0.22	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt1M-8. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 10,000 - 11,999 TE	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	2,127.04	0.29	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TE	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 5,000 - 5,999 TEU	295.18	0.04	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	2,422.22	0.33	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt1M-9. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TE	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	738.56	0.10	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TE	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 5,000 - 5,999 TEU	102.49	0.01	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	841.05	0.12	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt1M-10. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	2,633.72	0.36	0.03
Containerships 6,000 - 6,999 TEU	2,370.52	0.33	0.02
Containerships 4,000 - 4,999 TEU	2,923.86	0.40	0.03
Subtotal	7,928.10	1.09	0.08
Project Year 2015			
Containerships 8,000 - 9,999 TEU	353.37	0.05	0.00
Containerships 7,000 - 7,999 TEU	318.06	0.04	0.00
Containerships 6,000 - 6,999 TEU	318.06	0.04	0.00
Containerships 4,000 - 4,999 TEU	196.15	0.03	0.00
Containerships 3,000 - 3,999 TEU	166.41	0.02	0.00
Subtotal	1,352.05	0.19	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TE	412.51	0.06	0.00
Containerships 8,000 - 9,999 TEU	343.76	0.05	0.00
Containerships 7,000 - 7,999 TEU	309.41	0.04	0.00
Containerships 6,000 - 6,999 TEU	309.41	0.04	0.00
Containerships 4,000 - 4,999 TEU	381.63	0.05	0.00
Subtotal	1,756.72	0.24	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TE	412.51	0.06	0.00
Containerships 8,000 - 9,999 TEU	343.76	0.05	0.00
Containerships 7,000 - 7,999 TEU	309.41	0.04	0.00
Containerships 6,000 - 6,999 TEU	309.41	0.04	0.00
Containerships 5,000 - 5,999 TEU	245.48	0.03	0.00
Containerships 4,000 - 4,999 TEU	381.63	0.05	0.00
Subtotal	2,002.20	0.28	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths will b
year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducting hoteling aux. gen. emissions by 9

Table A.1.3.2-Alt1M-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TE	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	334.18	0.04	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TE	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 5,000 - 5,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	389.88	0.05	0.00

Table A.1.3.2-Alt1M-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TE	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	252.07	0.03	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TE	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 5,000 - 5,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	294.08	0.04	0.00

Table A.1.3.2-Alt1M-13. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TE	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	87.52	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TE	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 5,000 - 5,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	102.11	0.01	0.00

Table A.1.3.2-Alt1M-14. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,228.24	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,228.24	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,456.48	0.31	0.00
Subtotal	4,912.96	0.62	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,158.51	0.15	0.00
Containerships 7,000 - 7,999 TEU	1,158.51	0.15	0.00
Containerships 6,000 - 6,999 TEU	1,158.51	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,158.51	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,158.51	0.15	0.00
Subtotal	5,792.57	0.74	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TE	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	2,254.01	0.29	0.00
Subtotal	6,762.03	0.86	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TE	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,127.01	0.14	0.00
Containerships 5,000 - 5,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	2,254.01	0.29	0.00
Subtotal	7,889.04	1.00	0.01

Table A.1.3.2-Alt1M-15. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 1.

Project Scenario/All Vessels	*Tons Per Year (1)*		
	CO2	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	795.67	0.11	0.01
Project Year 2030	928.28	0.13	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt1M-16. Annual Auxiliary Generator GHGs for Tugboats during Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 1.

Project Scenario/All Vessels	*Tons Per Year*		
	CO2	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	97.33	0.01	0.00
Project Year 2030	113.56	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt1M-17. Annual Vessel GHGs - POLB - MHTP - Mitigated Alternative 1.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Ships - Fairway Transit (1)	.	237.14	15.91
Ships - Precautionary Area Transit (1)	1,392.39	0.13	0.01
Ships - Harbor Transit (1)	988.12	0.04	0.00
Ships - Docking (1)	329.37	0.01	0.00
Ships - Hoteling Aux. Sources	23,119.33	0.96	0.01
Tugboats - Cargo Vessel Assist (1)	580.20	0.08	0.01
Subtotal	26,409.41	238.37	15.93
Project Year 2010			
Ships - Fairway Transit (1)	2,753,477.53	379.75	27.16
Ships - Precautionary Area Transit (1)	2,038.02	0.28	0.02
Ships - Harbor Transit (1)	1,667.00	0.23	0.01
Ships - Docking (1)	559.24	0.08	0.00
Ships - Hoteling Aux. Sources	12,841.06	1.72	0.08
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	2,771,178.18	382.13	27.29
Project Year 2015			
Ships - Fairway Transit (1)	3,457,993.34	476.91	34.11
Ships - Precautionary Area Transit (1)	2,581.05	0.35	0.02
Ships - Harbor Transit (1)	2,097.97	0.29	0.02
Ships - Docking (1)	701.74	0.10	0.01
Ships - Hoteling Aux. Sources	7,144.62	0.92	0.02
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	3,471,262.90	478.67	34.18
Project Year 2020			
Ships - Fairway Transit (1)	4,428,074.33	610.70	43.68
Ships - Precautionary Area Transit (1)	3,337.29	0.46	0.03
Ships - Harbor Transit (1)	2,811.52	0.38	0.03
Ships - Docking (1)	944.82	0.13	0.01
Ships - Hoteling Aux. Sources	8,518.75	1.10	0.02
Tugboats - Cargo Vessel Assist (1)	893.00	0.12	0.01
Subtotal	4,444,579.73	612.90	43.77
Project Year 2030			
Ships - Fairway Transit (1)	5,105,575.14	704.14	50.36
Ships - Precautionary Area Transit (1)	3,824.17	0.52	0.03
Ships - Harbor Transit (1)	3,214.38	0.44	0.03
Ships - Docking (1)	1,080.51	0.15	0.01
Ships - Hoteling Aux. Sources	9,891.24	1.28	0.03
Tugboats - Cargo Vessel Assist (1)	1,041.83	0.14	0.01
Subtotal	5,124,627.27	706.67	50.47

Note: (1) Includes auxiliary power emissions.

Table A.1.3.2-Alt1M-18. Train Trip Generation Rates - POLB - MHTP - Mitigated Alternative 1.

Project Scenario/Rail Yard	*Annual Round Trips*
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	2,061

Table A.1.3.2-Alt1M-19. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 1 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	13.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	29.45	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	17,726.46	2.48	0.17
Haul Line Locomotive - Swiching	112.09	0.02	0.00
Yard Locomotive	25.59	0.00	0.00
Subtotal	17,906.59	2.51	0.18
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	13.00	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	29.45	0.00	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	17,726.46	2.48	0.17
Haul Line Locomotive - Swiching	44.84	0.01	0.00
Yard Locomotive	25.59	0.00	0.00
Subtotal	17,839.33	2.50	0.18
Total Tons Per Year	35,745.92	5.00	0.35

Table A.1.3.2-Alt1M-20. Annual Rail Yard Cargo Handling Equipment GHGs- Mitigated Alternative 1 Year 2010.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	204,990	128.41	0.02	0.00
Yard Tractor	133,751	83.79	0.01	0.00
Subtotal	338,741	212.20	0.03	0.00

Table A.1.3.2-Alt1M-21. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 1 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.04	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	385.20	0.05	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	231,850.81	32.46	2.29
Haul Line Locomotive - Swiching	1,466.07	0.21	0.01
Yard Locomotive	334.67	0.05	0.00
Subtotal	234,206.79	32.79	2.31
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.04	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	385.20	0.05	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	231,850.81	32.46	2.29
Haul Line Locomotive - Swiching	586.43	0.08	0.01
Yard Locomotive	334.67	0.05	0.00
Subtotal	233,327.15	32.67	2.30
Total Tons Per Year	467,533.94	65.46	4.61

Table A.1.3.2-Alt1M-22. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 1 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,023,640	1,894.11	0.27	0.02
Yard Tractor	1,972,850	1,235.86	0.18	0.01
Subtotal	4,996,490	3,129.97	0.45	0.03

Table A.1.3.2-Alt1M-23. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 1 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.47	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	490.39	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	295,159.59	41.33	2.91
Haul Line Locomotive - Swiching	1,866.39	0.26	0.02
Yard Locomotive	426.05	0.06	0.00
Subtotal	298,158.89	41.75	2.94
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.47	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	490.39	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	295,159.59	41.33	2.91
Haul Line Locomotive - Swiching	746.56	0.10	0.01
Yard Locomotive	426.05	0.06	0.00
Subtotal	297,039.05	41.59	2.93
Total Tons Per Year	595,197.94	83.34	5.87

Table A.1.3.2-Alt1M-24. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 1 Year 2020.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,342,795	-	-	-
Yard Tractor	2,833,566	1,775.04	0.26	0.02
Subtotal	7,176,361	1,775.04	0.26	0.02

Table A.1.3.2-Alt1M-25. Annual Train GHGs - POLB - MHT - Mitigated Alternative 1 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	212.65	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	481.74	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	289,954.20	40.60	2.86
Haul Line Locomotive - Swiching	1,833.48	0.26	0.02
Yard Locomotive	418.54	0.06	0.00
Subtotal	292,900.60	41.01	2.89
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	212.65	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	481.74	0.07	0.00
Haul Line Locomotive - 40 mph - PCH to SCAB border	289,954.20	40.60	2.86
Haul Line Locomotive - Swiching	733.39	0.10	0.01
Yard Locomotive	418.54	0.06	0.00
Subtotal	291,800.52	40.86	2.88
Total Tons Per Year	584,701.12	81.87	5.77

Table A.1.3.2-Alt1M-26. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 1 Year 2030.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,682,863	-	-	-
Yard Tractor	3,055,452	1,914.04	0.28	0.02
Subtotal	7,738,315	1,914.04	0.28	0.02

Table A.1.3.2-Alt1M-27. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Mitigated Alternative 1.

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	45.18	98.88	681.91
Railyard Equipment	0.83	2.14	18.51
Subtotal	46.01	101.02	700.42
Project Year 2010			
Trains	35,745.92	5.00	0.35
Railyard Equipment	212.20	0.03	0.00
Subtotal	35,958.12	5.04	0.35
Project Year 2015			
Trains	467,533.94	65.46	4.61
Railyard Equipment	3,129.97	0.45	0.03
Subtotal	470,663.91	65.91	4.64
Project Year 2020			
Trains	595,197.94	83.34	5.87
Railyard Equipment	1,775.04	0.26	0.02
Subtotal	596,972.98	83.59	5.89
Project Year 2030			
Trains - 2026	584,701.12	81.87	5.77
Railyard Equipment - 2030	1,914.04	0.28	0.02
Subtotal	586,615.16	82.14	5.78

Table A.1.3.2-Alt1M-28. Annual Truck GHGs for the Middle Harbor Terminal Project - Mitigated Alternative 1.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,085	22.1	11.0
Year 2005 - Driving	2,098	5.5	2.7
Subtotal - Year 2005	5,183	27.5	13.8
Year 2010 - Idling	1,924	13.8	6.9
Year 2010 - Driving	2,734	7.1	3.6
Subtotal - Year 2010	4,658	20.9	10.4
Year 2015 - Idling	1,676	12.0	6.0
Year 2015 - Driving	2,380	6.2	3.1
Subtotal - Year 2015	4,056	18.2	9.1
Year 2020 - Idling	2,166	15.5	7.7
Year 2020 - Driving	3,077	8.0	4.0
Subtotal - Year 2020	5,243	23.5	11.7
Year 2030 - Idling	2,768	19.8	9.9
Year 2030 - Driving	3,933	10.2	5.1
Subtotal - Year 2030	6,701	30.0	15.0
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	6	3
Subtotal - Year 2010	125,369	7	4
Subtotal - Year 2015	103,699	6	3
Subtotal - Year 2020	141,265	8	4
Subtotal - Year 2030	183,292	10	5
Off-Terminal outside SCAB			
Subtotal - Year 2005	59,897	4	2
Subtotal - Year 2010	64,486	4	2
Subtotal - Year 2015	56,147	3	2
Subtotal - Year 2020	72,584	4	2
Subtotal - Year 2030	92,769	6	3
Total Annual Truck Emissions by Project Year			
Year 2005	165,878	37	18
Year 2010	191,779	25	12
Year 2015	162,580	16	8
Year 2020	218,507	33	17
Year 2030	277,737	28	14

Table A.1.3.2-Alt1M-29. Terminal Equipment Annual GHGs - POLB - MHTP - Mitigated Alternative 1.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,423	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	12,944,007	8,109	1.17	0.08
Top-Pick	3,655,804	2,290	0.33	0.02
Side-Pick	1,721,939	1,079	0.16	0.01
Yard Tractor (CY)	5,030,150	3,151	0.45	0.03
Subtotal	23,351,900	14,628	2.11	0.15
Pier F				
RTG (CY)	1,912,022	1,198	0.17	0.01
Top-Pick	647,153	405	0.06	0.00
Side-Pick	479,589	300	0.04	0.00
Yard Tractor (CY)	1,590,438	996	0.14	0.01
Subtotal	4,629,202	2,900	0.42	0.03
Subtotal - Project Year 2010	27,981,102	17,528	2.53	0.18
Project Year 2015				
RTG (CY)	15,597,658	9,771	1.41	0.10
Top-Pick	5,324,820	3,336	0.48	0.03
Side-Pick	2,865,352	1,795	0.26	0.02
Yard Tractor (CY)	8,688,619	5,443	0.79	0.06
Subtotal - Project Year 2015	32,476,448	20,344	2.94	0.21
Project Year 2020				
RTG (CY)	17,410,878	-	-	-
Top-Pick	6,049,810	3,790	0.55	0.04
Side-Pick	3,704,734	2,321	0.33	0.02
Yard Tractor (CY)	11,178,134	7,002	1.01	0.07
Subtotal - Project Year 2020	38,343,556	13,113	1.89	0.13
Project Year 2030				
RTG (CY)	23,591,541	-	-	-
Top-Pick	7,971,770	4,994	0.72	0.05
Side-Pick	4,514,420	2,828	0.41	0.03
Yard Tractor (CY)	13,042,454	8,170	1.18	0.08
Subtotal - Project Year 2030	49,120,185	15,992	2.31	0.16

Table A.1.3.2-Alt1M-30. GHG Emissions from Cold-ironing Electricity Consumption - POLB - MHTP - Mitigated Alternative 1.

Project Year	Cold-ironing Usage (MWh/yr)	CO2	CH4	N2O
		GHG Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2010	*4,404*	*1,772*	*0.015*	*0.008*
2015	8,888	*3,575*	*0.030*	*0.016*
2020	20,787	*8,362*	*0.070*	*0.038*
2030	23,692	*9,531*	*0.079*	*0.044*
Electrify RMGs				
Container Yard - 202	12,993	5,227	0.04	0.02
Rail Yard - 2020	3,241	1,304	0.01	0.01
Container Yard - 203	17,606	7,082	0.06	0.03
Rail Yard - 2030	3,495	1,406	0.01	0.01
Annual Totals				
2010	4,404	1,772	0.01	0.01
2015	8,888	3,575	0.03	0.02
2020	37,021	14,893	0.12	0.07
2030	44,792	18,019	0.15	0.08

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.2-Alt1M-31. GHG Emissions from Terminal Electricity Consumption - POLB - MHTP - Mitigated Alternative 1.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	44,509	17,905	0.15	0.08
2015	65,872	26,498	0.22	0.12
2020	89,522	36,012	0.30	0.17
2030	98,168	39,490	0.33	0.18

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A.1.3.2-Alt1U-32. Annual Operational Emissions - POLB - MHTP - Mitigated Alternative 1.

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Project Year 2010							
Ships - Fairway Transit (1)	2,503,161	345.23	24.69	-	-	-	2,518,065
Ships - Precautionary Area Transit (1)	1,853	0.25	0.02	-	-	-	1,863
Ships - Harbor Transit (1)	1,515	0.21	0.01	-	-	-	1,524
Ships - Docking (1)	508	0.07	0.00	-	-	-	511
Ships - Hoteling Aux. Sources	11,674	1.56	0.08	-	-	-	11,730
Ships Sub Total	2,518,712	347.32	24.80	-	-	-	2,533,693
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	15,935	2.30	0.16	-	-	-	16,034
On-road Trucks	174,344	22.60	11.30	-	-	-	178,322
Trains	32,496	4.55	0.32	-	-	-	32,691
Railyard Equipment	193	0.03	0.00	-	-	-	194
Commuting	2,035	0.37	0.36	-	-	-	2,155
Cold-Iron Usage	1,610	0.013	0.007	-	-	-	1,613
Reefers Refrigerant Losses	-	-	-	0.07	0.18	0.08	817
On-Terminal Electrical Consumption	16,277	0.14	0.07	-	-	-	16,303
Project Year 2010 Total	2,762,144	377	37	0.07	0.18	0.08	2,782,366
Net Change from 2005 CEQA Baseline	2,550,951	339	20	0.02	0.04	0.02	2,564,361
Net Change from NEPA Baseline Year 2010	(3,010)	(5)	(3)	-	-	-	(3,970)
Project Year 2015							
Ships - Fairway Transit (1)	3,143,630	433.56	31.01	-	-	-	3,162,347
Ships - Precautionary Area Transit (1)	2,346	0.32	0.02	-	-	-	2,360
Ships - Harbor Transit (1)	1,907	0.26	0.02	-	-	-	1,918
Ships - Docking (1)	638	0.09	0.01	-	-	-	642
Ships - Hoteling Aux. Sources	6,495	0.84	0.02	-	-	-	6,518
Ships Sub Total	3,155,017	435.06	31.07	-	-	-	3,173,784
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	18,495	2.67	0.19	-	-	-	18,609
On-road Trucks	147,800	14.96	7.48	-	-	-	150,434
Trains	425,031	59.51	4.19	-	-	-	427,580
Railyard Equipment	2,845	0.41	0.03	-	-	-	2,863
Commuting	2,353	0.43	0.42	-	-	-	2,491
Cold-Iron Usage	3,250	0.027	0.015	-	-	-	3,256
Reefers Refrigerant Losses	-	-	-	0.10	0.23	0.10	1,084
On-Terminal Electrical Consumption	24,089	0.20	0.11	-	-	-	24,128
Project Year 2015 Total	3,779,557	513	44	0.10	0.23	0.10	3,804,909
Net Change from 2005 CEQA Baseline	3,568,365	475	26	0.04	0.10	0.04	3,586,904
Net Change from NEPA Baseline Year 2015	104,454	6	(6)	-	-	-	102,740
Project Year 2020							
Ships - Fairway Transit (1)	4,025,522	555.18	39.71	-	-	-	4,049,490
Ships - Precautionary Area Transit (1)	3,034	0.41	0.03	-	-	-	3,051
Ships - Harbor Transit (1)	2,556	0.35	0.02	-	-	-	2,570
Ships - Docking (1)	859	0.12	0.01	-	-	-	864
Ships - Hoteling Aux. Sources	7,744	1.00	0.02	-	-	-	7,772
Ships Sub Total	4,039,715	557.07	39.79	-	-	-	4,063,747
Tugboats - Cargo Vessel Assist (1)	812	0.11	0.01	-	-	-	817
Terminal Equipment	11,921	1.72	0.12	-	-	-	11,995
On-road Trucks	198,642	30.07	15.04	-	-	-	203,935
Trains	541,089	75.76	5.34	-	-	-	544,334
Railyard Equipment	1,614	0.23	0.02	-	-	-	1,624
Commuting	2,710	0.50	0.48	-	-	-	2,869
Cold-Iron + RMG Electrification	13,539	0.113	0.062	-	-	-	13,560
Reefers Refrigerant Losses	-	-	-	0.13	0.30	0.13	1,395
On-Terminal Electrical Consumption	32,738	0.27	0.15	-	-	-	32,791
Project Year 2020 Total	4,842,780	666	61	0.13	0.30	0.13	4,877,066
Net Change from 2005 CEQA Baseline	4,631,588	628	44	0.07	0.17	0.07	4,659,061
Net Change from NEPA Baseline Year 2020	433,953	57	3	-	-	-	436,048

Project Year 2030							
Ships - Fairway Transit (1)	4,641,432	640.13	45.78	-	-	-	4,669,067
Ships - Precautionary Area Transit (1)	3,477	0.48	0.03	-	-	-	3,496
Ships - Harbor Transit (1)	2,922	0.40	0.03	-	-	-	2,939
Ships - Docking (1)	982	0.13	0.01	-	-	-	988
Ships - Hoteling Aux. Sources	8,992	1.16	0.02	-	-	-	9,024
Ships Sub Total	4,657,805	642.30	45.87	-	-	-	4,685,514
Tugboats - Cargo Vessel Assist (1)	947	0.13	0.01	-	-	-	953
Terminal Equipment	14,538	2.10	0.15	-	-	-	14,628
On-road Trucks	252,488	25.22	12.61	-	-	-	256,927
Trains	531,546	74.42	5.24	-	-	-	534,734
Railyard Equipment	1,740	0.25	0.02	-	-	-	1,751
Commuting	3,595	0.66	0.64	-	-	-	3,806
Cold-Iron + RMG Electrification	16,381	0.136	0.075	-	-	-	16,407
Reefers Refrigerant Losses	-	-	-	0.15	0.35	0.15	1,627
On-Terminal Electrical Consumption	35,900	0.30	0.17	-	-	-	35,958
Project Year 2030 Total	5,514,941	746	65	0.15	0.35	0.15	5,552,304
Net Change from 2005 CEQA Baseline	5,303,749	707	47	0.09	0.22	0.10	5,334,299
Net Change from NEPA Baseline Year 2030	191,902	4	(6)	-	-	-	190,130

Note: (1) Includes auxiliary generator emissions.

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Table A.1.3.2-Alt2U-1. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 2.

Project Scenario/Ship Type	*Annual Ship Visits*	*Annual Shifts*	*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 cur
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.1.3.2-Alt2U-2. Annual Cargo Vessel GHGs within the POLB Fairway Zone - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 6,000 - 6,999 TEU	812,648.78	107.48	7.21
Containerships 4,000 - 4,999 TEU	1,129,163.07	149.34	10.02
Subtotal	2,843,286.00	376.05	25.22
Project Year 2015			
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 7,000 - 7,999 TEU	822,383.84	108.77	7.30
Containerships 6,000 - 6,999 TEU	812,648.78	107.48	7.21
Containerships 4,000 - 4,999 TEU	564,581.53	74.67	5.01
Containerships 3,000 - 3,999 TEU	467,967.09	61.89	4.15
Subtotal	3,569,055.40	472.04	31.66
Project Year 2020			
Containerships 10,000 - 11,999 TEU	894,386.99	118.29	7.93
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 7,000 - 7,999 TEU	822,383.84	108.77	7.30
Containerships 4,000 - 4,999 TEU	564,581.53	74.67	5.01
Containerships 3,000 - 3,999 TEU	467,967.09	61.89	4.15
Subtotal	3,650,793.61	482.85	32.39
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 7,000 - 7,999 TEU	822,383.84	108.77	7.30
Containerships 6,000 - 6,999 TEU	1,625,297.57	214.96	14.42
Containerships 4,000 - 4,999 TEU	564,581.53	74.67	5.01
Containerships 3,000 - 3,999 TEU	935,934.17	123.78	8.30
Subtotal	4,849,671.27	641.41	43.02

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt2U-3. Annual Cargo Vessel GHGs within the Precautionary Area - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	431.45	0.06	0.00
Subtotal	1,054.30	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	289.17	0.04	0.00
Containerships 4,000 - 4,999 TEU	215.73	0.03	0.00
Containerships 3,000 - 3,999 TEU	201.99	0.03	0.00
Subtotal	1,340.22	0.18	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	325.89	0.04	0.00
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 4,000 - 4,999 TEU	215.73	0.03	0.00
Containerships 3,000 - 3,999 TEU	201.99	0.03	0.00
Subtotal	1,376.94	0.18	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	299.66	0.04	0.00
Containerships 6,000 - 6,999 TEU	578.35	0.08	0.01
Containerships 4,000 - 4,999 TEU	215.73	0.03	0.00
Containerships 3,000 - 3,999 TEU	403.98	0.05	0.00
Subtotal	1,831.38	0.24	0.02

Table A.1.3.2-Alt2U-4. Annual Cargo Vessel GHGs for Transit within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.84	0.01	0.00
Subtotal	283.58	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	80.09	0.01	0.00
Containerships 4,000 - 4,999 TEU	56.42	0.01	0.00
Containerships 3,000 - 3,999 TEU	52.10	0.01	0.00
Subtotal	360.98	0.05	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	90.65	0.01	0.00
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 4,000 - 4,999 TEU	56.42	0.01	0.00
Containerships 3,000 - 3,999 TEU	52.10	0.01	0.00
Subtotal	371.55	0.05	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	81.72	0.01	0.00
Containerships 6,000 - 6,999 TEU	160.17	0.02	0.00
Containerships 4,000 - 4,999 TEU	56.42	0.01	0.00
Containerships 3,000 - 3,999 TEU	104.20	0.01	0.00
Subtotal	493.17	0.07	0.00

Table A.1.3.2-Alt2U-5. Annual OGV GHGs for Docking Activities - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	30.43	0.00	0.00
Subtotal	77.82	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	15.22	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.86	0.00	0.00
Subtotal	97.17	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	24.69	0.00	0.00
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 4,000 - 4,999 TEU	15.22	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.86	0.00	0.00
Subtotal	99.15	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	22.70	0.00	0.00
Containerships 6,000 - 6,999 TEU	45.40	0.01	0.00
Containerships 4,000 - 4,999 TEU	15.22	0.00	0.00
Containerships 3,000 - 3,999 TEU	23.73	0.00	0.00
Subtotal	131.73	0.02	0.00

Table A.1.3.2-Alt2U-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 6,000 - 6,999 TEU	30,333.02	4.18	0.30
Containerships 4,000 - 4,999 TEU	34,192.00	4.71	0.34
Subtotal	98,887.40	13.61	0.97
Project Year 2015			
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 7,000 - 7,999 TEU	30,689.70	4.23	0.30
Containerships 6,000 - 6,999 TEU	30,333.02	4.18	0.30
Containerships 4,000 - 4,999 TEU	17,096.00	2.35	0.17
Containerships 3,000 - 3,999 TEU	13,093.44	1.80	0.13
Subtotal	125,574.53	17.29	1.24
Project Year 2020			
Containerships 10,000 - 11,999 TEU	40,916.56	5.63	0.40
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 7,000 - 7,999 TEU	30,689.70	4.23	0.30
Containerships 4,000 - 4,999 TEU	17,096.00	2.35	0.17
Containerships 3,000 - 3,999 TEU	13,093.44	1.80	0.13
Subtotal	136,158.07	18.75	1.34
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 7,000 - 7,999 TEU	30,689.70	4.23	0.30
Containerships 6,000 - 6,999 TEU	60,666.05	8.35	0.60
Containerships 4,000 - 4,999 TEU	17,096.00	2.35	0.17
Containerships 3,000 - 3,999 TEU	26,186.87	3.61	0.26
Subtotal	169,000.99	23.27	1.67

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt2U-7. Annual Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,116.45	0.15	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	509.70	0.07	0.01
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	200.01	0.03	0.00
Subtotal	1,386.38	0.19	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt2U-8. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 10,000 - 11,999 TEU	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,673.68	0.23	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	768.91	0.11	0.01
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	280.61	0.04	0.00
Subtotal	2,070.33	0.29	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt2U-9. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	581.14	0.08	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	266.98	0.04	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	97.43	0.01	0.00
Subtotal	718.87	0.10	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt2U-10. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 2.

Project Scenario/Vessel Type	*Tons Per Year*			Annual MW-Hrs for Cold-Ironing
	CO2	*CH4*	*N2O*	
Year 2005 Baseline				
Subtotal				
Project Year 2010				
Containerships 8,000 - 9,999 TEU	3,746.40	0.52	0.04	4,926
Containerships 6,000 - 6,999 TEU	3,372.01	0.46	0.03	4,433
Containerships 4,000 - 4,999 TEU	4,159.11	0.57	0.04	5,468
Subtotal	11,277.52	1.55	0.11	14,827
Project Year 2015				
Containerships 8,000 - 9,999 TEU	1,766.86	0.24	0.02	2,323
Containerships 7,000 - 7,999 TEU	1,590.29	0.22	0.02	2,091
Containerships 6,000 - 6,999 TEU	1,590.29	0.22	0.02	2,091
Containerships 4,000 - 4,999 TEU	980.75	0.14	0.01	1,289
Containerships 3,000 - 3,999 TEU	832.07	0.11	0.01	1,094
Subtotal	6,760.26	0.93	0.07	8,888
Project Year 2020				
Containerships 10,000 - 11,999 TEU	825.03	0.11	0.01	4,339
Containerships 8,000 - 9,999 TEU	687.52	0.09	0.01	3,616
Containerships 7,000 - 7,999 TEU	618.82	0.09	0.01	3,254
Containerships 4,000 - 4,999 TEU	381.63	0.05	0.00	2,007
Containerships 3,000 - 3,999 TEU	323.78	0.04	0.00	1,703
Subtotal	2,836.77	0.39	0.03	14,919
Project Year 2030				
Containerships 10,000 - 11,999 TEU	-	-	-	-
Containerships 8,000 - 9,999 TEU	687.52	0.09	0.01	3,616
Containerships 7,000 - 7,999 TEU	618.82	0.09	0.01	3,254
Containerships 6,000 - 6,999 TEU	1,237.63	0.17	0.01	6,509
Containerships 4,000 - 4,999 TEU	381.63	0.05	0.00	2,007
Containerships 3,000 - 3,999 TEU	647.55	0.09	0.01	3,406
Subtotal	3,573.15	0.49	0.04	18,792

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in years 2015/2020+

Table A.1.3.2-Alt2U-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	111.39	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	111.39	0.01	0.00
Subtotal	389.88	0.05	0.00

Table A.1.3.2-Alt2U-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	84.02	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	84.02	0.01	0.00
Subtotal	294.08	0.04	0.00

Table A.1.3.2-Alt2U-13. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 2

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	29.17	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	29.17	0.00	0.00
Subtotal	102.11	0.01	0.00

Table A.1.3.2-Alt2U-14. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,228.24	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,228.24	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,456.48	0.31	0.00
Subtotal	4,912.96	0.62	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,158.51	0.15	0.00
Containerships 7,000 - 7,999 TEU	1,158.51	0.15	0.00
Containerships 6,000 - 6,999 TEU	1,158.51	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,158.51	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,158.51	0.15	0.00
Subtotal	5,792.57	0.74	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	1,127.01	0.14	0.00
Containerships 3,000 - 3,999 TEU	1,127.01	0.14	0.00
Subtotal	5,635.03	0.72	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	2,254.01	0.29	0.00
Containerships 4,000 - 4,999 TEU	1,127.01	0.14	0.00
Containerships 3,000 - 3,999 TEU	2,254.01	0.29	0.00
Subtotal	7,889.04	1.00	0.01

Table A.1.3.2-Alt2U-15. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	663.06	0.09	0.01
Project Year 2030	928.28	0.13	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt2U-16. Annual Auxiliary Generator GHGs for Tugboats during Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	81.11	0.01	0.00
Project Year 2030	113.56	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt2U-17. Annual Vessel GHGs - MHTP - Unmitigated Alternative 2.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Ships - Fairway Transit (1)	1,846,691.92	237.14	15.91
Ships - Precautionary Area Transit (1)	1,392.39	0.13	0.01
Ships - Harbor Transit (1)	988.12	0.04	0.00
Ships - Docking (1)	329.37	0.01	0.00
Ships - Hoteling Aux. Sources	23,119.33	0.96	0.01
Tugboats - Cargo Vessel Assist (1)	580.20	0.08	0.01
Subtotal	1,873,101.33	238.37	15.93
Project Year 2010			
Ships - Fairway Transit (1)	2,942,173.40	389.66	26.20
Ships - Precautionary Area Transit (1)	2,092.43	0.28	0.02
Ships - Harbor Transit (1)	1,681.64	0.23	0.01
Ships - Docking (1)	563.26	0.08	0.00
Ships - Hoteling Aux. Sources	16,190.48	2.18	0.12
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	2,963,296.54	392.51	26.36
Project Year 2015			
Ships - Fairway Transit (1)	3,694,629.93	489.33	32.90
Ships - Precautionary Area Transit (1)	2,650.23	0.35	0.02
Ships - Harbor Transit (1)	2,116.60	0.29	0.02
Ships - Docking (1)	706.76	0.10	0.01
Ships - Hoteling Aux. Sources	12,552.83	1.67	0.07
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	3,713,400.52	491.83	33.02
Project Year 2020			
Ships - Fairway Transit (1)	3,786,951.68	501.59	33.73
Ships - Precautionary Area Transit (1)	2,771.87	0.37	0.02
Ships - Harbor Transit (1)	2,255.28	0.31	0.02
Ships - Docking (1)	753.23	0.10	0.01
Ships - Hoteling Aux. Sources	8,471.80	1.11	0.03
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	3,801,948.03	503.58	33.82
Project Year 2030			
Ships - Fairway Transit (1)	5,018,672.26	664.68	44.69
Ships - Precautionary Area Transit (1)	3,607.63	0.48	0.03
Ships - Harbor Transit (1)	2,857.57	0.39	0.03
Ships - Docking (1)	952.70	0.13	0.01
Ships - Hoteling Aux. Sources	11,462.19	1.50	0.04
Tugboats - Cargo Vessel Assist (1)	1,041.83	0.14	0.01
Subtotal	5,038,594.20	667.32	44.80

Note: (1) Includes auxiliary power emissions.

Table A.1.3.2-Alt2U-18. Train Trip Generation Rates - POLB - MHTP - Unmitigated Alternative 2.

Project Scenario/Rail Yard	*Annual Round Trips*
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.1.3.2-Alt2U-19. Annual Train GHGs - POLB - Middle Harbor Terminal Project Unmitigated Alternative 2 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.38	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.05	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	16,882.34	2.36	0.17
Haul Line Locomotive - Switching	106.75	0.01	0.00
Yard Locomotive	24.37	0.00	0.00
Subtotal	17,053.89	2.39	0.17
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.38	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.05	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	16,882.34	2.36	0.17
Haul Line Locomotive - Switching	42.70	0.01	0.00
Yard Locomotive	24.37	0.00	0.00
Subtotal	16,989.84	2.38	0.17
Total Tons Per Year	34,043.73	4.77	0.34

Table A.1.3.2-Alt2U-20. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 2 Year 2010.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	196,119	122.86	0.02	0.00
Yard Tractor	127,963	80.16	0.01	0.00
Subtotal	324,081	203.02	0.03	0.00

Table A.1.3.2-Alt2U-21. Annual Train GHGs - POLB - Middle Harbor Terminal Project Unmitigated Alternative 2 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.55	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	386.37	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	232,554.24	32.56	2.29
Haul Line Locomotive - Switching	1,470.52	0.21	0.01
Yard Locomotive	335.68	0.05	0.00
Subtotal	234,917.37	32.89	2.32
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.55	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	386.37	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	232,554.24	32.56	2.29
Haul Line Locomotive - Switching	588.21	0.08	0.01
Yard Locomotive	335.68	0.05	0.00
Subtotal	234,035.06	32.77	2.31
Total Tons Per Year	468,952.43	65.66	4.62

Table A.1.3.2-Alt2U-22. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 2 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	2,987,284	1,871.33	0.27	0.02
Yard Tractor	1,949,128	1,221.00	0.18	0.01
Subtotal	4,936,412	3,092.33	0.45	0.03

Table A.1.3.2-Alt2U-23. Annual Train GHGs - POLB - Middle Harbor Terminal Project Unmitigated Alternative 2 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	218.12	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	494.13	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	297,410.57	41.64	2.93
Haul Line Locomotive - Switching	1,880.62	0.26	0.02
Yard Locomotive	429.30	0.06	0.00
Subtotal	300,432.74	42.06	2.96
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	218.12	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	494.13	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	297,410.57	41.64	2.93
Haul Line Locomotive - Switching	752.25	0.11	0.01
Yard Locomotive	429.30	0.06	0.00
Subtotal	299,304.37	41.91	2.95
Total Tons Per Year	599,737.11	83.97	5.91

Table A.1.3.2-Alt2U-24. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 2 Year 2020.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,794,215	2,376.82	0.34	0.02
Yard Tractor	2,475,631	1,550.82	0.22	0.02
Subtotal	6,269,847	3,927.64	0.57	0.04

Table A.1.3.2-Alt2U-25. Annual Train GHGs - POLB - Middle Harbor Terminal Project Unmitigated Alternative 2 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.16	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	489.69	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	294,737.53	41.27	2.91
Haul Line Locomotive - Switching	1,863.72	0.26	0.02
Yard Locomotive	425.44	0.06	0.00
Subtotal	297,732.54	41.69	2.94
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.16	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	489.69	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	294,737.53	41.27	2.91
Haul Line Locomotive - Switching	745.49	0.10	0.01
Yard Locomotive	425.44	0.06	0.00
Subtotal	296,614.31	41.53	2.92
Total Tons Per Year	594,346.85	83.22	5.86

Table A.1.3.2-Alt2U-26. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 2 Year 2030.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,048,199	2,535.93	0.37	0.03
Yard Tractor	2,641,349	1,654.63	0.24	0.02
Subtotal	6,689,548.38	4,190.55	0.60	0.04

Table A.1.3.2-Alt2U-27. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs POLB - Middle Harbor Terminal Project Unmitigated Alternative 2.

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	45.18	98.88	681.91
Railyard Equipment	0.83	2.14	18.51
Subtotal	46.01	101.02	700.42
Project Year 2010			
Trains	34,043.73	4.77	0.34
Railyard Equipment	203.02	0.03	0.00
Subtotal	34,246.75	4.80	0.34
Project Year 2015			
Trains	468,952.43	65.66	4.62
Railyard Equipment	3,092.33	0.45	0.03
Subtotal	472,044.76	66.11	4.66
Project Year 2020			
Trains	599,737.11	83.97	5.91
Railyard Equipment	3,927.64	0.57	0.04
Subtotal	603,664.74	84.54	5.95
Project Year 2030			
Trains - 2030	594,346.85	83.22	5.86
Railyard Equipment - 2030	4,190.55	0.60	0.04
Subtotal	598,537.40	83.82	5.90

Table A.1.2-Alt 2-28. Annual Truck GHGs for the Middle Harbor Terminal Project - Unmitigated Alternative 2.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,085	22.1	11.0
Year 2005 - Driving	2,098	5.5	2.7
Subtotal - Year 2005	5,183	27.51	13.75
Year 2010 - Idling	1,840	13.2	6.6
Year 2010 - Driving	2,614	6.8	3.4
Subtotal - Year 2010	4,455	19.95	9.98
Year 2015 - Idling	1,642	11.7	5.9
Year 2015 - Driving	2,332	6.1	3.0
Subtotal - Year 2015	3,974	17.80	8.90
Year 2020 - Idling	1,719	12.3	6.1
Year 2020 - Driving	2,441	6.3	3.2
Subtotal - Year 2020	4,160	18.63	9.32
Year 2030 - Idling	2,197	15.7	7.9
Year 2030 - Driving	3,122	8.1	4.1
Subtotal - Year 2030	5,319	23.83	11.91
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	5.85	2.92
Subtotal - Year 2010	118,881	6.90	3.45
Subtotal - Year 2015	101,513	5.89	2.94
Subtotal - Year 2020	111,959	6.26	3.13
Subtotal - Year 2030	145,404	8.13	4.07
Off-Terminal outside SCAB			
Subtotal - Year 2005	59,897	4	2
Subtotal - Year 2010	79,220	5	2
Subtotal - Year 2015	55,005	3	2
Subtotal - Year 2020	57,575	3	2
Subtotal - Year 2030	73,627	4	2
Total Annual Truck Emissions by Project Year			
Year 2005	165,878	37	18
Year 2010	202,555	32	16
Year 2015	160,492	27	13
Year 2020	173,694	28	14
Year 2030	224,350	36	18

Table A.1.3.2-Alt2U-29. Terminal Equipment Annual GHGs - Unmitigated Alternative 2.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	12,375,969	7,752.71	1.12	0.08
Top-Pick	3,494,694	2,189.19	0.32	0.02
Side-Pick	1,646,729	1,031.57	0.15	0.01
Yard Tractor (CY)	4,809,405	3,012.77	0.43	0.03
Subtotal	22,326,797	13,986.24	2.02	0.14
Pier F				
RTG (CY)	1,810,343	1,134.06	0.16	0.01
Top-Pick	617,459	386.80	0.06	0.00
Side-Pick	456,408	285.91	0.04	0.00
Yard Tractor (CY)	1,521,609	953.19	0.14	0.01
Subtotal	4,405,819	2,759.95	0.40	0.03
Subtotal - Project Year 2010	26,732,616	16,746.19	2.42	0.17
Project Year 2015				
RTG (CY)	15,402,340	9,648.53	1.39	0.10
Top-Pick	5,259,508	3,294.73	0.48	0.03
Side-Pick	2,830,414	1,773.06	0.26	0.02
Yard Tractor (CY)	8,584,146	5,377.39	0.78	0.05
Subtotal - Project Year 2015	32,076,408	20,093.72	2.90	0.21
Project Year 2020				
RTG (CY)	15,139,138	9,483.66	1.37	0.10
Top-Pick	5,291,798	3,314.96	0.48	0.03
Side-Pick	3,220,663	2,017.53	0.29	0.02
Yard Tractor (CY)	9,766,118	6,117.82	0.88	0.06
Subtotal - Project Year 2020	33,417,717	20,933.96	3.02	0.21
Project Year 2030				
RTG (CY)	20,306,600	12,720.72	1.84	0.13
Top-Pick	6,891,582	4,317.11	0.62	0.04
Side-Pick	3,889,070	2,436.24	0.35	0.02
Yard Tractor (CY)	11,274,822	7,062.92	1.02	0.07
Subtotal - Project Year 2030	42,362,074	26,537.00	3.83	0.27

Table A.1.3.2-Alt2U-30. GHG Emissions from Cold-ironing Electricity Consumption - Unmitigated Alternative 2.

Project Year	Cold-ironing Usage (MWh/yr)	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2010	*14,827*	*5,965*	*0.050*	*0.027*
2015	8,888	*3,575*	*0.030*	*0.016*
2020	14,919	*6,001*	*0.050*	*0.028*
2030	18,792	*7,559*	*0.063*	*0.035*

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.2-Alt2U-31. GHG Emissions from Terminal Electricity Consumption - POLB - MHTP - Unmitigated Alternative 2.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	42,563	17,122	0.14	0.08
2015	65,080	26,180	0.22	0.12
2020	78,221	31,466	0.26	0.14
2030	84,862	34,138	0.28	0.16

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A1.3- Alt2U-32. On-Road Truck Trip Vehicle Miles Travelled in California - POLB - MHTP - Unmitigated Alternative 2.

Year	*Throughput (TEUs)*	*ICTF Thruput (TEUs) (1)*	*TEUs to Offsite Railyard (2)*	*TEUs to Local Deilveries*	*Truck Trips to Offsite Railyard (2)*	*Local Truck Trips (3)*	*Truck Miles to Offsite Railyard (4)*	*To Cal Border Truck Trip Miles (5)*	*Composite VMT/ Truck Trip*	Annual Truck Trips
Baseline - 2005	1,264,021	84,318	358,089	821,614	210,641	1,786,359	14.0	135.0	122.2	1,997,000
2010	1,594,083	76,986	480,943	1,036,154	282,908	1,773,092	14.0	135.0	118.4	2,056,000
2015	2,185,185	1,006,928	-	1,178,257	-	1,834,000	14.0	135.0	135.0	1,834,000
2020	2,486,157	1,281,878	-	1,204,279	-	1,920,000	14.0	135.0	135.0	1,920,000
2030	2,870,000	1,259,271	287,000	1,323,729	168,824	2,286,176	14.0	135.0	126.7	2,455,000

(1) from POLB

(2) = 10% for year 2030, from Chapter 1, pg 42

(5) Average of local/external-CA trip lengths (20/250) that originate from/are destined to the POLA.

Table A.1.3.2-Alt1U-33. Annual Operational Emissions - POLB - MHTP - Unmitigated Alternative 2.

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Project Year 2010							
Ships - Fairway Transit (1)	2,674,703	354.24	23.82	-	-	-	2,689,525
Ships - Precautionary Area Transit (1)	1,902	0.25	0.02	-	-	-	1,913
Ships - Harbor Transit (1)	1,529	0.21	0.01	-	-	-	1,537
Ships - Docking (1)	512	0.07	0.00	-	-	-	515
Ships - Hoteling Aux. Sources	14,719	1.98	0.11	-	-	-	14,793
Ships Sub Total	2,693,365	356.75	23.95	-	-	-	2,708,282
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	15,224	2.20	0.16	-	-	-	15,318
On-road Trucks	184,141	28.69	14.34	-	-	-	189,190
Trains	-	-	-	-	-	-	-
Railyard Equipment	30,949	4.33	0.31	-	-	-	31,134
Commuting	2,035	0.37	0.36	-	-	-	2,155
Cold-Iron Usage	5,422	0.045	0.025	-	-	-	5,431
Reefers Refrigerant Losses	-	-	-	0.07	0.18	0.08	817
On-Terminal Electrical Consumption	15,565	0.13	0.07	-	-	-	15,590
Project Year 2010 Total	2,947,243	393	39	0.07	0.18	0.08	2,968,463
Net Change from 2005 CEQA Baseline	2,736,051	354	22	0.02	0.04	0.02	2,750,458
Net Change from NEPA Baseline Year 2010	182,089	10	(1)	-	-	-	182,127
Project Year 2015							
Ships - Fairway Transit (1)	3,358,754	444.84	29.91	-	-	-	3,377,368
Ships - Precautionary Area Transit (1)	2,409	0.32	0.02	-	-	-	2,422
Ships - Harbor Transit (1)	1,924	0.26	0.02	-	-	-	1,935
Ships - Docking (1)	643	0.09	0.01	-	-	-	646
Ships - Hoteling Aux. Sources	11,412	1.52	0.07	-	-	-	11,464
Ships Sub Total	3,375,142	447.03	30.02	-	-	-	3,393,835
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	18,267	2.64	0.19	-	-	-	18,380
On-road Trucks	145,902	24.51	12.25	-	-	-	150,215
Trains	-	-	-	-	-	-	-
Railyard Equipment	426,320	59.69	4.20	-	-	-	428,877
Commuting	2,353	0.43	0.42	-	-	-	2,491
Cold-Iron Usage	3,250	0.027	0.015	-	-	-	3,256
Reefers Refrigerant Losses	-	-	-	0.10	0.23	0.10	1,084
On-Terminal Electrical Consumption	23,800	0.20	0.11	-	-	-	23,838
Project Year 2015 Total	3,995,711	535	47	0.10	0.23	0.10	4,022,656
Net Change from 2005 CEQA Baseline	3,784,519	496	30	0.04	0.10	0.04	3,804,651
Net Change from NEPA Baseline Year 2015	320,608	27	(2)	-	-	-	320,486

Project Year 2020							
Ships - Fairway Transit (1)	3,442,683	455.99	30.66	-	-	-	3,461,764
Ships - Precautionary Area Transit (1)	2,520	0.34	0.02	-	-	-	2,534
Ships - Harbor Transit (1)	2,050	0.28	0.02	-	-	-	2,062
Ships - Docking (1)	685	0.09	0.01	-	-	-	689
Ships - Hoteling Aux. Sources	7,702	1.01	0.03	-	-	-	7,732
Ships Sub Total	3,455,640	457.71	30.74	-	-	-	3,474,780
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	19,031	2.75	0.19	-	-	-	19,149
On-road Trucks	157,904	25.74	12.87	-	-	-	162,434
Trains	-	-	-	-	-	-	-
Railyard Equipment	545,216	76.34	5.38	-	-	-	548,485
Commuting	2,710	0.50	0.48	-	-	-	2,869
Cold-Iron Usage	5,456	0.045	0.025	-	-	-	5,465
Reefers Refrigerant Losses	-	-	-	0.13	0.30	0.13	1,395
On-Terminal Electrical Consumption	28,606	0.24	0.13	-	-	-	28,651
Project Year 2020 Total	4,215,238	563	50	0.13	0.30	0.13	4,243,909
Net Change from 2005 CEQA Baseline	4,004,046	525	32	0.07	0.17	0.07	4,025,904
Net Change from NEPA Baseline Year 2020	(193,589)	(45)	(8)	-	-	-	(197,110)
Project Year 2030							
Ships - Fairway Transit (1)	4,562,429	604.25	40.62	-	-	-	4,587,712
Ships - Precautionary Area Transit (1)	3,280	0.44	0.03	-	-	-	3,297
Ships - Harbor Transit (1)	2,598	0.35	0.02	-	-	-	2,612
Ships - Docking (1)	866	0.12	0.01	-	-	-	871
Ships - Hoteling Aux. Sources	10,420	1.36	0.04	-	-	-	10,461
Ships Sub Total	4,579,593	606.52	40.72	-	-	-	4,604,953
Tugboats - Cargo Vessel Assist (1)	947	0.13	0.01	-	-	-	953
Terminal Equipment	24,125	3.48	0.25	-	-	-	24,274
On-road Trucks	203,954	33.03	16.52	-	-	-	209,768
Trains	-	-	-	-	-	-	-
Railyard Equipment	540,315	75.65	5.33	-	-	-	543,556
Commuting	3,595	0.66	0.64	-	-	-	3,806
Cold-Iron Usage	6,872	0.057	0.032	-	-	-	6,883
Reefers Refrigerant Losses	-	-	-	0.15	0.35	0.15	1,627
On-Terminal Electrical Consumption	31,034	0.26	0.14	-	-	-	31,084
Project Year 2030 Total	5,390,436	720	64	0.15	0.35	0.15	5,426,904
Net Change from 2005 CEQA Baseline	5,179,243	682	46	0.09	0.22	0.10	5,208,898
Net Change from NEPA Baseline Year 2030	67,397	(21)	(7)	-	-	-	64,729

Note: (1) Includes auxiliary generator emissions.

Annual Emissions	CO2	CH4	N2O	HFC-125	HFC-134a	HFC-143a	CO2e
NEPA Baseline - Year 2010	2,765,154	383	40	0.07	0.18	0.08	2,786,336
NEPA Baseline - Year 2015	3,675,103	508	49	0.10	0.23	0.10	3,702,170
NEPA Baseline - Year 2020	4,408,827	609	58	0.13	0.30	0.13	4,441,019
NEPA Baseline - Year 2030	5,323,039	741	71	0.15	0.35	0.15	5,362,174

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Table A.1.3.2-Alt2M-1. Ship Visit and Throughput Data - POLB - MHTP - Mitigated Alternative 2.

Project Scenario/Ship Type	*Annual Ship Visits*		*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 upo
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.1.3.2-Alt2M-2. Annual Cargo Vessel GHGs within the POLB Fairway Zone - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 4,000 - 4,999 TEU	1,053,491.95	145.30	10.39
Subtotal	2,652,335.36	365.82	26.16
Project Year 2015			
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 7,000 - 7,999 TEU	767,086.80	105.80	7.57
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 4,000 - 4,999 TEU	526,745.98	72.65	5.20
Containerships 3,000 - 3,999 TEU	436,900.04	60.26	4.31
Subtotal	3,329,576.23	459.23	32.84
Project Year 2020			
Containerships 10,000 - 11,999 TEU	834,248.46	115.06	8.23
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 7,000 - 7,999 TEU	767,086.80	105.80	7.57
Containerships 4,000 - 4,999 TEU	526,745.98	72.65	5.20
Containerships 3,000 - 3,999 TEU	436,900.04	60.26	4.31
Subtotal	3,405,906.30	469.76	33.60
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 7,000 - 7,999 TEU	767,086.80	105.80	7.57
Containerships 6,000 - 6,999 TEU	1,515,836.79	209.07	14.95
Containerships 4,000 - 4,999 TEU	526,745.98	72.65	5.20
Containerships 3,000 - 3,999 TEU	873,800.08	120.52	8.62
Subtotal	4,524,394.66	624.03	44.63

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt2M-3. Annual Cargo Vessel GHGs within the POLB Precautionary Area - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	999.88	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,271.05	0.18	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	309.07	0.04	0.00
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,305.87	0.18	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	548.50	0.08	0.01
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	383.13	0.05	0.00
Subtotal	1,736.86	0.24	0.02

Table A.1.3.2-Alt2M-4. Annual Cargo Vessel GHGs for Transit within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	268.94	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	342.35	0.05	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	85.97	0.01	0.00
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	352.37	0.05	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	151.90	0.02	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	98.82	0.01	0.00
Subtotal	467.71	0.06	0.00

Table A.1.3.2-Alt2M-5. Annual Cargo Vessel GHGs for Docking Activities - POLB - MHTP Mitigated Alternative 2

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	73.80	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	92.15	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	23.41	0.00	0.00
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	94.04	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	43.06	0.01	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	22.50	0.00	0.00
Subtotal	124.93	0.02	0.00

Table A.1.3.2-Alt2M-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 4,000 - 4,999 TEU	34,947.18	4.81	0.34
Subtotal	101,142.17	13.93	1.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 7,000 - 7,999 TEU	31,399.13	4.32	0.31
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 4,000 - 4,999 TEU	17,473.59	2.41	0.17
Containerships 3,000 - 3,999 TEU	13,349.41	1.84	0.13
Subtotal	128,417.11	17.68	1.27
Project Year 2020			
Containerships 10,000 - 11,999 TEU	41,862.41	5.76	0.41
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 7,000 - 7,999 TEU	31,399.13	4.32	0.31
Containerships 4,000 - 4,999 TEU	17,473.59	2.41	0.17
Containerships 3,000 - 3,999 TEU	13,349.41	1.84	0.13
Subtotal	139,229.45	19.17	1.37
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 7,000 - 7,999 TEU	31,399.13	4.32	0.31
Containerships 6,000 - 6,999 TEU	62,100.14	8.55	0.61
Containerships 4,000 - 4,999 TEU	17,473.59	2.41	0.17
Containerships 3,000 - 3,999 TEU	26,698.81	3.68	0.26
Subtotal	172,816.59	23.79	1.70

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt2M-7. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	339.77	0.05	0.00
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,116.45	0.15	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	509.70	0.07	0.01
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	200.01	0.03	0.00
Subtotal	1,386.38	0.19	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt2M-8. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 10,000 - 11,999 TEU	512.57	0.07	0.01
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,673.68	0.23	0.02
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	768.91	0.11	0.01
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	280.61	0.04	0.00
Subtotal	2,070.33	0.29	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt2M-9. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	177.98	0.02	0.00
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	581.14	0.08	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	266.98	0.04	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	97.43	0.01	0.00
Subtotal	718.87	0.10	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt2M-10. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	2,633.72	0.36	0.03
Containerships 6,000 - 6,999 TEU	2,370.52	0.33	0.02
Containerships 4,000 - 4,999 TEU	2,923.86	0.40	0.03
Subtotal	7,928.10	1.09	0.08
Project Year 2015			
Containerships 8,000 - 9,999 TEU	353.37	0.05	0.00
Containerships 7,000 - 7,999 TEU	318.06	0.04	0.00
Containerships 6,000 - 6,999 TEU	318.06	0.04	0.00
Containerships 4,000 - 4,999 TEU	196.15	0.03	0.00
Containerships 3,000 - 3,999 TEU	166.41	0.02	0.00
Subtotal	1,352.05	0.19	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	412.51	0.06	0.00
Containerships 8,000 - 9,999 TEU	343.76	0.05	0.00
Containerships 7,000 - 7,999 TEU	309.41	0.04	0.00
Containerships 4,000 - 4,999 TEU	190.82	0.03	0.00
Containerships 3,000 - 3,999 TEU	161.89	0.02	0.00
Subtotal	1,418.39	0.20	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	343.76	0.05	0.00
Containerships 7,000 - 7,999 TEU	309.41	0.04	0.00
Containerships 6,000 - 6,999 TEU	618.82	0.09	0.01
Containerships 4,000 - 4,999 TEU	190.82	0.03	0.00
Containerships 3,000 - 3,999 TEU	323.78	0.04	0.00
Subtotal	1,786.58	0.25	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths will be completed by year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducting hoteling aux. gen. emissions by 90%.

Table A.1.3.2-Alt2M-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	55.70	0.01	0.00
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	111.39	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	111.39	0.01	0.00
Subtotal	389.88	0.05	0.00

Table A.1.3.2-Alt2M-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	42.01	0.01	0.00
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	84.02	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	84.02	0.01	0.00
Subtotal	294.08	0.04	0.00

Table A.1.3.2-Alt2M-13. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 10,000 - 11,999 TEU	14.59	0.00	0.00
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	29.17	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	29.17	0.00	0.00
Subtotal	102.11	0.01	0.00

Table A.1.3.2-Alt2M-14. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,228.24	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,228.24	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,456.48	0.31	0.00
Subtotal	4,912.96	0.62	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,158.51	0.15	0.00
Containerships 7,000 - 7,999 TEU	1,158.51	0.15	0.00
Containerships 6,000 - 6,999 TEU	1,158.51	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,158.51	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,158.51	0.15	0.00
Subtotal	5,792.57	0.74	0.01
Project Year 2020			
Containerships 10,000 - 11,999 TEU	1,127.01	0.14	0.00
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 4,000 - 4,999 TEU	1,127.01	0.14	0.00
Containerships 3,000 - 3,999 TEU	1,127.01	0.14	0.00
Subtotal	5,635.03	0.72	0.01
Project Year 2030			
Containerships 10,000 - 11,999 TEU	-	-	-
Containerships 8,000 - 9,999 TEU	1,127.01	0.14	0.00
Containerships 7,000 - 7,999 TEU	1,127.01	0.14	0.00
Containerships 6,000 - 6,999 TEU	2,254.01	0.29	0.00
Containerships 4,000 - 4,999 TEU	1,127.01	0.14	0.00
Containerships 3,000 - 3,999 TEU	2,254.01	0.29	0.00
Subtotal	7,889.04	1.00	0.01

Table A.1.3.2-Alt2M-15. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	663.06	0.09	0.01
Project Year 2030	928.28	0.13	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt2M-16. Annual Auxiliary Generator GHGs for Tugboats during Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	81.11	0.01	0.00
Project Year 2030	113.56	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt2M-17. Annual Vessel GHGs - POLB - MHTP - Mitigated Alternative 2.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
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			
Project Year 2010			
Ships - Fairway Transit (1)	2,753,477.53	379.75	27.16
Ships - Precautionary Area Transit (1)	2,038.02	0.28	0.02
Ships - Harbor Transit (1)	1,667.00	0.23	0.01
Ships - Docking (1)	559.24	0.08	0.00
Ships - Hoteling Aux. Sources	12,841.06	1.72	0.08
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	2,771,178.18	382.13	27.29
Project Year 2015			
Ships - Fairway Transit (1)	3,457,993.34	476.91	34.11
Ships - Precautionary Area Transit (1)	2,581.05	0.35	0.02
Ships - Harbor Transit (1)	2,097.97	0.29	0.02
Ships - Docking (1)	701.74	0.10	0.01
Ships - Hoteling Aux. Sources	7,144.62	0.92	0.02
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	3,471,262.90	478.67	34.18
Project Year 2020			
Ships - Fairway Transit (1)	3,545,135.75	488.93	34.97
Ships - Precautionary Area Transit (1)	2,700.80	0.37	0.02
Ships - Harbor Transit (1)	2,236.11	0.31	0.02
Ships - Docking (1)	748.11	0.10	0.01
Ships - Hoteling Aux. Sources	7,053.41	0.91	0.02
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	3,558,618.35	490.72	35.05
Project Year 2030			
Ships - Fairway Transit (1)	4,697,211.26	647.82	46.33
Ships - Precautionary Area Transit (1)	3,513.11	0.48	0.03
Ships - Harbor Transit (1)	2,832.12	0.39	0.03
Ships - Docking (1)	945.91	0.13	0.01
Ships - Hoteling Aux. Sources	9,675.62	1.25	0.02
Tugboats - Cargo Vessel Assist (1)	1,041.83	0.14	0.01
Subtotal	4,715,219.84	650.21	46.43

Note: (1) Includes auxiliary power emissions.

Table A.1.3.2-Alt2M-18. Train Trip Generation Rates - POLB - MHTP - Mitigated Alternative 2..

Project Scenario/Rail Yard	*Annual Round Trips*
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.1.3.2-Alt2M-19. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 2 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.38	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.05	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	16,882.34	2.36	0.17
Haul Line Locomotive - Swiching	106.75	0.01	0.00
Yard Locomotive	24.37	0.00	0.00
Subtotal	17,053.89	2.39	0.17
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.38	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.05	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	16,882.34	2.36	0.17
Haul Line Locomotive - Swiching	42.70	0.01	0.00
Yard Locomotive	24.37	0.00	0.00
Subtotal	16,989.84	2.38	0.17
Total Tons Per Year	34,043.73	4.77	0.34

Table A.1.3.2-Alt2M-20. Annual Rail Yard Cargo Handling Equipment Emissions - Mitigated Alternative 2 Year 2010.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	196,119	122.86	0.02	0.00
Yard Tractor	127,963	80.16	0.01	0.00
Subtotal	324,081	203.02	0.03	0.00

Table A.1.3.2-Alt2M-21. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 2 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.55	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	386.37	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	232,554.24	32.56	2.29
Haul Line Locomotive - Swiching	1,470.52	0.21	0.01
Yard Locomotive	335.68	0.05	0.00
Subtotal	234,917.37	32.89	2.32
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	170.55	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	386.37	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	232,554.24	32.56	2.29
Haul Line Locomotive - Swiching	588.21	0.08	0.01
Yard Locomotive	335.68	0.05	0.00
Subtotal	234,035.06	32.77	2.31
Total Tons Per Year	468,952.43	65.66	4.62

Table A.1.3.2-Alt2M-22. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 2 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	2,987,284	1,871.33	0.27	0.02
Yard Tractor	1,949,128	1,221.00	0.18	0.01
Subtotal	4,936,412	3,092.33	0.45	0.03

Table A.1.3.2-Alt2M-23. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 2 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	218.12	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	494.13	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	297,410.57	41.64	2.93
Haul Line Locomotive - Swiching	1,880.62	0.26	0.02
Yard Locomotive	429.30	0.06	0.00
Subtotal	300,432.74	42.06	2.96
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	218.12	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	494.13	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	297,410.57	41.64	2.93
Haul Line Locomotive - Swiching	752.25	0.11	0.01
Yard Locomotive	429.30	0.06	0.00
Subtotal	299,304.37	41.91	2.95
Total Tons Per Year	599,737.11	83.97	5.91

Table A.1.3.2-Alt2M-24. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 2 Year 2020.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,794,215	-	-	-
Yard Tractor	2,475,631	1,550.82	0.22	0.02
Subtotal	6,269,847	1,550.82	0.22	0.02

Table A.1.3.2-Alt2M-25. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 2 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.16	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	489.69	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	294,737.53	41.27	2.91
Haul Line Locomotive - Swiching	1,863.72	0.26	0.02
Yard Locomotive	425.44	0.06	0.00
Subtotal	297,732.54	41.69	2.94
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	216.16	0.03	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	489.69	0.07	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	294,737.53	41.27	2.91
Haul Line Locomotive - Swiching	745.49	0.10	0.01
Yard Locomotive	425.44	0.06	0.00
Subtotal	296,614.31	41.53	2.92
Total Tons Per Year	594,346.85	83.22	5.86

Table A.1.3.2-Alt2M-26. Annual Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 2 Year 2030.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,048,199	-	-	-
Yard Tractor	2,641,349	1,654.63	0.24	0.02
Subtotal	6,689,548.38	1,654.63	0.24	0.02

Table A.1.3.2-Alt2M-27. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Mitigated Alternative 2.

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	45.18	98.88	681.91
Railyard Equipment	0.83	2.14	18.51
Subtotal	46.01	101.02	700.42
Project Year 2010			
Trains	34,043.73	4.77	0.34
Railyard Equipment	203.02	0.03	0.00
Subtotal	34,246.75	4.80	0.34
Project Year 2015			
Trains	468,952.43	65.66	4.62
Railyard Equipment	3,092.33	0.45	0.03
Subtotal	472,044.76	66.11	4.66
Project Year 2020			
Trains	599,737.11	83.97	5.91
Railyard Equipment	1,550.82	0.22	0.02
Subtotal	601,287.92	84.20	5.93
Project Year 2030			
Trains - 2030	594,346.85	83.22	5.86
Railyard Equipment - 2030	1,654.63	0.24	0.02
Subtotal	596,001.48	83.46	5.88

Table A.1.3.2-Alt2M-28. Annual Truck GHGs for the Middle Harbor Terminal Project - Mitigated Alternative 2.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,085	22.1	11.0
Year 2005 - Driving	2,098	5.5	2.7
Subtotal - Year 2005	5,183	27.51	13.75
Year 2010 - Idling	1,840	13.2	6.6
Year 2010 - Driving	2,614	6.8	3.4
Subtotal - Year 2010	4,455	19.95	9.98
Year 2015 - Idling	1,642	11.7	5.9
Year 2015 - Driving	2,332	6.1	3.0
Subtotal - Year 2015	3,974	17.80	8.90
Year 2020 - Idling	1,719	12.3	6.1
Year 2020 - Driving	2,441	6.3	3.2
Subtotal - Year 2020	4,160	18.63	9.32
Year 2030 - Idling	2,197	15.7	7.9
Year 2030 - Driving	3,122	8.1	4.1
Subtotal - Year 2030	5,319	23.83	11.91
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	5.85	2.92
Subtotal - Year 2010	125,369	7.27	3.64
Subtotal - Year 2015	103,699	6.02	3.01
Subtotal - Year 2020	141,265	7.90	3.95
Subtotal - Year 2030	183,292	10.25	5.13
Off-Terminal outside SCAB			
Subtotal - Year 2005	59,897	4	2
Subtotal - Year 2010	79,220	5	2
Subtotal - Year 2015	55,005	3	2
Subtotal - Year 2020	57,575	3	2
Subtotal - Year 2030	73,627	4	2
Total Annual Truck Emissions by Project Year			
Year 2005	165,878	37	18
Year 2010	209,043	32	16
Year 2015	162,678	27	14
Year 2020	202,999	30	15
Year 2030	262,238	38	19

Table A.1.3.2-Alt2M-29. Terminal Equipment Annual GHGs - POLB - MHTP - Mitigated Alternative 2.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	12,375,969	7,752.71	1.12	0.08
Top-Pick	3,494,694	2,189.19	0.32	0.02
Side-Pick	1,646,729	1,031.57	0.15	0.01
Yard Tractor (CY)	4,809,405	3,012.77	0.43	0.03
Subtotal	22,326,797	13,986.24	2.02	0.14
Pier F				
RTG (CY)	1,810,343	1,134.06	0.16	0.01
Top-Pick	617,459	386.80	0.06	0.00
Side-Pick	456,408	285.91	0.04	0.00
Yard Tractor (CY)	1,521,609	953.19	0.14	0.01
Subtotal	4,405,819	2,759.95	0.40	0.03
Subtotal - Project Year 2010	26,732,616	16,746.19	2.42	0.17
Project Year 2015				
RTG (CY)	15,402,340	9,648.53	1.39	0.10
Top-Pick	5,259,508	3,294.73	0.48	0.03
Side-Pick	2,830,414	1,773.06	0.26	0.02
Yard Tractor (CY)	8,584,146	5,377.39	0.78	0.05
Subtotal - Project Year 2015	32,076,408	20,093.72	2.90	0.21
Project Year 2020				
RTG (CY)	15,139,138	-	-	-
Top-Pick	5,291,798	3,314.96	0.48	0.03
Side-Pick	3,220,663	2,017.53	0.29	0.02
Yard Tractor (CY)	9,766,118	6,117.82	0.88	0.06
Subtotal - Project Year 2020	33,417,717	11,450.30	1.65	0.12
Project Year 2030				
RTG (CY)	20,306,600	-	-	-
Top-Pick	6,891,582	4,317.11	0.62	0.04
Side-Pick	3,889,070	2,436.24	0.35	0.02
Yard Tractor (CY)	11,274,822	7,062.92	1.02	0.07
Subtotal - Project Year 2030	42,362,074	13,816.28	1.99	0.14

Table A.1.3.2-Alt2M-30. GHG Emissions from Cold-ironing Electricity Consumption - POLB - MHTP - Mitigated Alternative 2.

Project Year	Cold-ironing Usage (MWh/yr)	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2010	*4,404*	*1,772*	*0.015*	*0.008*
2015	8,888	*3,575*	*0.030*	*0.016*
2020	16,784	*6,752*	*0.056*	*0.031*
2030	21,141	*8,504*	*0.071*	*0.039*
Electrify RMGs				
Container Yard	11,298	4,545	0.04	0.02
Rail Yard - 202	2,832	1,139	0.01	0.01
Container Yard	15,154	6,096	0.05	0.03
Rail Yard - 203	3,021	1,215	0.01	0.01
Annual Totals				
2010	4,404	1,772	0.01	0.01
2015	8,888	3,575	0.03	0.02
2020	30,913	12,435	0.10	0.06
2030	39,316	15,816	0.13	0.07

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.2-Alt2M-31. GHG Emissions from Terminal Electricity Consumption - POLB - MHTP - Mitigated Alternative 2.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	42,563	17,122	0.14	0.08
2015	65,080	26,180	0.22	0.12
2020	78,221	31,466	0.26	0.14
2030	84,862	34,138	0.28	0.16

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A.1.3.2-Alt1U-32. Annual Operational Emissions - POLB - MHTP - Mitigated Alternative 2.

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Project Year 2010							
Ships - Fairway Transit (1)	2,503,161	345.23	24.69	-	-	-	2,518,065
Ships - Precautionary Area Transit (1)	1,853	0.25	0.02	-	-	-	1,863
Ships - Harbor Transit (1)	1,515	0.21	0.01	-	-	-	1,524
Ships - Docking (1)	508	0.07	0.00	-	-	-	511
Ships - Hoteling Aux. Sources	11,674	1.56	0.08	-	-	-	11,730
Ships Sub Total	2,518,712	347.32	24.80	-	-	-	2,533,693
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	15,224	2.20	0.16	-	-	-	15,318
On-road Trucks	190,039	29.03	14.52	-	-	-	195,149
Trains	-	-	-	-	-	-	0
Railyard Equipment	30,949	4.33	0.31	-	-	-	31,134
Commuting	2,035	0.37	0.36	-	-	-	2,155
Cold-Iron Usage	1,610	0.045	0.025	-	-	-	1,619
Reefers Refrigerant Losses	-	-	-	0.07	0.18	0.08	817
On-Terminal Electrical Consumption	15,565	0.14	0.07	-	-	-	15,591
Project Year 2010 Total	2,774,676	384	40	0.07	0.18	0.08	2,796,021
Net Change from 2005 CEQA Baseline	858,369	126	8	0.02	0.04	0.02	863,739
Net Change from NEPA Baseline Year 2010	9,523	1	0	-	-	-	9,686
Project Year 2015							
Ships - Fairway Transit (1)	3,143,630	433.56	31.01	-	-	-	3,162,347
Ships - Precautionary Area Transit (1)	2,346	0.32	0.02	-	-	-	2,360
Ships - Harbor Transit (1)	1,907	0.26	0.02	-	-	-	1,918
Ships - Docking (1)	638	0.09	0.01	-	-	-	642
Ships - Hoteling Aux. Sources	6,495	0.84	0.02	-	-	-	6,518
Ships Sub Total	3,155,017	435.06	31.07	-	-	-	3,173,784
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	18,267	2.64	0.19	-	-	-	18,380
On-road Trucks	147,889	24.62	12.31	-	-	-	152,222
Trains	-	-	-	-	-	-	0
Railyard Equipment	426,320	59.69	4.20	-	-	-	428,877
Commuting	2,353	0.43	0.42	-	-	-	2,491
Cold-Iron Usage	3,250	0.027	0.015	-	-	-	3,256
Reefers Refrigerant Losses	-	-	-	0.10	0.23	0.10	1,084
On-Terminal Electrical Consumption	23,800	0.20	0.11	-	-	-	23,838
Project Year 2015 Total	3,777,573	523	48	0.10	0.23	0.10	3,804,613
Net Change from 2005 CEQA Baseline	1,861,267	265	16	0.04	0.10	0.04	1,872,330
Net Change from NEPA Baseline Year 2015	102,470	15	(1)	-	-	-	102,443

Project Year 2020							
Ships - Fairway Transit (1)	3,222,851	444.48	31.79	-	-	-	3,242,039
Ships - Precautionary Area Transit (1)	2,455	0.34	0.02	-	-	-	2,469
Ships - Harbor Transit (1)	2,033	0.28	0.02	-	-	-	2,044
Ships - Docking (1)	680	0.09	0.01	-	-	-	684
Ships - Hoteling Aux. Sources	6,412	0.83	0.02	-	-	-	6,435
Ships Sub Total	3,234,431	446.02	31.85	-	-	-	3,253,672
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	10,409	1.50	0.11	-	-	-	10,474
On-road Trucks	184,545	27.23	13.62	-	-	-	189,338
Trains	-	-	-	-	-	-	0
Railyard Equipment	545,216	76.34	5.38	-	-	-	548,485
Commuting	2,710	0.50	0.48	-	-	-	2,869
Cold-Iron + RMG Electrification	11,305	0.094	0.052	-	-	-	11,323
Reefers Refrigerant Losses	-	-	-	0.13	0.30	0.13	1,395
On-Terminal Electrical Consumption	28,606	0.24	0.13	-	-	-	28,651
Project Year 2020 Total	4,017,898	552	52	0.13	0.30	0.13	4,046,888
Net Change from 2005 CEQA Baseline	2,101,592	295	20	0.07	0.17	0.07	2,114,605
Net Change from NEPA Baseline Year 2020	(378,906)	(55)	(6)	-	-	-	(382,034)
Project Year 2030							
Ships - Fairway Transit (1)	4,270,192	588.93	42.12	-	-	-	4,295,617
Ships - Precautionary Area Transit (1)	3,194	0.44	0.03	-	-	-	3,212
Ships - Harbor Transit (1)	2,575	0.35	0.02	-	-	-	2,589
Ships - Docking (1)	860	0.12	0.01	-	-	-	865
Ships - Hoteling Aux. Sources	8,796	1.14	0.02	-	-	-	8,827
Ships Sub Total	4,285,616	590.97	42.20	-	-	-	4,311,109
Tugboats - Cargo Vessel Assist (1)	947	0.13	0.01	-	-	-	953
Terminal Equipment	12,560	1.81	0.13	-	-	-	12,638
On-road Trucks	238,398	41.62	20.81	-	-	-	245,724
Trains	-	74.42	5.24	-	-	-	3,188
Railyard Equipment	540,315	75.65	5.33	-	-	-	543,556
Commuting	3,595	0.66	0.64	-	-	-	3,806
Cold-Iron + RMG Electrification	14,378	0.120	0.066	-	-	-	14,401
Reefers Refrigerant Losses	-	-	-	0.15	0.35	0.15	1,627
On-Terminal Electrical Consumption	31,034	0.26	0.14	-	-	-	31,084
Project Year 2030 Total	5,126,845	786	75	0.15	0.35	0.15	5,168,084
Net Change from 2005 CEQA Baseline	3,210,538	528	42	0.09	0.22	0.10	3,235,802
Net Change from NEPA Baseline Year 2030	(180,668)	47	4	-	-	-	(178,467)

Note: (1) Includes auxiliary generator emissions.

Annual Emissions	CO2	CH4	N2O	HFC-125	HFC-134a	HFC-143a	CO2e
NEPA Baseline - Year 2010	2,765,154	383	40	0.07	0.18	0.08	2,786,336
NEPA Baseline - Year 2015	3,675,103	508	49	0.10	0.23	0.10	3,702,170
NEPA Baseline - Year 2020	4,396,805	607	58	0.13	0.30	0.13	4,428,921
NEPA Baseline - Year 2030	5,307,513	739	71	0.15	0.35	0.15	5,346,552

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Table A.1.3.2-Alt3M-1. Annual Cargo Vessel GHGs within the Fairway Zone - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 4,000 - 4,999 TEU	1,053,491.95	145.30	10.39
Subtotal	2,652,335.36	365.82	26.16
Project Year 2015			
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 7,000 - 7,999 TEU	767,086.80	105.80	7.57
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 4,000 - 4,999 TEU	526,745.98	72.65	5.20
Containerships 3,000 - 3,999 TEU	436,900.04	60.26	4.31
Subtotal	3,329,576.23	459.23	32.84
Project Year 2020			
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 7,000 - 7,999 TEU	767,086.80	105.80	7.57
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 5,000 - 5,999 TEU	653,710.26	90.16	6.45
Containerships 4,000 - 4,999 TEU	526,745.98	72.65	5.20
Containerships 3,000 - 3,999 TEU	436,900.04	60.26	4.31
Subtotal	3,983,286.49	549.40	39.29
Project Year 2030			
Containerships 8,000 - 9,999 TEU	840,925.02	115.98	8.29
Containerships 7,000 - 7,999 TEU	767,086.80	105.80	7.57
Containerships 6,000 - 6,999 TEU	757,918.40	104.54	7.48
Containerships 5,000 - 5,999 TEU	653,710.26	90.16	6.45
Containerships 4,000 - 4,999 TEU	1,053,491.95	145.30	10.39
Containerships 3,000 - 3,999 TEU	873,800.08	120.52	8.62
Subtotal	4,946,932.51	682.31	48.80

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt3M-2. Annual OGV GHGs - Precautionary Area - POLB - MHTP- Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Subtotal	999.88	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,271.05	0.18	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 5,000 - 5,999 TEU	235.50	0.03	0.00
Containerships 4,000 - 4,999 TEU	204.59	0.03	0.00
Containerships 3,000 - 3,999 TEU	191.56	0.03	0.00
Subtotal	1,506.55	0.21	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	316.45	0.04	0.00
Containerships 7,000 - 7,999 TEU	284.19	0.04	0.00
Containerships 6,000 - 6,999 TEU	274.25	0.04	0.00
Containerships 5,000 - 5,999 TEU	235.50	0.03	0.00
Containerships 4,000 - 4,999 TEU	409.18	0.06	0.00
Containerships 3,000 - 3,999 TEU	383.13	0.05	0.00
Subtotal	1,902.70	0.26	0.02

Table A.1.3.2-Alt3M-3. Annual Cargo Vessel Emissions for Transit within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Subtotal	268.94	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	342.35	0.05	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 5,000 - 5,999 TEU	65.66	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.51	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.41	0.01	0.00
Subtotal	408.00	0.06	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	85.97	0.01	0.00
Containerships 7,000 - 7,999 TEU	77.50	0.01	0.00
Containerships 6,000 - 6,999 TEU	75.95	0.01	0.00
Containerships 5,000 - 5,999 TEU	65.66	0.01	0.00
Containerships 4,000 - 4,999 TEU	107.02	0.01	0.00
Containerships 3,000 - 3,999 TEU	98.82	0.01	0.00
Subtotal	510.93	0.07	0.01

Table A.1.3.2-Alt3M-4. Annual Cargo Vessel GHGs for Docking Activities - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Subtotal	73.80	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	92.15	0.01	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 5,000 - 5,999 TEU	18.61	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.43	0.00	0.00
Containerships 3,000 - 3,999 TEU	11.25	0.00	0.00
Subtotal	110.76	0.02	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	23.41	0.00	0.00
Containerships 7,000 - 7,999 TEU	21.53	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.53	0.00	0.00
Containerships 5,000 - 5,999 TEU	18.61	0.00	0.00
Containerships 4,000 - 4,999 TEU	28.86	0.00	0.00
Containerships 3,000 - 3,999 TEU	22.50	0.00	0.00
Subtotal	136.44	0.02	0.00

Table A.1.3.2-Alt3M-5. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 4,000 - 4,999 TEU	34,947.18	4.81	0.34
Subtotal	101,142.17	13.93	1.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 7,000 - 7,999 TEU	31,399.13	4.32	0.31
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 4,000 - 4,999 TEU	17,473.59	2.41	0.17
Containerships 3,000 - 3,999 TEU	13,349.41	1.84	0.13
Subtotal	128,417.11	17.68	1.27
Project Year 2020			
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 7,000 - 7,999 TEU	31,399.13	4.32	0.31
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 5,000 - 5,999 TEU	23,790.54	3.28	0.23
Containerships 4,000 - 4,999 TEU	17,473.59	2.41	0.17
Containerships 3,000 - 3,999 TEU	13,349.41	1.84	0.13
Subtotal	152,207.66	20.96	1.50
Project Year 2030			
Containerships 8,000 - 9,999 TEU	35,144.92	4.84	0.35
Containerships 7,000 - 7,999 TEU	31,399.13	4.32	0.31
Containerships 6,000 - 6,999 TEU	31,050.07	4.28	0.31
Containerships 5,000 - 5,999 TEU	23,790.54	3.28	0.23
Containerships 4,000 - 4,999 TEU	34,947.18	4.81	0.34
Containerships 3,000 - 3,999 TEU	26,698.81	3.68	0.26
Subtotal	183,030.65	25.20	1.80

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt3M-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Subtotal	815.35	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,031.52	0.14	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 5,000 - 5,999 TEU	195.67	0.03	0.00
Containerships 4,000 - 4,999 TEU	138.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	100.01	0.01	0.00
Subtotal	1,227.20	0.17	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	254.85	0.04	0.00
Containerships 6,000 - 6,999 TEU	254.85	0.04	0.00
Containerships 5,000 - 5,999 TEU	195.67	0.03	0.00
Containerships 4,000 - 4,999 TEU	277.36	0.04	0.00
Containerships 3,000 - 3,999 TEU	200.01	0.03	0.00
Subtotal	1,465.88	0.20	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt3M-7. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Subtotal	1,230.01	0.17	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,545.57	0.21	0.02
Project Year 2020			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 5,000 - 5,999 TEU	295.18	0.04	0.00
Containerships 4,000 - 4,999 TEU	209.21	0.03	0.00
Containerships 3,000 - 3,999 TEU	140.31	0.02	0.00
Subtotal	1,840.75	0.25	0.02
Project Year 2030			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	384.46	0.05	0.00
Containerships 6,000 - 6,999 TEU	384.46	0.05	0.00
Containerships 5,000 - 5,999 TEU	295.18	0.04	0.00
Containerships 4,000 - 4,999 TEU	418.41	0.06	0.00
Containerships 3,000 - 3,999 TEU	280.61	0.04	0.00
Subtotal	2,190.26	0.30	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt3M-8. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Subtotal	427.09	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	536.66	0.07	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 5,000 - 5,999 TEU	102.49	0.01	0.00
Containerships 4,000 - 4,999 TEU	72.64	0.01	0.00
Containerships 3,000 - 3,999 TEU	48.72	0.01	0.00
Subtotal	639.15	0.09	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	133.49	0.02	0.00
Containerships 6,000 - 6,999 TEU	133.49	0.02	0.00
Containerships 5,000 - 5,999 TEU	102.49	0.01	0.00
Containerships 4,000 - 4,999 TEU	145.28	0.02	0.00
Containerships 3,000 - 3,999 TEU	97.43	0.01	0.00
Subtotal	760.51	0.10	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt3M-9. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	2,803.88	0.39	0.03
Containerships 6,000 - 6,999 TEU	2,523.68	0.35	0.02
Containerships 4,000 - 4,999 TEU	3,112.76	0.43	0.03
Subtotal	8,440.32	1.16	0.08
Project Year 2015			
Containerships 8,000 - 9,999 TEU	398.84	0.05	0.00
Containerships 7,000 - 7,999 TEU	358.99	0.05	0.00
Containerships 6,000 - 6,999 TEU	358.99	0.05	0.00
Containerships 4,000 - 4,999 TEU	221.39	0.03	0.00
Containerships 3,000 - 3,999 TEU	187.83	0.03	0.00
Subtotal	1,526.04	0.21	0.02
Project Year 2020			
Containerships 8,000 - 9,999 TEU	398.84	0.05	0.00
Containerships 7,000 - 7,999 TEU	358.99	0.05	0.00
Containerships 6,000 - 6,999 TEU	358.99	0.05	0.00
Containerships 5,000 - 5,999 TEU	277.76	0.04	0.00
Containerships 4,000 - 4,999 TEU	221.39	0.03	0.00
Containerships 3,000 - 3,999 TEU	183.18	0.03	0.00
Subtotal	1,799.15	0.25	0.02
Project Year 2030			
Containerships 8,000 - 9,999 TEU	388.97	0.05	0.00
Containerships 7,000 - 7,999 TEU	350.10	0.05	0.00
Containerships 6,000 - 6,999 TEU	350.10	0.05	0.00
Containerships 5,000 - 5,999 TEU	277.76	0.04	0.00
Containerships 4,000 - 4,999 TEU	431.82	0.06	0.00
Containerships 3,000 - 3,999 TEU	366.36	0.05	0.00
Subtotal	2,165.09	0.30	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) 33% of vessel calls will cold-iron in 2010, as one of three berths w
year 2015, all vessels will cold-iron.

(3) Cold ironing simulated by reducting hoteling aux. gen. emissions b

Table A.1.3.2-Alt3M-10. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	278.48	0.04	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 5,000 - 5,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	55.70	0.01	0.00
Containerships 3,000 - 3,999 TEU	55.70	0.01	0.00
Subtotal	334.18	0.04	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	55.70	0.01	0.00
Containerships 5,000 - 5,999 TEU	55.70	0.01	0.00
Containerships 4,000 - 4,999 TEU	111.39	0.01	0.00
Containerships 3,000 - 3,999 TEU	111.39	0.01	0.00
Subtotal	445.57	0.06	0.00

Table A.1.3.2-Alt3M-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	210.06	0.03	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 5,000 - 5,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	42.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	42.01	0.01	0.00
Subtotal	252.07	0.03	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	42.01	0.01	0.00
Containerships 5,000 - 5,999 TEU	42.01	0.01	0.00
Containerships 4,000 - 4,999 TEU	84.02	0.01	0.00
Containerships 3,000 - 3,999 TEU	84.02	0.01	0.00
Subtotal	336.09	0.04	0.00

Table A.1.3.2-Alt3M-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 5,000 - 5,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.59	0.00	0.00
Containerships 3,000 - 3,999 TEU	14.59	0.00	0.00
Subtotal	87.52	0.01	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	14.59	0.00	0.00
Containerships 5,000 - 5,999 TEU	14.59	0.00	0.00
Containerships 4,000 - 4,999 TEU	29.17	0.00	0.00
Containerships 3,000 - 3,999 TEU	29.17	0.00	0.00
Subtotal	116.70	0.01	0.00

Table A.1.3.2-Alt3M-13. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 6,000 - 6,999 TEU	1,307.59	0.17	0.00
Containerships 4,000 - 4,999 TEU	2,615.19	0.33	0.00
Subtotal	5,230.38	0.67	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 7,000 - 7,999 TEU	1,307.59	0.17	0.00
Containerships 6,000 - 6,999 TEU	1,307.59	0.17	0.00
Containerships 4,000 - 4,999 TEU	1,307.59	0.17	0.00
Containerships 3,000 - 3,999 TEU	1,307.59	0.17	0.00
Subtotal	6,537.97	0.83	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 7,000 - 7,999 TEU	1,307.59	0.17	0.00
Containerships 6,000 - 6,999 TEU	1,307.59	0.17	0.00
Containerships 5,000 - 5,999 TEU	1,275.21	0.16	0.00
Containerships 4,000 - 4,999 TEU	1,307.59	0.17	0.00
Containerships 3,000 - 3,999 TEU	1,275.21	0.16	0.00
Subtotal	7,780.80	0.99	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	1,275.21	0.16	0.00
Containerships 7,000 - 7,999 TEU	1,275.21	0.16	0.00
Containerships 6,000 - 6,999 TEU	1,275.21	0.16	0.00
Containerships 5,000 - 5,999 TEU	1,275.21	0.16	0.00
Containerships 4,000 - 4,999 TEU	2,550.42	0.32	0.00
Containerships 3,000 - 3,999 TEU	2,550.42	0.32	0.00
Subtotal	10,201.69	1.30	0.01

Table A.1.3.2-Alt3M-14. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	663.06	0.09	0.01
Project Year 2020	795.67	0.11	0.01
Project Year 2030	1,060.89	0.15	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt3M-15. Annual Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	81.11	0.01	0.00
Project Year 2020	97.33	0.01	0.00
Project Year 2030	129.78	0.02	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt3M-16. Annual Vessel GHGs - POLB - MHTP - Mitigated Alternative 3.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
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			
Project Year 2010			
Ships - Fairway Transit (1)	2,753,477.53	379.75	27.16
Ships - Precautionary Area Transit (1)	2,038.02	0.28	0.02
Ships - Harbor Transit (1)	1,667.00	0.23	0.01
Ships - Docking (1)	559.24	0.08	0.00
Ships - Hoteling Aux. Sources	13,670.70	1.83	0.09
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	2,772,007.81	382.24	27.29
Project Year 2015			
Ships - Fairway Transit (1)	3,457,993.34	476.91	34.11
Ships - Precautionary Area Transit (1)	2,581.05	0.35	0.02
Ships - Harbor Transit (1)	2,097.97	0.29	0.02
Ships - Docking (1)	701.74	0.10	0.01
Ships - Hoteling Aux. Sources	8,064.01	1.04	0.02
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	3,472,182.29	478.79	34.18
Project Year 2020			
Ships - Fairway Transit (1)	4,135,494.15	570.35	40.79
Ships - Precautionary Area Transit (1)	3,067.93	0.42	0.03
Ships - Harbor Transit (1)	2,500.82	0.34	0.02
Ships - Docking (1)	837.43	0.11	0.01
Ships - Hoteling Aux. Sources	9,579.95	1.24	0.02
Tugboats - Cargo Vessel Assist (1)	893.00	0.12	0.01
Subtotal	4,152,373.28	572.59	40.88
Project Year 2030			
Ships - Fairway Transit (1)	5,129,963.16	707.51	50.60
Ships - Precautionary Area Transit (1)	3,814.16	0.52	0.03
Ships - Harbor Transit (1)	3,037.28	0.41	0.03
Ships - Docking (1)	1,013.65	0.14	0.01
Ships - Hoteling Aux. Sources	12,366.78	1.60	0.03
Tugboats - Cargo Vessel Assist (1)	1,190.67	0.16	0.01
Subtotal	5,151,385.69	710.34	50.71

Note: (1) Includes auxiliary power emissions.

Table A.1.3.2-Alt3M-17. Annual Operational GHGs - POLB - MHTP - Mitigated Alternative 3.

Project Scenario/Ship Type	*Annual Ship Visits*	*Annual Shifts*	*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 3,000-5,00
Middle Harbor. Thrghput 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.1.3.2-Alt3M-18. Annual Operational GHGs - POLB - MHTP - Mitigated Alternative 3.

		CO2	*CH4*	*N2O*
		GHG Factors (lb/MWh) [a]		
	Cold-ironing	804.54	0.0067	0.0037
Project Year	*Usage (MWh/yr)*	*GHG (Tons Per Year)*		
2010	*4,688*	*1,886*	*0.016*	*0.009*
2015	10,032	*4,036*	*0.034*	*0.019*
2020	21,289	*8,564*	*0.071*	*0.039*
2030	26,101	*10,500*	*0.087*	*0.048*
Electrify RMGs				
Container Yard -	12,886	5,184	0.04	0.02
Rail Yard - 2020	2,869	1,154	0.01	0.01
Container Yard -	17,080	6,871	0.06	0.03
Rail Yard - 2030	3,266	1,314	0.01	0.01
Annual Totals				
2010	4,688	1,886	0.02	0.01
2015	10,032	4,036	0.03	0.02
2020	37,044	14,902	0.12	0.07
2030	46,447	18,684	0.16	0.09

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.2-Alt3M-19. Annual Operational GHGs - POLB - MHTP - Mitigated Alternative 3.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	43,022	17,306	0.14	0.08
2015	64,485	25,941	0.22	0.12
2020	79,236	31,874	0.27	0.15
2030	86,045	34,613	0.29	0.16

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A.1.3.2-Alt3M-20. Train Trip Generation Rates - Mitigated Alternative 3

Project Scenario/Rail Yard	*Annual Round Trips*
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.1.3.2-Alt3M-21. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 3 Year 2010

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.59	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.52	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB borde	17,163.71	2.40	0.17
Haul Line Locomotive - Swiching	108.53	0.02	0.00
Yard Locomotive	24.78	0.00	0.00
Subtotal	17,338.12	2.43	0.17
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	12.59	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	28.52	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB borde	17,163.71	2.40	0.17
Haul Line Locomotive - Swiching	43.41	0.01	0.00
Yard Locomotive	24.78	0.00	0.00
Subtotal	17,273.01	2.42	0.17
Total Tons Per Year	34,611.13	4.85	0.34

Table A.1.3.2-Alt3M-22. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Mitigated Alternative 3 Year 2010

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	232,501	145.65	0.02	0.00
Yard Tractor	151,701	95.03	0.01	0.00
Subtotal	384,203	240.68	0.03	0.00

Table A.1.3.2-Alt3M-23. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 3 Year 2015

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	112.67	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	255.24	0.04	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB borde	153,629.30	21.51	1.51
Haul Line Locomotive - Swiching	971.45	0.14	0.01
Yard Locomotive	221.76	0.03	0.00
Subtotal	155,190.42	21.73	1.53
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	112.67	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	255.24	0.04	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB borde	153,629.30	21.51	1.51
Haul Line Locomotive - Swiching	388.58	0.05	0.00
Yard Locomotive	221.76	0.03	0.00
Subtotal	154,607.55	21.65	1.52
Total Tons Per Year	309,797.98	43.38	3.05

Table A.1.3.2-Alt3M-24. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Mitigated Alternative 3 Year 2015

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	2,960,195	1,854.36	0.27	0.02
Yard Tractor	1,931,453	1,209.93	0.17	0.01
Subtotal	4,891,648	3,064.29	0.44	0.03

Table A.1.3.2-Alt3M-25. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 3 Year 2020

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	145.69	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	330.04	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB borde	198,648.88	27.81	1.96
Haul Line Locomotive - Swiching	1,256.12	0.18	0.01
Yard Locomotive	286.74	0.04	0.00
Subtotal	200,667.47	28.10	1.98
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	145.69	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	330.04	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB borde	198,648.88	27.81	1.96
Haul Line Locomotive - Swiching	502.45	0.07	0.00
Yard Locomotive	286.74	0.04	0.00
Subtotal	199,913.80	27.99	1.97
Total Tons Per Year	400,581.26	56.09	3.95

Table A.1.3.2-Alt3M-26. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Mitigated Alternative 3 Year 2020

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,844,752	-	-	-
Yard Tractor	2,508,605	1,571.47	0.23	0.02
Subtotal	6,353,357	1,571.47	0.23	0.02

Table A.1.3.2-Alt3M-27. Annual Train GHGs - POLB - MHTP - Mitigated Alternative 3 Year 2030

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	142.39	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	322.56	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB borde	194,146.92	27.18	1.91
Haul Line Locomotive - Swiching	1,227.65	0.17	0.01
Yard Locomotive	280.24	0.04	0.00
Subtotal	196,119.76	27.46	1.93
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	142.39	0.02	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	322.56	0.05	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB borde	194,146.92	27.18	1.91
Haul Line Locomotive - Swiching	491.06	0.07	0.00
Yard Locomotive	280.24	0.04	0.00
Subtotal	195,383.17	27.36	1.93
Total Tons Per Year	391,502.94	54.82	3.86

Table A.1.3.2-Alt3M-28. Annual Rail Yard Cargo Handling Equipment Emissions - POLB - MHTP - Project Mitigated Alternative 3 Yea

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	4,376,627	-	-	-
Yard Tractor	2,678,109	1,677.66	0.24	0.02
Subtotal	7,054,736	1,677.66	0.24	0.02

Table A.1.3.2-Alt3M-29. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs - Mitigated Alternative 3

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	45.18	98.88	681.91
Railyard Equipment	0.83	2.14	18.51
Subtotal	46.01	101.02	700.42
Project Year 2010			
Trains	34,611.13	4.85	0.34
Railyard Equipment	240.68	0.03	0.00
Subtotal	34,851.81	4.88	0.34
Project Year 2015			
Trains	309,797.98	43.38	3.05
Railyard Equipment	3,064.29	0.44	0.03
Subtotal	312,862.26	43.82	3.09
Project Year 2020			
Trains	400,581.26	56.09	3.95
Railyard Equipment	1,571.47	0.23	0.02
Subtotal	402,152.74	56.31	3.97
Project Year 2030			
Trains - 2026	391,502.94	54.82	3.86
Railyard Equipment - 2030	1,677.66	0.24	0.02
Subtotal	393,180.59	55.06	3.88

Table A.1.3.2-Alt3M-30. Annual Truck GHGs - POLB - MHTP - Mitigated Alternative 3.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,084.68	22.1	11.0
Year 2005 - Driving	2,098.50	5.5	2.7
Subtotal - Year 2005	5,183.18	27.51	13.75
Year 2010 - Idling	1,860.87	13.3	6.7
Year 2010 - Driving	2,643.50	6.9	3.4
Subtotal - Year 2010	4,504.37	20.18	10.09
Year 2015 - Idling	1,962.91	14.0	7.0
Year 2015 - Driving	2,788.45	7.3	3.6
Subtotal - Year 2015	4,751.36	21.28	10.64
Year 2020 - Idling	2,193.84	15.7	7.8
Year 2020 - Driving	3,116.50	8.1	4.1
Subtotal - Year 2020	5,310.35	23.79	11.89
Year 2030 - Idling	2,690.61	19.2	9.6
Year 2030 - Driving	3,822.20	9.9	5.0
Subtotal - Year 2030	6,512.81	29.18	14.59
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	5.85	2.92
Subtotal - Year 2010	120,030	6.96	3.48
Subtotal - Year 2015	126,957	7.36	3.68
Subtotal - Year 2020	143,017	8.00	4.00
Subtotal - Year 2030	178,571	9.99	4.99
Off-Terminal outside SCAB			
Subtotal - Year 2005	59,897	4	2
Subtotal - Year 2010	62,356	4	2
Subtotal - Year 2015	65,775	4	2
Subtotal - Year 2020	73,514	4	2
Subtotal - Year 2030	90,160	5	3
Total Annual Truck Emissions by Project Year			
Year 2005	165,878	37	18
Year 2010	186,891	31	15
Year 2015	197,483	33	16
Year 2020	221,840	36	18
Year 2030	275,243	45	22

Table A.1.3.2-Alt3M-31. Terminal Equipment Annual GHGs - POLB - MHTP - Mitigated Alternative 3.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	10,635,802	6,662.62	0.96	0.07
Top-Pick	2,996,680	1,877.22	0.27	0.02
Side-Pick	1,520,160	952.28	0.14	0.01
Yard Tractor (CY)	4,592,402	2,876.83	0.42	0.03
Subtotal	19,745,043	12,368.95	1.78	0.13
Pier F				
RTG (CY)	2,227,348	1,395.28	0.20	0.01
Top-Pick	745,076	466.74	0.07	0.00
Side-Pick	546,883	342.59	0.05	0.00
Yard Tractor (CY)	1,803,890	1,130.02	0.16	0.01
Subtotal	5,323,196	3,334.63	0.48	0.03
Subtotal - Project Year 2010	25,068,239	15,703.57	2.27	0.16
Project Year 2015				
RTG (CY)	11,866,408	7,433.51	1.07	0.08
Top-Pick	4,057,824	2,541.95	0.37	0.03
Side-Pick	2,801,045	1,754.67	0.25	0.02
Yard Tractor (CY)	8,506,304	5,328.63	0.77	0.05
Subtotal - Project Year 2015	27,231,581	17,058.76	2.46	0.17
Project Year 2020				
RTG (CY)	17,266,969	-	-	-
Top-Pick	6,034,521	3,780.22	0.55	0.04
Side-Pick	3,263,845	2,044.58	0.30	0.02
Yard Tractor (CY)	9,896,196	6,199.30	0.89	0.06
Subtotal - Project Year 2020	36,461,531	12,024.11	1.73	0.12
Project Year 2030				
RTG (CY)	22,886,895	-	-	-
Top-Pick	7,776,791	4,871.64	0.70	0.05
Side-Pick	3,937,795	2,466.76	0.36	0.03
Yard Tractor (CY)	11,431,735	7,161.22	1.03	0.07
Subtotal - Project Year 2030	46,033,216	14,499.62	2.09	0.15

Table A.1.3.2-Alt1U-32. Annual Operational Emissions - POLB - MHTP - Mitigated Alternative 3

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Project Year 2010							
Ships - Fairway Transit (1)	2,503,161	345.23	24.69	-	-	-	2,518,065
Ships - Precautionary Area Transit (1)	1,853	0.25	0.02	-	-	-	1,863
Ships - Harbor Transit (1)	1,515	0.21	0.01	-	-	-	1,524
Ships - Docking (1)	508	0.07	0.00	-	-	-	511
Ships - Hoteling Aux. Sources	12,428	1.66	0.08	-	-	-	12,488
Ships Sub Total	2,519,466	347.42	24.80	-	-	-	2,534,451
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	14,276	2.06	0.15	-	-	-	14,364
On-road Trucks	169,901	28.04	14.02	-	-	-	174,836
Trains	31,465	4.41	0.31	-	-	-	31,653
Railyard Equipment	219	0.03	0.00	-	-	-	220
Commuting	2,035	0.37	0.36	-	-	-	2,155
Cold-Iron Usage	3,669	0.031	0.017	-	-	-	3,675
Reefers Refrigerant Losses	-	-	-	0.07	0.18	0.08	817
On-Terminal Electrical Consumption	23,582	0.20	0.11	-	-	-	23,620
Project Year 2010 Total	2,765,154	383	40	0.07	0.18	0.08	2,786,336
Net Change from 2005 CEQA Baseline	848,847	125	8	0.02	0.04	0.02	854,053
Project Year 2015							
Ships - Fairway Transit (1)	3,143,630	433.56	31.01	-	-	-	3,162,347
Ships - Precautionary Area Transit (1)	2,346	0.32	0.02	-	-	-	2,360
Ships - Harbor Transit (1)	1,907	0.26	0.02	-	-	-	1,918
Ships - Docking (1)	638	0.09	0.01	-	-	-	642
Ships - Hoteling Aux. Sources	7,331	0.95	0.02	-	-	-	7,357
Ships Sub Total	3,155,853	435.17	31.07	-	-	-	3,174,623
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	15,508	2.24	0.16	-	-	-	15,604
On-road Trucks	179,530	29.60	14.80	-	-	-	184,739
Trains	281,635	39.43	2.78	-	-	-	283,323
Railyard Equipment	2,786	0.40	0.03	-	-	-	2,803
Commuting	2,353	0.43	0.42	-	-	-	2,491
Cold-Iron Usage	7,786	0.065	0.036	-	-	-	7,798
Reefers Refrigerant Losses	-	-	-	0.10	0.23	0.10	1,084
On-Terminal Electrical Consumption	28,977	0.24	0.13	-	-	-	29,023
Project Year 2015 Total	3,675,103	508	49	0.10	0.23	0.10	3,702,170
Net Change from 2005 CEQA Baseline	1,758,796	250	17	0.04	0.10	0.04	1,769,887

Project Year 2020							
Ships - Fairway Transit (1)	3,759,540	518.50	37.08	-	-	-	3,781,924
Ships - Precautionary Area Transit (1)	2,789	0.38	0.02	-	-	-	2,805
Ships - Harbor Transit (1)	2,273	0.31	0.02	-	-	-	2,286
Ships - Docking (1)	761	0.10	0.01	-	-	-	766
Ships - Hoteling Aux. Sources	8,709	1.12	0.02	-	-	-	8,740
Ships Sub Total	3,774,073	520.42	37.16	-	-	-	3,796,521
Tugboats - Cargo Vessel Assist (1)	812	0.11	0.01	-	-	-	817
Terminal Equipment	10,931	1.58	0.11	-	-	-	10,999
On-road Trucks	201,673	32.87	16.43	-	-	-	207,458
Trains	364,165	50.99	3.59	-	-	-	366,349
Railyard Equipment	1,429	0.21	0.01	-	-	-	1,437
Commuting	2,710	0.50	0.48	-	-	-	2,869
Cold-Iron Usage	9,545	0.079	0.044	-	-	-	9,561
Reefers Refrigerant Losses	-	-	-	0.13	0.30	0.13	1,395
On-Terminal Electrical Consumption	31,467	0.26	0.14	-	-	-	31,517
Project Year 2020 Total	4,396,805	607	58	0.13	0.30	0.13	4,428,921
Net Change from 2005 CEQA Baseline	2,480,498	350	26	0.07	0.17	0.07	2,496,639
Project Year 2030							
Ships - Fairway Transit (1)	4,663,603	643.19	46.00	-	-	-	4,691,370
Ships - Precautionary Area Transit (1)	3,467	0.47	0.03	-	-	-	3,487
Ships - Harbor Transit (1)	2,761	0.38	0.02	-	-	-	2,777
Ships - Docking (1)	921	0.13	0.01	-	-	-	927
Ships - Hoteling Aux. Sources	11,243	1.45	0.03	-	-	-	11,282
Ships Sub Total	4,681,995	645.61	46.09	-	-	-	4,709,842
Tugboats - Cargo Vessel Assist (1)	1,082	0.15	0.01	-	-	-	1,089
Terminal Equipment	13,181	1.90	0.13	-	-	-	13,263
On-road Trucks	250,221	40.47	20.24	-	-	-	257,344
Trains	355,912	49.83	3.51	-	-	-	358,046
Railyard Equipment	1,525	0.22	0.02	-	-	-	1,535
Commuting	3,595	0.66	0.64	-	-	-	3,806
Cold-Iron Usage	-	-	-	-	-	-	-
Reefers Refrigerant Losses	-	-	-	0.15	0.35	0.15	1,627
On-Terminal Electrical Consumption	-	-	-	-	-	-	0
Project Year 2030 Total	5,307,513	739	71	0.15	0.35	0.15	5,346,552
Net Change from 2005 CEQA Baseline	3,391,206	481	39	0.09	0.22	0.10	3,414,269

Note: (1) Includes auxiliary generator emissions.

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Table A.1.3.2-Alt4U-1. Annual Cargo Vessel GHGs within the Fairway Zone - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 6,000 - 6,999 TEU	656,370.17	86.81	5.82
Containerships 4,000 - 4,999 TEU	1,237,736.44	163.70	10.98
Subtotal	2,795,580.76	369.74	24.80
Project Year 2015			
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 7,000 - 7,999 TEU	363,746.70	48.11	3.23
Containerships 6,000 - 6,999 TEU	1,172,089.59	155.02	10.40
Containerships 4,000 - 4,999 TEU	325,720.12	43.08	2.89
Containerships 3,000 - 3,999 TEU	251,982.28	33.33	2.24
Subtotal	3,015,012.84	398.76	26.75
Project Year 2020			
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 7,000 - 7,999 TEU	506,082.37	66.93	4.49
Containerships 6,000 - 6,999 TEU	1,250,228.90	165.35	11.09
Containerships 5,000 - 5,999 TEU	350,465.28	46.35	3.11
Containerships 4,000 - 4,999 TEU	456,008.16	60.31	4.05
Containerships 3,000 - 3,999 TEU	251,982.28	33.33	2.24
Subtotal	3,716,241.13	491.50	32.97
Project Year 2030			
Containerships 8,000 - 9,999 TEU	901,474.15	119.23	8.00
Containerships 7,000 - 7,999 TEU	695,863.25	92.03	6.17
Containerships 6,000 - 6,999 TEU	1,140,833.87	150.88	10.12
Containerships 5,000 - 5,999 TEU	647,012.83	85.57	5.74
Containerships 4,000 - 4,999 TEU	532,009.52	70.36	4.72
Containerships 3,000 - 3,999 TEU	413,970.88	54.75	3.67
Subtotal	4,331,164.50	572.83	38.42

Note: (1) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt4U-2. Annual OGV GHGs - Precautionary Area - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 6,000 - 6,999 TEU	233.56	0.03	0.00
Containerships 4,000 - 4,999 TEU	472.94	0.06	0.00
Subtotal	1,040.18	0.14	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	132.54	0.02	0.00
Containerships 6,000 - 6,999 TEU	417.08	0.06	0.00
Containerships 4,000 - 4,999 TEU	124.46	0.02	0.00
Containerships 3,000 - 3,999 TEU	108.76	0.01	0.00
Subtotal	1,116.51	0.15	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	184.40	0.02	0.00
Containerships 6,000 - 6,999 TEU	444.88	0.06	0.00
Containerships 5,000 - 5,999 TEU	124.16	0.02	0.00
Containerships 4,000 - 4,999 TEU	174.24	0.02	0.00
Containerships 3,000 - 3,999 TEU	108.76	0.01	0.00
Subtotal	1,370.12	0.18	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	333.67	0.04	0.00
Containerships 7,000 - 7,999 TEU	253.56	0.03	0.00
Containerships 6,000 - 6,999 TEU	405.96	0.05	0.00
Containerships 5,000 - 5,999 TEU	229.22	0.03	0.00
Containerships 4,000 - 4,999 TEU	203.28	0.03	0.00
Containerships 3,000 - 3,999 TEU	178.68	0.02	0.00
Subtotal	1,604.37	0.21	0.01

Table A.1.3.2-Alt4U-3. Annual OGH GHGs for Transit - POLB Breakwater - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 6,000 - 6,999 TEU	64.68	0.01	0.00
Containerships 4,000 - 4,999 TEU	123.69	0.02	0.00
Subtotal	279.03	0.04	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	36.15	0.00	0.00
Containerships 6,000 - 6,999 TEU	115.51	0.02	0.00
Containerships 4,000 - 4,999 TEU	32.55	0.00	0.00
Containerships 3,000 - 3,999 TEU	28.05	0.00	0.00
Subtotal	302.91	0.04	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	50.29	0.01	0.00
Containerships 6,000 - 6,999 TEU	123.21	0.02	0.00
Containerships 5,000 - 5,999 TEU	34.61	0.00	0.00
Containerships 4,000 - 4,999 TEU	45.57	0.01	0.00
Containerships 3,000 - 3,999 TEU	28.05	0.00	0.00
Subtotal	372.39	0.05	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	90.65	0.01	0.00
Containerships 7,000 - 7,999 TEU	69.15	0.01	0.00
Containerships 6,000 - 6,999 TEU	112.43	0.01	0.00
Containerships 5,000 - 5,999 TEU	63.90	0.01	0.00
Containerships 4,000 - 4,999 TEU	53.17	0.01	0.00
Containerships 3,000 - 3,999 TEU	46.09	0.01	0.00
Subtotal	435.39	0.06	0.00

Table A.1.3.2-Alt4U-4. Annual Cargo Vessel GHGs for Docking Activities - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 6,000 - 6,999 TEU	18.33	0.00	0.00
Containerships 4,000 - 4,999 TEU	33.36	0.00	0.00
Subtotal	76.38	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	10.04	0.00	0.00
Containerships 6,000 - 6,999 TEU	32.74	0.00	0.00
Containerships 4,000 - 4,999 TEU	8.78	0.00	0.00
Containerships 3,000 - 3,999 TEU	6.39	0.00	0.00
Subtotal	82.63	0.01	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	13.97	0.00	0.00
Containerships 6,000 - 6,999 TEU	34.92	0.00	0.00
Containerships 5,000 - 5,999 TEU	9.81	0.00	0.00
Containerships 4,000 - 4,999 TEU	12.29	0.00	0.00
Containerships 3,000 - 3,999 TEU	6.39	0.00	0.00
Subtotal	102.07	0.01	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	24.69	0.00	0.00
Containerships 7,000 - 7,999 TEU	19.21	0.00	0.00
Containerships 6,000 - 6,999 TEU	31.87	0.00	0.00
Containerships 5,000 - 5,999 TEU	18.11	0.00	0.00
Containerships 4,000 - 4,999 TEU	14.34	0.00	0.00
Containerships 3,000 - 3,999 TEU	10.49	0.00	0.00
Subtotal	118.71	0.02	0.00

Table A.1.3.2-Alt4U-5. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Fairway Zone - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 6,000 - 6,999 TEU	24,499.75	3.37	0.24
Containerships 4,000 - 4,999 TEU	37,479.69	5.16	0.37
Subtotal	96,341.81	13.26	0.95
Project Year 2015			
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 7,000 - 7,999 TEU	13,574.29	1.87	0.13
Containerships 6,000 - 6,999 TEU	43,749.55	6.02	0.43
Containerships 4,000 - 4,999 TEU	9,863.08	1.36	0.10
Containerships 3,000 - 3,999 TEU	7,050.31	0.97	0.07
Subtotal	108,599.61	14.95	1.07
Project Year 2020			
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 7,000 - 7,999 TEU	18,885.97	2.60	0.19
Containerships 6,000 - 6,999 TEU	46,666.19	6.43	0.46
Containerships 5,000 - 5,999 TEU	11,619.46	1.60	0.11
Containerships 4,000 - 4,999 TEU	13,808.31	1.90	0.14
Containerships 3,000 - 3,999 TEU	7,050.31	0.97	0.07
Subtotal	132,392.61	18.23	1.30
Project Year 2030			
Containerships 8,000 - 9,999 TEU	34,362.38	4.73	0.34
Containerships 7,000 - 7,999 TEU	25,968.20	3.58	0.26
Containerships 6,000 - 6,999 TEU	42,582.90	5.86	0.42
Containerships 5,000 - 5,999 TEU	21,451.30	2.95	0.21
Containerships 4,000 - 4,999 TEU	16,109.69	2.22	0.16
Containerships 3,000 - 3,999 TEU	11,582.66	1.59	0.11
Subtotal	152,057.13	20.94	1.50

Note: (1) Assumes 100% usage of RFO @ 2.7% sulfur.

(2) VSRP compliance = 100% for future years.

Table A.1.3.2-Alt4U-6. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 6,000 - 6,999 TEU	205.84	0.03	0.00
Containerships 4,000 - 4,999 TEU	304.02	0.04	0.00
Subtotal	793.01	0.11	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	112.72	0.02	0.00
Containerships 6,000 - 6,999 TEU	367.57	0.05	0.00
Containerships 4,000 - 4,999 TEU	80.01	0.01	0.00
Containerships 3,000 - 3,999 TEU	53.85	0.01	0.00
Subtotal	897.29	0.12	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	156.83	0.02	0.00
Containerships 6,000 - 6,999 TEU	392.07	0.05	0.00
Containerships 5,000 - 5,999 TEU	97.84	0.01	0.00
Containerships 4,000 - 4,999 TEU	112.01	0.02	0.00
Containerships 3,000 - 3,999 TEU	53.85	0.01	0.00
Subtotal	1,095.74	0.15	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	283.14	0.04	0.00
Containerships 7,000 - 7,999 TEU	215.64	0.03	0.00
Containerships 6,000 - 6,999 TEU	357.77	0.05	0.00
Containerships 5,000 - 5,999 TEU	180.62	0.02	0.00
Containerships 4,000 - 4,999 TEU	130.68	0.02	0.00
Containerships 3,000 - 3,999 TEU	88.47	0.01	0.00
Subtotal	1,256.32	0.17	0.01

Note: (1) Assumes 71/29% usage of RFO/MGO @ 2.7/0.5% sulfur (AEI page 72).

Table A.1.3.2-Alt4U-7. Annual Auxiliary Generator GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 6,000 - 6,999 TEU	310.52	0.04	0.00
Containerships 4,000 - 4,999 TEU	458.64	0.06	0.00
Subtotal	1,196.31	0.16	0.01
Project Year 2015			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	170.05	0.02	0.00
Containerships 6,000 - 6,999 TEU	554.51	0.08	0.01
Containerships 4,000 - 4,999 TEU	120.70	0.02	0.00
Containerships 3,000 - 3,999 TEU	75.55	0.01	0.00
Subtotal	1,347.94	0.19	0.01
Project Year 2020			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	236.59	0.03	0.00
Containerships 6,000 - 6,999 TEU	591.47	0.08	0.01
Containerships 5,000 - 5,999 TEU	147.59	0.02	0.00
Containerships 4,000 - 4,999 TEU	168.97	0.02	0.00
Containerships 3,000 - 3,999 TEU	75.55	0.01	0.00
Subtotal	1,647.32	0.23	0.02
Project Year 2030			
Containerships 8,000 - 9,999 TEU	427.14	0.06	0.00
Containerships 7,000 - 7,999 TEU	325.31	0.04	0.00
Containerships 6,000 - 6,999 TEU	539.72	0.07	0.01
Containerships 5,000 - 5,999 TEU	272.48	0.04	0.00
Containerships 4,000 - 4,999 TEU	197.14	0.03	0.00
Containerships 3,000 - 3,999 TEU	124.12	0.02	0.00
Subtotal	1,885.90	0.26	0.02

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt4U-8. Annual Auxiliary Generator GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 6,000 - 6,999 TEU	107.82	0.01	0.00
Containerships 4,000 - 4,999 TEU	159.25	0.02	0.00
Subtotal	415.38	0.06	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	59.04	0.01	0.00
Containerships 6,000 - 6,999 TEU	192.54	0.03	0.00
Containerships 4,000 - 4,999 TEU	41.91	0.01	0.00
Containerships 3,000 - 3,999 TEU	26.23	0.00	0.00
Subtotal	468.04	0.06	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	82.15	0.01	0.00
Containerships 6,000 - 6,999 TEU	205.37	0.03	0.00
Containerships 5,000 - 5,999 TEU	51.25	0.01	0.00
Containerships 4,000 - 4,999 TEU	58.67	0.01	0.00
Containerships 3,000 - 3,999 TEU	26.23	0.00	0.00
Subtotal	571.99	0.08	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	148.31	0.02	0.00
Containerships 7,000 - 7,999 TEU	112.95	0.02	0.00
Containerships 6,000 - 6,999 TEU	187.40	0.03	0.00
Containerships 5,000 - 5,999 TEU	94.61	0.01	0.00
Containerships 4,000 - 4,999 TEU	68.45	0.01	0.00
Containerships 3,000 - 3,999 TEU	43.10	0.01	0.00
Subtotal	654.83	0.09	0.01

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

Table A.1.3.2-Alt4U-9. Annual Auxiliary Generator GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	3,988.45	0.55	0.04
Containerships 6,000 - 6,999 TEU	2,899.51	0.40	0.03
Containerships 4,000 - 4,999 TEU	4,853.58	0.67	0.05
Subtotal	11,741.53	1.62	0.12
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,994.22	0.27	0.02
Containerships 7,000 - 7,999 TEU	793.91	0.11	0.01
Containerships 6,000 - 6,999 TEU	2,588.85	0.36	0.03
Containerships 4,000 - 4,999 TEU	638.63	0.09	0.01
Containerships 3,000 - 3,999 TEU	505.69	0.07	0.00
Subtotal	6,521.31	0.90	0.06
Project Year 2020			
Containerships 8,000 - 9,999 TEU	797.69	0.11	0.01
Containerships 7,000 - 7,999 TEU	441.83	0.06	0.00
Containerships 6,000 - 6,999 TEU	1,104.57	0.15	0.01
Containerships 5,000 - 5,999 TEU	277.76	0.04	0.00
Containerships 4,000 - 4,999 TEU	357.63	0.05	0.00
Containerships 3,000 - 3,999 TEU	197.27	0.03	0.00
Subtotal	3,176.76	0.44	0.03
Project Year 2030			
Containerships 8,000 - 9,999 TEU	777.93	0.11	0.01
Containerships 7,000 - 7,999 TEU	592.47	0.08	0.01
Containerships 6,000 - 6,999 TEU	982.96	0.14	0.01
Containerships 5,000 - 5,999 TEU	512.79	0.07	0.01
Containerships 4,000 - 4,999 TEU	406.90	0.06	0.00
Containerships 3,000 - 3,999 TEU	324.08	0.04	0.00
Subtotal	3,597.15	0.50	0.04

Note: (1) Assumes 100% usage of MGO @ 0.2% sulfur.

(2) Simulates the ARB berthing Reg - 50/80% hoteling AG emission reductions in yea

Table A.1.3.2-Alt4U-10. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting the Precautionary Area - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 6,000 - 6,999 TEU	44.99	0.01	0.00
Containerships 4,000 - 4,999 TEU	122.10	0.02	0.00
Subtotal	222.79	0.03	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	24.63	0.00	0.00
Containerships 6,000 - 6,999 TEU	80.33	0.01	0.00
Containerships 4,000 - 4,999 TEU	32.13	0.00	0.00
Containerships 3,000 - 3,999 TEU	29.99	0.00	0.00
Subtotal	222.79	0.03	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	34.27	0.00	0.00
Containerships 6,000 - 6,999 TEU	85.69	0.01	0.00
Containerships 5,000 - 5,999 TEU	27.85	0.00	0.00
Containerships 4,000 - 4,999 TEU	44.99	0.01	0.00
Containerships 3,000 - 3,999 TEU	29.99	0.00	0.00
Subtotal	278.48	0.04	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	55.70	0.01	0.00
Containerships 7,000 - 7,999 TEU	47.13	0.01	0.00
Containerships 6,000 - 6,999 TEU	78.19	0.01	0.00
Containerships 5,000 - 5,999 TEU	51.41	0.01	0.00
Containerships 4,000 - 4,999 TEU	52.48	0.01	0.00
Containerships 3,000 - 3,999 TEU	49.27	0.01	0.00
Subtotal	334.18	0.04	0.00

Table A.1.3.2-Alt4U-11. Annual Auxiliary Boiler GHGs for Cargo Vessels Transiting within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 6,000 - 6,999 TEU	33.93	0.00	0.00
Containerships 4,000 - 4,999 TEU	92.10	0.01	0.00
Subtotal	168.04	0.02	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	18.58	0.00	0.00
Containerships 6,000 - 6,999 TEU	60.59	0.01	0.00
Containerships 4,000 - 4,999 TEU	24.24	0.00	0.00
Containerships 3,000 - 3,999 TEU	22.62	0.00	0.00
Subtotal	168.04	0.02	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	25.85	0.00	0.00
Containerships 6,000 - 6,999 TEU	64.63	0.01	0.00
Containerships 5,000 - 5,999 TEU	21.01	0.00	0.00
Containerships 4,000 - 4,999 TEU	33.93	0.00	0.00
Containerships 3,000 - 3,999 TEU	22.62	0.00	0.00
Subtotal	210.06	0.03	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	42.01	0.01	0.00
Containerships 7,000 - 7,999 TEU	35.55	0.00	0.00
Containerships 6,000 - 6,999 TEU	58.98	0.01	0.00
Containerships 5,000 - 5,999 TEU	38.78	0.00	0.00
Containerships 4,000 - 4,999 TEU	39.59	0.01	0.00
Containerships 3,000 - 3,999 TEU	37.16	0.00	0.00
Subtotal	252.07	0.03	0.00

Table A.1.3.2-Alt4U-12. Annual Auxiliary Boiler GHGs for Cargo Vessels Docking within the POLB Breakwater - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 6,000 - 6,999 TEU	11.78	0.00	0.00
Containerships 4,000 - 4,999 TEU	31.98	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	6.45	0.00	0.00
Containerships 6,000 - 6,999 TEU	21.04	0.00	0.00
Containerships 4,000 - 4,999 TEU	8.42	0.00	0.00
Containerships 3,000 - 3,999 TEU	7.85	0.00	0.00
Subtotal	58.35	0.01	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	8.98	0.00	0.00
Containerships 6,000 - 6,999 TEU	22.44	0.00	0.00
Containerships 5,000 - 5,999 TEU	7.29	0.00	0.00
Containerships 4,000 - 4,999 TEU	11.78	0.00	0.00
Containerships 3,000 - 3,999 TEU	7.85	0.00	0.00
Subtotal	72.94	0.01	0.00
Project Year 2030			
Containerships 8,000 - 9,999 TEU	14.59	0.00	0.00
Containerships 7,000 - 7,999 TEU	12.34	0.00	0.00
Containerships 6,000 - 6,999 TEU	20.48	0.00	0.00
Containerships 5,000 - 5,999 TEU	13.47	0.00	0.00
Containerships 4,000 - 4,999 TEU	13.75	0.00	0.00
Containerships 3,000 - 3,999 TEU	12.90	0.00	0.00
Subtotal	87.52	0.01	0.00

Table A.1.3.2-Alt4U-13. Annual Auxiliary Boiler GHGs during Cargo Vessel Hoteling - POLB - MHTP - Unmitigated Alternative 4.
Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Vessel Type	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Subtotal			
Project Year 2010			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 6,000 - 6,999 TEU	1,056.13	0.13	0.00
Containerships 4,000 - 4,999 TEU	2,866.65	0.36	0.00
Subtotal	5,230.38	0.67	0.00
Project Year 2015			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 7,000 - 7,999 TEU	578.36	0.07	0.00
Containerships 6,000 - 6,999 TEU	1,885.95	0.24	0.00
Containerships 4,000 - 4,999 TEU	754.38	0.10	0.00
Containerships 3,000 - 3,999 TEU	704.09	0.09	0.00
Subtotal	5,230.38	0.67	0.00
Project Year 2020			
Containerships 8,000 - 9,999 TEU	1,307.59	0.17	0.00
Containerships 7,000 - 7,999 TEU	804.67	0.10	0.00
Containerships 6,000 - 6,999 TEU	2,011.68	0.26	0.00
Containerships 5,000 - 5,999 TEU	637.61	0.08	0.00
Containerships 4,000 - 4,999 TEU	1,056.13	0.13	0.00
Containerships 3,000 - 3,999 TEU	686.65	0.09	0.00
Subtotal	6,504.34	0.83	0.01
Project Year 2030			
Containerships 8,000 - 9,999 TEU	1,275.21	0.16	0.00
Containerships 7,000 - 7,999 TEU	1,079.02	0.14	0.00
Containerships 6,000 - 6,999 TEU	1,790.20	0.23	0.00
Containerships 5,000 - 5,999 TEU	1,177.12	0.15	0.00
Containerships 4,000 - 4,999 TEU	1,201.64	0.15	0.00
Containerships 3,000 - 3,999 TEU	1,128.07	0.14	0.00
Subtotal	7,651.27	0.97	0.01

Table A.1.3.2-Alt4U-14. Annual Tugboat GHGs for Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 4. Unmitigated Alternative 4.

	Tons Per Year (1)		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	530.45	0.07	0.01
Project Year 2015	530.45	0.07	0.01
Project Year 2020	663.06	0.09	0.01
Project Year 2030	795.67	0.11	0.01

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt4U-15. Annual Auxiliary Generator GHGs for Tugboats during Cargo Vessel Assists - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/All Vessels	*CO2*	*CH4*	*N2O*
Project Year 2010	64.89	0.01	0.00
Project Year 2015	64.89	0.01	0.00
Project Year 2020	81.11	0.01	0.00
Project Year 2030	97.33	0.01	0.00

Note: (1) Assumes 3 tug assists per ship visit for all years.

Table A.1.3.2-Alt4U-16. Annual Vessel GHGs - POLB - MHTP - Unmitigated Alternative 4.

	Tons Per Year		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Ships - Fairway Transit (1)	9.61	21.91	254.41
Ships - Precautionary Area Transit (1)	2.13	4.63	39.38
Ships - Harbor Transit (1)	2.76	4.26	32.76
Ships - Docking (1)	0.92	1.42	10.92
Ships - Hoteling Aux. Sources	9.72	34.60	348.50
Tugboats - Cargo Vessel Assist (1)	0.29	2.24	12.02
Subtotal	25.44	69.07	697.99
Project Year 2010			
Ships - Fairway Transit (1)	2,891,922.58	383.00	25.75
Ships - Precautionary Area Transit (1)	2,055.97	0.28	0.02
Ships - Harbor Transit (1)	1,643.38	0.22	0.01
Ships - Docking (1)	550.11	0.07	0.00
Ships - Hoteling Aux. Sources	16,971.91	2.28	0.12
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	2,913,739.29	385.94	25.91
Project Year 2015			
Ships - Fairway Transit (1)	3,123,612.44	413.71	27.82
Ships - Precautionary Area Transit (1)	2,236.59	0.30	0.02
Ships - Harbor Transit (1)	1,818.90	0.25	0.02
Ships - Docking (1)	609.02	0.08	0.01
Ships - Hoteling Aux. Sources	11,751.68	1.56	0.07
Tugboats - Cargo Vessel Assist (1)	595.33	0.08	0.01
Subtotal	3,140,623.96	415.99	27.93
Project Year 2020			
Ships - Fairway Transit (1)	3,848,633.74	509.73	34.27
Ships - Precautionary Area Transit (1)	2,744.35	0.37	0.02
Ships - Harbor Transit (1)	2,229.76	0.30	0.02
Ships - Docking (1)	746.99	0.10	0.01
Ships - Hoteling Aux. Sources	9,681.10	1.26	0.04
Tugboats - Cargo Vessel Assist (1)	744.17	0.10	0.01
Subtotal	3,864,780.11	511.87	34.37
Project Year 2030			
Ships - Fairway Transit (1)	4,483,221.63	593.77	39.92
Ships - Precautionary Area Transit (1)	3,194.86	0.43	0.03
Ships - Harbor Transit (1)	2,573.35	0.35	0.02
Ships - Docking (1)	861.06	0.12	0.01
Ships - Hoteling Aux. Sources	11,248.41	1.47	0.04
Tugboats - Cargo Vessel Assist (1)	893.00	0.12	0.01
Subtotal	4,501,992.32	596.25	40.03

Note: (1) Includes auxiliary power emissions.

Table A.1.3.2-Alt4U-17. Daily Vessel GHGs - POLB - MHTP - Unmitigated Alternative 4.

	Pounds Per Day		
Project Scenario/Emission Source	*CO2*	*CH4*	*N2O*
Year 2005 Baseline			
Ships - Fairway Transit (1)	52.7	120.0	1,394.0
Ships - Precautionary Area Transit (1)	11.7	25.4	215.8
Ships - Harbor Transit (1)	15.1	23.4	179.5
Ships - Docking (1)	5.0	7.8	59.8
Ships - Hoteling Aux. Sources	53.3	189.6	1,909.6
Tugboats - Cargo Vessel Assist (1)	1.6	12.3	65.9
Subtotal	139	378	3,825
Project Year 2010			
Ships - Fairway Transit (1)	15,846,151.1	2,098.6	141.1
Ships - Precautionary Area Transit (1)	11,265.6	1.5	0.1
Ships - Harbor Transit (1)	9,004.8	1.2	0.1
Ships - Docking (1)	3,014.3	0.4	0.0
Ships - Hoteling Aux. Sources	92,996.8	12.5	0.7
Tugboats - Cargo Vessel Assist (1)	3,262.1	0.5	0.0
Subtotal	15,965,695	2,115	142
Project Year 2015			
Ships - Fairway Transit (1)	17,115,684.6	2,266.9	152.4
Ships - Precautionary Area Transit (1)	12,255.3	1.6	0.1
Ships - Harbor Transit (1)	9,966.6	1.4	0.1
Ships - Docking (1)	3,337.1	0.5	0.0
Ships - Hoteling Aux. Sources	64,392.8	8.6	0.4
Tugboats - Cargo Vessel Assist (1)	3,262.1	0.5	0.0
Subtotal	17,208,898	2,279	153
Project Year 2020			
Ships - Fairway Transit (1)	21,088,404.1	2,793.0	187.8
Ships - Precautionary Area Transit (1)	15,037.5	2.0	0.1
Ships - Harbor Transit (1)	12,217.9	1.7	0.1
Ships - Docking (1)	4,093.1	0.6	0.0
Ships - Hoteling Aux. Sources	53,047.1	6.9	0.2
Tugboats - Cargo Vessel Assist (1)	4,077.6	0.6	0.0
Subtotal	21,176,877	2,805	188
Project Year 2030			
Ships - Fairway Transit (1)	24,565,598.0	3,253.5	218.7
Ships - Precautionary Area Transit (1)	17,506.1	2.3	0.1
Ships - Harbor Transit (1)	14,100.6	1.9	0.1
Ships - Docking (1)	4,718.1	0.6	0.0
Ships - Hoteling Aux. Sources	61,635.1	8.0	0.2
Tugboats - Cargo Vessel Assist (1)	4,893.2	0.7	0.0
Subtotal	24,668,451	3,267	219

Note: (1) Includes auxiliary power emissions.

Table A.1.3.2-Alt4U-18. Ship Visit and Throughput Data - POLB - MHTP - Unmitigated Alternative 4.

Project Scenario/Ship Type	*Annual Ship Visits*	*Annual Shifts*	*TEU Moves/ Ship Visit (1)*	*Hoteling Time/ Visit (Hours) (2)*	*Annual TEU Movements*
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 T
Middle Harbor. Thrghput 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.1.3.2-Alt4U-19. Train Trip Generation Rates - Unmitigated Alternative 4.

Project Scenario/Rail Yard	*Annual Round Trips*
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.1.3.2-Alt4U-20. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2010.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	14.86	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	33.66	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	20,258.81	2.84	0.20
Haul Line Locomotive - Swiching	128.10	0.02	0.00
Yard Locomotive	29.24	0.00	0.00
Subtotal	20,464.67	2.87	0.20
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	14.86	0.00	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	33.66	0.00	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	20,258.81	2.84	0.20
Haul Line Locomotive - Swiching	51.24	0.01	0.00
Yard Locomotive	29.24	0.00	0.00
Subtotal	20,387.81	2.85	0.20
Total Tons Per Year	40,852.48	5.72	0.40

Table A.1.3.2-Alt4U-21. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2010.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	690,245	432.39	0.06	0.00
Yard Tractor	450,367	282.13	0.04	0.00
Subtotal	1,140,612	714.52	0.10	0.01

Table A.1.3.2-Alt4U-22. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2015.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	63.87	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	144.69	0.02	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	87,084.74	12.19	0.86
Haul Line Locomotive - Swiching	550.67	0.08	0.01
Yard Locomotive	125.70	0.02	0.00
Subtotal	87,969.66	12.32	0.87
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	63.87	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	144.69	0.02	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	87,084.74	12.19	0.86
Haul Line Locomotive - Swiching	220.27	0.03	0.00
Yard Locomotive	125.70	0.02	0.00
Subtotal	87,639.26	12.27	0.86
Total Tons Per Year	175,608.93	24.59	1.73

Table A.1.3.2-Alt4U-23. Annual Rail Yard Cargo Handling Equipment GHGs - Unmitigated Alternative 4 Year 2015.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	2,967,093	1,858.68	0.27	0.02
Yard Tractor	1,935,954	1,212.75	0.17	0.01
Subtotal	4,903,048	3,071.43	0.44	0.03

Table A.1.3.2-Alt4U-24. Annual Train GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2020.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	82.65	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	187.23	0.03	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	112,689.62	15.78	1.11
Haul Line Locomotive - Swiching	712.57	0.10	0.01
Yard Locomotive	162.66	0.02	0.00
Subtotal	113,834.73	15.94	1.12
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	82.65	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	187.23	0.03	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	112,689.62	15.78	1.11
Haul Line Locomotive - Swiching	285.03	0.04	0.00
Yard Locomotive	162.66	0.02	0.00
Subtotal	113,407.19	15.88	1.12
Total Tons Per Year	227,241.92	31.82	2.24

Table A.1.3.2-Alt4U-25. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated Alternative 4 Year 2020.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,839,486	2,405.18	0.35	0.02
Yard Tractor	2,505,169	1,569.32	0.23	0.02
Subtotal	6,344,654	3,974.50	0.57	0.04

Table A.1.3.2-Alt4U-26. Annual Train GHGs - POLB - MHT - Project Unmitigated Alternative 4 Year 2030.

	Tons per Year		
Train Direction/Source Activity	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	81.10	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	183.72	0.03	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	110,579.33	15.48	1.09
Haul Line Locomotive - Swiching	699.23	0.10	0.01
Yard Locomotive	159.62	0.02	0.00
Subtotal	111,703.00	15.64	1.10
Middle Harbor/Inbound			
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	81.10	0.01	0.00
Haul Line Locomotive - 20 mph - Ocean Blvd to Alameda Corridor	183.72	0.03	0.00
Haul Line Locomotive - 40 mph - Alameda Corridor to SCAB border	110,579.33	15.48	1.09
Haul Line Locomotive - Swiching	279.69	0.04	0.00
Yard Locomotive	159.62	0.02	0.00
Subtotal	111,283.46	15.58	1.10
Total Tons Per Year	222,986.45	31.22	2.20

Table A.1.3.2-Alt4U-27. Annual Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP- Unmitigated Alternative 4 Year 2030.

	Hp-Hr	*Tons per Year*		
Equipment	*per Year*	*CO2*	*CH4*	*N2O*
Middle Harbor/Outbound				
RTG	3,767,585	2,360.14	0.34	0.02
Yard Tractor	2,458,256	1,539.93	0.22	0.02
Subtotal	6,225,841	3,900.07	0.56	0.04

Table A.1.3.2-Alt4U-28. Summary of Annual Train and Rail Yard Cargo Handling Equipment GHGs - POLB - MHTP - Unmitigated Alternative 4.

	Tons per Year		
Project Scenario/Source Activity	*CO2*	*CH4*	*N2O*
Baseline Year 2005			
Trains	45.18	98.88	681.91
Railyard Equipment	0.83	2.14	18.51
Subtotal	46.01	101.02	700.42
Project Year 2010			
Trains	40,852.48	5.72	0.40
Railyard Equipment	714.52	0.10	0.01
Subtotal	41,567.00	5.82	0.41
Project Year 2015			
Trains	175,608.93	24.59	1.73
Railyard Equipment	3,071.43	0.44	0.03
Subtotal	178,680.36	25.03	1.76
Project Year 2020			
Trains	227,241.92	31.82	2.24
Railyard Equipment	3,974.50	0.57	0.04
Subtotal	231,216.42	32.39	2.28
Project Year 2030			
Trains - 2026	222,986.45	31.22	2.20
Railyard Equipment - 2030	3,900.07	0.56	0.04
Subtotal	226,886.53	31.78	2.24

Table A.1.3.2-Alt4U-29. Annual Truck Emissions for the MHTP - Unmitigated Alternative 4.

	Tons per Year		
Location/Project Scenario - Mode	*CO2*	*CH4*	*N2O*
On-Terminal			
Year 2005 - Idling	3,084.68	22.1	11.0
Year 2005 - Driving	2,098.50	5.5	2.7
Subtotal - Year 2005	5,183.18	27.51	13.75
Year 2010 - Idling	1,747.23	12.5	6.2
Year 2010 - Driving	2,482.05	6.5	3.2
Subtotal - Year 2010	4,229.28	18.95	9.47
Year 2015 - Idling	1,844.71	13.2	6.6
Year 2015 - Driving	2,620.53	6.8	3.4
Subtotal - Year 2015	4,465.23	20.00	10.00
Year 2020 - Idling	2,221.48	15.9	7.9
Year 2020 - Driving	3,155.76	8.2	4.1
Subtotal - Year 2020	5,377.23	24.09	12.04
Year 2030 - Idling	2,627.00	18.8	9.4
Year 2030 - Driving	3,731.83	9.7	4.9
Subtotal - Year 2030	6,358.83	28.49	14.24
Off-Terminal within SCAB			
Subtotal - Year 2005	100,799	6	3
Subtotal - Year 2010	111,672	3	2
Subtotal - Year 2015	119,900	4	2
Subtotal - Year 2020	152,688	4	2
Subtotal - Year 2030	198,377	5	3
Off-Terminal outside SCAB			
Subtotal - Year 2005	59,897	4	2
Subtotal - Year 2010	58,548	3	2
Subtotal - Year 2015	61,814	4	2
Subtotal - Year 2020	74,439	4	2
Subtotal - Year 2030	88,028	5	3
Total Annual Truck Emissions by Project Year			
Year 2005	165,878	37	18
Year 2010	174,449	19	10
Year 2015	186,179	14	7
Year 2020	232,505	28	14
Year 2030	292,764	24	12

Table A.1.3.2-Alt4U-30. Terminal Equipment Annual Emissions - POLB - MHTP - Unmitigated Alternative 4.

Equipment Type	Annual Hp-Hrs	*Annual Emissions (Tons)*		
		CO2	*CH4*	*N2O*
Baseline - Year 2005				
Pier E				
Subtotal		11,207	1.62	0.11
Pier F				
Subtotal		9,216	1.33	0.09
Subtotal - Baseline - 2005		20,422.96	2.95	0.21
Project Year 2010				
Pier E				
RTG (CY)	4,140,183	2,593.55	0.37	0.03
Top-Pick	1,133,950	710.34	0.10	0.01
Side-Pick	861,436	539.63	0.08	0.01
Yard Tractor (CY)	2,745,917	1,720.13	0.25	0.02
Subtotal	8,881,486	5,563.66	0.80	0.06
Pier F				
RTG (CY)	3,971,171	2,487.67	0.36	0.03
Top-Pick	1,621,266	1,015.61	0.15	0.01
Side-Pick	883,044	553.17	0.08	0.01
Yard Tractor (CY)	3,307,639	2,072.01	0.30	0.02
Subtotal	9,783,120	6,128.47	0.88	0.06
Subtotal - Project Year 2010	18,664,606	11,692.12	1.69	0.12
Project Year 2015				
RTG (CY)	9,843,099	6,166.04	0.89	0.06
Top-Pick	3,343,445	2,094.44	0.30	0.02
Side-Pick	2,116,921	1,326.11	0.19	0.01
Yard Tractor (CY)	7,345,969	4,601.76	0.66	0.05
Subtotal - Project Year 2015	22,649,433	14,188.35	2.05	0.14
Project Year 2020				
RTG (CY)	12,017,599	7,528.22	1.09	0.08
Top-Pick	4,082,066	2,557.14	0.37	0.03
Side-Pick	2,584,583	1,619.07	0.23	0.02
Yard Tractor (CY)	8,968,812	5,618.36	0.81	0.06
Subtotal - Project Year 2020	27,653,061	17,322.79	2.50	0.18
Project Year 2030				
RTG (CY)	13,833,275	8,665.62	1.25	0.09
Top-Pick	4,698,804	2,943.49	0.42	0.03
Side-Pick	2,975,074	1,863.68	0.27	0.02
Yard Tractor (CY)	10,323,863	6,467.21	0.93	0.07
Subtotal - Project Year 2030	31,831,016	19,940.00	2.88	0.20

Table A.1.3.2-Alt4U-31. GHGs from Cold-ironing Electricity Consumption - POLB - MHTP - Unmitigated Alternative 4.

Project Year	Cold-ironing Usage (MWh/yr)	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2010	*15,438*	*6,210*	*0.052*	*0.029*
2015	8,574	*3,449*	*0.029*	*0.016*
2020	16,707	*6,721*	*0.056*	*0.031*
2030	18,918	*7,610*	*0.063*	*0.035*

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

Table A.1.3.2-Alt4U-32. GHGs from Terminal Electricity Consumption - POLB - MHTP - Unmitigated Alternative 4.

Project Year	Electricity Usage (MWh/yr) [b]	CO2	CH4	N2O
		Emission Factors (lb/MWh) [a]		
		804.54	0.0067	0.0037
		Emissions (Tons Per Year)		
2005	35,907	14,444	0.12	0.07
2010	40,707	16,375	0.14	0.08
2015	55,099	22,165	0.18	0.10
2020	71,066	28,588	0.24	0.13
2030	76,879	30,926	0.26	0.14

[a] Source: CCAR General Reporting Protocol v. 2.2 (2007), Tables C.1 and C.2.

[b] Electricity usage for the CEQA baseline year (2003) is derived from actual data. Usage for subsequent years is scaled up by the relative number of annual TEU movements.

Table A.1.3.2-Alt1U-33. Annual Operational Emissions - POLB - MHTP - Unmitigated Alternative 4

	Metric Tons Per Year						
Project Scenario/Source Type	*CO2*	*CH4*	*N2O*	*HFC-125*	*HFC-134a*	*HFC-143a*	*CO2e*
Project Year 2010							
Ships - Fairway Transit (1)	2,629,021	348.18	23.41	-	-	-	2,643,589
Ships - Precautionary Area Transit (1)	1,869	0.25	0.02	-	-	-	1,879
Ships - Harbor Transit (1)	1,494	0.20	0.01	-	-	-	1,502
Ships - Docking (1)	500	0.07	0.00	-	-	-	503
Ships - Hoteling Aux. Sources	15,429	2.07	0.11	-	-	-	15,507
Ships Sub Total	2,648,313	350.78	23.55	-	-	-	2,662,980
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	10,629	1.53	0.11	-	-	-	10,695
On-road Trucks	158,590	17.68	8.84	-	-	-	161,702
Trains	-	-	-	-	-	-	0
Railyard Equipment	37,139	5.20	0.37	-	-	-	37,361
Commuting	2,035	0.37	0.36	-	-	-	2,155
Cold-Iron Usage	5,646	0.047	0.026	-	-	-	5,655
Reefers Refrigerant Losses	-	-	-	0.07	0.18	0.08	817
On-Terminal Electrical Consumption	14,886	0.12	0.07	-	-	-	14,910
Project Year 2010 Total	2,877,779	376	33	0.07	0.18	0.08	2,896,819
Net Change from 2005 CEQA Baseline	2,666,587	338	16	0.02	0.04	0.02	2,678,814
Project Year 2015							
Ships - Fairway Transit (1)	2,839,648	376.10	25.29	-	-	-	2,855,385
Ships - Precautionary Area Transit (1)	2,033	0.27	0.02	-	-	-	2,044
Ships - Harbor Transit (1)	1,654	0.22	0.01	-	-	-	1,663
Ships - Docking (1)	554	0.08	0.00	-	-	-	557
Ships - Hoteling Aux. Sources	10,683	1.42	0.06	-	-	-	10,733
Ships Sub Total	2,854,571	378.09	25.39	-	-	-	2,870,381
Tugboats - Cargo Vessel Assist (1)	541	0.07	0.01	-	-	-	544
Terminal Equipment	12,899	1.86	0.13	-	-	-	12,978
On-road Trucks	169,254	12.55	6.27	-	-	-	171,462
Trains	-	-	-	-	-	-	0
Railyard Equipment	159,644	22.35	1.57	-	-	-	160,602
Commuting	2,353	0.43	0.42	-	-	-	2,491
Cold-Iron Usage	3,136	0.026	0.014	-	-	-	3,141
Reefers Refrigerant Losses	-	-	-	0.10	0.23	0.10	1,084
On-Terminal Electrical Consumption	20,150	0.17	0.09	-	-	-	20,182
Project Year 2015 Total	3,222,548	416	34	0.10	0.23	0.10	3,242,866
Net Change from 2005 CEQA Baseline	3,011,356	377	17	0.04	0.10	0.04	3,024,861

Project Year 2020							
Ships - Fairway Transit (1)	3,498,758	463.39	31.16	-	-	-	3,518,147
Ships - Precautionary Area Transit (1)	2,495	0.33	0.02	-	-	-	2,508
Ships - Harbor Transit (1)	2,027	0.28	0.02	-	-	-	2,038
Ships - Docking (1)	679	0.09	0.01	-	-	-	683
Ships - Hoteling Aux. Sources	8,801	1.15	0.03	-	-	-	8,836
Ships Sub Total	3,512,760	465.24	31.23	-	-	-	3,532,213
Tugboats - Cargo Vessel Assist (1)	677	0.09	0.01	-	-	-	681
Terminal Equipment	15,748	2.27	0.16	-	-	-	15,846
On-road Trucks	211,368	25.27	12.63	-	-	-	215,814
Trains	-	-	-	-	-	-	0
Railyard Equipment	206,584	28.92	2.04	-	-	-	207,822
Commuting	2,710	0.50	0.48	-	-	-	2,869
Cold-Iron Usage	6,110	0.051	0.028	-	-	-	6,120
Reefers Refrigerant Losses	-	-	-	0.13	0.30	0.13	1,395
On-Terminal Electrical Consumption	25,989	0.22	0.12	-	-	-	26,031
Project Year 2020 Total	3,981,945	523	47	0.13	0.30	0.13	4,008,790
Net Change from 2005 CEQA Baseline	3,770,753	484	29	0.07	0.17	0.07	3,790,785
Project Year 2030							
Ships - Fairway Transit (1)	4,075,656	539.79	36.29	-	-	-	4,098,242
Ships - Precautionary Area Transit (1)	2,904	0.39	0.02	-	-	-	2,920
Ships - Harbor Transit (1)	2,947	0.40	0.03	-	-	-	2,963
Ships - Docking (1)	783	0.11	0.01	-	-	-	787
Ships - Hoteling Aux. Sources	10,226	1.33	0.04	-	-	-	10,266
Ships Sub Total	4,092,516	542.02	36.39	-	-	-	4,115,178
Tugboats - Cargo Vessel Assist (1)	812	0.11	0.01	-	-	-	817
Terminal Equipment	18,127	2.62	0.19	-	-	-	18,240
On-road Trucks	266,149	21.50	10.75	-	-	-	269,933
Trains	-	-	-	-	-	-	0
Railyard Equipment	202,715	28.38	2.00	-	-	-	203,931
Commuting	3,595	0.66	0.64	-	-	-	3,806
Cold-Iron Usage	6,918	0.058	0.032	-	-	-	6,929
Reefers Refrigerant Losses	-	-	-	0.15	0.35	0.15	1,627
On-Terminal Electrical Consumption	28,115	0.23	0.13	-	-	-	28,160
Project Year 2030 Total	4,618,947	596	50	0.15	0.35	0.15	4,648,620
Net Change from 2005 CEQA Baseline	4,407,755	557	33	0.09	0.22	0.10	4,430,615

Note: (1) Includes auxiliary generator emissions.

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Appendix A-2

Criteria Pollutant Dispersion Modeling Analyses for the Port of Long Beach Middle Harbor Redevelopment Project

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Appendix A-2
Criteria Pollutant Dispersion Modeling Analyses for the Port of Long Beach Middle Harbor Redevelopment Project

1.0 INTRODUCTION

(NOTE: All tables are included at the end of this appendix.)

This appendix describes the methods and results of the air dispersion modeling that was performed to predict ground-level concentrations of criteria pollutants resulting from construction and operation of the Port of Long Beach (POLB) Middle Harbor Redevelopment Project.

Subsequent to release of the Draft EIS/EIR in May 2008, new regulations were adopted and several updated assumptions became available that were used to prepare an updated health Risk Assessment (HRA) analysis for the FEIS/FEIR. Refer to the introductory section of FEIS/FIER Chapter 3.2 (Air Quality and Health Risk) for a summary of the changes that were implemented in the HRA analysis

The air dispersion modeling was performed using the U.S. Environmental Project Agency (EPA) American Meteorological Society (AMS)/EPA Regulatory Model (AERMOD, version 07026) based on the Guideline on Air Quality Models (40 Code of Federal Regulations [CFR], Part 51, Appendix W, April 15, 2003). The analysis considered criteria pollutant emissions from proposed construction and operational activities, including nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter equal or less than 10 microns in diameter (PM_{10}), and particulate matter equal or less than 2.5 microns in diameter ($PM_{2.5}$). The predicted ground-level concentrations were compared to applicable South Coast Air Quality Management District (SCAQMD) ambient air quality thresholds to determine their significance.

2.0 DEVELOPMENT OF EMISSIONS SCENARIOS

2.1 CONSTRUCTION EMISSIONS SOURCES

Project construction emissions would occur from the following sources:

- Off-road construction equipment;
- On-road trucks;
- Derrick barge equipment;
- Tugboats;
- Worker commuting vehicles; and
- Fugitive dust.

The air dispersion modeling included emissions from fugitive dust, and onsite construction equipment and haul trucks, as the SCAQMD only requires analyses of onsite construction emission sources for criteria pollutant impacts (SCAQMD 2005). Therefore, the analysis did not consider offsite emission sources from truck hauling, tugboat/barge activities, and worker commuting. The analysis focused on a peak day of construction activities.

2.2 CONSTRUCTION EMISSIONS

Construction emissions used in the modeling analysis were calculated using the methods described in Appendix A-1 of this EIS/EIR. The proposed construction schedule was used to estimate the period of peak daily criteria pollutant emissions that would occur from Project construction. The peak daily emissions represent the highest construction emissions that could occur during the construction phase. The methodologies and assumptions used for calculating the peak daily construction emissions are presented in Appendix A-1 Section 2.0. From this peak day, hourly emission rates were developed for each emission source by assuming the following: 1) the proposed construction schedule of eight hours per day, five days per week, and 52 weeks per year; 2) daily hours of operation and emissions from 0800 to 1200 and 1300 to 1700 local time; and 3) hourly emissions from all sources equal to their daily emissions divided by eight.

The analysis did not consider the impact of proposed construction emissions to annual ambient pollutant levels, as the SCAQMD does not require this evaluation for construction activities (SCAQMD 2006).

To estimate ambient NO_2 impacts, the estimated NO_x emissions from proposed onsite construction activities were converted to NO_2 emissions using SCAQMD localized significance threshold methodology (SCAQMD 2003). This approach increases the conversion of NO_x to NO_2 as an impact distance increases downwind from a source. NO_2 concentrations were calculated

assuming a 46.7 percent conversion rate from NO_x to NO_2 (SCAQMD 2003). This conversion rate assumes the maximum impact locations occur within 1000 meters (m) of emission sources that contribute to this impact. A review of the modeling results of the impact analysis from proposed Project operations showed that the location of maximum NO_x concentration was between 450 and 1500 m from the emission sources that had the highest contribution to NO_x impacts. Consequently, the use of the 46.7 percent conversion factor is reasonable.

Peak daily emissions were determined by identifying the maximum daily emissions that would occur from overlapping construction activities during the entire construction calendar schedule. Tables A-2-1 and A-2-2 summarize the peak hourly unmitigated emission rates of construction activities used in the dispersion modeling analyses. Additional tables provided at the end of Appendix A-1 include hourly pollutant emission rates by source type. Table A-2-3 presents the mitigated PM_{10} and $PM_{2.5}$ emissions that were analyzed in the EIS/EIR. The data in Tables A-2-1, A-2-2, and A-2-3 represent emissions from modeled sources and do not include offsite sources of construction emissions, such as tug boats and barge equipment.

2.3 OPERATIONAL EMISSION SOURCES

In accordance with SCAQMD guidance, both onsite and offsite emission sources were included in the dispersion modeling analysis of operational emissions. The dispersion modeling analysis included emissions from the following Project emission sources:

Ships transiting to and from berth. Ship transit in 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;

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;

Tugboats used to assist container ships between the POLB breakwater and berth (two tugboats assist inbound and one outbound per ship visit). Tugboat emission sources include main propulsion and auxiliary engines;

Terminal and Railyard Equipment, including yard tractors, rubber-tired gantry cranes (RTGs), top picks, side picks, forklifts, and yard sweepers;

Locomotives switching and idling at the existing/expanded Pier F intermodal railyard and hauling cargo between the railyard and the Pacific Coast Highway (PCH); and

Truck emissions from: (a) on-terminal driving and idling; and (b) off-terminal driving between the terminal and roadways adjacent to the Port.

Emission from worker commuting activities were not included in the dispersion modeling analyses, as their minimal amount of emissions would produce inconsequential ambient impacts.

The analysis of emissions from Project locomotive and truck trips focused on the area that is proximal to the Project terminal, rather than an entire trip distance between the terminal and the edge of the boundary of the South Coast Air Basin (SCAB). This approach was taken, as these distant emissions would produce nominal impacts at these locations and they would not contribute substantially, if at all, to the maximum Project impacts that would occur adjacent to the terminal.

2.4 OPERATIONAL EMISSIONS

The operational emissions dispersion modeling analysis focused on Project year 2010, which represents the annual period when each Project alternative would generate the highest amount of emissions within and adjacent to the Middle Harbor container terminal, thereby resulting in the highest ambient impacts in the Port and onshore regions for any Project year. This is the case, as year 2010 includes substantial increases in cargo throughput for each alternative, compared to the baseline year of 2005, but the unmitigated vehicle fleets have not turned over to vehicles with substantially cleaner emission standards, which would occur by year 2015. The analysis evaluated two scenarios: (1) long-term or annual impacts of NO_2; and (2) short-term pollutant impacts of one-, eight-, and 24-hour averaging periods. Appendix A-2, Attachment 1 includes estimates of the hourly Project source emission rates for each scenario used in the operational dispersion modeling analysis, based on the assumptions described below.

2.4.2 SHORT-TERM POLLUTANT IMPACTS

Information used to develop peak day activity data included: (1) Project yearly TEUs; (2) annual ship visits by vessel size; (3) berth lengths and number of cranes from the *Report on Terminal Components and Infrastructure Impacts* (POLB 2006a); (4) yearly crane service times and numbers applied per vessel; (5) average daily truck trips from the Project traffic study; (6) average daily train trips; and (7) number of TEUs per train round trip (Yang Ming ICTF 2003).

Peak daily and hourly operational emission rates were developed for the: (1) Project alternatives and NEPA baseline for year 2010 and (2) CEQA Baseline for year 2005. The year 2010 peak daily emissions represent the highest operational emissions that could occur through 2030. The methodologies and assumptions used for calculating the peak daily operational emissions are presented in Appendix A-1 Section 3.0.

3.0 DISPERSION MODEL SELECTION AND INPUTS

In November 2006, AERMOD officially became EPA's preferred model for conducting dispersion modeling, replacing the Industrial Source Complex Short-Term, Version 3 model (ISCST3) (EPA 2008). AERMOD is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts that can handle both ground-level and elevated sources in simple and complex terrain.

Relative to ISCST3, AERMOD contains new or improved algorithms for:

- Dispersion in both the convective and stable boundary layers;
- Plume rise and buoyancy;
- Plume penetration into elevated inversions;
- Treatment of elevated, near-surface, and surface level sources;
- Computation of vertical profiles of wind, turbulence, and temperature; and
- Treatment of receptors on all types of terrain (from the surface up to and above the plume height).

AERMOD (version 07026) was used to perform the dispersion modeling for air quality impact analysis in this EIS/EIR. The AERMOD model was selected for the following reasons:

- It has become the regulatory default model for dispersion modeling;
- General acceptance by the modeling community and regulatory agencies of its ability to provide more reasonable results for large industrial complexes with multiple emission sources than ISCST3; and
- Ability of the model to handle the various physical characteristics of Project emission sources, including "point," "area," and "volume" source types.

3.0 PHYSICAL SIMULATIONS OF EMISSION SOURCES

The operational emission sources were modeled assuming various diurnal emission patterns to reflect the daily cycle of activity at the terminal. The diurnal emission patterns, as shown in Table A-2-4, were based on those developed by the ARB in the Diesel Particulate Matter Exposure Assessment Study for the Ports of Long Beach and Los Angeles (ARB 2006b).

Screening runs were performed to assess the impacts of including or not including building downwash for the stationary point sources (i.e., vessel hoteling). The analysis focused on the CEQA and NEPA cancer-risk increment results for the mitigated proposed Project. It was determined that including building downwash would have minimal effects on the modeling results (if at all), as the predicted location(s) of maximum impact occurred in areas at a considerable distance from the Project terminal. Therefore, for consistency in conducting the Project criteria pollutant modeling and Health Risk Assessment (HRA), building downwash effects were not included in the two analyses.

3.1 EMISSION SOURCE REPRESENTATION

3.1.1 Construction Emission Sources

All Project construction emissions were modeled as volume sources and their emissions were evenly distributed throughout their associated construction areas. Total construction emissions were broken into two distinct categories: construction activities (other than dredging) and dredging activities.

- **Construction Sources:** The analysis simulated all volume sources with a release height of 4.57 meters (15ft). The initial vertical dimension for all constructions sources was set to 9.14 meters (30ft). Construction source dimensions were chosen to fit typical heights of either the exhaust stack or physical tops of these equipment, while taking into consideration how mobile operations affect plume dispersion.
    - Construction Activities Other than Dredging: The analysis employs a set of 26 distinct volume sources with emissions evenly distributed throughout the construction area. Lateral dimensions for the 26 sources vary from 75 to 700 meters, as they were crafted to fit within the dimensions of the proposed construction areas.
    - Dredging Activities – Dredging is simulated using a set of 12 distinct volume sources with emissions evenly distributed through the dredging areas. Lateral dimensions for the 12 dredging sources range from 75 to 125 meters so that they would fit within the general dredging area.

Included at the end of Appendix A-3 is a diagram that shows the construction emissions source layout for the air dispersion modeling. Figure A-3-5b shows the construction and dredging source representations in AERMOD.

3.1.2 Operations Emission Sources

The AERMOD modeling analysis evaluated Project-related operational emission sources, including container ships, assist tugboats, terminal and railyard equipment, locomotives, and trucks. The analysis simulated the Project-related emission sources, taking into consideration physical characteristics and operational locations of these sources.

The following provides additional details regarding the emission sources that were included in the criteria pollutant modeling analysis:

- **Ships transiting** to and from the Middle Harbor berths. Ship transit in SCAQMD waters consists of the following transit segments, starting with the segment farthest from the berth.
    - Fairway transit – The portion of transit between the SCAQMD over water outer boundary (about 50 nautical miles [nm] from the Port breakwater) and the ports Precautionary Area (beginning about 10 nm from the Port breakwater). A sensitivity analysis performed for a recently completed container terminal development project determined that the closest 14 nm portion of Fairway transit is sufficient to include in the modeling analysis, as the more distant portion of Fairway transit contributed to less than one percent of the total risks at the maximum residential and occupational receptors (POLA 2007). The Fairway segment excluded from the analysis is the portion that extends to the west of Point Vicente. Therefore, this analysis modeled Fairway vessel emissions between the Precautionary area and this point, or equal to 35 percent of the total Fairway emissions.
    - Precautionary Area transit – The portion of transit between the Fairway and the Port breakwater. This segment length is about 10 nm.
    - Harbor transit – The portion of transit between the Port breakwater and the berths. This segment length is about three nm.
    - Turning and Docking – Final positioning of the ship near the berths.
    - The total one-way transit distance included in the modeling is about 27 nm. Vessel emission sources include main propulsion engines, auxiliary engines, and boilers.
- **Vessel berth maneuvering area (Turning Basin and Docking)** representing activities with concentrated emissions that occur in designated locations near the berth.
- **Ships hoteling** while at berth. Sources of hoteling emissions include ship auxiliary engines and boilers, as the main propulsion engine is not in operation. When a ship uses cold-ironing while hoteling, only boiler sources are in use.
- **Tugboats** used to assist the container ships between the Port breakwater and the berths (three tugboat assists per ship visit).

Emission sources include tugboat main propulsion and auxiliary engines.

- **Terminal and Railyard Equipment (Cargo Handling Equipment)**, including yard tractors (hostlers), RTGs, top picks, and side picks.
- **Locomotives** switching and idling within the expanded Pier F intermodal railyard, and trains hauling containers between the expanded Pier F intermodal railyard and the PCH.
- **Trucks** transporting containers on primary roadways to and from the Middle Harbor container terminal, including vehicle exhaust, tire wear, and brake wear. The modeling analysis included all roads that would carry at least five percent of the truck average daily trips (ADT) generated by the Project or alternatives, the CEQA Baseline, or the NEPA Baseline. The analysis used this conservatively low ADT threshold to ensure inclusion of any roadway that could produce at least nominal ambient pollutant impacts. The modeled roadways included:
  - On-terminal driving and idling;
  - 10th Street from Pico Ave to 9th Street;
  - 9th Street from Anaheim St to Pico Ave;
  - Alameda Street from Eubank Ave to Anaheim St;
  - Anaheim Street from Alameda St to 9th St;
  - Harbor Plaza from Pier F Ave to the Queensway Bridge;
  - Harbor Scenic Drive from Harbor Plaza to I-710;
  - I-710 from Harbor Scenic Drive to Sepulveda Blvd;
  - Ocean Blvd from I-710 to SR-47;
  - Pico Ave from Pier B Street to Harbor Plaza;
  - Pier D Street from Pico to the Pier D Terminal Entrance;
  - Pier F Ave from Harbor Plaza to the Pier F Terminal Entrance; and
  - Santa Fe Ave from 9th Street to PCH.

The modeling analysis evenly distributed truck on-terminal driving emissions throughout the Middle Harbor container terminal for all Project scenarios. On-terminal idling emissions were distributed 50 percent to the in- and out-gates, and 50 percent throughout the Middle Harbor container terminal.

Emissions from the movement of vessels in the shipping lanes, trains on rail lines, and trucks on roadways were simulated as line source emissions in the modeling analysis, and represented as a series of separated volume sources. Mobile source operations confined within specific geographic locations, such as the Middle Harbor container terminal and expanded Pier F intermodal railyard, were modeled as a collection of volume sources covering the subject area. Volume source emissions were simulated by AERMOD as being released and mixed vertically and horizontally within a volume of air prior to being dispersed downwind. Finally, stationary emissions from hoteling ships were modeled as point (stack) sources with upward plume velocity and buoyancy.

For the Project criteria pollutant and HRA modeling analyses of operational impacts, 1,919 emission sources were simulated in AERMOD. The sources represented different geographical locations, emission release heights, and diurnal emission profiles. Not all of the sources were used for all Project alternatives. Rather, different combinations of these sources were used to represent the different modeling scenarios. Included at the end of Appendix A-3 are diagrams that show the operational emission source layouts for modeling the various Project scenarios. For example, Figures A-3-3, A-3-4, and A-3-5 show the on-terminal source representation in AERMOD for the CEQA Baseline, NEPA Baseline, and proposed Project scenarios, respectively. Figure A-3-6 shows the AERMOD source representation for the ship Fairway and Precautionary Area transit routes, and Figure A-3-7 shows the AERMOD source representation for the truck, locomotive, and ship and tugboat harbor transit routes.

The Alternative 1 (345-Acre), Alternative 2 (315-Acre), and Alternative 3 (Landside Improvements Alternative) (i.e., NEPA Baseline) modeling scenarios also used different combinations of sources at different Project milestone years, as various development phases would be completed and become operational.

The operational characteristics of each source type in terms of the area of operation and vertical source height determined the release

parameters of each volume or point source. Emission source locations were identified within AERMOD based on the use of the Universal Transverse Mercator (UTM) coordinate system North American Datum 1983 (NAD83), referenced to topographic data obtained from the United States Geological Survey (USGS).

The following discusses the methodology for defining the physical source characteristics used in the dispersion modeling analyses.

- **Ship transit lanes (Fairway, Precautionary Area, and Harbor Transit)**. Emissions from marine vessels that transit between the offshore shipping lanes and the berth were simulated as a series of elevated volume sources beginning approximately 14 nm beyond Point Fermin and extending to the wharves at the Middle Harbor container terminal. Total transit emissions were calculated and divided equally among the volume sources for each of the Fairway, Precautionary Area, and Harbor Transit segments. Tugboat assist emissions were modeled as separate Harbor Transit volume sources with a 50-foot plume height.
- Vessel transit sources were modeled as line sources with the use of multiple volume sources and consistent with methods in the *ISCST User's Guide, Section 1.2.2, Volume II* (EPA 1995). The volume source width for transit within the Fairway and Precautionary Area was set to 200 m. The volume source width for transit within the harbor was set to 100 m. The center-to-center spacing of the Fairway and Precautionary Area transit volume sources was 600 m. For Harbor Transit sources, the center-to-center spacing of the Harbor Transit volume sources was 200 m.
- The analysis used the following vertical dimensions for vessel transit volume sources, based upon a series of visual observations of container ship exhaust plumes at the Port (SAIC 2006). These observations showed that lower apparent wind speeds with slower ship speeds resulted in higher vessel plume rises:
- Fairway/Precautionary Area – Center of volume source equal to 25 percent above stack height (39 m), or 49 m, and a volume source depth of 50 percent of stack height, or 19.5 m; and
- Harbor Transit – Center of volume source equal to 50 percent above stack height, or 58.5 m, and a volume source depth of 100 percent of stack height, or 39 m.
- The transit sources were assumed to be positioned along the centerline of the vessel inbound/outbound traffic lanes through the Fairway and Precautionary Area, along a line from the edge of the Precautionary Area to Queens Gate, and then along the Long Beach Channel to Middle Harbor, the East Basin, and the berths. Figures A-3-6 and A-3-7 in Appendix A-3 show the locations of the vessel sources modeled in the criteria pollutant modeling.
- **Vessel berth maneuvering area (Turning Basin and Docking)**. These activities would result in concentrated emissions that occur in designated locations near the berth. Consequently, the modeling used dedicated volume sources to simulate these activities. The volume source width was set to 300 m for turning and 100 m for docking. The analysis set the center of the volume source equal to 100 percent above stack height, or 78 m, and the volume source depth equal to 200 percent of stack height, or 78 m.
- **Vessel hoteling locations**. The analysis modeled these stationary auxiliary engines and boilers as stack-type point sources at various berth locations. Various combinations of hoteling point sources were used in the modeling, depending on the Project alternative and milestone year. Stack parameters for the auxiliary engines and boilers were developed for each vessel size category from data (1) collected during the vessel-boarding program for the Port of Los Angeles 2001 Baseline Air Emissions Inventory (Starcrest 2005) and (2) engine vendors (Caterpillar 2001). The analysis adjusted stack plume exit velocities downward to account for deviations of the stack angles from vertical (Starcrest 2005) (exit velocity times the cosine of the angle of deviation from the vertical).
- **Terminal and railyard areas.** The modeling analysis overlaid areas of the Middle Harbor container terminal, including the expanded Pier F intermodal railyard, with assumed square boxes of

various sizes to achieve a complete coverage of source operational areas. Each of the boxes represents the base of a volume source. The analysis assumed that emissions were spread uniformly over the entire area represented by the volume sources for each particular source configuration. Emissions, therefore, were assigned to each volume source in proportion to the base area of the source divided by the total area of all sources. Emissions from terminal equipment, on-terminal trucks, and railyard cargo-handling equipment were assigned a release height of 15 feet, which is the approximate average height of the exhaust stack plus a nominal amount of plume rise, per visual observations.

- Emissions from yard locomotives and idling line-haul locomotives at the expanded Pier F intermodal railyard were assigned release heights equal to the average locomotive stack height of 15 feet, plus an estimated vertical plume rise. The amount of plume rise differs between daytime and nighttime conditions. Based on a screening-level modeling analysis conducted for the Roseville Railyard Study (ARB 2004), a plume height of 21.8 feet above ground was assumed for daytime conditions and 44.5 feet for nighttime conditions.
- **Roadways and railways.** Truck movements on roadways and train movements on rail lines were modeled as a series of separated volume sources, as recommended for the simulation of line sources in the ISCST User's Guide (EPA 1995). Roadways were divided into links that have uniform average speeds and widths. Average roadway speeds for the Project milestone years were developed as part of the Project traffic study in this EIS/EIR. The rail line was assumed to have an average speed of 10 mph between the expanded Pier F intermodal railyard and Ocean Avenue, and 20 mph between Ocean Avenue and the Alameda Corridor (POLB 2006). Total link emissions were divided equally among the number of sources in a given link.
- Emissions from trucks within roadways were assigned a release height of 15 feet. Emissions from trains were assigned a release height equal to the average locomotive stack height of 15 feet plus an estimated vertical plume rise. Based on a screening-level modeling analysis conducted for the Roseville Railyard Study, a train traveling 10 mph was assigned a plume height of 18.3 feet above ground during daytime conditions and 47.7 feet during nighttime conditions (equal to values of 12 mph from the Study) (ARB 2004). A train traveling 20 mph was assigned a plume height of 17.0 feet above ground during daytime conditions and 48.8 feet during nighttime conditions. The width of the volume sources for roadways and rail lines were set equal to the width of the roadway or rail corridor plus three m on each side.

3.2 METEOROLOGICAL DATA

Due to the blocking effect of the Palos Verdes Hills, wide variations in wind conditions often occur within the Port. For example, during typical sea breeze conditions, the hills can create a relatively light wind zone in the Inner Harbor while the Outer Harbor experiences stronger winds from different directions. The monthly and hourly streamlines developed for the South Coast Air Basin in California South Coast Air Basin Hourly Wind Flow Patterns show this difference in wind conditions between the inner and outer harbor regions (SCAQMD 1977).

Due to varying wind conditions within the Port region, the most accurate method for conducting criteria dispersion modeling was to split the modeling domain into distinct Inner and Outer Harbor meteorological areas. Per real time observational analyses, the boundary chosen between these two areas is roughly a line drawn across the Long Beach Channel from the old Navy Mole to the Jacobson Pilot Station on Pier F. The modeling results for each meteorological domain are summed at each common receptor point to produce total impacts from each Project scenario that was analyzed.

The North Long Beach Monitoring Station has traditionally been the station used by SCAQMD for modeling in the Port area. Data from the North Long Beach Monitoring Station have not been processed for AERMOD use. However, over the past several years, a number of additional meteorological stations have been operating in the POLB area. These stations help to improve the characterization of meteorological conditions near the POLB. The POLB has

operated two air quality monitoring stations, one in the Inner Harbor and one in the Outer Harbor, since September 2006. Data from these stations are currently not available for dispersion modeling, as one complete year must be collected, quality-checked, and processed prior to use. The ARB and the Port of Los Angeles (POLA) have also been operating additional stations in the region.

The monitoring stations selected to simulate meteorological conditions within the Project region of influence include:

1) The POLA St Peter and Paul School (SPPS) station, located 3.5 miles northwest of the Project site, in Wilmington (Inner Harbor). Recent analyses conducted for the POLB concluded that data from the POLA SPPS station is most suitable for dispersion modeling of inland projects within the POLB area (ENVIRON 2007). The ARB has approved the AERMOD-processed meteorological data from the SPPS station; for example, these data were used in a HRA for the BSNF Watson Railyard in the Wilmington area (ARB 2008b). Consequently, the one-year of SPPS AERMET-processed meteorological data previously developed for performing the BSNF Watson HRA were used for performing the dispersion modeling analysis for the Inner Harbor operations sources for this Project.

2) The POLA Berth 47 station, located 1.3 miles west-northwest of Angel's Gate and about four miles southwest of the Project site (Outer Harbor). The Berth 47 station is ideally situated to provide meteorological data that are representative of conditions in the Outer Harbor. As part of this HRA, an annual meteorological data set was developed from the Berth 47 data for the same one-year timeframe of the SPPS data that had been processed for AERMOD. The Berth 47 data were processed with AERMET using the same approach as for the SPPS data.

3.3 MODEL OPTIONS

Technical options selected for the AERMOD model are listed below. Use of these options follows EPA modeling guidance (40 CFR, Appendix W; April 15, 2003) and SCAQMD guidance.

- Regulatory default option;
- Includes stack tip downwash;
- Incorporates Effects of Elevated Terrain;
- Includes calms and missing data processing;
- Urban modeling option;
- Urban Area Population of 535,500; and
- Default roughness length of one meter. This was used to characterize the average surface roughness of the entire urban area represented in the model for the nighttime heat island effect, as impacts over water were not considered in this analysis.

3.3.1 Source/Receptor Locations

Receptor and source base elevations were determined from USGS Digital Elevation Model (DEM) data using the 7.5-minute format (i.e., 30-meter spacing between grid nodes). All coordinates were referenced to UTM North American Datum 1983 (NAD83), Zone 11. The dispersion modeling analysis utilized a regular coarse grid of 983 receptor points with fine grid spacing of 250 m out to three kilometers (km) around the terminal boundary, as shown in Figure A-3-1. A 500-m coarse receptor grid then was extended an additional two km in northerly and westerly directions, while the easterly and southerly directions extended an additional three km around the terminal area. To reduce AERMOD runtime, receptors over water were spaced 500 m apart regardless of their distance from the terminal.

Fine receptor grids were developed based on the coarse grid maximum location for the CEQA and NEPA increments for each Project scenario. Fine grids are developed for each positive maximum CEQA/NEPA increment result. Each fine grid is designed with 100 m spacing extending 250 m from the coarse grid maximum in each direction, for a total grid extending 500 m by 500 m. Within the 500 m by 500 m fine grid, specific receptors were omitted if they were located in areas where impacts were unrealistic (e.g., receptors located over water or in the middle of roadways).

4.0 SIGNIFICANCE CRITERIA FOR PROJECT AIR QUALITY IMPACTS

The SCAQMD has established thresholds to determine the significance of ambient air quality

impacts from proposed land use development projects (SCAQMD 2006). Tables A-2-5 and A-2-6 present the SCAQMD ambient significance criteria used to evaluate construction and operational activities. To evaluate Project impacts to ambient NO_2 levels, the analysis replaced the use of the current SCAQMD NO_2 thresholds with the revised one-hour and annual California ambient air quality standards of 338 and 56 µg/m3, respectively, as these new standards are the most stringent applicable requirements.

For construction emissions, NO_2 and CO ground-level concentrations predicted by AERMOD were added to background concentrations of each pollutant to produce total concentrations that were compared to the SCAQMD thresholds. The PM_{10} and $PM_{2.5}$ concentrations predicted by AERMOD from Project construction emissions alone (without adding background concentrations) were compared to the SCAQMD incremental PM_{10} and $PM_{2.5}$ thresholds.

For operational emissions, NO_2 and CO impacts were evaluated in the same manner as the construction analysis. To assess the significance of operational PM_{10} and $PM_{2.5}$ impacts under CEQA, the analysis determined the net change in PM_{10} and $PM_{2.5}$ concentrations between the proposed Project and CEQA Baseline scenario. To assess the significance of operational PM_{10} and $PM_{2.5}$ impacts under NEPA, the analysis determined the net change in PM_{10} and $PM_{2.5}$ concentrations between the proposed Project and NEPA Baseline scenario. Both net changes in PM_{10} and $PM_{2.5}$ concentrations were compared to the SCAQMD incremental PM_{10} and PM2.5thresholds.

5.0 PREDICTED AIR QUALITY IMPACTS

5.1 CONSTRUCTION IMPACTS

5.1.1 Alternative 1 - 345-Acre Alternative (the Project)

5.1.1.1 Unmitigated Construction Impacts from Alternative 1

Tables A-2-1 and A-2-2 summarize the peak hourly unmitigated emissions that were modeled for Alternative 1 construction activities. Peak day emissions of CO and NO_2 would occur during Phase 1/Stage 1 and due to (1) container yard paving, (2) Berth E24 wharf construction, (3) roll surcharge, (4) sheet pile bulkhead demolition, and (5) ground improvements Pier D activities. Peak day emissions of PM_{10} and $PM_{2.5}$ would occur simultaneously during Phase 1/Stage 4, Phase 1/ Stage 5, and Phase 2/Stage 2 activities that are due to (1) Seaside Railyard area redevelopment, (2) development of the terminal area north of Ocean Blvd., (3) building construction, and (4) Berth E23 wharf construction.

Table A-2-7 presents the maximum offsite ground level concentrations of criteria pollutants estimated for Phase 1 construction activities without mitigation from Alternative 1 (345-Acre Alternative). The data in Table A.2-7 show that the unmitigated maximum total one-hour NO_2 concentration of 347 µg/m^3 would exceed the SCAQMD threshold of 338 µg/m^3. Additionally, the maximum offsite 24-hour PM_{10} incremental impact of 40.4 µg/m^3 would exceed the SCAQMD threshold of 10.4 µg/m^3. As a result, unmitigated emissions from Project construction would produce significant ambient one-hour NO_2 and 24-hour PM_{10} impacts under CEQA. All other pollutant impacts would remain below significant levels.

5.1.1.2 Mitigated Construction Impacts from Alternative 1

Table A-2-3 presents the peak hourly PM_{10} and $PM_{2.5}$ emissions after implementation of **Mitigation Measure AQ-1** (**Impact AQ-1**) that were modeled for Alternative 1 construction activities. This measure would only reduce fugitive dust emissions. Although not evaluated in this analysis, implementation of **Mitigation Measures AQ-2, AQ-2a, AQ-2b, AQ-3, and AQ-3a** would reduce combustive emissions and their resulting ambient impacts from proposed construction activities.

Table A-2-8 presents the maximum offsite ground level concentrations of criteria pollutants estimated for the mitigated Alternative 1 construction activities. The data in Table A-2-8 show that the mitigated maximum offsite 24-hour PM10 incremental impact of 17.1 µg/m^3 would exceed the SCAQMD threshold of 10.4 µg/m^3. As a result, Project construction emissions would remain significant after mitigation for ambient one-hour NO_2 and 24-hour PM10 impacts under CEQA.

5.1.2 Alternative 2 - 315-Acre Alternative

5.1.2.1 Unmitigated Construction Impacts from Alternative 2

Peak daily construction activities that produce combustive emissions for Alternative 2 would be the same as those identified for Alternative 1, as shown in Table A-2-1. Table A.2.2-1 summarize the peak hourly unmitigated PM_{10} and $PM_{2.5}$ emissions modeled for Alternative 2 construction activities.

Table A-2-9 presents the maximum ambient offsite impacts estimated for the unmitigated Alternative 2 construction activities. The data in Table A-2-9 show that the unmitigated maximum total one-hour NO_2 concentration of 347 µg/m^3 would exceed the SCAQMD threshold of 338 µg/m^3. Additionally, the maximum offsite 24-hour PM_{10} incremental impact of 13.6 µg/m3 would exceed the SCAQMD threshold of 10.4 µg/m^3. As a result, unmitigated emissions from Alternative 2 construction would produce significant ambient one-hour NO_2 and 24-hour PM_{10} impacts under CEQA and NEPA. All other pollutant impacts would remain below significant levels.

5.1.2.2 Mitigated Construction Impacts from Alternative 2

Table A.2.2-2 presents the peak hourly PM_{10} and $PM_{2.5}$ emissions after implementation of **Mitigation Measure AQ-1** that were modeled for Alternative 2 construction activities. This measure would only reduce fugitive dust emissions. Although not evaluated in this analysis, implementation of **Mitigation Measures AQ-2, AQ-2a, AQ-3. and AQ-3a** would reduce combustive emissions and their resulting ambient impacts from proposed construction activities.

Table A-2-10 presents the maximum ambient offsite impacts estimated for mitigated Alternative 2 construction activities. The data in Table A-2-10 show that after mitigation, total one-hour NO_2 concentration of 347 µg/m^3 would exceed the SCAQMD threshold of 338 µg/m^3. Additionally, the maximum offsite 24-hour PM_{10} incremental impact of 13.6 µg/m^3 would exceed the SCAQMD threshold of 10.4 µg/m^3. As a result, Alternative 2 construction emissions would remain significant after mitigation for ambient one-hour NO_2 and 24-hour PM_{10} impacts under CEQA and NEPA.

5.1.3 Alternative 3 - Landside Improvements Alternative

5.1.3.1 Unmitigated Construction Impacts from Alternative 3

Table A.2.2-3 summarizes the peak hourly unmitigated combustive emission rates modeled for Alternative 3 construction activities. Peak day emissions of CO and NO_2 would occur during the Seaside Railyard area redevelopment, new container yard construction, and new terminal building construction. Fugitive dust emissions from Alternative 3 construction would equal those estimated for Alternative 2.

Table A-2-11 presents the maximum ambient offsite impacts estimated for unmitigated Alternative 3 construction activities. The data in Table A-2-11 show that the unmitigated maximum offsite 24-hour PM_{10} incremental impact of 34.5 µg/m^3 would exceed the SCAQMD threshold of 10.4 µg/m^3. All other pollutant impacts would remain below significant levels.

5.1.3.2 Mitigated Construction Impacts from Alternative 3

Table A.2.2-5 presents the peak hourly PM_{10} and $PM_{2.5}$ emissions after implementation of **Mitigation Measure AQ-1** that were modeled for Alternative 3 construction activities. This measure would only reduce fugitive dust emissions. Although not evaluated in this analysis, implementation of **Mitigation Measures AQ-2. AQ-2a, AQ-3, and AQ-3a** would reduce combustive emissions and their corresponding ambient impacts from proposed construction activities.

Table A-2-12 presents the maximum ambient offsite impacts estimated for mitigated Alternative 3 construction activities. The data in Table A-2-12 show that the mitigated maximum offsite 24-hour PM_{10} incremental impact of 13.6 µg/m^3 would exceed the SCAQMD threshold of 10.4 µg/m^3. As a result, unmitigated emissions from Alternative 3 construction would produce significant ambient 24-hour PM_{10} impacts under CEQA.

5.1.4 Alternative 4 - No Project Alternative

5.1.4.1 Unmitigated Construction Impacts from Alternative 4

The No Project Alternative would not include any construction activities. Consequently, Alternative

4 would not produce any construction air quality impacts.

5.2 OPERATIONAL IMPACTS

The following tables in Appendix 2, Attachment 1, summarize the emission rates used in the operational dispersion modeling analyses:

- CEQA Baseline daily and annual emission scenarios - Tables A.2.1-CB-1 and A.2.1-CB-2;
- NEPA Baseline (also equivalent to Alternative 3) daily and annual emission scenarios - Tables A.2.1-NB-1 and A.2.1-NB-2;
- Unmitigated Alternative 1 daily and annual emission scenarios - Tables A.2.1-Alt1D-9 and A.2.1-Alt1A-8;
- Mitigated Alternative 1 daily and annual emission scenarios - Tables A.2.1-Alt1D-2 and A.2.1-Alt1A-2;
- Unmitigated Alternative 2 daily and annual emission scenarios - Tables A.2.1-Alt2D-8 and A.2.1-Alt2A-9;
- Mitigated Alternative 2 daily and annual emission scenarios - Tables A.2.1-Alt2D-1 and A.2.1-Alt2A-2; and
- Unmitigated Alternative 4 daily and annual emission scenarios - Tables A.2.1-Alt4-1 and A.2.1-Alt4-2.

Appendix A-1, Attachment A.1.2.1 also includes assumptions used to develop the above emission rates.

5.2.1 Alternative 1 (345-Acre Alternative)

5.2.1.1 Unmitigated Project Operational Impacts from Alternative 1

Table A-2-13 presents the projected maximum ambient offsite impacts for unmitigated Alternative 1 operations. These data show that the maximum total NO_2 impacts would exceed the one-hour and annual SCAQMD ambient thresholds. As a result, unmitigated emissions from Project operations would contribute to significant levels of one-hour and annual NO_2 under CEQA and NEPA. All other pollutant impacts would remain below significant levels.

5.2.1.2 Mitigated Project Operational Impacts from Alternative 1

Table A-2-14 presents the projected maximum ambient offsite impacts for mitigated Alternative 1 operations due to the implementation of **Mitigation Measures AQ-4 through AQ-8** (except for Mitigation Measure AQ-7a). Although not evaluated in this analysis, implementation of **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. The data in Table A-2-14 show that the maximum total NO_2 impacts would exceed the one-hour and annual SCAQMD ambient thresholds. As a result, mitigated emissions from the operation of Alternative 1 would contribute to significant levels of one-hour and annual NO_2 under CEQA and NEPA. All other pollutant impacts would remain below significant levels.

5.2.2 Alternative 2 (315-Acre Alternative)

5.2.2.1 Unmitigated Operational Impacts from Alternative 2

Table A-2-15 presents the maximum offsite ground level concentrations of criteria pollutants estimated for the operation of the unmitigated Alternative 2. These data show that the maximum total NO_2 impacts would exceed the one-hour and annual SCAQMD ambient thresholds. As a result, unmitigated emissions from Alternative 2 operations would contribute to significant levels of one-hour and annual NO_2 under CEQA and NEPA. All other pollutant impacts would remain below significant levels.

5.2.2.2 Mitigated Operational Impacts from Alternative 2

Table A-2-16 presents the projected maximum ambient offsite impacts for mitigated Alternative 2 operations due to the implementation of **Mitigation Measures AQ-4 through AQ-8** (excluding AQ-7a). Although not evaluated in this analysis, implementation of **Mitigation Measures AQ-7a, AQ-9 through AQ-11, AQ-25, and AQ-26** would further reduce combustive emissions and their resulting ambient impacts from proposed operations. These data show that the maximum total NO_2 impacts would exceed the one-hour and annual SCAQMD ambient thresholds. As a result, mitigated emissions from Alternative 2 operations would contribute to significant levels of one-hour and annual NO_2

under CEQA and NEPA. All other pollutant impacts would remain below significant levels.

5.2.3 Alternative 3 (Landslide Improvements Alternative)

5.2.3.1 Unmitigated Operational Impacts from Alternative 3

Table A-2-17 presents the projected maximum ambient offsite impacts for the unmitigated Alternative 3 operations. These data show that the maximum total NO_2 impacts would exceed the one-hour and annual SCAQMD ambient thresholds. As a result, unmitigated emissions from Alternative 3 operations would contribute to significant levels of one-hour and annual NO_2 under CEQA. All other pollutant impacts would remain below significant levels.

5.2.3.2 Mitigated Operational Impacts from Alternative 3

Since unmitigated Alternative 3 would adopt all applicable air regulations and CAAP measures, there are no additional feasible mitigation measures that would reduce NO_2 impacts to below significance.

5.2.4 Alternative 4 (No Project Alternative)

5.2.4.1 Unmitigated Operational Impacts from Alternative 4

Table A-2-18 presents the projected maximum ambient offsite impacts for unmitigated Alternative 4 operations. These data show that the maximum total NO_2 impacts would exceed the one-hour and annual SCAQMD ambient thresholds. As a result, emissions from Alternative 4 operations would contribute to significant levels of one-hour and annual NO_2 under CEQA. All other pollutant impacts would remain below significant levels.

Since the No Project Alternative would not include any federal action, this alternative would not produce any air quality impacts under NEPA.

5.2.4.2 Mitigated Operational Impacts from Alternative 4

Mitigation measures were not identified or assessed for this alternative, as this alternative would not require regulatory approvals for new uses.

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Tables

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Table A-2-1. Unmitigated Peak Hourly CO and NO_2 Construction Emissions – 345-Acre Alternative		
Construction Activity/Sub-Activity	**Pounds per Hour**	
	CO	**NO_2**
Paving:		
New Container Yard Construction – Paving	1.6	2.6
Wharf Construction		
Drive 24-In Octagonal Piles – Land	2.4	3.7
Drive 24-In Octagonal Piles – Water	2.6	7.7
Drive Piles – Misc. Activities	1.0	1.7
Reinforced Concrete Wharf	4.8	10.8
Retaining Bulkhead Construction	1.1	1.7
Subtotal	*11.9*	*25.5*
Surcharge (Initial Pump, Plus Clamshell or Truck):		
Roll Surcharge	9.5	14.7
Remove Cellular Sheet pile:		
Sheet Pile Bulkhead Demolition	1.5	2.4
Ground Improvements Pier D:		
Stone Column Installation Equipment	5.8	9.0
Total Hourly CO and NO_2 Emissions (pounds per hour)	**30.3**	**54.1**

Table A-2-2. Unmitigated Peak Hourly PM_{10} and $PM_{2.5}$ Construction Emissions – 345-Acre Alternative		
Construction Activity/Sub-Activity	**Pounds per Hour**	
	PM_{10}	**$PM_{2.5}$**
Seaside Railyard Area Redevelopment:		
New Container Yard Utilities	0.8	0.7
New Container Yard Construction – Paving	0.4	0.3
New Container Yard Construction – Electrical	0.1	0.1
Fugitive Dust	39.6	8.3
Subtotal	*40.9*	*9.4*
Develop Terminal North of Ocean Blvd.:		
New Container Yard Utilities	0.8	0.7
New Container Yard Construction – Paving	0.4	0.3
New Container Yard Construction – Electrical	0.1	0.1
Fugitive Dust	29.7	6.2
Subtotal	*31.0*	*7.4*
Construction – New Terminal Buildings:		
Building Construction	0.9	0.8
Fugitive Dust	9.9	2.1
Subtotal	*10.8*	*2.9*
Construct Berth 23 Wharf , Armor, Fill:		
Land Excavation	0.4	0.4
Retaining Bulkhead Construction	0.2	0.2
Drive 24-In Octagonal Piles – Land	0.4	0.4
Drive 24-In Octagonal Piles – Water	0.9	0.8
Drive Piles - Misc Activities	0.2	0.2
Reinforced Concrete Wharf	0.8	0.7
Fugitive Dust	9.9	2.1
Subtotal	*12.8*	*4.8*
Total Hourly PM_{10} and $PM_{2.5}$ Emissions (pounds per hour)	**95.4**	**24.4**

Table A-2-3. Mitigated Hourly PM_{10} and $PM_{2.5}$ Construction Emissions - 345-Acre Alternative		
Construction Activity/Sub-Activity	**Pounds per Hour**	
	PM_{10}	**$PM_{2.5}$**
Seaside Railyard Area Redevelopment:		
New Container Yard Utilities	0.8	0.7
New Container Yard Construction – Paving	0.4	0.3
New Container Yard Construction – Electrical	0.1	0.1
Fugitive Dust	15.8	3.3
Subtotal	*17.1*	*4.5*
Develop Terminal North of Ocean Blvd.:		
New Container Yard Utilities	0.8	0.7
New Container Yard Construction – Paving	0.4	0.3
New Container Yard Construction – Electrical	0.1	0.1
Fugitive Dust	11.9	2.5
Subtotal	*13.1*	*3.6*
Construction – New Terminal Buildings:		
Building Construction	0.9	0.8
Fugitive Dust	4.0	0.8
Subtotal	*4.9*	*1.6*
Construct Berth 23 Wharf , Armor, Fill:		
Land Excavation	0.4	0.4
Retaining Bulkhead Construction	0.2	0.2
Drive 24-In Octagonal Piles – Land	0.4	0.4
Drive 24-In Octagonal Piles – Water	0.9	0.8
Drive Piles – Misc. Activities	0.2	0.2
Reinforced Concrete Wharf	0.8	0.7
Fugitive Dust	4.0	0.8
Subtotal	*6.9*	*3.5*
Total Hourly PM_{10} and $PM_{2.5}$ Emissions (pounds per hour)	**42.0**	**13.3**

Table A-2-4. Temporal Distribution of Middle Harbor Container Terminal Emission Sources			
Category	**Time Period**	**Activity Distribution**	**Hours per Day**
Ocean-Going Vessel	4 A.M. – 8 P.M. 8 P.M. – 4 A.M.	80% 20%	16 8
Hoteling	Midnight-midnight	100%	24
Harbor Craft	6 A.M. – 6 P.M. 6 P.M. – 6 A.M.	80% 20%	12 12
Cargo Handling	8 A.M. – 5 P.M. 5 P.M. – 3 A.M. 3 A.M. – 8 A.M.	80% 15% 5%	9 10 5
Trucks	6 A.M. – 6 P.M. 6 P.M. – 6 A.M.	80% 20%	12 12
Locomotives	Midnight-midnight	100%	24
Source: ARB 2006.			

Table A-2-5. SCAQMD and State Significance Thresholds for Ambient Air Quality Concentrations Associated with Proposed Project Construction

Air Pollutant	Ambient Concentration Threshold
Nitrogen Dioxide (NO_2) 1-hour average	0.25 ppm (470 µg/m^3)*
Particulates (PM_{10} or $PM_{2.5}$) 24-hour average	10.4 µg/m^3
Carbon Monoxide (CO) 1-hour average 8-hour average	20 ppm (23,000 µg/m^3) 9.0 ppm (10,000 µg/m^3)

Notes:

The NO_2 and CO thresholds are absolute thresholds; the maximum predicted impact from construction activities is added to the background concentration for the Project vicinity and compared to the threshold.

The PM_{10} and $PM_{2.5}$ thresholds are an incremental threshold, meaning that the maximum predicted impacts from construction activities (without adding background concentrations) are compared to these thresholds.

The SCAQMD does not require an analysis of ambient annual pollutant concentrations from construction activities (POLB 2007).

* To evaluate Project impacts to ambient NO_2 levels, the analysis replaced the use of the current SCAQMD NO_2 thresholds with the revised 1-hour California ambient air quality standard of 338 µg/m^3 as the state standard constitutes the most stringent applicable requirement..

Source: SCAQMD 2006 and ARB 2008a.

Table A-2-6. SCAQMD and State Significance Thresholds for Ambient Air Quality Concentrations Associated with Proposed Project Operations

Air Pollutant	Ambient Concentration Threshold
Nitrogen Dioxide (NO_2) 1-hour average annual average	0.18 ppm (338 µg/m^3)* 0.030 ppm (56 µg/m^3)*
Particulates (PM_{10} or $PM_{2.5}$) 24-hour average	2.5 µg/m^3
Carbon Monoxide (CO) 1-hour average 8-hour average	20 ppm (23,000 µg/m^3) 9.0 ppm (10,000 µg/m^3)

Notes:

The NO_2 and CO thresholds are absolute thresholds; the maximum predicted impact from proposed Project operations is added to the background concentration for the Project vicinity and compared to the threshold.

The PM_{10} or $PM_{2.5}$ thresholds are incremental thresholds. For CEQA significance, the maximum increase in concentration relative to the 2005 baseline (i.e., Project impact minus baseline impact) is compared to each threshold. For NEPA significance, the maximum increase in concentration relative to NEPA (i.e., Project impact minus NEPA Baseline impact) is compared to the threshold.

* To evaluate Project impacts to ambient NO_2 levels, the analysis replaced the use of the current SCAQMD NO_2 thresholds with the revised 1-hour and annual California ambient air quality standards of 338 and 56 µg/m^3, respectively, as the state standard constitutes the most stringent applicable requirement..

Source: SCAQMD 2006 and ARB 2008a.

Table A-2-7. Maximum Ambient Pollutant Impacts – Unmitigated Proposed Project Construction Activities for the 345-Acre Alternative

Pollutant	Averaging Time	Maximum Project Impact [a] ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Maximum Project Impact + Background ($\mu g/m^3$)	SCAQMD Threshold ($\mu g/m^3$)
NO_2 [d]	1-hour	84	226	310	338
CO	1-hour	687	4,667	5,354	23,000
	8-hour	119	3,778	3,897	10,000
PM_{10} [a]	24-hour	**40.4**	-	-	10.4
$PM_{2.5}$ [a]	24-hour	9.6	-	-	10.4

Notes:

a Exceedances of the thresholds are indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental thresholds and, therefore, only impacts from Project emissions without background pollutant concentrations are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and, therefore, impacts from Project emissions plus background pollutant concentrations are compared to the thresholds.

b Construction schedules are assumed to be eight hours per day, five days per week, and 52 weeks per year.

c As recommended by the SCAQMD, tugboat/barge emissions and offsite haul truck transport emissions are considered offsite emissions and were not included in the modeling. However, onsite truck emissions were included in the modeling (SCAQMD 2005).

d NO_2 concentrations were calculated assuming a 46.7 percent conversion rate from NO_x to NO_2 (SCAQMD, 2003). This conversion rate assumes the maximum impact locations occur within 1000 m of emission sources that contribute to this impact.

Table A-2-8. Maximum Ambient Pollutant Impacts – Mitigated Proposed Project Construction Activities for the 345-Acre Alternative

Pollutant	Averaging Time	Maximum Project Impact ($\mu g/m^3$) [a]	Background Pollutant Concentration ($\mu g/m^3$)	Maximum Project Impact + Background ($\mu g/m^3$) [a]	SCAQMD Threshold ($\mu g/m^3$)
NO_2 [d]	1-hour	84	226	310	338
CO	1-hour	687	4,667	5,354	23,000
	8-hour	119	3,778	3,897	10,000
PM_{10} [a]	24-hour	**17.1**	-	-	10.4
$PM_{2.5}$ [a]	24-hour	4.7	-	-	10.4

Notes:

a Exceedances of the thresholds are indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental thresholds and, therefore, only impacts from Project emissions without background pollutant concentrations are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and, therefore, impacts from Project emissions plus background pollutant concentrations are compared to the thresholds.

b Construction schedules are assumed to be eight hours per day, five days per week, and 52 weeks per year.

c As recommended by the SCAQMD, tugboat/barge emissions and offsite haul truck transport emissions are considered offsite emissions and were not included in the modeling. However, onsite truck emissions were included in the modeling (SCAQMD 2005).

d NO_2 concentrations were calculated assuming a 46.7 percent conversion rate from NO_x to NO_2 (SCAQMD, 2003). This conversion rate assumes the maximum impact locations occur within 1000 m of emission sources that contribute to this impact.

Table A-2-9. Maximum Ambient Pollutant Impacts – Unmitigated Construction Activities from the 315-Acre Alternative

Pollutant	Averaging Time	Maximum Alternative 2 Impact [a] ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Maximum Alternative 2 Impact + Background ($\mu g/m^3$)	SCAQMD Threshold ($\mu g/m^3$)
NO_2 [d]	1-hour	84	226	310	338
CO	1-hour	687	4,667	5,354	23,000
	8-hour	119	3,778	3,897	10,000
PM_{10} [a]	24-hour	**34.5**	-	-	10.4
$PM_{2.5}$ [a]	24-hour	7.5	-	-	10.4

Notes:

a Exceedances of the thresholds are indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental thresholds and, therefore, only impacts from Project emissions without background pollutant concentrations are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and, therefore, impacts from Alternative 2 emissions plus background pollutant concentrations are compared to the thresholds.

b Construction schedules are assumed to be eight hours per day, five days per week, and 52 weeks per year.

c As recommended by the SCAQMD, tugboat/barge emissions and offsite haul truck transport emissions are considered offsite emissions and were not included in the modeling. However, onsite truck emissions were included in the modeling (SCAQMD 2005).

d NO_2 concentrations were calculated assuming a 46.7 percent conversion rate from NO_x to NO_2 (SCAQMD 2003). This conversion rate assumes the maximum impact locations occur within 1000 m of emission sources that contribute to this impact.

Table A-2-10. Maximum Ambient Pollutant Impacts – Mitigated Construction Activities from the 315-Acre Alternative

Pollutant	Averaging Time	Maximum Alternative 2 Impact [a] ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Maximum Alternative 2 Impact + Background ($\mu g/m^3$)	SCAQMD Threshold ($\mu g/m^3$)
NO_2 [d]	1-hour	84	226	310	338
CO	1-hour	687	4,667	5,354	23,000
	8-hour	119	3,778	3,897	10,000
PM_{10} [a]	24-hour	**13.6**	-	-	10.4
$PM_{2.5}$ [a]	24-hour	3.0	-	-	10.4

Notes:

a Exceedances of the thresholds are indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental thresholds and, therefore, only impacts from Alternative 2 emissions without background pollutant concentrations are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and, therefore, impacts from Alternative 2 emissions plus background pollutant concentrations are compared to the thresholds.

b Construction schedules are assumed to be eight hours per day, five days per week, and 52 weeks per year.

c As recommended by the SCAQMD, tugboat/barge emissions and offsite haul truck transport emissions are considered offsite emissions and were not included in the modeling. However, onsite truck emissions were included in the modeling (SCAQMD 2005).

d NO_2 concentrations were calculated assuming a 46.7 percent conversion rate from NO_x to NO_2 (SCAQMD, 2003). This conversion rate assumes the maximum impact locations occur within 1000 m of emission sources that contribute to this impact.

Table A-2-11. Maximum Ambient Pollutant Impacts – Unmitigated Construction Activities from the Landside Improvements Alternative

Pollutant	Averaging Time	Maximum Alternative 3 Impact [a] ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Maximum Alternative 3 Impact + Background ($\mu g/m^3$)	SCAQMD Threshold ($\mu g/m^3$)
NO_2 [d]	1-hour	70	226	296	338
CO	1-hour	25	4,667	4,692	23,000
	8-hour	3	3,778	3,781	10,000
PM_{10} [a]	24-hour	**34.5**	-	-	10.4
$PM_{2.5}$ [a]	24-hour	7.5	-	-	10.4

Notes:

a Exceedances of the thresholds are indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental thresholds and therefore only impacts from Project emissions without background pollutant concentrations are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and, therefore, impacts from Alternative 3 emissions plus background pollutant concentrations are compared to the thresholds.

b Construction schedules are assumed to be eight hours per day, five days per week, and 52 weeks per year.

c As recommended by the SCAQMD, tugboat/barge emissions and offsite haul truck transport emissions are considered offsite emissions and were not included in the modeling. However, onsite truck emissions were included in the modeling (SCAQMD 2005).

d NO_2 concentrations were calculated assuming a 46.7 percent conversion rate from NOx to NO_2 (SCAQMD 2003). This conversion rate assumes the maximum impact locations occur within 1000 m of emission sources that contribute to this impact.

Table A-2-12. Maximum Ambient Pollutant Impacts – Mitigated Construction Activities from the Landside Improvements Alternative

Pollutant	Averaging Time	Maximum Alternative 3 Impact [a] ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Maximum Alternative 3 Impact + Background ($\mu g/m^3$)	SCAQMD Threshold ($\mu g/m^3$)
NO_2 [d]	1-hour	70	226	296	338
CO	1-hour	25	4,667	4,692	23,000
	8-hour	3	3,778	3,781	10,000
PM_{10} [a]	24-hour	**13.6**	-	-	10.4
$PM_{2.5}$ [a]	24-hour	3.0	-	-	10.4

Notes:

a. Exceedances of the thresholds are indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental thresholds and therefore only impacts from Alternative 3 emissions without background pollutant concentrations are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and, therefore, impacts from Alternative 3 emissions plus background pollutant concentrations are compared to the thresholds.

b. Construction schedules are assumed to be eight hours per day, five days per week, and 52 weeks per year.

c. As recommended by the SCAQMD, tugboat/barge emissions and offsite haul truck transport emissions are considered offsite emissions and were not included in the modeling. However, onsite truck emissions were included in the modeling (SCAQMD 2005).

d. NO_2 concentrations were calculated assuming a 46.7 percent conversion rate from NOx to NO_2 (SCAQMD 2003). This conversion rate assumes the maximum impact locations occur within 1000 meters of emission sources that contribute to this impact.

Table A-2-13. Maximum Ambient Pollutant Impacts – Unmitigated Operations from the 345-Acre Alternative

Pollutant	Averaging Time	Maximum Impact from Unmitigated Project Emissions ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Total Maximum Unmitigated Project Impact ($\mu g/m^3$) [a]	SCAQMD Significance Threshold ($\mu g/m^3$)
NO_2 [b]	1-hour	308	226	**534**	338
	Annual	9	53	**62**	56
CO	1-hour	260	4,667	4,927	23,000
	8-hour	80	3,778	3,858	10,000
		Maximum Impact from Unmitigated Project Emissions ($\mu g/m^3$)	**Maximum Impact from CEQA Baseline Emissions ($\mu g/m^3$)**	**Maximum CEQA Increment ($\mu g/m^3$) [a,c]**	**SCAQMD Significance Threshold ($\mu g/m^3$)**
PM_{10} [a]	24-hour	3.60	3.46	0.14	2.5
$PM_{2.5}$ [a]	24-hour	3.49	3.34	0.14	2.5
		Maximum Impact from Unmitigated Project Emissions ($\mu g/m^3$)	**Maximum Impact from NEPA Baseline Emissions ($\mu g/m^3$)**	**Maximum NEPA Increment ($\mu g/m^3$) [a,d]**	**SCAQMD Significance Threshold ($\mu g/m^3$)**
PM_{10} [a]	24-hour	3.69	2.69	0.99	2.5
$PM_{2.5}$ [a]	24-hour	3.47	2.59	0.89	2.5

Notes:

a. Exceedance of a threshold is indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental and impacts from Project Alternative emissions minus baseline emissions are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and therefore impacts from Project emissions plus background pollutant concentrations are compared to the thresholds.

b. NO_2 concentrations based on source to maximum impact location distances of either 500 or 1000 m. The NO_x to NO_2 conversion rates for these distances are 25.8 and 46.7 percent (SCAQMD 2003). This is a conservative approach, as the majority of emission sources that contribute to the maximum NO_2 impact are closer than 500 m from this location.

c. Equal to Project impact minus CEQA Baseline impact.

d. Equal to Project impact minus NEPA Baseline impact.

Table A-2-14. Maximum Ambient Pollutant Impacts – Mitigated Operations from the 345-Acre Alternative

Pollutant	Averaging Time	Maximum Impact from Mitigated Project Emissions ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Total Maximum Mitigated Project Impact ($\mu g/m^3$) [a]	SCAQMD Significance Threshold ($\mu g/m^3$)
NO_2 [b]	1-hour	289	226	**515**	338
	Annual	7	53	**60**	56
CO	1-hour	223	4,667	4,890	23,000
	8-hour	72	3,778	3,850	10,000
		Maximum Impact from Mitigated Project Emissions ($\mu g/m^3$)	**Maximum Impact from CEQA Baseline Emissions ($\mu g/m^3$)**	**Maximum CEQA Increment ($\mu g/m^3$) [a,c]**	**SCAQMD Significance Threshold ($\mu g/m^3$)**
PM_{10} [a]	24-hour	1.18	1.16	0.03	2.5
$PM_{2.5}$ [a]	24-hour	1.14	1.11	0.03	2.5
		Maximum Impact from Mitigated Project Emissions ($\mu g/m^3$)	**Maximum Impact from NEPA Baseline Emissions ($\mu g/m^3$)**	**Maximum NEPA Increment ($\mu g/m^3$) [a,d]**	**SCAQMD Significance Threshold ($\mu g/m^3$)**
PM_{10} [a]	24-hour	2.84	2.73	0.12	2.5
$PM_{2.5}$ [a]	24-hour	4.40	4.33	0.07	2.5

Notes:

a. Exceedance of a threshold is indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental and impacts from Project Alternative emissions minus baseline emissions are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and therefore impacts from Project emissions plus background pollutant concentrations are compared to the thresholds.

b. NO_2 concentrations based on source to maximum impact location distances of either 500 or 1000 m. The NO_x to NO_2 conversion rates for these distances are 25.8 and 46.7 percent (SCAQMD 2003). This is a conservative approach, as the majority of emission sources that contribute to the maximum NO_2 impact are closer than 500 m from this location.

c. Equal to Project impact minus CEQA Baseline impact.

d. Equal to Project impact minus NEPA Baseline impact.

Table A-2-15. Maximum Ambient Pollutant Impacts – Unmitigated Operations from the 315-Acre Alternative

Pollutant	Averaging Time	Maximum Impact from Alternative 2 Emissions ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Total Maximum Alternative 2 Impact ($\mu g/m^3$) [a]	SCAQMD Threshold ($\mu g/m^3$)
NO_2 [b]	1-hour	305	226	**531**	338
	Annual	9	53	**62**	56
CO	1-hour	247	4,667	4,914	23,000
	8-hour	75	3,778	3,853	10,000
		Maximum Impact from Alternative 2 Emissions ($\mu g/m^3$)	**Maximum Impact from CEQA Baseline Emissions ($\mu g/m^3$)**	**Maximum CEQA Increment ($\mu g/m^3$) [a,c]**	**SCAQMD Threshold ($\mu g/m^3$)**
PM_{10} [a]	24-hour	3.6	3.5	0.1	2.5
$PM_{2.5}$ [a]	24-hour	3.4	3.3	0.1	2.5
		Maximum Impact from Alternative 2 Emissions ($\mu g/m^3$)	**Maximum Impact from NEPA Baseline Emissions ($\mu g/m^3$)**	**Maximum NEPA Increment ($\mu g/m^3$) [a,d]**	**SCAQMD Threshold ($\mu g/m^3$)**
PM_{10} [a]	24-hour	3.6	2.7	0.9	2.5
$PM_{2.5}$ [a]	24-hour	3.5	2.6	0.9	2.5

Notes:

a Exceedance of a threshold is indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental and impacts from Alternative 2 emissions minus baseline emissions are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and therefore impacts from Alternative 2 emissions plus background pollutant concentrations are compared to the thresholds.

b NO_2 concentrations based on source to maximum impact location distances of either 500 or 1000 m. The NOx to NO_2 conversion rates for these distances are 25.8 and 46.7 percent (SCAQMD, 2003). This is a conservative approach, as the majority of emission sources that contribute to the maximum NO_2 impacts are closer than 500 m from this location.

c Equal to Alternative 2 impact minus CEQA Baseline impact.

d Equal to Alternative 2 impact minus NEPA Baseline impact.

Table A-2-16. Maximum Ambient Pollutant Impacts – Mitigated Operations from the 315-Acre Alternative

Pollutant	Averaging Time	Maximum Impact from Alternative 2 Emissions ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Total Maximum Alternative 2 Impact [a] ($\mu g/m^3$)	SCAQMD Threshold ($\mu g/m^3$)
NO_2 [b]	1-hour	288	226	**514**	338
	Annual	6	53	**59**	56
CO	1-hour	215	4,667	4,882	23,000
	8-hour	70	3,778	3,848	10,000
		Maximum Impact from Alternative 2 Emissions ($\mu g/m^3$)	**Maximum Impact from CEQA Baseline Emissions ($\mu g/m^3$)**	**Maximum CEQA Increment ($\mu g/m^3$) [a,c]**	**SCAQMD Threshold ($\mu g/m^3$)**
PM_{10} [a]	24-hour	1.18	1.15	0.02	2.5
$PM_{2.5}$ [a]	24-hour	1.14	1.11	0.03	2.5
		Maximum Impact from Alternative 2 Emissions ($\mu g/m^3$)	**Maximum Impact from NEPA Baseline Emissions ($\mu g/m^3$)**	**Maximum NEPA Increment ($\mu g/m^3$) [a,d]**	**SCAQMD Threshold ($\mu g/m^3$)**
PM_{10} [a]	24-hour	3.8	3.7	0.1	2.5
$PM_{2.5}$ [a]	24-hour	2.7	2.6	0.1	2.5

Notes:

a Exceedance of a threshold is indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental and impacts from Alternative 2 emissions minus baseline emissions are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and therefore impacts from Alternative 2 emissions plus background pollutant concentrations are compared to the thresholds.

b NO_2 concentrations based on source to maximum impact location distances of either 500 or 1000 m. The NO_x to NO_2 conversion rates for these distances are 25.8 and 46.7 percent (SCAQMD 2003). This is a conservative approach, as the majority of emission sources that contribute to the maximum NO_2 impacts are closer than 500 m from this location.

c Equal to Alternative 2 impact minus CEQA Baseline impact.

d Equal to Alternative 2 impact minus NEPA Baseline impact.

Table A-2-17. Maximum Ambient Pollutant Impacts – Unmitigated Operations from the Landside Improvements Alternative

Pollutant	Averaging Time	Maximum Impact from Alternative 3 Emissions ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Total Maximum Alternative 3 Impact ($\mu g/m^3$) [a]	SCAQMD Threshold ($\mu g/m^3$)
NO_2 [b]	1-hour	264	226	**490**	338
	Annual	6	53	**59**	56
CO	1-hour	212	4,667	4,879	23,000
	8-hour	78	3,778	3,856	10,000
		Maximum Impact from Alternative 3 Emissions ($\mu g/m^3$)	**Maximum Impact from CEQA Baseline Emissions ($\mu g/m^3$)**	**Maximum CEQA Increment ($\mu g/m^3$) [a,c]**	**SCAQMD Threshold ($\mu g/m^3$)**
PM_{10} [a]	24-hour	1.18	1.16	0.02	2.5
$PM_{2.5}$ [a]	24-hour	1.13	1.11	0.02	2.5

Notes:

a Exceedance of a threshold is indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental and impacts from Alternative 3 emissions minus baseline emissions are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and therefore impacts from Alternative 3 emissions plus background pollutant concentrations are compared to the thresholds.

b NO_2 concentrations based on source to maximum impact location distances of either 500 or 1000 m. The NO_x to NO_2 conversion rates for these distances are 25.8 and 46.7 percent (SCAQMD, 2003). This is a conservative approach, as the majority of emission sources that contribute to the maximum NO2 impacts are closer than 500 m from this location.

c Equal to Alternative 3 impact minus CEQA Baseline impact.

Table A-2-18. Maximum Ambient Pollutant Impacts – Unmitigated Operations from the No Project Alternative

Pollutant	Averaging Time	Maximum Impact from Alternative 4 Emissions ($\mu g/m^3$)	Background Pollutant Concentration ($\mu g/m^3$)	Total Maximum Alternative 4 Impact ($\mu g/m^3$) [a]	SCAQMD Threshold ($\mu g/m^3$)
NO_2[b]	1-hour	290	226	**516**	338
	Annual	9	53	**62**	56
CO	1-hour	229	4,667	4,896	23,000
	8-hour	73	3,778	3,851	10,000
		Maximum Impact from Alternative 4 Emissions ($\mu g/m^3$)	**Maximum Impact from CEQA Baseline Emissions ($\mu g/m^3$)**	**Maximum CEQA Increment ($\mu g/m^3$) [a,c]**	**SCAQMD Threshold ($\mu g/m^3$)**
PM_{10}[a]	24-hour	3.55	3.45	0.11	2.5
$PM_{2.5}$[a]	24-hour	3.45	3.34	0.11	2.5

Notes:

a Exceedance of a threshold is indicated in bold. The thresholds for $PM_{10}/PM_{2.5}$ are incremental and impacts from Alternative 3 emissions minus baseline emissions are compared to the thresholds. The thresholds for NO_2 and CO are combined thresholds and, therefore, impacts from Alternative 4 emissions plus background pollutant concentrations are compared to the thresholds.

b NO_2 concentrations based on source to maximum impact location distances of either 500 or 1000 m. The NO_x to NO_2 conversion rates for these distances are 25.8 and 46.7 percent (SCAQMD, 2003). This is a conservative approach, as the majority of emission sources that contribute to the maximum NO_2 impact are closer than 500 m from this location.

c Equal to Alternative 4 impact minus CEQA Baseline impact.

CEQA Baseline (Annual and Daily)

Annual

Daily

Table A.2.1-CBA-1. Operational Annual Emissions - POLB MHTP - CEQA Baseline

Source Activity	Annual Average Pounds per Hour (1)			
	CO	NO2	PM10	PM2.5
OGVs - Fairway Transit		58.09		
OGVs - Precautionary Area Transit		8.99		
OGVs - Harbor Transit		3.49		
OGVs - Docking		1.16		
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)		9.55		
OGVs - Hoteling Boilers - Berth E24		9.09		
OGVs - Hoteling Aux. Gens. - Berth E26 (no cold-iron)		9.55		
OGVs - Hoteling Boilers - Berth E26		9.09		
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)		14.42		
OGVs - Hoteling Boilers - Berth F6		18.18		
Tugs - Harbor Transit		0.96		
Tugs - Docking		0.32		
Haul Line Locomotive - 10 mph - Port to Ocean Blvd		0.03		
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH		0.07		
Locomotives - Rail Yard		0.29		
Rail Yard Equipment		1.09		
Terminal Equipment		14.84		
Trucks - On-Terminal		4.65		
Pier D Entry Road		0.13		
Pier D In Gate		0.20		
Pier D Exit Road		0.04		
Pier D Out Gate		0.11		
Pier F Entry Road		0.06		
Pier F Exit Road		0.24		
Pier F In + Out Gates		0.48		

Note: (1) annual emissions divided by 8760 hours.

(2) Used the following NOx to NO2 SCAQMD convertion factors: (a) OGV fairway and precautionary area, 5000m or 100%,

(b) OGV and tug harbor transit and docking, 1000m or 46.7%, (c) all other sources, 500m or 25.8%.

Table A.2.1-CBA-2. Operational Criteria Pollutant Emission Simulations - POLB MHTP - CEQA Baseline

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source Pounds per Hour			
								CO	NO2	PM10	PM2.5
OGVs - Fairway Transit											
	719-761	300	90,000	0.02	43	3,870,000	1.00		1.35		
Subtotals			-	-	43	3,870,000	-		58.09		
OGVs - Precautionary Area Transit											
	686-718	300	90,000	0.03	33	2,970,000	1.00	-	0.27	-	-
Subtotals			-	-	33	2,970,000	-	-	8.99	-	-
OGVs - Harbor Transit											
	633 - 685	100	10,000	0.04	27	270,000	1.00	-	0.13	-	-
Subtotals			-	-	27	270,000	-	-	3.49	-	-
OGVs - Docking											
	616	300	90,000	1.00	1	90,000	1.00	-	1.16	-	-
Subtotals			-	-	1	90,000	-	-	1.16	-	-
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)											
	2014,2020	NA	NA	0.50	2	NA	NA	-	4.78	-	-
Subtotals			-	-	2	-	-	-	9.55	-	-
OGVs - Hoteling Boilers - Berth E24											
	2002	NA	NA	1.00	1	NA	NA	-	9.09	-	-
Subtotals			-	-	1	-	-	-	9.09	-	-
OGVs - Hoteling Aux. Gens. - Berth E26 (no cold-iron)											
	2013,2019	NA	NA	0.50	2	NA	NA	-	4.78	-	-
Subtotals			-	-	2	-	-	-	9.55	-	-
OGVs - Hoteling Boilers - Berth E26											
	2001	NA	NA	1.00	1	NA	NA	-	9.09	-	-
Subtotals			-	-	1	-	-	-	9.09	-	-
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)											
	2021	NA	NA	1.00	1	NA	NA	-	14.42	-	-
Subtotals			-	-	1	-	-	-	14.42	-	-
OGVs - Hoteling Boilers - Berth F6											
	2003	NA	NA	1.00	1	NA	NA	-	18.18	-	-
Subtotals			-	-	1	-	-	-	18.18	-	-
Tugs - Harbor Transit											
	3633 -3685	100	10,000	0.04	27	270,000	1.00	-	0.04	-	-
Subtotals			-	-	27	270,000	-	-	0.96	-	-
Tugs - Docking											
	3,616	300	90,000	1.00	1	90,000	1.00	-	0.32	-	-
Subtotals			-	-	1	90,000	-	-	0.32	-	-
Haul Line Locomotive - 10 mph - Port to Ocean Blvd											
	916 - 941	15	225	0.04	26	5,850	1.00	-	0.001	-	-
Subtotals			-	-	26	5,850	-	-	0.03	-	-
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH											
	762 - 915	15	225	0.01	154	34,650	1.00	-	0.0004	-	-
Subtotals			-	-	154	34,650	-	-	0.07	-	-
Locomotives - Rail Yard											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.01	-	-
Subtotals			-	-	29	18,125	-	-	0.29	-	-
Rail Yard Equipment											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.04	-	-
Subtotals			-	-	29	18,125	-	-	1.09	-	-
Rail Yard - Locomotives + Equipment											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.05	-	-
Subtotals			-	-	29	18,125	-	-	1.38	-	-
Terminal Equipment											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.04	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.10	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.13	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.17	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.27	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.39	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.53	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.69	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	1.56	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	2.77	-	-
			-	-	38	855,975	1.00				
Trucks - On-Terminal											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.01	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.03	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.04	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.05	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.08	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.12	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.17	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.22	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	0.49	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	0.87	-	-
			-	-	38	855,975	1.00				

Table A.2.1-CBA-2. Operational Criteria Pollutant Emission Simulations - POLB MHTP - CEQA Baseline

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source Pounds per Hour			
								CO	NO2	PM10	PM2.5
Terminal - Equipment + Trucks											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.06	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.13	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.16	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.23	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.36	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.51	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.70	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.91	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	2.05	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	3.64	-	-
			-	-	38	855,975	1.00				
Pier D Entry Road											
	1636-1640	50	2,500	0.20	5	12,500	1.00	-	0.026	-	-
Subtotals			-	-	5	12,500	1.00	-	0.13	-	-
Pier D In Gate											
	1-3, 31,32	50	2,500	0.20	5	12,500	1.00	-	0.04	-	-
Subtotals			-	-	5	12,500	1.00	-	0.20	-	-
Pier D Exit Road											
	40,48	50	2,500	0.50	2	5,000	1.00	-	0.02	-	-
Subtotals			-	-	2	5,000	1.00	-	0.04	-	-
Pier D Out Gate											
	4-6	50	2,500	0.33	3	7,500	1.00	-	0.04	-	-
Subtotals			-	-	3	7,500	1.00	-	0.11	-	-
Pier F Entry Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.02	-	-
Subtotals			-	-	3	7,500	1.00	-	0.06	-	-
Pier F Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.08	-	-
Subtotals			-	-	3	7,500	1.00	-	0.24	-	-
Pier F Entry + Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.10	-	-
Subtotals			-	-	3	7,500	1.00	-	0.30	-	-
Pier F In + Out Gates											
	554	100	10,000	1.00	1	10,000	1.00	-	0.48	-	-
Subtotals			-	-	1	10,000	1.00	-	0.48	-	-

Table A.2.1-CBA-3. Annual Roadway Link Emissions - POLB MHTP - CEQA Baseline

Roadway Link	BEEST ID Start #	Length (Mi)	MPH	Annual Trips	Pounds per Year						# of Vol. Sources
					TOG	CO	NO2	SOx	PM10	PM2.5	
Alameda St: Eubank - Anaheim St	1437	0.76	26	81,051	380	1,816	795	18	239	220	26
Anaheim St: Alameda - SR-47	1463	0.21	23	81,051	148	603	228	5	82	75	7
Anaheim St: SR-47 - 9th St	1470	1.22	26	94,031	705	3,368	1,475	33	443	408	41
9th Street: Anaheim St - Santa Fe	1190	0.30	33	76,232	114	560	287	6	75	69	11
9th Street: Santa Fe to 10th	1201	0.16	29	120,856	122	581	254	6	76	70	6
9th Street: Caspian - Pico (SB only)	1207	0.44	36	65,318	116	584	353	8	82	75	16
10th Street: Pico - 9th (NB only)	1271	0.50	30	57,178	143	702	360	8	94	86	29
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	0.58	41	425,159	854	4,250	3,025	65	621	571	13
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	0.35	41	663,121	793	3,943	2,807	61	576	530	9
I-710 : n/o Anaheim SB On Ramp (Southbound)	1100	1.62	43	604,568	3,380	16,812	11,967	259	2,457	2,261	42
Pico Ave: Pier B St - Pier D St	1034	0.52	31	612,994	1,593	7,842	4,016	85	1,050	966	16
Pico Ave: Pier D St - Terminal Entrance	1027	0.23	30	416,570	487	2,396	1,227	26	321	295	7
Pico Ave: Terminal Entrance - Pier E St	1024	0.10	31	236,232	118	583	299	6	78	72	3
Pico Ave: Pier E St - Harbor Scenic Connector	1016	0.27	31	306,060	407	2,003	1,026	22	268	247	8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	0.47	31	745,038	1,743	8,578	4,392	92	1,148	1,056	14
Pier F Ave: Middle Harbor - Harbor Plaza	1360	0.83	30	1,169,908	4,846	23,852	12,214	257	3,193	2,938	28
Harbor Plaza: Pier F Ave - Pier G Ave	1388	0.12	29	1,169,908	892	4,257	1,864	42	561	516	4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	0.18	30	431,505	383	1,886	966	20	252	232	6
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	0.99	47	434,984	1,344	6,275	5,250	104	1,022	940	18
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	0.22	47	425,159	297	1,389	1,162	23	226	208	5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	0.74	47	826,378	1,928	8,998	7,528	149	1,466	1,348	17
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	0.64	25	359,106	1,418	6,770	2,965	66	891	820	37
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	0.63	32	320,456	1,000	4,923	2,521	53	659	606	18
Ocean Blvd: Bridge	1064	0.87	32	320,456	1,389	6,837	3,501	74	915	842	25
Ocean Blvd: Bridge - I-710 Offramp	1089	0.31	32	320,456	500	2,461	1,260	27	330	303	9
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	0.20	30	159,507	156	768	393	8	103	95	11
Santa Fe: 9th St - Anaheim St	1417	0.12	30	52,207	31	153	78	2	20	19	4
Santa Fe: n/o Anaheim St - s/o Willow St	1421	0.48	30	63,745	152	746	382	8	100	92	16
I-710 : n/o 9th Street Onramp (Northbound)	1100	1.96	47	676,322	4,157	19,405	16,235	322	3,161	2,908	51
Onramp: 9th St - I-710 (Northbound)	1309	0.16	25	241,068	231	1,102	483	11	145	134	9
Onramp: 9th St - I-710 (Northbound BRIDGE)	1318	0.24	25	241,068	358	1,708	748	17	225	207	14
Offramp: I-710 at 9th Street (Southbound)	1294	0.10	25	237,962	152	725	318	7	96	88	6
Offramp: I-710 at 9th Street (Southbound BRIDGE)	1300	0.15	25	237,962	226	1,077	472	11	142	130	9
Pier D Entry Road (off Pico)	1636	0.17	15	375,259	1,233	2,984	1,131	22	473	435	5
Pier D In Gate	1	0.15	5	375,259	2,581	3,673	1,728	26	726	668	5
Pier D Exit Road (off Pier D St)	40	0.09	15	205,001	337	815	309	6	129	119	2
Pier D Out Gate	4	0.15	5	205,001	1,410	2,007	944	14	397	365	3
Pier F Entry Road (off Pier F Ave)	9	0.07	15	457,753	618	1,495	567	11	237	218	3
Pier F Exit Road (off Pier F Ave)	9	0.17	15	691,919	2,273	5,502	2,085	40	873	803	3
Pier F In + Out Gates	554	0.12	5	1,149,672	6,325	9,003	4,235	64	1,779	1,637	1

Table A.2.1-CBD-1. Operational Hourly Emissions - POLB MHTP - CEQA Baseline

Source Activity	Pounds per Hour				
	TOG	CO	*NO 2*	PM10	PM2.5
OGV - Harbor Transit - 1 3-4k TEU	18.8	20.0	62.7	5.1	4.8
OGV - Docking - 1 3-4k TEU	7.6	6.9	22.3	1.9	1.8
OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)	2.9	5.5	17.8	1.4	1.3
OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)	0.2	1.6	1.1	0.5	0.5
Tugs - Harbor Transit - 2@ 0.72 hrs of ops	2.1	11.0	27.7	2.0	1.9
Tugs - Docking - 2@ 0.25 hrs of ops	0.7	3.8	9.6	0.7	0.6
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.3	0.5	0.9	0.1	0.1
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.8	1.2	2.1	0.3	0.3
Locomotives - Rail Yard	2.0	2.6	5.1	0.6	0.6
Rail Yard Equipment	1.9	3.4	7.7	0.5	0.5
Terminal Equipment	23.2	61.9	107.2	9.9	9.1
Trucks - On-Terminal	9.8	14.8	10.8	2.1	1.9
Pier D Entry Road	0.33	0.80	0.30	0.13	0.12
Pier D In Gate	0.69	0.98	0.46	0.19	0.18
Pier D Exit Road	0.09	0.22	0.08	0.03	0.03
Pier D Out Gate	0.38	0.53	0.25	0.11	0.10
Pier F Entry Road	0.16	0.40	0.15	0.06	0.06
Pier F Exit Road	0.61	1.47	0.56	0.23	0.21
Pier F In + Out Gates	1.01	1.44	0.68	0.29	0.26
Total	74	139	277	26	24

Table A.2.1-CBD-2. Operational Criteria Pollutant Emission Simulations - POLB Middle Harbor CEQA Baseline

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source Pounds per Hour TOG	CO	NO 2	PM10	PM2.5
OGV - Harbor Transit - 1 3-4k TEU												
	633 - 685	100	10,000	0.04	27	270,000	1.00	0.70	0.74	2.32	0.19	0.18
Subtotals			-	-	27	270,000	-	18.82	20.04	62.69	5.13	4.82
OGV - Docking - 1 3-4k TEU												
	616	300	90,000	1.00	1	90,000	1.00	7.61	6.87	22.26	1.92	1.80
Subtotals			-	-	1	90,000	-	7.61	6.87	22.26	1.92	1.80
OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)												
	2021	NA	NA	1	1	NA	NA	2.88	5.46	17.79	1.38	1.30
Subtotals			-	-	1	-	-	2.88	5.46	17.79	1.38	1.30
OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)												
	2003	NA	NA	1	1	NA	NA	0.19	1.57	1.08	0.51	0.50
Subtotals			-	-	1	-	-	0.19	1.57	1.08	0.51	0.50
Tugs - Harbor Transit - 2@ 0.72 hrs of ops												
	3633 -3685	100	10,000	0.04	27	270,000	1.00	0.08	0.41	1.02	0.07	0.07
Subtotals			-	-	27	270,000	-	2.09	10.99	27.65	1.99	1.87
Tugs - Docking - 2@ 0.25 hrs of ops												
	3,616	300	90,000	1.00	1	90,000	1.00	0.73	3.82	9.60	0.69	0.65
Subtotals			-	-	1	90,000	-	0.73	3.82	9.60	0.69	0.65
Haul Line Locomotive - 10 mph - Port to Ocean Blvd												
	916 - 941	15	225	0.04	26	5,850	1.00	0.01	0.02	0.04	0.01	0.01
Subtotals			-	-	26	5,850	-	0.34	0.52	0.93	0.13	0.13
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH												
	762 - 915	15	225	0.01	154	34,650	1.00	0.01	0.01	0.01	0.00	0.00
Subtotals			-	-	154	34,650	-	0.78	1.18	2.10	0.29	0.29
Locomotives - Rail Yard												
	255 - 380	25	625	0.03	29	18,125	1.00	0.07	0.09	0.18	0.02	0.02
Subtotals			-	-	29	18,125	-	1.98	2.57	5.10	0.64	0.64
Rail Yard Equipment												
	255 - 380	25	625	0.03	29	18,125	1.00	0.07	0.12	0.27	0.02	0.02
Subtotals			-	-	29	18,125	-	1.94	3.44	7.69	0.54	0.50
Rail Yard - Locomotives + Equipment												
	255 - 380	25	625	0.03	29	18,125	1.00	0.14	0.21	0.44	0.04	0.04
Subtotals			-	-	29	18,125	-	3.92	6.02	12.80	1.18	1.14
Terminal Equipment												
	1700-1704	50	2,500	0.003	5	12,500	0.01	0.07	0.18	0.31	0.03	0.03
	1705-1713	75	5,625	0.007	9	50,625	0.06	0.15	0.41	0.70	0.06	0.06
	1714	85	7,225	0.008	1	7,225	0.01	0.20	0.52	0.90	0.08	0.08
	1715-1721	100	10,000	0.012	7	70,000	0.08	0.27	0.72	1.25	0.12	0.11
	1722-1724	125	15,625	0.018	3	46,875	0.05	0.42	1.13	1.96	0.18	0.17
	1725-1727	150	22,500	0.026	3	67,500	0.08	0.61	1.63	2.82	0.26	0.24
	1728-1729	175	30,625	0.036	2	61,250	0.07	0.83	2.22	3.83	0.35	0.33
	1730-1734	200	40,000	0.047	5	200,000	0.23	1.08	2.89	5.01	0.46	0.42
	1735-1736	300	90,000	0.105	2	180,000	0.21	2.44	6.51	11.27	1.04	0.96
	1737	400	160,000	0.187	1	160,000	0.19	4.33	11.58	20.03	1.85	1.70
Subtotals			-	-	38	855,975	1.00					
Trucks - On-Terminal												
	1700-1704	50	2,500	0.003	5	12,500	0.01	0.03	0.04	0.03	0.01	0.01
	1705-1713	75	5,625	0.007	9	50,625	0.06	0.06	0.10	0.07	0.01	0.01
	1714	85	7,225	0.008	1	7,225	0.01	0.08	0.12	0.09	0.02	0.02
	1715-1721	100	10,000	0.012	7	70,000	0.08	0.11	0.17	0.13	0.02	0.02
	1722-1724	125	15,625	0.018	3	46,875	0.05	0.18	0.27	0.20	0.04	0.03
	1725-1727	150	22,500	0.026	3	67,500	0.08	0.26	0.39	0.29	0.05	0.05
	1728-1729	175	30,625	0.036	2	61,250	0.07	0.35	0.53	0.39	0.07	0.07
	1730-1734	200	40,000	0.047	5	200,000	0.23	0.46	0.69	0.51	0.10	0.09
	1735-1736	300	90,000	0.105	2	180,000	0.21	1.03	1.55	1.14	0.22	0.20
	1737	400	160,000	0.187	1	160,000	0.19	1.84	2.76	2.03	0.39	0.36
Subtotals			-	-	38	855,975	1.00					
Terminal - Equipment + Trucks												
	1700-1704	50	2,500	0.003	5	12,500	0.01	0.10	0.22	0.34	0.03	0.03
	1705-1713	75	5,625	0.007	9	50,625	0.06	0.22	0.50	0.78	0.08	0.07
	1714	85	7,225	0.008	1	7,225	0.01	0.28	0.65	1.00	0.10	0.09
	1715-1721	100	10,000	0.012	7	70,000	0.08	0.39	0.90	1.38	0.14	0.13
	1722-1724	125	15,625	0.018	3	46,875	0.05	0.60	1.40	2.15	0.22	0.20
	1725-1727	150	22,500	0.026	3	67,500	0.08	0.87	2.02	3.10	0.31	0.29
	1728-1729	175	30,625	0.036	2	61,250	0.07	1.18	2.74	4.22	0.43	0.39
	1730-1734	200	40,000	0.047	5	200,000	0.23	1.54	3.58	5.51	0.56	0.51
	1735-1736	300	90,000	0.105	2	180,000	0.21	3.47	8.06	12.41	1.26	1.16
	1737	400	160,000	0.187	1	160,000	0.19	6.17	14.34	22.06	2.23	2.05
Subtotals			-	-	38	855,975	1.00					

Pier D Entry Road												
	1636-1640	50	2,500	0.20	5	12,500	1.00	0.066	0.159	0.060	0.025	0.023
Subtotals			-	-	5	12,500	1.00	0.33	0.80	0.30	0.13	0.12
Pier D In Gate												
	1-3, 31,32	50	2,500	0.20	5	12,500	1.00	0.14	0.20	0.09	0.04	0.04
Subtotals			-	-	5	12,500	1.00	0.69	0.98	0.46	0.19	0.18
Pier D Exit Road												
	40,48	50	2,500	0.50	2	5,000	1.00	0.04	0.11	0.04	0.02	0.02
Subtotals			-	-	2	5,000	1.00	0.09	0.22	0.08	0.03	0.03
Pier D Out Gate												
	4-6	50	2,500	0.33	3	7,500	1.00	0.13	0.18	0.08	0.04	0.03
Subtotals			-	-	3	7,500	1.00	0.38	0.53	0.25	0.11	0.10
Pier F Entry Road												
	9-11	50	2,500	0.33	3	7,500	1.00	0.05	0.13	0.05	0.02	0.02
Subtotals			-	-	3	7,500	1.00	0.16	0.40	0.15	0.06	0.06
Pier F Exit Road												
	9-11	50	2,500	0.33	3	7,500	1.00	0.20	0.49	0.19	0.08	0.07
Subtotals			-	-	3	7,500	1.00	0.61	1.47	0.56	0.23	0.21
Pier F Entry + Exit Road												
	9-11	50	2,500	0.33	3	7,500	1.00	0.26	0.62	0.24	0.10	0.09
Subtotals			-	-	3	7,500	1.00	0.77	1.86	0.71	0.30	0.27
Pier F In + Out Gates												
	554	100	10,000	1.00	1	10,000	1.00	1.01	1.44	0.68	0.29	0.26
Subtotals			-	-	1	10,000	1.00	1.01	1.44	0.68	0.29	0.26

Table A.2.1-CBD-3. Hourly Roadway Link Emissions - POLB MHTP - CEQA Baseline

Roadway Link	BEEST ID Start #	Length (Mi)	MPH	Fraction of PHT	PHT	Pounds per Hour						# of Vol. Sources
						TOG	CO	NO2	SOx	PM10	PM2.5	
Alameda St: Eubank - Anaheim St	1437	0.76	26	0.04	22	0.10	0.48	0.21	0.00	0.06	0.06	26
Anaheim St: Alameda - SR-47	1463	0.21	23	0.04	22	0.04	0.16	0.06	0.00	0.02	0.02	7
Anaheim St: SR-47 - 9th St	1470	1.22	26	0.05	25	0.19	0.90	0.39	0.01	0.12	0.11	41
9th Street: Anaheim St - Santa Fe	1190	0.30	33	0.04	20	0.03	0.15	0.08	0.00	0.02	0.02	11
9th Street: Santa Fe to 10th	1201	0.16	29	0.06	32	0.03	0.15	0.07	0.00	0.02	0.02	6
9th Street: Caspian - Pico (SB only)	1207	0.44	36	0.03	17	0.03	0.16	0.09	0.00	0.02	0.02	16
10th Street: Pico - 9th (NB only)	1271	0.50	30	0.03	15	0.04	0.19	0.10	0.00	0.03	0.02	29
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	0.58	41	0.21	113	0.23	1.13	0.81	0.02	0.17	0.15	13
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	0.35	41	0.33	177	0.21	1.05	0.75	0.02	0.15	0.14	9
I-710 : n/o Anaheim SB On Ramp (Southbound)	1100	1.62	43	0.30	161	0.90	4.48	3.19	0.07	0.65	0.60	42
Pico Ave: Pier B St - Pier D St	1034	0.52	31	0.31	163	0.42	2.09	1.07	0.02	0.28	0.26	16
Pico Ave: Pier D St - Terminal Entrance	1027	0.23	30	0.21	111	0.13	0.64	0.33	0.01	0.09	0.08	7
Pico Ave: Terminal Entrance - Pier E St	1024	0.10	31	0.12	63	0.03	0.16	0.08	0.00	0.02	0.02	3
Pico Ave: Pier E St - Harbor Scenic Connector	1016	0.27	31	0.15	82	0.11	0.53	0.27	0.01	0.07	0.07	8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	0.47	31	0.37	199	0.46	2.29	1.17	0.02	0.31	0.28	14
Pier F Ave: Middle Harbor - Harbor Plaza	1360	0.83	30	0.59	312	1.29	6.36	3.25	0.07	0.85	0.78	28
Harbor Plaza: Pier F Ave - Pier G Ave	1388	0.12	29	0.59	312	0.24	1.13	0.50	0.01	0.15	0.14	4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	0.18	30	0.22	115	0.10	0.50	0.26	0.01	0.07	0.06	6
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	0.81	47	0.22	116	0.29	1.36	1.14	0.02	0.22	0.20	18
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	0.22	47	0.21	113	0.08	0.37	0.31	0.01	0.06	0.06	5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	0.74	47	0.41	220	0.51	2.40	2.01	0.04	0.39	0.36	17
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	0.64	25	0.18	96	0.38	1.80	0.79	0.02	0.24	0.22	37
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	0.63	32	0.16	85	0.27	1.31	0.67	0.01	0.18	0.16	18
Ocean Blvd: Bridge	1064	0.87	32	0.16	85	0.37	1.82	0.93	0.02	0.24	0.22	25
Ocean Blvd: Bridge - I-710 Offramp	1089	0.31	32	0.16	85	0.13	0.66	0.34	0.01	0.09	0.08	9
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	0.20	30	0.08	42	0.04	0.20	0.10	0.00	0.03	0.03	11
Santa Fe: 9th St - Anaheim St	1417	0.12	30	0.03	14	0.01	0.04	0.02	0.00	0.01	0.01	4
Santa Fe: n/o Anaheim St - s/o Willow St	1421	0.48	30	0.03	17	0.04	0.20	0.10	0.00	0.03	0.02	16
I-710 : n/o 9th Street Onramp (Northbound)	1100	1.96	47	0.34	180	1.11	5.17	4.33	0.09	0.84	0.77	51
Onramp: 9th St - I-710 (Northbound)	1309	0.16	25	0.12	64	0.06	0.29	0.13	0.00	0.04	0.04	9
Onramp: 9th St - I-710 (Northbound BRIDGE)	1318	0.24	25	0.12	64	0.10	0.46	0.20	0.00	0.06	0.06	14
Offramp: I-710 at 9th Street (Southbound)	1294	0.10	25	0.12	63	0.04	0.19	0.08	0.00	0.03	0.02	6
Offramp: I-710 at 9th Street (Southbound BRIDGE)	1300	0.15	25	0.12	63	0.06	0.29	0.13	0.00	0.04	0.03	9
Pier D Entry Road (off Pico)	1636	0.17	15	0.19	100	0.33	0.80	0.30	0.01	0.13	0.12	5
Pier D In Gate	1	0.15	5	0.19	100	0.69	0.98	0.46	0.01	0.19	0.18	5
Pier D Exit Road (off Pier D St)	40	0.09	15	0.10	55	0.09	0.22	0.08	0.00	0.03	0.03	2
Pier D Out Gate	4	0.15	5	0.10	55	0.38	0.53	0.25	0.00	0.11	0.10	3
Pier F Entry Road (off Pier F Ave)	9	0.07	15	0.23	122	0.16	0.40	0.15	0.00	0.06	0.06	3
Pier F Exit Road (off Pier F Ave)	9	0.17	15	0.35	184	0.61	1.47	0.56	0.01	0.23	0.21	3
Pier F In + Out Gates	554	0.12	5	0.35	184	1.01	1.44	0.68	0.01	0.29	0.26	1

Table A.2.1-CBD-4. Roadway Link Emissions - POLB MHTP - CEQA Baseline

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Alameda St: Eubank - Anaheim St	1437	ALAMEDA 1	383938	3737677	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1438	ALAMEDA 2	383976	3737707	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1439	ALAMEDA 3	384013	3737736	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1440	ALAMEDA 4	384051	3737766	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1441	ALAMEDA 5	384089	3737795	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1442	ALAMEDA 6	384126	3737826	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1443	ALAMEDA 7	384163	3737857	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1444	ALAMEDA 8	384198	3737889	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1445	ALAMEDA 9	384234	3737922	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1446	ALAMEDA 10	384267	3737956	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1447	ALAMEDA 11	384300	3737991	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1448	ALAMEDA 12	384334	3738025	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1449	ALAMEDA 13	384365	3738062	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1450	ALAMEDA 14	384395	3738099	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1451	ALAMEDA 15	384426	3738136	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1452	ALAMEDA 16	384457	3738173	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1453	ALAMEDA 17	384487	3738210	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1454	ALAMEDA 18	384515	3738249	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1455	ALAMEDA 19	384544	3738287	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1456	ALAMEDA 20	384572	3738326	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1457	ALAMEDA 21	384597	3738367	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1458	ALAMEDA 22	384622	3738408	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1459	ALAMEDA 23	384646	3738450	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1460	ALAMEDA 24	384669	3738492	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1461	ALAMEDA 25	384692	3738534	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St	1462	ALAMEDA 26	384707	3738562	24	0.0037	0.0179	0.0078	0.0024	0.0022
Alameda St: Eubank - Anaheim St						0.097	0.465	0.204	0.061	0.056
Anaheim St: Alameda - SR-47	1463	ANAHEIM 1	384755	3738566	24	0.0054	0.0220	0.0084	0.0030	0.0027
Anaheim St: Alameda - SR-47	1464	ANAHEIM 2	384803	3738569	24	0.0054	0.0220	0.0084	0.0030	0.0027
Anaheim St: Alameda - SR-47	1465	ANAHEIM 3	384851	3738572	24	0.0054	0.0220	0.0084	0.0030	0.0027
Anaheim St: Alameda - SR-47	1466	ANAHEIM 4	384898	3738576	24	0.0054	0.0220	0.0084	0.0030	0.0027
Anaheim St: Alameda - SR-47	1467	ANAHEIM 5	384946	3738579	24	0.0054	0.0220	0.0084	0.0030	0.0027
Anaheim St: Alameda - SR-47	1468	ANAHEIM 6	384994	3738582	24	0.0054	0.0220	0.0084	0.0030	0.0027
Anaheim St: Alameda - SR-47	1469	ANAHEIM 7	385042	3738586	24	0.0054	0.0220	0.0084	0.0030	0.0027
Anaheim St: Alameda - SR-47						0.038	0.154	0.058	0.021	0.019
Anaheim St: SR-47 - 9th St	1470	ANAHEIM 8	385090	3738589	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1471	ANAHEIM 9	385138	3738593	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1472	ANAHEIM 10	385186	3738596	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1473	ANAHEIM 11	385234	3738599	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1474	ANAHEIM 12	385282	3738603	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1475	ANAHEIM 13	385329	3738606	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1476	ANAHEIM 14	385377	3738610	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1477	ANAHEIM 15	385425	3738613	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1478	ANAHEIM 16	385473	3738617	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1479	ANAHEIM 17	385521	3738620	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1480	ANAHEIM 18	385569	3738623	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1481	ANAHEIM 19	385617	3738627	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1482	ANAHEIM 20	385665	3738630	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1483	ANAHEIM 21	385712	3738634	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1484	ANAHEIM 22	385760	3738637	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1485	ANAHEIM 23	385808	3738641	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1486	ANAHEIM 24	385856	3738644	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1487	ANAHEIM 25	385904	3738648	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1488	ANAHEIM 26	385952	3738651	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1489	ANAHEIM 27	386000	3738654	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1490	ANAHEIM 28	386048	3738658	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1491	ANAHEIM 29	386095	3738661	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1492	ANAHEIM 30	386143	3738665	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1493	ANAHEIM 31	386191	3738668	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1494	ANAHEIM 32	386239	3738672	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1495	ANAHEIM 33	386287	3738675	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1496	ANAHEIM 34	386335	3738678	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1497	ANAHEIM 35	386383	3738682	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1498	ANAHEIM 36	386431	3738685	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1499	ANAHEIM 37	386478	3738689	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1500	ANAHEIM 38	386526	3738692	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1501	ANAHEIM 39	386574	3738696	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1502	ANAHEIM 40	386622	3738699	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1503	ANAHEIM 41	386670	3738703	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1504	ANAHEIM 42	386718	3738706	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1505	ANAHEIM 43	386766	3738709	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1506	ANAHEIM 44	386814	3738713	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1507	ANAHEIM 45	386861	3738716	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1508	ANAHEIM 46	386909	3738720	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1509	ANAHEIM 47	386957	3738723	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St	1510	ANAHEIM 48	387005	3738727	24	0.0044	0.0210	0.0092	0.0028	0.0025
Anaheim St: SR-47 - 9th St						0.181	0.862	0.377	0.113	0.104

Table A.2.1-CBD-4. Roadway Link Emissions - POLB MHTP - CEQA Baseline

Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	Emissions (Pounds/Hour) TOG	CO	NO2	PM10	PM2.5
9th Street: Anaheim St - Santa Fe	1190	Ninth St 1	387057	3738731	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1191	Ninth St 2	387090	3738702	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1192	Ninth St 3	387110	3738663	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1193	Ninth St 4	387131	3738625	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1194	Ninth St 5	387168	3738603	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1195	Ninth St 6	387210	3738589	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1196	Ninth St 7	387252	3738576	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1197	Ninth St 8	387294	3738562	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1198	Ninth St 9	387335	3738547	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1199	Ninth St 10	387377	3738533	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe	1200	Ninth St 11	387418	3738518	22	0.0026	0.0130	0.0067	0.0017	0.0016
9th Street: Anaheim St - Santa Fe						0.029	0.143	0.073	0.019	0.018
9th Street: Santa Fe to 10th	1201	Ninth St 12	387460	3738504	22	0.0052	0.0248	0.0108	0.0033	0.0030
9th Street: Santa Fe to 10th	1202	Ninth St 13	387502	3738489	22	0.0052	0.0248	0.0108	0.0033	0.0030
9th Street: Santa Fe to 10th	1203	Ninth St 14	387543	3738475	22	0.0052	0.0248	0.0108	0.0033	0.0030
9th Street: Santa Fe to 10th	1204	Ninth St 15	387584	3738460	22	0.0052	0.0248	0.0108	0.0033	0.0030
9th Street: Santa Fe to 10th	1205	Ninth St 16	387626	3738446	22	0.0052	0.0248	0.0108	0.0033	0.0030
9th Street: Santa Fe to 10th	1206	Ninth St 17	387668	3738433	22	0.0052	0.0248	0.0108	0.0033	0.0030
9th Street: Santa Fe to 10th						0.031	0.149	0.065	0.020	0.018
9th Street: Caspian - Pico (SB only)	1207	Ninth St 18	387710	3738419	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1208	Ninth St 19	387751	3738404	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1209	Ninth St 20	387793	3738389	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1210	Ninth St 21	387834	3738374	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1211	Ninth St 22	387875	3738359	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1212	Ninth St 23	387917	3738344	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1213	Ninth St 24	387958	3738329	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1214	Ninth St 25	387999	3738314	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1215	Ninth St 26	388041	3738299	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1216	Ninth St 27	388082	3738284	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1217	Ninth St 28	388124	3738269	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1601	Ninth Street 29	388163	3738248	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1602	Ninth Street 30	388181	3738207	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1603	Ninth Street 31	388183	3738163	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1604	Ninth Street 32	388164	3738124	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)	1605	Ninth Street 33	388138	3738091	22	0.0019	0.0093	0.0056	0.0013	0.0012
9th Street: Caspian - Pico (SB only)						0.030	0.150	0.090	0.021	0.019
10th Street: Pico - 9th (NB only)	1271	Tenth St 1	387717	3738420	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1272	Tenth St 2	387744	3738413	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1273	Tenth St 3	387771	3738407	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1274	Tenth St 4	387799	3738405	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1275	Tenth St 5	387827	3738408	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1276	Tenth St 6	387855	3738412	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1277	Tenth St 7	387882	3738414	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1278	Tenth St 8	387910	3738416	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1279	Tenth St 9	387938	3738420	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1280	Tenth St 10	387966	3738425	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1281	Tenth St 11	387993	3738430	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1282	Tenth St 12	388021	3738435	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1283	Tenth St 13	388048	3738440	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1284	Tenth St 14	388076	3738444	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1285	Tenth St 15	388104	3738441	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1286	Tenth St 16	388128	3738429	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1287	Tenth St 17	388145	3738407	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1288	Tenth St 18	388154	3738380	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1289	Tenth St 19	388160	3738353	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1290	Tenth St 20	388167	3738326	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1291	Tenth St 21	388173	3738298	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1292	Tenth St 22	388179	3738271	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1293	Tenth St 23	388185	3738244	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1607	Tenth St 24	388188	3738216	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1608	Tenth St 25	388189	3738189	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1609	Tenth St 26	388187	3738162	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1610	Tenth St 27	388175	3738137	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1611	Tenth St 28	388163	3738113	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)	1612	Tenth St 29	388147	3738092	14	0.0013	0.0062	0.0032	0.0008	0.0008
10th Street: Pico - 9th (NB only)						0.037	0.180	0.092	0.024	0.022
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	HARBOR SCENIC 30	388223	3737136	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1176	HARBOR SCENIC 31	388233	3737207	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1177	HARBOR SCENIC 32	388240	3737279	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1178	HARBOR SCENIC 33	388243	3737350	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1179	HARBOR SCENIC 34	388244	3737422	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1180	HARBOR SCENIC 35	388243	3737494	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1181	HARBOR SCENIC 36	388241	3737566	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1182	HARBOR SCENIC 37	388241	3737638	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1183	HARBOR SCENIC 38	388242	3737710	36	0.0168	0.0837	0.0596	0.0122	0.0113

Table A.2.1-CBD-4. Roadway Link Emissions - POLB MHTP - CEQA Baseline

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1184	HARBOR SCENIC 39	388243	3737782	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1185	HARBOR SCENIC 40	388244	3737854	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1186	HARBOR SCENIC 41	388245	3737926	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1187	HARBOR SCENIC 42	388245	3737998	36	0.0168	0.0837	0.0596	0.0122	0.0113
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)						0.219	1.088	0.774	0.159	0.146
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1142	I-710 43	388185	3738527	31	0.0225	0.1121	0.0798	0.0164	0.0151
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1143	I-710 44	388189	3738465	31	0.0225	0.1121	0.0798	0.0164	0.0151
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1144	I-710 45	388190	3738403	31	0.0225	0.1121	0.0798	0.0164	0.0151
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1145	I-710 46	388208	3738342	31	0.0225	0.1121	0.0798	0.0164	0.0151
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	I-710 47	388220	3738282	31	0.0225	0.1121	0.0798	0.0164	0.0151
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1614	I-710 48	388230	3738221	31	0.0225	0.1121	0.0798	0.0164	0.0151
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1615	I-710 49	388240	3738160	31	0.0225	0.1121	0.0798	0.0164	0.0151
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1616	I-710 50	388245	3738099	31	0.0225	0.1121	0.0798	0.0164	0.0151
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1617	I-710 51	388245	3738038	31	0.0225	0.1121	0.0798	0.0164	0.0151
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)						0.203	1.009	0.718	0.148	0.136
I-710 : n/o Anaheim SB On Ramp (SB)	1100	I-710 1	388241	3741119	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1101	I-710 2	388241	3741057	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1102	I-710 3	388244	3740995	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1103	I-710 4	388250	3740934	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1104	I-710 5	388256	3740872	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1105	I-710 6	388265	3740810	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1106	I-710 7	388274	3740749	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1107	I-710 8	388280	3740687	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1108	I-710 9	388281	3740625	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1109	I-710 10	388280	3740563	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1110	I-710 11	388279	3740501	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1111	I-710 12	388278	3740440	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1112	I-710 13	388277	3740378	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1113	I-710 14	388276	3740316	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1114	I-710 15	388276	3740254	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1115	I-710 16	388275	3740192	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1116	I-710 17	388273	3740130	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1117	I-710 18	388267	3740068	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1118	I-710 19	388258	3740007	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1119	I-710 20	388245	3739946	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1120	I-710 21	388231	3739886	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1121	I-710 22	388217	3739825	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1122	I-710 23	388205	3739764	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1123	I-710 24	388196	3739703	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1124	I-710 25	388188	3739642	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1125	I-710 26	388183	3739580	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1126	I-710 27	388180	3739518	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1127	I-710 28	388180	3739456	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1128	I-710 29	388184	3739394	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1129	I-710 30	388189	3739332	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1130	I-710 31	388194	3739271	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1131	I-710 32	388199	3739209	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1132	I-710 33	388199	3739147	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1133	I-710 34	388200	3739085	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1134	I-710 35	388201	3739023	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1135	I-710 36	388200	3738961	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1136	I-710 37	388198	3738899	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1137	I-710 38	388196	3738837	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1138	I-710 39	388194	3738775	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1139	I-710 40	388192	3738713	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1140	I-710 41	388190	3738651	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)	1141	I-710 42	388187	3738589	31	0.0206	0.1024	0.0729	0.0150	0.0138
I-710 : n/o Anaheim SB On Ramp (SB)						0.865	4.303	3.063	0.629	0.579
Pico Ave: Pier B St - Pier D St	1034	PICO 34	388126	3737305	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1035	PICO 35	388152	3737352	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1036	PICO 36	388168	3737404	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1037	PICO 37	388174	3737458	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1038	PICO 38	388175	3737512	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1039	PICO 39	388176	3737566	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1040	PICO 40	388176	3737620	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1041	PICO 41	388174	3737674	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1042	PICO 42	388173	3737728	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1043	PICO 43	388172	3737782	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1044	PICO 44	388172	3737836	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1045	PICO 45	388172	3737890	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1620	Pico 48	388169	3737918	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1619	Pico 47	388164	3737972	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1618	Pico 46	388150	3738027	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St	1606	Ninth Street 34	388122	3738073	27	0.0255	0.1255	0.0642	0.0168	0.0155
Pico Ave: Pier B St - Pier D St						0.408	2.007	1.028	0.269	0.247
Pico Ave: Pier D St - Terminal Entrance	1027	PICO 27	387996	3736962	27	0.0178	0.0876	0.0449	0.0117	0.0108

Table A.2.1-CBD-4. Roadway Link Emissions - POLB MHTP - CEQA Baseline

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Pico Ave: Pier D St - Terminal Entrance	1028	PICO 28	387993	3737016	27	0.0178	0.0876	0.0449	0.0117	0.0108
Pico Ave: Pier D St - Terminal Entrance	1029	PICO 29	387998	3737070	27	0.0178	0.0876	0.0449	0.0117	0.0108
Pico Ave: Pier D St - Terminal Entrance	1030	PICO 30	388013	3737121	27	0.0178	0.0876	0.0449	0.0117	0.0108
Pico Ave: Pier D St - Terminal Entrance	1031	PICO 31	388038	3737169	27	0.0178	0.0876	0.0449	0.0117	0.0108
Pico Ave: Pier D St - Terminal Entrance	1032	PICO 32	388066	3737215	27	0.0178	0.0876	0.0449	0.0117	0.0108
Pico Ave: Pier D St - Terminal Entrance	1033	PICO 33	388096	3737260	27	0.0178	0.0876	0.0449	0.0117	0.0108
Pico Ave: Pier D St - Terminal Entrance						0.125	0.613	0.314	0.082	0.076
Pico Ave: Terminal Entrance - Pier E St	1024	PICO 24	388011	3736801	27	0.0101	0.0498	0.0255	0.0067	0.0061
Pico Ave: Terminal Entrance - Pier E St	1025	PICO 25	388006	3736855	27	0.0101	0.0498	0.0255	0.0067	0.0061
Pico Ave: Terminal Entrance - Pier E St	1026	PICO 26	388001	3736908	27	0.0101	0.0498	0.0255	0.0067	0.0061
Pico Ave: Terminal Entrance - Pier E St						0.030	0.149	0.076	0.020	0.018
Pico Ave: Pier E St - Harbor Scenic Connector	1016	PICO 16	388261	3736501	27	0.0130	0.0641	0.0328	0.0086	0.0079
Pico Ave: Pier E St - Harbor Scenic Connector	1017	PICO 17	388229	3736544	27	0.0130	0.0641	0.0328	0.0086	0.0079
Pico Ave: Pier E St - Harbor Scenic Connector	1018	PICO 18	388184	3736574	27	0.0130	0.0641	0.0328	0.0086	0.0079
Pico Ave: Pier E St - Harbor Scenic Connector	1019	PICO 19	388134	3736593	27	0.0130	0.0641	0.0328	0.0086	0.0079
Pico Ave: Pier E St - Harbor Scenic Connector	1020	PICO 20	388083	3736610	27	0.0130	0.0641	0.0328	0.0086	0.0079
Pico Ave: Pier E St - Harbor Scenic Connector	1021	PICO 21	388043	3736645	27	0.0130	0.0641	0.0328	0.0086	0.0079
Pico Ave: Pier E St - Harbor Scenic Connector	1022	PICO 22	388019	3736694	27	0.0130	0.0641	0.0328	0.0086	0.0079
Pico Ave: Pier E St - Harbor Scenic Connector	1023	PICO 23	388015	3736747	27	0.0130	0.0641	0.0328	0.0086	0.0079
Pico Ave: Pier E St - Harbor Scenic Connector						0.1042	0.5127	0.2625	0.0686	0.0631
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	PICO 2	388479	3735798	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1003	PICO 3	388476	3735852	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1004	PICO 4	388476	3735906	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1005	PICO 5	388477	3735960	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1006	PICO 6	388478	3736014	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1007	PICO 7	388476	3736068	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1008	PICO 8	388461	3736119	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1009	PICO 9	388434	3736166	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1010	PICO 10	388403	3736210	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1011	PICO 11	388375	3736256	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1012	PICO 12	388350	3736304	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1013	PICO 13	388328	3736354	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1014	PICO 14	388307	3736403	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1015	PICO 15	388286	3736453	27	0.0319	0.1568	0.0803	0.0210	0.0193
Pico Ave: Harbor Scenic Connector - Harbor Plaza						0.446	2.195	1.124	0.294	0.270
Pier F Ave: Middle Harbor - Harbor Plaza	1360	PIER F 1	387539	3734879	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1361	PIER F 2	387550	3734926	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1362	PIER F 3	387568	3734970	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1363	PIER F 4	387599	3735006	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1364	PIER F 5	387640	3735031	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1365	PIER F 6	387681	3735056	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1366	PIER F 7	387722	3735081	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1367	PIER F 8	387763	3735106	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1368	PIER F 9	387804	3735131	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1369	PIER F 10	387845	3735156	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1370	PIER F 11	387886	3735181	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1371	PIER F 12	387927	3735206	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1372	PIER F 13	387968	3735231	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1373	PIER F 14	388009	3735256	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1374	PIER F 15	388050	3735281	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1375	PIER F 16	388091	3735306	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1376	PIER F 17	388135	3735325	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1377	PIER F 18	388182	3735331	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1378	PIER F 19	388230	3735331	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1379	PIER F 20	388276	3735339	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1380	PIER F 21	388288	3735383	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1381	PIER F 22	388289	3735431	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1382	PIER F 23	388289	3735479	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1383	PIER F 24	388290	3735527	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1384	PIER F 25	388290	3735575	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1385	PIER F 26	388290	3735623	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1386	PIER F 27	388289	3735671	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza	1387	PIER F 28	388296	3735718	24	0.0443	0.2180	0.1116	0.0292	0.0269
Pier F Ave: Middle Harbor - Harbor Plaza						1.240	6.105	3.126	0.817	0.752
Harbor Plaza: Pier F Ave - Pier G Ave	1388	PIER F 29	388336	3735740	24	0.0571	0.2724	0.1193	0.0359	0.0330
Harbor Plaza: Pier F Ave - Pier G Ave	1389	PIER F 30	388384	3735741	24	0.0571	0.2724	0.1193	0.0359	0.0330
Harbor Plaza: Pier F Ave - Pier G Ave	1390	PIER F 31	388432	3735740	24	0.0571	0.2724	0.1193	0.0359	0.0330
Harbor Plaza: Pier F Ave - Pier G Ave	1391	PIER F 32	388486	3735740	24	0.0571	0.2724	0.1193	0.0359	0.0330
Harbor Plaza: Pier F Ave - Pier G Ave						0.228	1.089	0.477	0.143	0.132
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	HARBOR PLAZA 1	388534	3735739	24	0.0163	0.0805	0.0412	0.0108	0.0099
Harbor Plaza: Pier G Ave - Queens Way Bridge	1393	HARBOR PLAZA 2	388582	3735738	24	0.0163	0.0805	0.0412	0.0108	0.0099
Harbor Plaza: Pier G Ave - Queens Way Bridge	1394	HARBOR PLAZA 3	388630	3735737	24	0.0163	0.0805	0.0412	0.0108	0.0099
Harbor Plaza: Pier G Ave - Queens Way Bridge	1395	HARBOR PLAZA 4	388678	3735737	24	0.0163	0.0805	0.0412	0.0108	0.0099
Harbor Plaza: Pier G Ave - Queens Way Bridge	1396	HARBOR PLAZA 5	388726	3735736	24	0.0163	0.0805	0.0412	0.0108	0.0099

Table A.2.1-CBD-4. Roadway Link Emissions - POLB MHTP - CEQA Baseline

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1397	HARBOR PLAZA 6	388771	3735723	24	0.0163	0.0805	0.0412	0.0108	0.0099
Harbor Plaza: Pier G Ave - Queens Way Bridge						0.098	0.483	0.247	0.065	0.059
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	HARBOR SCENIC 25	388213	3736780	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1171	HARBOR SCENIC 26	388196	3736850	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1172	HARBOR SCENIC 27	388191	3736922	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1173	HARBOR SCENIC 28	388200	3736993	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1174	HARBOR SCENIC 29	388212	3737064	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1175	HARBOR SCENIC 30	388223	3737136	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1176	HARBOR SCENIC 31	388233	3737207	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1177	HARBOR SCENIC 32	388240	3737279	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1178	HARBOR SCENIC 33	388243	3737350	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1179	HARBOR SCENIC 34	388244	3737422	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1180	HARBOR SCENIC 35	388243	3737494	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1181	HARBOR SCENIC 36	388241	3737566	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1182	HARBOR SCENIC 37	388241	3737638	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1183	HARBOR SCENIC 38	388242	3737710	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1184	HARBOR SCENIC 39	388243	3737782	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1185	HARBOR SCENIC 40	388244	3737854	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1186	HARBOR SCENIC 41	388245	3737926	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1187	HARBOR SCENIC 42	388245	3737998	36	0.0156	0.0728	0.0609	0.0119	0.0109
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)						0.281	1.310	1.096	0.213	0.196
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	HARBOR SCENIC 25	388213	3736780	36	0.0152	0.0711	0.0595	0.0116	0.0107
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1171	HARBOR SCENIC 26	388196	3736850	36	0.0152	0.0711	0.0595	0.0116	0.0107
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1172	HARBOR SCENIC 27	388191	3736922	36	0.0152	0.0711	0.0595	0.0116	0.0107
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1173	HARBOR SCENIC 28	388200	3736993	36	0.0152	0.0711	0.0595	0.0116	0.0107
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1174	HARBOR SCENIC 29	388212	3737064	36	0.0152	0.0711	0.0595	0.0116	0.0107
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)						0.076	0.355	0.297	0.058	0.053
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	HARBOR SCENIC 8	388800	3735766	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1154	HARBOR SCENIC 9	388775	3735828	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1155	HARBOR SCENIC 10	388755	3735890	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1156	HARBOR SCENIC 11	388717	3735941	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1157	HARBOR SCENIC 12	388665	3735988	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1158	HARBOR SCENIC 13	388611	3736036	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1159	HARBOR SCENIC 14	388564	3736090	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1160	HARBOR SCENIC 15	388516	3736144	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1161	HARBOR SCENIC 16	388476	3736204	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1162	HARBOR SCENIC 17	388442	3736267	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1163	HARBOR SCENIC 18	388416	3736334	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1164	HARBOR SCENIC 19	388395	3736403	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1165	HARBOR SCENIC 20	388367	3736469	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1166	HARBOR SCENIC 21	388328	3736530	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1167	HARBOR SCENIC 22	388287	3736588	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1168	HARBOR SCENIC 23	388245	3736647	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1169	HARBOR SCENIC 24	388213	3736711	36	0.0290	0.1355	0.1133	0.0221	0.0203
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp						0.493	2.303	1.927	0.375	0.345
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	PIER D 17	387144	3736877	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1235	PIER D 18	387168	3736890	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1236	PIER D 19	387193	3736903	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1237	PIER D 20	387218	3736916	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1238	PIER D 21	387243	3736928	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1239	PIER D 22	387268	3736941	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1240	PIER D 23	387293	3736954	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1241	PIER D 24	387318	3736967	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1242	PIER D 25	387343	3736979	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1243	PIER D 26	387368	3736992	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1244	PIER D 27	387394	3737002	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1245	PIER D 28	387420	3737013	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1246	PIER D 29	387445	3737026	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1247	PIER D 30	387470	3737038	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1248	PIER D 31	387495	3737051	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1249	PIER D 32	387520	3737064	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1250	PIER D 33	387545	3737077	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1251	PIER D 34	387570	3737089	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1252	PIER D 35	387594	3737102	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1253	PIER D 36	387619	3737115	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1254	PIER D 37	387644	3737128	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1255	PIER D 38	387669	3737140	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1256	PIER D 39	387694	3737153	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1257	PIER D 40	387719	3737166	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1258	PIER D 41	387744	3737178	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1259	PIER D 42	387769	3737191	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1260	PIER D 43	387794	3737203	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1261	PIER D 44	387819	3737216	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1262	PIER D 45	387845	3737227	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1263	PIER D 46	387872	3737235	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1264	PIER D 47	387899	3737243	14	0.0098	0.0468	0.0205	0.0062	0.0057

Table A.2.1-CBD-4. Roadway Link Emissions - POLB MHTP - CEQA Baseline

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Pier D St: w/o Pico Ave - w/o Pico Ave	1265	PIER D 48	387926	3737250	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1266	PIER D 49	387953	3737257	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1267	PIER D 50	387980	3737264	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1268	PIER D 51	388007	3737272	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1269	PIER D 52	388034	3737279	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave	1270	PIER D 53	388061	3737286	14	0.0098	0.0468	0.0205	0.0062	0.0057
Pier D St: w/o Pico Ave - w/o Pico Ave						0.363	1.733	0.759	0.228	0.210
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	OCEAN 1	385307	3736071	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1047	OCEAN 2	385361	3736088	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1048	OCEAN 3	385414	3736105	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1049	OCEAN 4	385468	3736122	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1050	OCEAN 5	385521	3736139	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1051	OCEAN 6	385574	3736155	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1052	OCEAN 7	385627	3736173	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1053	OCEAN 8	385680	3736193	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1054	OCEAN 9	385732	3736213	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1055	OCEAN 10	385784	3736233	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1056	OCEAN 11	385837	3736253	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1057	OCEAN 12	385889	3736274	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1058	OCEAN 13	385941	3736294	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1059	OCEAN 14	385993	3736314	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1060	OCEAN 15	386046	3736334	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1061	OCEAN 16	386098	3736355	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1062	OCEAN 17	386150	3736375	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1063	OCEAN 18	386202	3736396	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Seaside Blvd OnRamp - Bridge						0.256	1.260	0.645	0.169	0.155
Ocean Blvd: Bridge	1064	OCEAN 19	386254	3736417	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1065	OCEAN 20	386306	3736438	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1066	OCEAN 21	386357	3736460	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1067	OCEAN 22	386408	3736484	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1068	OCEAN 23	386459	3736507	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1069	OCEAN 24	386510	3736530	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1070	OCEAN 25	386561	3736553	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1071	OCEAN 26	386612	3736576	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1072	OCEAN 27	386663	3736599	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1073	OCEAN 28	386714	3736622	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1074	OCEAN 29	386765	3736645	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1075	OCEAN 30	386816	3736668	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1076	OCEAN 31	386867	3736692	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1077	OCEAN 32	386918	3736715	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1078	OCEAN 33	386970	3736735	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1079	OCEAN 34	387023	3736754	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1080	OCEAN 35	387074	3736777	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1081	OCEAN 36	387125	3736800	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1082	OCEAN 37	387176	3736822	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1083	OCEAN 38	387228	3736844	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1084	OCEAN 39	387280	3736865	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1085	OCEAN 40	387333	3736884	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1086	OCEAN 41	387386	3736901	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1087	OCEAN 42	387441	3736913	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge	1088	OCEAN 43	387496	3736922	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge						0.356	1.750	0.896	0.234	0.216
Ocean Blvd: Bridge - I-710 Offramp	1089	OCEAN 44	387551	3736930	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge - I-710 Offramp	1090	OCEAN 45	387607	3736937	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge - I-710 Offramp	1091	OCEAN 46	387662	3736943	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge - I-710 Offramp	1092	OCEAN 47	387718	3736949	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge - I-710 Offramp	1093	OCEAN 48	387774	3736955	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge - I-710 Offramp	1094	OCEAN 49	387829	3736961	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge - I-710 Offramp	1095	OCEAN 50	387885	3736966	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge - I-710 Offramp	1096	OCEAN 51	387941	3736972	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge - I-710 Offramp	1097	OCEAN 52	387997	3736977	28	0.0142	0.0700	0.0358	0.0094	0.0086
Ocean Blvd: Bridge - I-710 Offramp						0.128	0.630	0.323	0.084	0.078
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	Ocean Offramp 1	388027	3736971	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1622	Ocean Offramp 2	388053	3736959	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1623	Ocean Offramp 3	388079	3736946	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1624	Ocean Offramp 4	388094	3736921	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1625	Ocean Offramp 5	388102	3736893	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1626	Ocean Offramp 6	388102	3736865	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1627	Ocean Offramp 7	388102	3736836	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1628	Ocean Offramp 8	388101	3736808	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1629	Ocean Offramp 9	388085	3736784	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1630	Ocean Offramp 10	388058	3736777	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1631	Ocean Offramp 11	388029	3736775	14	0.0036	0.0179	0.0092	0.0024	0.0022
Pier E St Off Ramp : Pico Ave - Ocean Blvd						0.040	0.197	0.101	0.026	0.024
Santa Fe: 9th St - Anaheim St	1417	SANTA FE 2	387462	3738556	24	0.0020	0.0098	0.0050	0.0013	0.0012

Table A.2.1-CBD-4. Roadway Link Emissions - POLB MHTP - CEQA Baseline

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Santa Fe: 9th St - Anaheim St	1418	SANTA FE 3	387463	3738604	24	0.0020	0.0098	0.0050	0.0013	0.0012
Santa Fe: 9th St - Anaheim St	1419	SANTA FE 4	387464	3738652	24	0.0020	0.0098	0.0050	0.0013	0.0012
Santa Fe: 9th St - Anaheim St	1420	SANTA FE 5	387465	3738700	24	0.0020	0.0098	0.0050	0.0013	0.0012
Santa Fe: 9th St - Anaheim St						0.008	0.039	0.020	0.005	0.005
Santa Fe: n/o Anaheim St - s/o Willow St	1421	SANTA FE 6	387465	3738748	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1422	SANTA FE 7	387466	3738796	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1423	SANTA FE 8	387467	3738844	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1424	SANTA FE 9	387468	3738892	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1425	SANTA FE 10	387468	3738940	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1426	SANTA FE 11	387469	3738988	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1427	SANTA FE 12	387470	3739036	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1428	SANTA FE 13	387471	3739084	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1429	SANTA FE 14	387471	3739132	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1430	SANTA FE 15	387472	3739180	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1431	SANTA FE 16	387473	3739228	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1432	SANTA FE 17	387474	3739276	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1433	SANTA FE 18	387475	3739324	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1434	SANTA FE 19	387475	3739372	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1435	SANTA FE 20	387476	3739420	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St	1436	SANTA FE 21	387477	3739468	24	0.0024	0.0119	0.0061	0.0016	0.0015
Santa Fe: n/o Anaheim St - s/o Willow St						0.039	0.191	0.098	0.026	0.024
I-710 : n/o 9th Street Onramp (NB)	1100	I-710 1	388241	3741119	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1101	I-710 2	388241	3741057	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1102	I-710 3	388244	3740995	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1103	I-710 4	388250	3740934	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1104	I-710 5	388256	3740872	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1105	I-710 6	388265	3740810	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1106	I-710 7	388274	3740749	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1107	I-710 8	388280	3740687	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1108	I-710 9	388281	3740625	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1109	I-710 10	388280	3740563	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1110	I-710 11	388279	3740501	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1111	I-710 12	388278	3740440	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1112	I-710 13	388277	3740378	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1113	I-710 14	388276	3740316	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1114	I-710 15	388276	3740254	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1115	I-710 16	388275	3740192	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1116	I-710 17	388273	3740130	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1117	I-710 18	388267	3740068	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1118	I-710 19	388258	3740007	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1119	I-710 20	388245	3739946	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1120	I-710 21	388231	3739886	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1121	I-710 22	388217	3739825	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1122	I-710 23	388205	3739764	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1123	I-710 24	388196	3739703	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1124	I-710 25	388188	3739642	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1125	I-710 26	388183	3739580	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1126	I-710 27	388180	3739518	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1127	I-710 28	388180	3739456	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1128	I-710 29	388184	3739394	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1129	I-710 30	388189	3739332	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1130	I-710 31	388194	3739271	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1131	I-710 32	388199	3739209	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1132	I-710 33	388199	3739147	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1133	I-710 34	388200	3739085	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1134	I-710 35	388201	3739023	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1135	I-710 36	388200	3738961	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1136	I-710 37	388198	3738899	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1137	I-710 38	388196	3738837	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1138	I-710 39	388194	3738775	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1139	I-710 40	388192	3738713	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1140	I-710 41	388190	3738651	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1141	I-710 42	388187	3738589	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1142	I-710 43	388185	3738527	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1143	I-710 44	388189	3738465	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1144	I-710 45	388190	3738403	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1145	I-710 46	388208	3738342	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1613	I-710 47	388220	3738282	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1614	I-710 48	388230	3738221	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1615	I-710 49	388240	3738160	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1616	I-710 50	388245	3738099	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)	1617	I-710 51	388245	3738038	31	0.0209	0.0974	0.0815	0.0159	0.0146
I-710 : n/o 9th Street Onramp (NB)						1.064	4.967	4.155	0.809	0.744
Onramp: 9th St - I-710 (NB)	1309	CONNECTOR 16	388106	3738066	14	0.0066	0.0313	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB)	1310	CONNECTOR 17	388089	3738044	14	0.0066	0.0313	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB)	1311	CONNECTOR 18	388072	3738022	14	0.0066	0.0313	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB)	1312	CONNECTOR 19	388058	3737997	14	0.0066	0.0313	0.0137	0.0041	0.0038

Table A.2.1-CBD-4. Roadway Link Emissions - POLB MHTP - CEQA Baseline

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Onramp: 9th St - I-710 (NB)	1313	CONNECTOR 20	388047	3737972	14	0.0066	0.0313	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB)	1314	CONNECTOR 21	388044	3737944	14	0.0066	0.0313	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB)	1315	CONNECTOR 22	388042	3737916	14	0.0066	0.0313	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB)	1316	CONNECTOR 23	388051	3737890	14	0.0066	0.0313	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB)	1317	CONNECTOR 24	388064	3737865	14	0.0066	0.0313	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB)						0.059	0.282	0.124	0.037	0.034
Onramp: 9th St - I-710 (NB BRIDGE)	1318	CONNECTOR 25	388076	3737840	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1319	CONNECTOR 26	388091	3737817	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1320	CONNECTOR 27	388111	3737797	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1321	CONNECTOR 28	388137	3737787	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1322	CONNECTOR 29	388164	3737782	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1323	CONNECTOR 30	388192	3737785	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1324	CONNECTOR 31	388217	3737796	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1325	CONNECTOR 32	388239	3737814	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1326	CONNECTOR 33	388253	3737837	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1327	CONNECTOR 34	388263	3737863	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1328	CONNECTOR 35	388264	3737891	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1329	CONNECTOR 36	388265	3737919	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1330	CONNECTOR 37	388265	3737947	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)	1331	CONNECTOR 38	388266	3737975	14	0.0065	0.0312	0.0137	0.0041	0.0038
Onramp: 9th St - I-710 (NB BRIDGE)						0.092	0.437	0.191	0.058	0.053
Offramp: I-710 at 9th Street (SB)	1294	CONNECTOR 1	388112	3738046	14	0.0065	0.0309	0.0135	0.0041	0.0037
Offramp: I-710 at 9th Street (SB)	1295	CONNECTOR 2	388096	3738023	14	0.0065	0.0309	0.0135	0.0041	0.0037
Offramp: I-710 at 9th Street (SB)	1296	CONNECTOR 3	388080	3738000	14	0.0065	0.0309	0.0135	0.0041	0.0037
Offramp: I-710 at 9th Street (SB)	1297	CONNECTOR 4	388065	3737977	14	0.0065	0.0309	0.0135	0.0041	0.0037
Offramp: I-710 at 9th Street (SB)	1298	CONNECTOR 5	388058	3737949	14	0.0065	0.0309	0.0135	0.0041	0.0037
Offramp: I-710 at 9th Street (SB)	1299	CONNECTOR 6	388058	3737922	14	0.0065	0.0309	0.0135	0.0041	0.0037
Offramp: I-710 at 9th Street (SB)						0.039	0.186	0.081	0.024	0.022
Offramp: I-710 at 9th Street (SB BRIDGE)	1300	CONNECTOR 7	388072	3737898	14	0.0064	0.0306	0.0134	0.0040	0.0037
Offramp: I-710 at 9th Street (SB BRIDGE)	1301	CONNECTOR 8	388091	3737879	14	0.0064	0.0306	0.0134	0.0040	0.0037
Offramp: I-710 at 9th Street (SB BRIDGE)	1302	CONNECTOR 9	388116	3737867	14	0.0064	0.0306	0.0134	0.0040	0.0037
Offramp: I-710 at 9th Street (SB BRIDGE)	1303	CONNECTOR 10	388144	3737866	14	0.0064	0.0306	0.0134	0.0040	0.0037
Offramp: I-710 at 9th Street (SB BRIDGE)	1304	CONNECTOR 11	388170	3737874	14	0.0064	0.0306	0.0134	0.0040	0.0037
Offramp: I-710 at 9th Street (SB BRIDGE)	1305	CONNECTOR 12	388193	3737890	14	0.0064	0.0306	0.0134	0.0040	0.0037
Offramp: I-710 at 9th Street (SB BRIDGE)	1306	CONNECTOR 13	388210	3737912	14	0.0064	0.0306	0.0134	0.0040	0.0037
Offramp: I-710 at 9th Street (SB BRIDGE)	1307	CONNECTOR 14	388213	3737939	14	0.0064	0.0306	0.0134	0.0040	0.0037
Offramp: I-710 at 9th Street (SB BRIDGE)	1308	CONNECTOR 15	388214	3737967	14	0.0064	0.0306	0.0134	0.0040	0.0037
Offramp: I-710 at 9th Street (SB BRIDGE)						0.058	0.276	0.121	0.036	0.033

Alternative 1 (Annual and Daily)

Annual

Daily

TableA.2.1 Alt1A-1. Operational Annual Emissions - POLB MHTP - Unmitigated Alternative 1

Source Activity	Annual Average Pounds per Hour (1)			
	CO	NO2	PM10	PM2.5
OGVs - Fairway Transit		42.53		
OGVs - Precautionary Area Transit		13.11		
OGVs - Harbor Transit		5.41		
OGVs - Docking		1.95		
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth E24		1.58		
OGVs - Hoteling Aux. Gens. - Berth E26 (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth E26		1.58		
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth F6		1.58		
Tugs - Harbor Transit		0.94		
Tugs - Docking		0.31		
Haul Line Locomotive - 10 mph - Port to Ocean Blvd		0.021		
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH		0.048		
Locomotives - Rail Yard		0.18		
Rail Yard Equipment		0.11		
Terminal Equipment		10.52		
Trucks - On-Terminal		4.40		
Pier D Entry Road		0.20		
Pier D In Gate		0.31		
Pier D Exit Road		0.06		
Pier D Out Gate		0.18		
Pier F Entry Road		0.04		
Pier F Exit Road		0.15		
Pier F In + Out Gates		0.32		

Note: (1) annual emissions divided by 8760 hours.

(2) Used the following NOx to NO2 SCAQMD convertion factors: (a) OGV fairway and precautionary area, 5000m or 100%,

(b) OGV and tug harbor transit and docking, 1000m or 46.7%, (c) all other sources, 500m or 25.8%.

TableA.2.1Alt1A-2. Annual Operational Criteria Pollutant Emission Simulations - POLB MHTP - Unmitigated Alternative 1

Activity/Source ID	Source Number(s)	Width (m)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source Pounds per Hour CO	NO2	PM10	PM2.5
OGVs - Fairway Transit											
	719-761	300	90,000	0.02	43	3,870,000	1.00		0.99		
Subtotals			-	-	43	3,870,000	-		42.53		
OGVs - Precautionary Area Transit											
	686-718	300	90,000	0.03	33	2,970,000	1.00	-	0.40	-	-
Subtotals			-	-	33	2,970,000	-	-	13.11	-	-
OGVs - Harbor Transit											
	633 - 685	100	10,000	0.04	27	270,000	1.00	-	0.20	-	-
Subtotals			-	-	27	270,000	-	-	5.41	-	-
OGVs - Docking											
	616	300	90,000	1.00	1	90,000	1.00	-	1.95	-	-
Subtotals			-	-	1	90,000	-	-	1.95	-	-
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)											
	2020	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth E24											
	2002	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
OGVs - Hoteling Aux. Gens. - Berth E26 (no cold-iron)											
	2019	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth E26											
	2001	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)											
	2021	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth F6											
	2003	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
Tugs - Harbor Transit											
	3633 -3685	100	10,000	0.04	27	270,000	1.00	-	0.03	-	-
Subtotals			-	-	27	270,000	-	-	0.94	-	-
Tugs - Docking											
	3,616	300	90,000	1.00	1	90,000	1.00	-	0.31	-	-
Subtotals			-	-	1	90,000	-	-	0.31	-	-
Haul Line Locomotive - 10 mph - Port to Ocean Blvd											
	916 - 941	15	225	0.04	26	5,850	1.00	-	0.001	-	-
Subtotals			-	-	26	5,850	-	-	0.02	-	-
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH											
	762 - 915	15	225	0.01	154	34,650	1.00	-	0.0003	-	-
Subtotals			-	-	154	34,650	-	-	0.05	-	-
Locomotives - Rail Yard											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.01	-	-
Subtotals			-	-	29	18,125	-	-	0.18	-	-
Rail Yard Equipment											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.00	-	-
Subtotals			-	-	29	18,125	-	-	0.11	-	-

TableA.2.1Alt1A-2. Annual Operational Criteria Pollutant Emission Simulations - POLB MHTP - Unmitigated Alternative 1

Activity/Source ID	Source Number(s)	Width (m)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source Pounds per Hour			
								CO	NO2	PM10	PM2.5
Trucks - On-Terminal											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.01	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.03	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.04	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.05	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.08	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.12	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.16	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.21	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	0.46	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	0.82	-	-
			-	-	38	855,975	1.00				
Terminal - Equipment + Trucks											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.04	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.10	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.13	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.17	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.27	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.39	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.53	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.70	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	1.57	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	2.79	-	-
			-	-	38	855,975	1.00				
Pier D Entry Road											
	1636-1640	50	2,500	0.20	5	12,500	1.00	-	0.039	-	-
Subtotals			-	-	5	12,500	1.00	-	0.20	-	-
Pier D In Gate											
	1-3, 31,32	50	2,500	0.20	5	12,500	1.00	-	0.06	-	-
Subtotals			-	-	5	12,500	1.00	-	0.31	-	-
Pier D Exit Road											
	40,48	50	2,500	0.50	2	5,000	1.00	-	0.03	-	-
Subtotals			-	-	2	5,000	1.00	-	0.06	-	-
Pier D Out Gate											
	4-6	50	2,500	0.33	3	7,500	1.00	-	0.06	-	-
Subtotals			-	-	3	7,500	1.00	-	0.18	-	-
Pier F Entry Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.01	-	-
Subtotals			-	-	3	7,500	1.00	-	0.04	-	-
Pier F Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.05	-	-
Subtotals			-	-	3	7,500	1.00	-	0.15	-	-
Pier F Entry + Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.06	-	-
Subtotals			-	-	3	7,500	1.00	-	0.19	-	-
Pier F In + Out Gates											
	554	100	10,000	1.00	1	10,000	1.00	-	0.32	-	-
Subtotals			-	-	1	10,000	1.00	-	0.32	-	-

Table A.2.1-Alt1A-3. Year 2010 Unmitigated Annual Roadway Emissions - POLB Middle Harbor Project Alternative 1.

Roadway Link	BEEST ID Start #	Length (Mi)	MPH	Annual Trips	Pounds per Year						# of Vol. Sources
					TOG	CO	NO2	SOx	PM10	PM2.5	
Alameda St: Eubank - Anaheim St	1437	0.76	26	59,707	222	881	538	18	18	17	26
Anaheim St: Alameda - SR-47	1463	0.21	23	59,707	87	302	155	5	6	6	7
Anaheim St: SR-47 - 9th St	1470	1.22	26	67,650	402	1,595	975	33	33	30	41
9th Street: Anaheim St - Santa Fe	1190	0.30	33	114,110	130	548	395	14	12	11	11
9th Street: Santa Fe to 10th	1201	0.16	29	199,888	159	632	386	13	13	12	6
9th Street: Caspian - Pico (SB only)	1207	0.44	36	112,491	148	653	559	19	15	14	16
10th Street: Pico - 9th (NB only)	1271	0.50	30	89,195	170	715	516	18	16	14	29
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	0.58	41	323,340	466	2,093	2,122	75	54	50	13
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	0.35	41	743,884	638	2,864	2,904	102	74	68	9
I-710 : n/o Anaheim SB On Ramp (Southbound)	1100	1.62	43	708,983	2,844	12,764	12,945	455	329	302	42
Pico Ave: Pier B St - Pier D St	1034	0.52	31	1,075,194	2,135	8,985	6,479	222	198	182	16
Pico Ave: Pier D St - Terminal Entrance	1027	0.23	30	637,001	569	2,394	1,726	59	53	48	7
Pico Ave: Terminal Entrance - Pier E St	1024	0.10	32	189,504	73	306	220	8	7	6	3
Pico Ave: Pier E St - Harbor Scenic Connector	1016	0.27	31	170,467	173	729	525	18	16	15	8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	0.47	31	488,327	872	3,672	2,648	91	81	74	14
Pier F Ave: Middle Harbor - Harbor Plaza	1360	0.83	30	810,225	2,564	10,790	7,781	267	237	218	28
Harbor Plaza: Pier F Ave - Pier G Ave	1388	0.12	29	810,225	489	1,941	1,186	40	40	37	4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	0.18	30	348,434	236	995	717	25	22	20	6
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	0.99	46	328,616	715	3,089	3,655	129	100	92	18
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	0.22	47	323,340	159	688	814	29	22	21	5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	0.74	47	652,160	1,071	4,627	5,474	193	150	138	17
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	0.64	25	616,971	1,929	7,658	4,678	158	158	145	37
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	0.63	32	265,364	633	2,663	1,920	66	59	54	18
Ocean Blvd: Bridge	1064	0.87	32	265,364	879	3,698	2,667	92	81	75	25
Ocean Blvd: Bridge - I-710 Offramp	1089	0.31	32	265,364	316	1,331	960	33	29	27	9
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	0.20	30	145,373	109	457	330	11	10	9	11
Santa Fe: 9th St - Anaheim St	1417	0.12	30	89,416	41	171	123	4	4	3	4
Santa Fe: n/o Anaheim St - s/o Willow St	1421	0.48	30	105,569	192	807	582	20	18	16	16
I-710 : n/o 9th Street Onramp (Northbound)	1100	1.96	46	770,353	3,334	14,402	17,039	600	467	429	51
Onramp: 9th St - I-710 (Northbound)	1309	0.16	25	441,533	335	1,329	812	27	27	25	9
Onramp: 9th St - I-710 (Northbound BRIDGE)	1318	0.24	25	441,533	519	2,060	1,259	42	42	39	14
Offramp: I-710 at 9th Street (Southbound)	1294	0.10	25	420,544	213	844	516	17	17	16	6
Offramp: I-710 at 9th Street (Southbound BRIDGE)	1300	0.15	25	420,544	316	1,253	765	26	26	24	9
Pier D Entry Road (off Pico)	1636	0.17	15	612,356	1,681	3,620	1,728	42	82	76	5
Pier D In Gate	1	0.15	5	612,356	3,790	5,014	2,710	36	126	116	5
Pier D Exit Road (off Pier D St)	40	0.09	15	359,169	493	1,062	507	12	24	22	2
Pier D Out Gate	4	0.15	5	359,169	2,223	2,941	1,589	21	74	68	3
Pier F Entry Road (off Pier F Ave)	9	0.07	15	325,071	366	789	377	9	18	16	3
Pier F Exit Road (off Pier F Ave)	9	0.17	15	464,512	1,275	2,746	1,311	32	62	57	3
Pier F In + Out Gates	554	0.12	5	789,583	3,909	5,172	2,795	38	130	119	1

Table A.2.1-Alt1A-4 Year 2010 Port Fleet (ARB Port Truck Reg) On-Road Truck Emission Factors - POLB Middle Harbor

	Emission Factors (Grams/Mile)						
Project Year/Mode	*TOG*	*ROG*	*CO*	*NOx*	*NO2*	*SOx*	*DPM*
Year 2010							
5 mph	18.72	16.47	24.76	51.87	13.38	0.18	0.62
10 mph	14.11	12.42	21.28	42.34	10.92	0.18	0.52
15 mph	7.16	6.30	15.42	28.53	7.36	0.18	0.35
20 mph	3.17	2.79	11.01	21.82	5.63	0.18	0.23
25 mph	2.20	1.94	8.75	20.72	5.35	0.18	0.18
30 mph	1.73	1.52	7.27	20.32	5.24	0.18	0.16
35 mph	1.36	1.20	6.03	20.03	5.17	0.18	0.14
40 mph	1.13	0.99	5.05	19.85	5.12	0.18	0.13
45 mph	1.00	0.88	4.32	19.81	5.11	0.18	0.14

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
Alameda St: Eubank - Anaheim St	1437	ALAMEDA 1	383938	3737677	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1438	ALAMEDA 2	383976	3737707	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1439	ALAMEDA 3	384013	3737736	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1440	ALAMEDA 4	384051	3737766	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1441	ALAMEDA 5	384089	3737795	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1442	ALAMEDA 6	384126	3737826	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1443	ALAMEDA 7	384163	3737857	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1444	ALAMEDA 8	384198	3737889	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1445	ALAMEDA 9	384234	3737922	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1446	ALAMEDA 10	384267	3737956	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1447	ALAMEDA 11	384300	3737991	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1448	ALAMEDA 12	384334	3738025	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1449	ALAMEDA 13	384365	3738062	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1450	ALAMEDA 14	384395	3738099	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1451	ALAMEDA 15	384426	3738136	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1452	ALAMEDA 16	384457	3738173	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1453	ALAMEDA 17	384487	3738210	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1454	ALAMEDA 18	384515	3738249	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1455	ALAMEDA 19	384544	3738287	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1456	ALAMEDA 20	384572	3738326	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1457	ALAMEDA 21	384597	3738367	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1458	ALAMEDA 22	384622	3738408	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1459	ALAMEDA 23	384646	3738450	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1460	ALAMEDA 24	384669	3738492	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1461	ALAMEDA 25	384692	3738534	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St	1462	ALAMEDA 26	384707	3738562	24	33.9	20.7	0.7	0.6
Alameda St: Eubank - Anaheim St						880.8	538.1	18.1	16.7
Anaheim St: Alameda - SR-47	1463	ANAHEIM 1	384755	3738566	24	43.2	22.1	0.9	0.8
Anaheim St: Alameda - SR-47	1464	ANAHEIM 2	384803	3738569	24	43.2	22.1	0.9	0.8
Anaheim St: Alameda - SR-47	1465	ANAHEIM 3	384851	3738572	24	43.2	22.1	0.9	0.8
Anaheim St: Alameda - SR-47	1466	ANAHEIM 4	384898	3738576	24	43.2	22.1	0.9	0.8
Anaheim St: Alameda - SR-47	1467	ANAHEIM 5	384946	3738579	24	43.2	22.1	0.9	0.8
Anaheim St: Alameda - SR-47	1468	ANAHEIM 6	384994	3738582	24	43.2	22.1	0.9	0.8
Anaheim St: Alameda - SR-47	1469	ANAHEIM 7	385042	3738586	24	43.2	22.1	0.9	0.8
Anaheim St: Alameda - SR-47						302.4	154.6	6.3	5.8
Anaheim St: SR-47 - 9th St	1470	ANAHEIM 8	385090	3738589	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1471	ANAHEIM 9	385138	3738593	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1472	ANAHEIM 10	385186	3738596	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1473	ANAHEIM 11	385234	3738599	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1474	ANAHEIM 12	385282	3738603	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1475	ANAHEIM 13	385329	3738606	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1476	ANAHEIM 14	385377	3738610	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1477	ANAHEIM 15	385425	3738613	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1478	ANAHEIM 16	385473	3738617	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1479	ANAHEIM 17	385521	3738620	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1480	ANAHEIM 18	385569	3738623	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1481	ANAHEIM 19	385617	3738627	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1482	ANAHEIM 20	385665	3738630	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1483	ANAHEIM 21	385712	3738634	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1484	ANAHEIM 22	385760	3738637	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1485	ANAHEIM 23	385808	3738641	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1486	ANAHEIM 24	385856	3738644	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1487	ANAHEIM 25	385904	3738648	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1488	ANAHEIM 26	385952	3738651	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1489	ANAHEIM 27	386000	3738654	24	38.9	23.8	0.8	0.7

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
Anaheim St: SR-47 - 9th St	1490	ANAHEIM 28	386048	3738658	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1491	ANAHEIM 29	386095	3738661	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1492	ANAHEIM 30	386143	3738665	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1493	ANAHEIM 31	386191	3738668	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1494	ANAHEIM 32	386239	3738672	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1495	ANAHEIM 33	386287	3738675	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1496	ANAHEIM 34	386335	3738678	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1497	ANAHEIM 35	386383	3738682	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1498	ANAHEIM 36	386431	3738685	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1499	ANAHEIM 37	386478	3738689	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1500	ANAHEIM 38	386526	3738692	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1501	ANAHEIM 39	386574	3738696	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1502	ANAHEIM 40	386622	3738699	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1503	ANAHEIM 41	386670	3738703	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1504	ANAHEIM 42	386718	3738706	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1505	ANAHEIM 43	386766	3738709	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1506	ANAHEIM 44	386814	3738713	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1507	ANAHEIM 45	386861	3738716	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1508	ANAHEIM 46	386909	3738720	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1509	ANAHEIM 47	386957	3738723	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St	1510	ANAHEIM 48	387005	3738727	24	38.9	23.8	0.8	0.7
Anaheim St: SR-47 - 9th St						1,595.2	974.6	32.8	30.2
9th Street: Anaheim St - Santa Fe	1190	Ninth St 1	387057	3738731	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1191	Ninth St 2	387090	3738702	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1192	Ninth St 3	387110	3738663	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1193	Ninth St 4	387131	3738625	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1194	Ninth St 5	387168	3738603	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1195	Ninth St 6	387210	3738589	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1196	Ninth St 7	387252	3738576	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1197	Ninth St 8	387294	3738562	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1198	Ninth St 9	387335	3738547	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1199	Ninth St 10	387377	3738533	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe	1200	Ninth St 11	387418	3738518	22	49.8	35.9	1.1	1.0
9th Street: Anaheim St - Santa Fe						547.7	395.0	12.1	11.1
9th Street: Santa Fe to 10th	1201	Ninth St 12	387460	3738504	22	105.4	64.4	2.2	2.0
9th Street: Santa Fe to 10th	1202	Ninth St 13	387502	3738489	22	105.4	64.4	2.2	2.0
9th Street: Santa Fe to 10th	1203	Ninth St 14	387543	3738475	22	105.4	64.4	2.2	2.0
9th Street: Santa Fe to 10th	1204	Ninth St 15	387584	3738460	22	105.4	64.4	2.2	2.0
9th Street: Santa Fe to 10th	1205	Ninth St 16	387626	3738446	22	105.4	64.4	2.2	2.0
9th Street: Santa Fe to 10th	1206	Ninth St 17	387668	3738433	22	105.4	64.4	2.2	2.0
9th Street: Santa Fe to 10th						632.2	386.3	13.0	12.0
9th Street: Caspian - Pico (SB only)	1207	Ninth St 18	387710	3738419	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1208	Ninth St 19	387751	3738404	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1209	Ninth St 20	387793	3738389	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1210	Ninth St 21	387834	3738374	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1211	Ninth St 22	387875	3738359	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1212	Ninth St 23	387917	3738344	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1213	Ninth St 24	387958	3738329	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1214	Ninth St 25	387999	3738314	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1215	Ninth St 26	388041	3738299	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1216	Ninth St 27	388082	3738284	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1217	Ninth St 28	388124	3738269	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1601	Ninth Street 29	388163	3738248	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1602	Ninth Street 30	388181	3738207	22	40.8	35.0	0.9	0.9

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
9th Street: Caspian - Pico (SB only)	1603	Ninth Street 31	388183	3738163	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1604	Ninth Street 32	388164	3738124	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)	1605	Ninth Street 33	388138	3738091	22	40.8	35.0	0.9	0.9
9th Street: Caspian - Pico (SB only)						652.6	559.3	15.2	13.9
10th Street: Pico - 9th (NB only)	1271	Tenth St 1	387717	3738420	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1272	Tenth St 2	387744	3738413	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1273	Tenth St 3	387771	3738407	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1274	Tenth St 4	387799	3738405	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1275	Tenth St 5	387827	3738408	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1276	Tenth St 6	387855	3738412	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1277	Tenth St 7	387882	3738414	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1278	Tenth St 8	387910	3738416	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1279	Tenth St 9	387938	3738420	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1280	Tenth St 10	387966	3738425	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1281	Tenth St 11	387993	3738430	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1282	Tenth St 12	388021	3738435	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1283	Tenth St 13	388048	3738440	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1284	Tenth St 14	388076	3738444	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1285	Tenth St 15	388104	3738441	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1286	Tenth St 16	388128	3738429	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1287	Tenth St 17	388145	3738407	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1288	Tenth St 18	388154	3738380	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1289	Tenth St 19	388160	3738353	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1290	Tenth St 20	388167	3738326	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1291	Tenth St 21	388173	3738298	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1292	Tenth St 22	388179	3738271	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1293	Tenth St 23	388185	3738244	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1607	Tenth St 24	388188	3738216	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1608	Tenth St 25	388189	3738189	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1609	Tenth St 26	388187	3738162	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1610	Tenth St 27	388175	3738137	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1611	Tenth St 28	388163	3738113	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)	1612	Tenth St 29	388147	3738092	14	24.7	17.8	0.5	0.5
10th Street: Pico - 9th (NB only)						715.4	515.9	15.7	14.5
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	HARBOR SCENIC 30	388223	3737136	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1176	HARBOR SCENIC 31	388233	3737207	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1177	HARBOR SCENIC 32	388240	3737279	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1178	HARBOR SCENIC 33	388243	3737350	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1179	HARBOR SCENIC 34	388244	3737422	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1180	HARBOR SCENIC 35	388243	3737494	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1181	HARBOR SCENIC 36	388241	3737566	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1182	HARBOR SCENIC 37	388241	3737638	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1183	HARBOR SCENIC 38	388242	3737710	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1184	HARBOR SCENIC 39	388243	3737782	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1185	HARBOR SCENIC 40	388244	3737854	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1186	HARBOR SCENIC 41	388245	3737926	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1187	HARBOR SCENIC 42	388245	3737998	36	161.0	163.2	4.1	3.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)						2,093	2,122	54	50
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1142	I-710 43	388185	3738527	31	318.2	322.7	8.2	7.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1143	I-710 44	388189	3738465	31	318.2	322.7	8.2	7.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1144	I-710 45	388190	3738403	31	318.2	322.7	8.2	7.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1145	I-710 46	388208	3738342	31	318.2	322.7	8.2	7.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	I-710 47	388220	3738282	31	318.2	322.7	8.2	7.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1614	I-710 48	388230	3738221	31	318.2	322.7	8.2	7.5

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1615	I-710 49	388240	3738160	31	318.2	322.7	8.2	7.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1616	I-710 50	388245	3738099	31	318.2	322.7	8.2	7.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1617	I-710 51	388245	3738038	31	318.2	322.7	8.2	7.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)						2,864	2,904	74	68
I-710 : n/o Anaheim SB On Ramp (SB)	1100	I-710 1	388241	3741119	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1101	I-710 2	388241	3741057	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1102	I-710 3	388244	3740995	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1103	I-710 4	388250	3740934	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1104	I-710 5	388256	3740872	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1105	I-710 6	388265	3740810	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1106	I-710 7	388274	3740749	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1107	I-710 8	388280	3740687	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1108	I-710 9	388281	3740625	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1109	I-710 10	388280	3740563	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1110	I-710 11	388279	3740501	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1111	I-710 12	388278	3740440	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1112	I-710 13	388277	3740378	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1113	I-710 14	388276	3740316	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1114	I-710 15	388276	3740254	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1115	I-710 16	388275	3740192	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1116	I-710 17	388273	3740130	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1117	I-710 18	388267	3740068	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1118	I-710 19	388258	3740007	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1119	I-710 20	388245	3739946	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1120	I-710 21	388231	3739886	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1121	I-710 22	388217	3739825	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1122	I-710 23	388205	3739764	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1123	I-710 24	388196	3739703	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1124	I-710 25	388188	3739642	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1125	I-710 26	388183	3739580	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1126	I-710 27	388180	3739518	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1127	I-710 28	388180	3739456	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1128	I-710 29	388184	3739394	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1129	I-710 30	388189	3739332	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1130	I-710 31	388194	3739271	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1131	I-710 32	388199	3739209	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1132	I-710 33	388199	3739147	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1133	I-710 34	388200	3739085	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1134	I-710 35	388201	3739023	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1135	I-710 36	388200	3738961	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1136	I-710 37	388198	3738899	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1137	I-710 38	388196	3738837	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1138	I-710 39	388194	3738775	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1139	I-710 40	388192	3738713	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1140	I-710 41	388190	3738651	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)	1141	I-710 42	388187	3738589	31	303.9	308.2	7.8	7.2
I-710 : n/o Anaheim SB On Ramp (SB)						12,764	12,945	329	302
Pico Ave: Pier B St - Pier D St	1034	PICO 34	388126	3737305	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1035	PICO 35	388152	3737352	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1036	PICO 36	388168	3737404	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1037	PICO 37	388174	3737458	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1038	PICO 38	388175	3737512	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1039	PICO 39	388176	3737566	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1040	PICO 40	388176	3737620	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1041	PICO 41	388174	3737674	27	561.6	405.0	12.4	11.4

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
Pico Ave: Pier B St - Pier D St	1042	PICO 42	388173	3737728	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1043	PICO 43	388172	3737782	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1044	PICO 44	388172	3737836	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1045	PICO 45	388172	3737890	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1620	Pico 48	388169	3737918	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1619	Pico 47	388164	3737972	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1618	Pico 46	388150	3738027	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St	1606	Ninth Street 34	388122	3738073	27	561.6	405.0	12.4	11.4
Pico Ave: Pier B St - Pier D St						8,985	6,479	198	182
Pico Ave: Pier D St - Terminal Entrance	1027	PICO 27	387996	3736962	27	341.9	246.6	7.5	6.9
Pico Ave: Pier D St - Terminal Entrance	1028	PICO 28	387993	3737016	27	341.9	246.6	7.5	6.9
Pico Ave: Pier D St - Terminal Entrance	1029	PICO 29	387998	3737070	27	341.9	246.6	7.5	6.9
Pico Ave: Pier D St - Terminal Entrance	1030	PICO 30	388013	3737121	27	341.9	246.6	7.5	6.9
Pico Ave: Pier D St - Terminal Entrance	1031	PICO 31	388038	3737169	27	341.9	246.6	7.5	6.9
Pico Ave: Pier D St - Terminal Entrance	1032	PICO 32	388066	3737215	27	341.9	246.6	7.5	6.9
Pico Ave: Pier D St - Terminal Entrance	1033	PICO 33	388096	3737260	27	341.9	246.6	7.5	6.9
Pico Ave: Pier D St - Terminal Entrance						2,394	1,726	53	48
Pico Ave: Terminal Entrance - Pier E St	1024	PICO 24	388011	3736801	27	101.9	73.5	2.2	2.1
Pico Ave: Terminal Entrance - Pier E St	1025	PICO 25	388006	3736855	27	101.9	73.5	2.2	2.1
Pico Ave: Terminal Entrance - Pier E St	1026	PICO 26	388001	3736908	27	101.9	73.5	2.2	2.1
Pico Ave: Terminal Entrance - Pier E St						305.6	220.4	6.7	6.2
Pico Ave: Pier E St - Harbor Scenic Connector	1016	PICO 16	388261	3736501	27	91.1	65.7	2.0	1.8
Pico Ave: Pier E St - Harbor Scenic Connector	1017	PICO 17	388229	3736544	27	91.1	65.7	2.0	1.8
Pico Ave: Pier E St - Harbor Scenic Connector	1018	PICO 18	388184	3736574	27	91.1	65.7	2.0	1.8
Pico Ave: Pier E St - Harbor Scenic Connector	1019	PICO 19	388134	3736593	27	91.1	65.7	2.0	1.8
Pico Ave: Pier E St - Harbor Scenic Connector	1020	PICO 20	388083	3736610	27	91.1	65.7	2.0	1.8
Pico Ave: Pier E St - Harbor Scenic Connector	1021	PICO 21	388043	3736645	27	91.1	65.7	2.0	1.8
Pico Ave: Pier E St - Harbor Scenic Connector	1022	PICO 22	388019	3736694	27	91.1	65.7	2.0	1.8
Pico Ave: Pier E St - Harbor Scenic Connector	1023	PICO 23	388015	3736747	27	91.1	65.7	2.0	1.8
Pico Ave: Pier E St - Harbor Scenic Connector						728.7	525.5	16.0	14.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	PICO 2	388479	3735798	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1003	PICO 3	388476	3735852	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1004	PICO 4	388476	3735906	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1005	PICO 5	388477	3735960	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1006	PICO 6	388478	3736014	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1007	PICO 7	388476	3736068	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1008	PICO 8	388461	3736119	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1009	PICO 9	388434	3736166	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1010	PICO 10	388403	3736210	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1011	PICO 11	388375	3736256	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1012	PICO 12	388350	3736304	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1013	PICO 13	388328	3736354	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1014	PICO 14	388307	3736403	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1015	PICO 15	388286	3736453	27	262.3	189.2	5.8	5.3
Pico Ave: Harbor Scenic Connector - Harbor Plaza						3,672	2,648	81	74
Pier F Ave: Middle Harbor - Harbor Plaza	1360	PIER F 1	387539	3734879	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1361	PIER F 2	387550	3734926	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1362	PIER F 3	387568	3734970	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1363	PIER F 4	387599	3735006	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1364	PIER F 5	387640	3735031	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1365	PIER F 6	387681	3735056	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1366	PIER F 7	387722	3735081	24	385.4	277.9	8.5	7.8

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
Pier F Ave: Middle Harbor - Harbor Plaza	1367	PIER F 8	387763	3735106	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1368	PIER F 9	387804	3735131	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1369	PIER F 10	387845	3735156	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1370	PIER F 11	387886	3735181	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1371	PIER F 12	387927	3735206	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1372	PIER F 13	387968	3735231	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1373	PIER F 14	388009	3735256	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1374	PIER F 15	388050	3735281	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1375	PIER F 16	388091	3735306	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1376	PIER F 17	388135	3735325	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1377	PIER F 18	388182	3735331	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1378	PIER F 19	388230	3735331	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1379	PIER F 20	388276	3735339	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1380	PIER F 21	388288	3735383	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1381	PIER F 22	388289	3735431	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1382	PIER F 23	388289	3735479	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1383	PIER F 24	388290	3735527	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1384	PIER F 25	388290	3735575	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1385	PIER F 26	388290	3735623	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1386	PIER F 27	388289	3735671	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza	1387	PIER F 28	388296	3735718	24	385.4	277.9	8.5	7.8
Pier F Ave: Middle Harbor - Harbor Plaza						10,790	7,781	237	218
Harbor Plaza: Pier F Ave - Pier G Ave	1388	PIER F 29	388336	3735740	24	485.2	296.4	10.0	9.2
Harbor Plaza: Pier F Ave - Pier G Ave	1389	PIER F 30	388384	3735741	24	485.2	296.4	10.0	9.2
Harbor Plaza: Pier F Ave - Pier G Ave	1390	PIER F 31	388432	3735740	24	485.2	296.4	10.0	9.2
Harbor Plaza: Pier F Ave - Pier G Ave	1391	PIER F 32	388486	3735740	24	485.2	296.4	10.0	9.2
Harbor Plaza: Pier F Ave - Pier G Ave						1,941	1,186	40	37
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	HARBOR PLAZA 1	388534	3735739	24	165.8	119.6	3.6	3.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1393	HARBOR PLAZA 2	388582	3735738	24	165.8	119.6	3.6	3.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1394	HARBOR PLAZA 3	388630	3735737	24	165.8	119.6	3.6	3.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1395	HARBOR PLAZA 4	388678	3735737	24	165.8	119.6	3.6	3.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1396	HARBOR PLAZA 5	388726	3735736	24	165.8	119.6	3.6	3.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1397	HARBOR PLAZA 6	388771	3735723	24	165.8	119.6	3.6	3.4
Harbor Plaza: Pier G Ave - Queens Way Bridge						994.8	717.4	21.9	20.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	HARBOR SCENIC 25	388213	3736780	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1171	HARBOR SCENIC 26	388196	3736850	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1172	HARBOR SCENIC 27	388191	3736922	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1173	HARBOR SCENIC 28	388200	3736993	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1174	HARBOR SCENIC 29	388212	3737064	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1175	HARBOR SCENIC 30	388223	3737136	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1176	HARBOR SCENIC 31	388233	3737207	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1177	HARBOR SCENIC 32	388240	3737279	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1178	HARBOR SCENIC 33	388243	3737350	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1179	HARBOR SCENIC 34	388244	3737422	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1180	HARBOR SCENIC 35	388243	3737494	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1181	HARBOR SCENIC 36	388241	3737566	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1182	HARBOR SCENIC 37	388241	3737638	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1183	HARBOR SCENIC 38	388242	3737710	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1184	HARBOR SCENIC 39	388243	3737782	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1185	HARBOR SCENIC 40	388244	3737854	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1186	HARBOR SCENIC 41	388245	3737926	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1187	HARBOR SCENIC 42	388245	3737998	36	171.6	203.0	5.6	5.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)						3,089	3,655	100	92

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	HARBOR SCENIC 25	388213	3736780	36	137.6	162.8	4.5	4.1
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1171	HARBOR SCENIC 26	388196	3736850	36	137.6	162.8	4.5	4.1
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1172	HARBOR SCENIC 27	388191	3736922	36	137.6	162.8	4.5	4.1
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1173	HARBOR SCENIC 28	388200	3736993	36	137.6	162.8	4.5	4.1
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1174	HARBOR SCENIC 29	388212	3737064	36	137.6	162.8	4.5	4.1
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)						688.1	814.0	22.3	20.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	HARBOR SCENIC 8	388800	3735766	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1154	HARBOR SCENIC 9	388775	3735828	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1155	HARBOR SCENIC 10	388755	3735890	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1156	HARBOR SCENIC 11	388717	3735941	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1157	HARBOR SCENIC 12	388665	3735988	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1158	HARBOR SCENIC 13	388611	3736036	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1159	HARBOR SCENIC 14	388564	3736090	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1160	HARBOR SCENIC 15	388516	3736144	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1161	HARBOR SCENIC 16	388476	3736204	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1162	HARBOR SCENIC 17	388442	3736267	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1163	HARBOR SCENIC 18	388416	3736334	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1164	HARBOR SCENIC 19	388395	3736403	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1165	HARBOR SCENIC 20	388367	3736469	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1166	HARBOR SCENIC 21	388328	3736530	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1167	HARBOR SCENIC 22	388287	3736588	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1168	HARBOR SCENIC 23	388245	3736647	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1169	HARBOR SCENIC 24	388213	3736711	36	272.2	322.0	8.8	8.1
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp						4,627	5,474	150	138
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	PIER D 17	387144	3736877	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1235	PIER D 18	387168	3736890	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1236	PIER D 19	387193	3736903	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1237	PIER D 20	387218	3736916	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1238	PIER D 21	387243	3736928	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1239	PIER D 22	387268	3736941	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1240	PIER D 23	387293	3736954	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1241	PIER D 24	387318	3736967	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1242	PIER D 25	387343	3736979	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1243	PIER D 26	387368	3736992	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1244	PIER D 27	387394	3737002	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1245	PIER D 28	387420	3737013	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1246	PIER D 29	387445	3737026	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1247	PIER D 30	387470	3737038	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1248	PIER D 31	387495	3737051	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1249	PIER D 32	387520	3737064	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1250	PIER D 33	387545	3737077	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1251	PIER D 34	387570	3737089	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1252	PIER D 35	387594	3737102	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1253	PIER D 36	387619	3737115	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1254	PIER D 37	387644	3737128	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1255	PIER D 38	387669	3737140	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1256	PIER D 39	387694	3737153	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1257	PIER D 40	387719	3737166	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1258	PIER D 41	387744	3737178	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1259	PIER D 42	387769	3737191	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1260	PIER D 43	387794	3737203	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1261	PIER D 44	387819	3737216	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1262	PIER D 45	387845	3737227	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1263	PIER D 46	387872	3737235	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1264	PIER D 47	387899	3737243	14	207.0	126.4	4.3	3.9

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
Pier D St: w/o Pico Ave - w/o Pico Ave	1265	PIER D 48	387926	3737250	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1266	PIER D 49	387953	3737257	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1267	PIER D 50	387980	3737264	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1268	PIER D 51	388007	3737272	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1269	PIER D 52	388034	3737279	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave	1270	PIER D 53	388061	3737286	14	207.0	126.4	4.3	3.9
Pier D St: w/o Pico Ave - w/o Pico Ave						7,658	4,678	158	145
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	OCEAN 1	385307	3736071	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1047	OCEAN 2	385361	3736088	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1048	OCEAN 3	385414	3736105	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1049	OCEAN 4	385468	3736122	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1050	OCEAN 5	385521	3736139	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1051	OCEAN 6	385574	3736155	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1052	OCEAN 7	385627	3736173	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1053	OCEAN 8	385680	3736193	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1054	OCEAN 9	385732	3736213	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1055	OCEAN 10	385784	3736233	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1056	OCEAN 11	385837	3736253	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1057	OCEAN 12	385889	3736274	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1058	OCEAN 13	385941	3736294	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1059	OCEAN 14	385993	3736314	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1060	OCEAN 15	386046	3736334	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1061	OCEAN 16	386098	3736355	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1062	OCEAN 17	386150	3736375	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1063	OCEAN 18	386202	3736396	28	147.9	106.7	3.3	3.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge						2,663	1,920	59	54
Ocean Blvd: Bridge	1064	OCEAN 19	386254	3736417	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1065	OCEAN 20	386306	3736438	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1066	OCEAN 21	386357	3736460	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1067	OCEAN 22	386408	3736484	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1068	OCEAN 23	386459	3736507	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1069	OCEAN 24	386510	3736530	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1070	OCEAN 25	386561	3736553	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1071	OCEAN 26	386612	3736576	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1072	OCEAN 27	386663	3736599	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1073	OCEAN 28	386714	3736622	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1074	OCEAN 29	386765	3736645	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1075	OCEAN 30	386816	3736668	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1076	OCEAN 31	386867	3736692	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1077	OCEAN 32	386918	3736715	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1078	OCEAN 33	386970	3736735	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1079	OCEAN 34	387023	3736754	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1080	OCEAN 35	387074	3736777	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1081	OCEAN 36	387125	3736800	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1082	OCEAN 37	387176	3736822	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1083	OCEAN 38	387228	3736844	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1084	OCEAN 39	387280	3736865	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1085	OCEAN 40	387333	3736884	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1086	OCEAN 41	387386	3736901	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1087	OCEAN 42	387441	3736913	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge	1088	OCEAN 43	387496	3736922	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge						3,698	2,667	81	75
Ocean Blvd: Bridge - I-710 Offramp	1089	OCEAN 44	387551	3736930	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge - I-710 Offramp	1090	OCEAN 45	387607	3736937	28	147.9	106.7	3.3	3.0

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
Ocean Blvd: Bridge - I-710 Offramp	1091	OCEAN 46	387662	3736943	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge - I-710 Offramp	1092	OCEAN 47	387718	3736949	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge - I-710 Offramp	1093	OCEAN 48	387774	3736955	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge - I-710 Offramp	1094	OCEAN 49	387829	3736961	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge - I-710 Offramp	1095	OCEAN 50	387885	3736966	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge - I-710 Offramp	1096	OCEAN 51	387941	3736972	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge - I-710 Offramp	1097	OCEAN 52	387997	3736977	28	147.9	106.7	3.3	3.0
Ocean Blvd: Bridge - I-710 Offramp						1,331.4	960.1	29.3	27.0
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	Ocean Offramp 1	388027	3736971	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1622	Ocean Offramp 2	388053	3736959	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1623	Ocean Offramp 3	388079	3736946	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1624	Ocean Offramp 4	388094	3736921	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1625	Ocean Offramp 5	388102	3736893	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1626	Ocean Offramp 6	388102	3736865	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1627	Ocean Offramp 7	388102	3736836	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1628	Ocean Offramp 8	388101	3736808	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1629	Ocean Offramp 9	388085	3736784	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1630	Ocean Offramp 10	388058	3736777	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1631	Ocean Offramp 11	388029	3736775	14	41.6	30.0	0.9	0.8
Pier E St Off Ramp : Pico Ave - Ocean Blvd						457.2	329.7	10.1	9.3
Santa Fe: 9th St - Anaheim St	1417	SANTA FE 2	387462	3738556	24	42.7	30.8	0.9	0.9
Santa Fe: 9th St - Anaheim St	1418	SANTA FE 3	387463	3738604	24	42.7	30.8	0.9	0.9
Santa Fe: 9th St - Anaheim St	1419	SANTA FE 4	387464	3738652	24	42.7	30.8	0.9	0.9
Santa Fe: 9th St - Anaheim St	1420	SANTA FE 5	387465	3738700	24	42.7	30.8	0.9	0.9
Santa Fe: 9th St - Anaheim St						170.9	123.2	3.8	3.5
Santa Fe: n/o Anaheim St - s/o Willow St	1421	SANTA FE 6	387465	3738748	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1422	SANTA FE 7	387466	3738796	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1423	SANTA FE 8	387467	3738844	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1424	SANTA FE 9	387468	3738892	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1425	SANTA FE 10	387468	3738940	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1426	SANTA FE 11	387469	3738988	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1427	SANTA FE 12	387470	3739036	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1428	SANTA FE 13	387471	3739084	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1429	SANTA FE 14	387471	3739132	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1430	SANTA FE 15	387472	3739180	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1431	SANTA FE 16	387473	3739228	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1432	SANTA FE 17	387474	3739276	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1433	SANTA FE 18	387475	3739324	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1434	SANTA FE 19	387475	3739372	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1435	SANTA FE 20	387476	3739420	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St	1436	SANTA FE 21	387477	3739468	24	50.4	36.4	1.1	1.0
Santa Fe: n/o Anaheim St - s/o Willow St						807.1	582.0	17.8	16.3
I-710 : n/o 9th Street Onramp (NB)	1100	I-710 1	388241	3741119	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1101	I-710 2	388241	3741057	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1102	I-710 3	388244	3740995	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1103	I-710 4	388250	3740934	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1104	I-710 5	388256	3740872	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1105	I-710 6	388265	3740810	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1106	I-710 7	388274	3740749	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1107	I-710 8	388280	3740687	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1108	I-710 9	388281	3740625	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1109	I-710 10	388280	3740563	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1110	I-710 11	388279	3740501	31	282.4	334.1	9.2	8.4

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
I-710 : n/o 9th Street Onramp (NB)	1111	I-710 12	388278	3740440	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1112	I-710 13	388277	3740378	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1113	I-710 14	388276	3740316	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1114	I-710 15	388276	3740254	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1115	I-710 16	388275	3740192	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1116	I-710 17	388273	3740130	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1117	I-710 18	388267	3740068	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1118	I-710 19	388258	3740007	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1119	I-710 20	388245	3739946	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1120	I-710 21	388231	3739886	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1121	I-710 22	388217	3739825	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1122	I-710 23	388205	3739764	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1123	I-710 24	388196	3739703	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1124	I-710 25	388188	3739642	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1125	I-710 26	388183	3739580	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1126	I-710 27	388180	3739518	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1127	I-710 28	388180	3739456	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1128	I-710 29	388184	3739394	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1129	I-710 30	388189	3739332	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1130	I-710 31	388194	3739271	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1131	I-710 32	388199	3739209	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1132	I-710 33	388199	3739147	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1133	I-710 34	388200	3739085	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1134	I-710 35	388201	3739023	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1135	I-710 36	388200	3738961	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1136	I-710 37	388198	3738899	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1137	I-710 38	388196	3738837	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1138	I-710 39	388194	3738775	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1139	I-710 40	388192	3738713	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1140	I-710 41	388190	3738651	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1141	I-710 42	388187	3738589	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1142	I-710 43	388185	3738527	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1143	I-710 44	388189	3738465	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1144	I-710 45	388190	3738403	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1145	I-710 46	388208	3738342	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1613	I-710 47	388220	3738282	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1614	I-710 48	388230	3738221	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1615	I-710 49	388240	3738160	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1616	I-710 50	388245	3738099	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)	1617	I-710 51	388245	3738038	31	282.4	334.1	9.2	8.4
I-710 : n/o 9th Street Onramp (NB)						14,402	17,039	467	429
Onramp: 9th St - I-710 (NB)	1309	CONNECTOR 16	388106	3738066	14	147.7	90.2	3.0	2.8
Onramp: 9th St - I-710 (NB)	1310	CONNECTOR 17	388089	3738044	14	147.7	90.2	3.0	2.8
Onramp: 9th St - I-710 (NB)	1311	CONNECTOR 18	388072	3738022	14	147.7	90.2	3.0	2.8
Onramp: 9th St - I-710 (NB)	1312	CONNECTOR 19	388058	3737997	14	147.7	90.2	3.0	2.8
Onramp: 9th St - I-710 (NB)	1313	CONNECTOR 20	388047	3737972	14	147.7	90.2	3.0	2.8
Onramp: 9th St - I-710 (NB)	1314	CONNECTOR 21	388044	3737944	14	147.7	90.2	3.0	2.8
Onramp: 9th St - I-710 (NB)	1315	CONNECTOR 22	388042	3737916	14	147.7	90.2	3.0	2.8
Onramp: 9th St - I-710 (NB)	1316	CONNECTOR 23	388051	3737890	14	147.7	90.2	3.0	2.8
Onramp: 9th St - I-710 (NB)	1317	CONNECTOR 24	388064	3737865	14	147.7	90.2	3.0	2.8
Onramp: 9th St - I-710 (NB)						1,328.9	811.9	27.3	25.2
Onramp: 9th St - I-710 (NB BRIDGE)	1318	CONNECTOR 25	388076	3737840	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1319	CONNECTOR 26	388091	3737817	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1320	CONNECTOR 27	388111	3737797	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1321	CONNECTOR 28	388137	3737787	14	147.1	89.9	3.0	2.8

TableA.2.1Alt1A-5. Hourly Roadway Link Emissions - Annual Modeling Scenario - Unmitigated Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM 10	PM2.5
Onramp: 9th St - I-710 (NB BRIDGE)	1322	CONNECTOR 29	388164	3737782	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1323	CONNECTOR 30	388192	3737785	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1324	CONNECTOR 31	388217	3737796	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1325	CONNECTOR 32	388239	3737814	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1326	CONNECTOR 33	388253	3737837	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1327	CONNECTOR 34	388263	3737863	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1328	CONNECTOR 35	388264	3737891	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1329	CONNECTOR 36	388265	3737919	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1330	CONNECTOR 37	388265	3737947	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)	1331	CONNECTOR 38	388266	3737975	14	147.1	89.9	3.0	2.8
Onramp: 9th St - I-710 (NB BRIDGE)						2,060	1,259	42	39
Offramp: I-710 at 9th Street (SB)	1294	CONNECTOR 1	388112	3738046	14	140.6	85.9	2.9	2.7
Offramp: I-710 at 9th Street (SB)	1295	CONNECTOR 2	388096	3738023	14	140.6	85.9	2.9	2.7
Offramp: I-710 at 9th Street (SB)	1296	CONNECTOR 3	388080	3738000	14	140.6	85.9	2.9	2.7
Offramp: I-710 at 9th Street (SB)	1297	CONNECTOR 4	388065	3737977	14	140.6	85.9	2.9	2.7
Offramp: I-710 at 9th Street (SB)	1298	CONNECTOR 5	388058	3737949	14	140.6	85.9	2.9	2.7
Offramp: I-710 at 9th Street (SB)	1299	CONNECTOR 6	388058	3737922	14	140.6	85.9	2.9	2.7
Offramp: I-710 at 9th Street (SB)						843.9	515.6	17.4	16.0
Offramp: I-710 at 9th Street (SB BRIDGE)	1300	CONNECTOR 7	388072	3737898	14	139.2	85.0	2.9	2.6
Offramp: I-710 at 9th Street (SB BRIDGE)	1301	CONNECTOR 8	388091	3737879	14	139.2	85.0	2.9	2.6
Offramp: I-710 at 9th Street (SB BRIDGE)	1302	CONNECTOR 9	388116	3737867	14	139.2	85.0	2.9	2.6
Offramp: I-710 at 9th Street (SB BRIDGE)	1303	CONNECTOR 10	388144	3737866	14	139.2	85.0	2.9	2.6
Offramp: I-710 at 9th Street (SB BRIDGE)	1304	CONNECTOR 11	388170	3737874	14	139.2	85.0	2.9	2.6
Offramp: I-710 at 9th Street (SB BRIDGE)	1305	CONNECTOR 12	388193	3737890	14	139.2	85.0	2.9	2.6
Offramp: I-710 at 9th Street (SB BRIDGE)	1306	CONNECTOR 13	388210	3737912	14	139.2	85.0	2.9	2.6
Offramp: I-710 at 9th Street (SB BRIDGE)	1307	CONNECTOR 14	388213	3737939	14	139.2	85.0	2.9	2.6
Offramp: I-710 at 9th Street (SB BRIDGE)	1308	CONNECTOR 15	388214	3737967	14	139.2	85.0	2.9	2.6
Offramp: I-710 at 9th Street (SB BRIDGE)						1,252.7	765.3	25.8	23.7

Table A.2.1-Alt1A-6. Mitigated Operational Annual Emissions - POLB MHTP - Alternative 1

Source Activity	Annual Average Pounds per Hour (1)			
	CO	NO2	PM10	PM2.5
OGVs - Fairway Transit		42.53		
OGVs - Precautionary Area Transit		13.11		
OGVs - Harbor Transit		5.41		
OGVs - Docking		1.95		
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth E24		1.58		
OGVs - Hoteling Aux. Gens. - Berth E26 (cold-iron)		0.45		
OGVs - Hoteling Boilers - Berth E26		1.58		
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth F6		1.58		
Tugs - Harbor Transit		0.94		
Tugs - Docking		0.31		
Haul Line Locomotive - 10 mph - Port to Ocean Blvd		0.02		
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH		0.05		
Locomotives - Rail Yard		0.18		
Rail Yard Equipment		0.07		
Terminal Equipment		7.34		
Trucks - On-Terminal		3.77		
Pier D Entry Road		0.14		
Pier D In Gate		0.22		
Pier D Exit Road		0.04		
Pier D Out Gate		0.13		
Pier F Entry Road		0.03		
Pier F Exit Road		0.11		
Pier F In + Out Gates		0.23		

Note: (1) annual emissions divided by 8760 hours.

(2) Used the following NOx to NO2 SCAQMD convertion factors: (a) OGV fairway and precautionary area, 5000m or 100%,

(b) OGV and tug harbor transit and docking, 1000m or 46.7%, (c) all other sources, 500m or 25.8%.

Table A.2.1-Alt1A-7. Operational Criteria Pollutant Annual Emission Simulations - POLB - MHTP -Mitigated Alternative 1.

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source Pounds per Hour			
								CO	NO2	PM10	PM2.5
OGVs - Fairway Transit											
	719-761	300	90,000	0.02	43	3,870,000	1.00		0.99		
Subtotals			-	-	43	3,870,000	-		42.53		
OGVs - Precautionary Area Transit											
	686-718	300	90,000	0.03	33	2,970,000	1.00	-	0.40	-	-
Subtotals			-	-	33	2,970,000	-	-	13.11	-	-
OGVs - Harbor Transit											
	633 - 685	100	10,000	0.04	27	270,000	1.00	-	0.20	-	-
Subtotals			-	-	27	270,000	-	-	5.41	-	-
OGVs - Docking											
	616	300	90,000	1.00	1	90,000	1.00	-	1.95	-	-
Subtotals			-	-	1	90,000	-	-	1.95	-	-
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)											
	2020	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth E24											
	2002	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
OGVs - Hoteling Aux. Gens. - Berth E26 (cold-iron)											
	2019	NA	NA	0.50	2	NA	NA	-	0.22	-	-
Subtotals			-	-	2	-	-	-	0.45	-	-
OGVs - Hoteling Boilers - Berth E26											
	2001	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)											
	2021	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth F6											
	2003	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
Tugs - Harbor Transit											
	3633 -3685	100	10,000	0.04	27	270,000	1.00	-	0.03	-	-
Subtotals			-	-	27	270,000	-	-	0.94	-	-
Tugs - Docking											
	3,616	300	90,000	1.00	1	90,000	1.00	-	0.31	-	-
Subtotals			-	-	1	90,000	-	-	0.31	-	-
Haul Line Locomotive - 10 mph - Port to Ocean Blvd											
	916 - 941	15	225	0.04	26	5,850	1.00	-	0.001	-	-
Subtotals			-	-	26	5,850	-	-	0.02	-	-
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH											
	762 - 915	15	225	0.01	154	34,650	1.00	-	0.0003	-	-
Subtotals			-	-	154	34,650	-	-	0.05	-	-
Locomotives - Rail Yard											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.01	-	-
Subtotals			-	-	29	18,125	-	-	0.18	-	-
Rail Yard Equipment											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.00	-	-
Subtotals			-	-	29	18,125	-	-	0.07	-	-
Rail Yard - Locomotives + Equipment											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.01	-	-
Subtotals			-	-	29	18,125	-	-	0.25	-	-
Terminal Equipment											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.02	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.05	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.06	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.09	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.13	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.19	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.26	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.34	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	0.77	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	1.37	-	-
			-	-	38	855,975	1.00				

Table A.2.1-Alt1A-7. Operational Criteria Pollutant Annual Emission Simulations - POLB - MHTP -Mitigated Alternative 1.

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source Pounds per Hour			
								CO	NO2	PM10	PM2.5
Trucks - On-Terminal											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.01	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.02	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.03	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.04	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.07	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.10	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.13	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.18	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	0.40	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	0.70	-	-
			-	-	38	855,975	1.00				
Terminal - Equipment + Trucks											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.03	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.07	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.09	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.13	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.20	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.29	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.40	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.52	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	1.17	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	2.08	-	-
			-	-	38	855,975	1.00				
Pier D Entry Road											
	1636-1640	50	2,500	0.20	5	12,500	1.00	-	0.028	-	-
Subtotals			-	-	5	12,500	1.00	-	0.14	-	-
Pier D In Gate											
	1-3, 31,32	50	2,500	0.20	5	12,500	1.00	-	0.04	-	-
Subtotals			-	-	5	12,500	1.00	-	0.22	-	-
Pier D Exit Road											
	40,48	50	2,500	0.50	2	5,000	1.00	-	0.02	-	-
Subtotals			-	-	2	5,000	1.00	-	0.04	-	-
Pier D Out Gate											
	4-6	50	2,500	0.33	3	7,500	1.00	-	0.04	-	-
Subtotals			-	-	3	7,500	1.00	-	0.13	-	-
Pier F Entry Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.01	-	-
Subtotals			-	-	3	7,500	1.00	-	0.03	-	-
Pier F Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.04	-	-
Subtotals			-	-	3	7,500	1.00	-	0.11	-	-
Pier F Entry + Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.05	-	-
Subtotals			-	-	3	7,500	1.00	-	0.14	-	-
Pier F In + Out Gates											
	554	100	10,000	1.00	1	10,000	1.00	-	0.23	-	-
Subtotals			-	-	1	10,000	1.00	-	0.23	-	-

Table A.2.1-Alt1A-8. Mitigated Annual Roadway Emissions - POLB MHTP - Alternative 1

Roadway Link	BEEST ID Start #	Length (Mi)	MPH	Annual Trips	Pounds per Year						# of Vol. Sources
					TOG	CO	NO2	SOx	PM10	PM2.5	
Alameda St: Eubank - Anaheim St	1437	0.76	26	59,707	204	806	382	18	15	14	26
Anaheim St: Alameda - SR-47	1463	0.21	23	59,707	80	277	110	5	5	5	7
Anaheim St: SR-47 - 9th St	1470	1.22	26	67,650	369	1,460	692	33	27	25	41
9th Street: Anaheim St - Santa Fe	1190	0.30	33	114,110	119	501	280	14	9	8	11
9th Street: Santa Fe to 10th	1201	0.16	29	199,888	146	579	274	13	11	10	6
9th Street: Caspian - Pico (SB only)	1207	0.44	36	112,491	135	598	395	19	12	11	16
10th Street: Pico - 9th (NB only)	1271	0.50	30	89,195	155	654	366	18	12	11	29
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	0.58	41	323,340	424	1,918	1,496	75	41	38	13
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	0.35	41	743,884	580	2,626	2,047	102	57	52	9
I-710 : n/o Anaheim SB On Ramp (Southbound)	1100	1.62	43	708,983	2,585	11,703	9,123	455	253	233	42
Pico Ave: Pier B St - Pier D St	1034	0.52	31	1,075,194	1,952	8,219	4,592	222	148	136	16
Pico Ave: Pier D St - Terminal Entrance	1027	0.23	30	637,001	520	2,189	1,223	59	40	36	7
Pico Ave: Terminal Entrance - Pier E St	1024	0.10	32	189,504	66	280	156	8	5	5	3
Pico Ave: Pier E St - Harbor Scenic Connector	1016	0.27	31	170,467	158	667	372	18	12	11	8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	0.47	31	488,327	798	3,359	1,877	91	61	56	14
Pier F Ave: Middle Harbor - Harbor Plaza	1360	0.83	30	810,225	2,344	9,870	5,514	267	178	164	28
Harbor Plaza: Pier F Ave - Pier G Ave	1388	0.12	29	810,225	449	1,777	842	40	33	31	4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	0.18	30	348,434	216	910	508	25	16	15	6
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	0.99	46	328,616	650	2,839	2,573	129	72	66	18
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	0.22	47	323,340	145	632	573	29	16	15	5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	0.74	47	652,160	974	4,252	3,855	193	107	99	17
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	0.64	25	616,971	1,770	7,010	3,324	158	131	121	37
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	0.63	32	265,364	579	2,436	1,361	66	44	40	18
Ocean Blvd: Bridge	1064	0.87	32	265,364	803	3,383	1,890	92	61	56	25
Ocean Blvd: Bridge - I-710 Offramp	1089	0.31	32	265,364	289	1,218	680	33	22	20	9
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	0.20	30	145,373	99	418	234	11	8	7	11
Santa Fe: 9th St - Anaheim St	1417	0.12	30	89,416	37	156	87	4	3	3	4
Santa Fe: n/o Anaheim St - s/o Willow St	1421	0.48	30	105,569	175	738	412	20	13	12	16
I-710 : n/o 9th Street Onramp (Northbound)	1100	1.96	46	770,353	3,031	13,235	11,999	600	333	307	51
Onramp: 9th St - I-710 (Northbound)	1309	0.16	25	441,533	307	1,217	577	27	23	21	9
Onramp: 9th St - I-710 (Northbound BRIDGE)	1318	0.24	25	441,533	476	1,886	894	42	35	32	14
Offramp: I-710 at 9th Street (Southbound)	1294	0.10	25	420,544	195	773	366	17	14	13	6
Offramp: I-710 at 9th Street (Southbound BRIDGE)	1300	0.15	25	420,544	290	1,147	544	26	21	20	9
Pier D Entry Road (off Pico)	1636	0.17	15	612,356	1,539	3,315	1,231	42	68	63	5
Pier D In Gate	1	0.15	5	612,356	3,470	4,595	1,919	36	109	101	5
Pier D Exit Road (off Pier D St)	40	0.09	15	359,169	451	972	361	12	20	18	2
Pier D Out Gate	4	0.15	5	359,169	2,035	2,695	1,126	21	64	59	3
Pier F Entry Road (off Pier F Ave)	9	0.07	15	325,071	336	723	268	9	15	14	3
Pier F Exit Road (off Pier F Ave)	9	0.17	15	464,512	1,168	2,515	934	32	52	48	3
Pier F In + Out Gates	554	0.12	5	789,583	3,580	4,740	1,979	38	113	104	1

Table A.2.1-Alt1A-9. Port CAAP HDV1 Fleet On-Road Truck Emission Factors - POLB MHTP - Alternative 1

	Emission Factors (Grams/Mile)						
Project Year/Mode	*TOG*	*ROG*	*CO*	*NOx*	*NO2*	*SOx*	*DPM*
Year 2010							
5 mph	17.14	15.08	22.69	36.73	9.48	0.18	0.54
10 mph	12.93	11.38	19.50	30.04	7.75	0.18	0.45
15 mph	6.56	5.77	14.12	20.32	5.24	0.18	0.29
20 mph	2.91	2.56	10.08	15.56	4.01	0.18	0.19
25 mph	2.02	1.78	8.01	14.72	3.80	0.18	0.15
30 mph	1.58	1.39	6.65	14.40	3.72	0.18	0.12
35 mph	1.25	1.10	5.53	14.16	3.65	0.18	0.11
40 mph	1.02	0.90	4.63	13.99	3.61	0.18	0.10
45 mph	0.91	0.80	3.97	13.95	3.60	0.18	0.10

TableA.1.2Alt1A-10. Hourly Roadway Link Emissions - Annual Modeling Scenario - Alternative 1

Roadway Link	BEEST	BEEST Name	UTM X	UTM Y	Width (m)	Emissions (Pounds/Year) CO	NO2	PM10	PM2.5
Alameda St: Eubank - Anaheim St	1437	ALAMEDA 1	383938	3737677	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1438	ALAMEDA 2	383976	3737707	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1439	ALAMEDA 3	384013	3737736	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1440	ALAMEDA 4	384051	3737766	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1441	ALAMEDA 5	384089	3737795	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1442	ALAMEDA 6	384126	3737826	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1443	ALAMEDA 7	384163	3737857	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1444	ALAMEDA 8	384198	3737889	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1445	ALAMEDA 9	384234	3737922	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1446	ALAMEDA 10	384267	3737956	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1447	ALAMEDA 11	384300	3737991	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1448	ALAMEDA 12	384334	3738025	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1449	ALAMEDA 13	384365	3738062	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1450	ALAMEDA 14	384395	3738099	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1451	ALAMEDA 15	384426	3738136	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1452	ALAMEDA 16	384457	3738173	24	31.01	14.70	0.58	0.53
Alameda St: Eubank - Anaheim St	1453	ALAMEDA 17	384487	3738210	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St	1454	ALAMEDA 18	384515	3738249	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St	1455	ALAMEDA 19	384544	3738287	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St	1456	ALAMEDA 20	384572	3738326	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St	1457	ALAMEDA 21	384597	3738367	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St	1458	ALAMEDA 22	384622	3738408	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St	1459	ALAMEDA 23	384646	3738450	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St	1460	ALAMEDA 24	384669	3738492	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St	1461	ALAMEDA 25	384692	3738534	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St	1462	ALAMEDA 26	384707	3738562	24	31.0	14.7	0.6	0.5
Alameda St: Eubank - Anaheim St						806.3	382.3	15.1	13.9
Anaheim St: Alameda - SR-47	1463	ANAHEIM 1	384755	3738566	24	39.6	15.8	0.7	0.7
Anaheim St: Alameda - SR-47	1464	ANAHEIM 2	384803	3738569	24	39.6	15.8	0.7	0.7
Anaheim St: Alameda - SR-47	1465	ANAHEIM 3	384851	3738572	24	39.6	15.8	0.7	0.7
Anaheim St: Alameda - SR-47	1466	ANAHEIM 4	384898	3738576	24	39.6	15.8	0.7	0.7
Anaheim St: Alameda - SR-47	1467	ANAHEIM 5	384946	3738579	24	39.6	15.8	0.7	0.7
Anaheim St: Alameda - SR-47	1468	ANAHEIM 6	384994	3738582	24	39.6	15.8	0.7	0.7
Anaheim St: Alameda - SR-47	1469	ANAHEIM 7	385042	3738586	24	39.6	15.8	0.7	0.7
Anaheim St: Alameda - SR-47						276.9	110.3	5.2	4.8
Anaheim St: SR-47 - 9th St	1470	ANAHEIM 8	385090	3738589	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1471	ANAHEIM 9	385138	3738593	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1472	ANAHEIM 10	385186	3738596	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1473	ANAHEIM 11	385234	3738599	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1474	ANAHEIM 12	385282	3738603	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1475	ANAHEIM 13	385329	3738606	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1476	ANAHEIM 14	385377	3738610	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1477	ANAHEIM 15	385425	3738613	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1478	ANAHEIM 16	385473	3738617	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1479	ANAHEIM 17	385521	3738620	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1480	ANAHEIM 18	385569	3738623	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1481	ANAHEIM 19	385617	3738627	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1482	ANAHEIM 20	385665	3738630	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1483	ANAHEIM 21	385712	3738634	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1484	ANAHEIM 22	385760	3738637	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1485	ANAHEIM 23	385808	3738641	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1486	ANAHEIM 24	385856	3738644	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1487	ANAHEIM 25	385904	3738648	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1488	ANAHEIM 26	385952	3738651	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1489	ANAHEIM 27	386000	3738654	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1490	ANAHEIM 28	386048	3738658	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1491	ANAHEIM 29	386095	3738661	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1492	ANAHEIM 30	386143	3738665	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1493	ANAHEIM 31	386191	3738668	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1494	ANAHEIM 32	386239	3738672	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1495	ANAHEIM 33	386287	3738675	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1496	ANAHEIM 34	386335	3738678	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1497	ANAHEIM 35	386383	3738682	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1498	ANAHEIM 36	386431	3738685	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1499	ANAHEIM 37	386478	3738689	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1500	ANAHEIM 38	386526	3738692	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1501	ANAHEIM 39	386574	3738696	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1502	ANAHEIM 40	386622	3738699	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1503	ANAHEIM 41	386670	3738703	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1504	ANAHEIM 42	386718	3738706	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1505	ANAHEIM 43	386766	3738709	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1506	ANAHEIM 44	386814	3738713	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1507	ANAHEIM 45	386861	3738716	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1508	ANAHEIM 46	386909	3738720	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1509	ANAHEIM 47	386957	3738723	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St	1510	ANAHEIM 48	387005	3738727	24	35.6	16.9	0.7	0.6
Anaheim St: SR-47 - 9th St						1,460.3	692.3	27.3	25.2
9th Street: Anaheim St - Santa Fe	1190	Ninth St 1	387057	3738731	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe	1191	Ninth St 2	387090	3738702	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe	1192	Ninth St 3	387110	3738663	22	45.5	25.4	0.8	0.8

TableA.1.2Alt1A-10. Hourly Roadway Link Emissions - Annual Modeling Scenario - Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
9th Street: Anaheim St - Santa Fe	1193	Ninth St 4	387131	3738625	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe	1194	Ninth St 5	387168	3738603	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe	1195	Ninth St 6	387210	3738589	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe	1196	Ninth St 7	387252	3738576	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe	1197	Ninth St 8	387294	3738562	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe	1198	Ninth St 9	387335	3738547	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe	1199	Ninth St 10	387377	3738533	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe	1200	Ninth St 11	387418	3738518	22	45.5	25.4	0.8	0.8
9th Street: Anaheim St - Santa Fe						501.0	279.9	9.0	8.3
9th Street: Santa Fe to 10th	1201	Ninth St 12	387460	3738504	22	96.5	45.7	1.8	1.7
9th Street: Santa Fe to 10th	1202	Ninth St 13	387502	3738489	22	96.5	45.7	1.8	1.7
9th Street: Santa Fe to 10th	1203	Ninth St 14	387543	3738475	22	96.5	45.7	1.8	1.7
9th Street: Santa Fe to 10th	1204	Ninth St 15	387584	3738460	22	96.5	45.7	1.8	1.7
9th Street: Santa Fe to 10th	1205	Ninth St 16	387626	3738446	22	96.5	45.7	1.8	1.7
9th Street: Santa Fe to 10th	1206	Ninth St 17	387668	3738433	22	96.5	45.7	1.8	1.7
9th Street: Santa Fe to 10th						578.8	274.4	10.8	10.0
9th Street: Caspian - Pico (SB only)	1207	Ninth St 18	387710	3738419	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1208	Ninth St 19	387751	3738404	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1209	Ninth St 20	387793	3738389	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1210	Ninth St 21	387834	3738374	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1211	Ninth St 22	387875	3738359	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1212	Ninth St 23	387917	3738344	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1213	Ninth St 24	387958	3738329	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1214	Ninth St 25	387999	3738314	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1215	Ninth St 26	388041	3738299	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1216	Ninth St 27	388082	3738284	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1217	Ninth St 28	388124	3738269	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1601	Ninth Street 29	388163	3738248	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1602	Ninth Street 30	388181	3738207	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1603	Ninth Street 31	388183	3738163	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1604	Ninth Street 32	388164	3738124	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)	1605	Ninth Street 33	388138	3738091	22	37.4	24.7	0.7	0.7
9th Street: Caspian - Pico (SB only)						598.5	395.4	11.9	11.0
10th Street: Pico - 9th (NB only)	1271	Tenth St 1	387717	3738420	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1272	Tenth St 2	387744	3738413	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1273	Tenth St 3	387771	3738407	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1274	Tenth St 4	387799	3738405	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1275	Tenth St 5	387827	3738408	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1276	Tenth St 6	387855	3738412	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1277	Tenth St 7	387882	3738414	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1278	Tenth St 8	387910	3738416	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1279	Tenth St 9	387938	3738420	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1280	Tenth St 10	387966	3738425	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1281	Tenth St 11	387993	3738430	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1282	Tenth St 12	388021	3738435	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1283	Tenth St 13	388048	3738440	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1284	Tenth St 14	388076	3738444	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1285	Tenth St 15	388104	3738441	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1286	Tenth St 16	388128	3738429	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1287	Tenth St 17	388145	3738407	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1288	Tenth St 18	388154	3738380	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1289	Tenth St 19	388160	3738353	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1290	Tenth St 20	388167	3738326	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1291	Tenth St 21	388173	3738298	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1292	Tenth St 22	388179	3738271	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1293	Tenth St 23	388185	3738244	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1607	Tenth St 24	388188	3738216	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1608	Tenth St 25	388189	3738189	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1609	Tenth St 26	388187	3738162	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1610	Tenth St 27	388175	3738137	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1611	Tenth St 28	388163	3738113	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)	1612	Tenth St 29	388147	3738092	14	22.6	12.6	0.4	0.4
10th Street: Pico - 9th (NB only)						654.4	365.6	11.8	10.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	HARBOR SCENIC 30	388223	3737136	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1176	HARBOR SCENIC 31	388233	3737207	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1177	HARBOR SCENIC 32	388240	3737279	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1178	HARBOR SCENIC 33	388243	3737350	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1179	HARBOR SCENIC 34	388244	3737422	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1180	HARBOR SCENIC 35	388243	3737494	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1181	HARBOR SCENIC 36	388241	3737566	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1182	HARBOR SCENIC 37	388241	3737638	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1183	HARBOR SCENIC 38	388242	3737710	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1184	HARBOR SCENIC 39	388243	3737782	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1185	HARBOR SCENIC 40	388244	3737854	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1186	HARBOR SCENIC 41	388245	3737926	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1187	HARBOR SCENIC 42	388245	3737998	36	147.6	115.0	3.2	2.9
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)						1,918.5	1,495.6	41.4	38.1
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1142	I-710 43	388185	3738527	31	291.7	227.4	6.3	5.8

TableA.1.2Alt1A-10. Hourly Roadway Link Emissions - Annual Modeling Scenario - Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1143	I-710 44	388189	3738465	31	291.7	227.4	6.3	5.8
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1144	I-710 45	388190	3738403	31	291.7	227.4	6.3	5.8
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1145	I-710 46	388208	3738342	31	291.7	227.4	6.3	5.8
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	I-710 47	388220	3738282	31	291.7	227.4	6.3	5.8
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1614	I-710 48	388230	3738221	31	291.7	227.4	6.3	5.8
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1615	I-710 49	388240	3738160	31	291.7	227.4	6.3	5.8
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1616	I-710 50	388245	3738099	31	291.7	227.4	6.3	5.8
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1617	I-710 51	388245	3738038	31	291.7	227.4	6.3	5.8
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)						2,625.7	2,046.9	56.7	52.2
I-710 : n/o Anaheim SB On Ramp (SB)	1100	I-710 1	388241	3741119	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1101	I-710 2	388241	3741057	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1102	I-710 3	388244	3740995	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1103	I-710 4	388250	3740934	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1104	I-710 5	388256	3740872	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1105	I-710 6	388265	3740810	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1106	I-710 7	388274	3740749	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1107	I-710 8	388280	3740687	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1108	I-710 9	388281	3740625	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1109	I-710 10	388280	3740563	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1110	I-710 11	388279	3740501	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1111	I-710 12	388278	3740440	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1112	I-710 13	388277	3740378	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1113	I-710 14	388276	3740316	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1114	I-710 15	388276	3740254	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1115	I-710 16	388275	3740192	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1116	I-710 17	388273	3740130	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1117	I-710 18	388267	3740068	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1118	I-710 19	388258	3740007	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1119	I-710 20	388245	3739946	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1120	I-710 21	388231	3739886	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1121	I-710 22	388217	3739825	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1122	I-710 23	388205	3739764	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1123	I-710 24	388196	3739703	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1124	I-710 25	388188	3739642	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1125	I-710 26	388183	3739580	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1126	I-710 27	388180	3739518	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1127	I-710 28	388180	3739456	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1128	I-710 29	388184	3739394	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1129	I-710 30	388189	3739332	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1130	I-710 31	388194	3739271	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1131	I-710 32	388199	3739209	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1132	I-710 33	388199	3739147	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1133	I-710 34	388200	3739085	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1134	I-710 35	388201	3739023	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1135	I-710 36	388200	3738961	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1136	I-710 37	388198	3738899	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1137	I-710 38	388196	3738837	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1138	I-710 39	388194	3738775	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1139	I-710 40	388192	3738713	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1140	I-710 41	388190	3738651	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)	1141	I-710 42	388187	3738589	31	278.6	217.2	6.0	5.5
I-710 : n/o Anaheim SB On Ramp (SB)						11,702.8	9,123.2	252.8	232.5
Pico Ave: Pier B St - Pier D St	1034	PICO 34	388126	3737305	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1035	PICO 35	388152	3737352	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1036	PICO 36	388168	3737404	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1037	PICO 37	388174	3737458	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1038	PICO 38	388175	3737512	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1039	PICO 39	388176	3737566	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1040	PICO 40	388176	3737620	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1041	PICO 41	388174	3737674	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1042	PICO 42	388173	3737728	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1043	PICO 43	388172	3737782	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1044	PICO 44	388172	3737836	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1045	PICO 45	388172	3737890	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1620	Pico 48	388169	3737918	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1619	Pico 47	388164	3737972	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1618	Pico 46	388150	3738027	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St	1606	Ninth Street 34	388122	3738073	27	513.7	287.0	9.3	8.5
Pico Ave: Pier B St - Pier D St						8,218.9	4,591.7	148.3	136.4
Pico Ave: Pier D St - Terminal Entrance	1027	PICO 27	387996	3736962	27	312.8	174.7	5.6	5.2
Pico Ave: Pier D St - Terminal Entrance	1028	PICO 28	387993	3737016	27	312.8	174.7	5.6	5.2
Pico Ave: Pier D St - Terminal Entrance	1029	PICO 29	387998	3737070	27	312.8	174.7	5.6	5.2
Pico Ave: Pier D St - Terminal Entrance	1030	PICO 30	388013	3737121	27	312.8	174.7	5.6	5.2
Pico Ave: Pier D St - Terminal Entrance	1031	PICO 31	388038	3737169	27	312.8	174.7	5.6	5.2
Pico Ave: Pier D St - Terminal Entrance	1032	PICO 32	388066	3737215	27	312.8	174.7	5.6	5.2
Pico Ave: Pier D St - Terminal Entrance	1033	PICO 33	388096	3737260	27	312.8	174.7	5.6	5.2
Pico Ave: Pier D St - Terminal Entrance						2,189.5	1,223.2	39.5	36.3
Pico Ave: Terminal Entrance - Pier E St	1024	PICO 24	388011	3736801	27	93.2	52.1	1.7	1.5
Pico Ave: Terminal Entrance - Pier E St	1025	PICO 25	388006	3736855	27	93.2	52.1	1.7	1.5

TableA.1.2Alt1A-10. Hourly Roadway Link Emissions - Annual Modeling Scenario - Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Pico Ave: Terminal Entrance - Pier E St	1026	PICO 26	388001	3736908	27	93.2	52.1	1.7	1.5
Pico Ave: Terminal Entrance - Pier E St						279.5	156.2	5.0	4.6
Pico Ave: Pier E St - Harbor Scenic Connector	1016	PICO 16	388261	3736501	27	83.3	46.5	1.5	1.4
Pico Ave: Pier E St - Harbor Scenic Connector	1017	PICO 17	388229	3736544	27	83.3	46.5	1.5	1.4
Pico Ave: Pier E St - Harbor Scenic Connector	1018	PICO 18	388184	3736574	27	83.3	46.5	1.5	1.4
Pico Ave: Pier E St - Harbor Scenic Connector	1019	PICO 19	388134	3736593	27	83.3	46.5	1.5	1.4
Pico Ave: Pier E St - Harbor Scenic Connector	1020	PICO 20	388083	3736610	27	83.3	46.5	1.5	1.4
Pico Ave: Pier E St - Harbor Scenic Connector	1021	PICO 21	388043	3736645	27	83.3	46.5	1.5	1.4
Pico Ave: Pier E St - Harbor Scenic Connector	1022	PICO 22	388019	3736694	27	83.3	46.5	1.5	1.4
Pico Ave: Pier E St - Harbor Scenic Connector	1023	PICO 23	388015	3736747	27	83.3	46.5	1.5	1.4
Pico Ave: Pier E St - Harbor Scenic Connector						666.6	372.4	12.0	11.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	PICO 2	388479	3735798	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1003	PICO 3	388476	3735852	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1004	PICO 4	388476	3735906	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1005	PICO 5	388477	3735960	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1006	PICO 6	388478	3736014	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1007	PICO 7	388476	3736068	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1008	PICO 8	388461	3736119	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1009	PICO 9	388434	3736166	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1010	PICO 10	388403	3736210	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1011	PICO 11	388375	3736256	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1012	PICO 12	388350	3736304	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1013	PICO 13	388328	3736354	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1014	PICO 14	388307	3736403	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1015	PICO 15	388286	3736453	27	239.9	134.0	4.3	4.0
Pico Ave: Harbor Scenic Connector - Harbor Plaza						3,359.1	1,876.6	60.6	55.8
Pier F Ave: Middle Harbor - Harbor Plaza	1360	PIER F 1	387539	3734879	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1361	PIER F 2	387550	3734926	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1362	PIER F 3	387568	3734970	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1363	PIER F 4	387599	3735006	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1364	PIER F 5	387640	3735031	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1365	PIER F 6	387681	3735056	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1366	PIER F 7	387722	3735081	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1367	PIER F 8	387763	3735106	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1368	PIER F 9	387804	3735131	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1369	PIER F 10	387845	3735156	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1370	PIER F 11	387886	3735181	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1371	PIER F 12	387927	3735206	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1372	PIER F 13	387968	3735231	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1373	PIER F 14	388009	3735256	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1374	PIER F 15	388050	3735281	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1375	PIER F 16	388091	3735306	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1376	PIER F 17	388135	3735325	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1377	PIER F 18	388182	3735331	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1378	PIER F 19	388230	3735331	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1379	PIER F 20	388276	3735339	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1380	PIER F 21	388288	3735383	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1381	PIER F 22	388289	3735431	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1382	PIER F 23	388289	3735479	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1383	PIER F 24	388290	3735527	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1384	PIER F 25	388290	3735575	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1385	PIER F 26	388290	3735623	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1386	PIER F 27	388289	3735671	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza	1387	PIER F 28	388296	3735718	24	352.5	196.9	6.4	5.9
Pier F Ave: Middle Harbor - Harbor Plaza						9,869.6	5,513.9	178.1	163.9
Harbor Plaza: Pier F Ave - Pier G Ave	1388	PIER F 29	388336	3735740	24	444.2	210.6	8.3	7.7
Harbor Plaza: Pier F Ave - Pier G Ave	1389	PIER F 30	388384	3735741	24	444.2	210.6	8.3	7.7
Harbor Plaza: Pier F Ave - Pier G Ave	1390	PIER F 31	388432	3735740	24	444.2	210.6	8.3	7.7
Harbor Plaza: Pier F Ave - Pier G Ave	1391	PIER F 32	388486	3735740	24	444.2	210.6	8.3	7.7
Harbor Plaza: Pier F Ave - Pier G Ave						1,776.7	842.4	33.3	30.6
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	HARBOR PLAZA 1	388534	3735739	24	151.7	84.7	2.7	2.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1393	HARBOR PLAZA 2	388582	3735738	24	151.7	84.7	2.7	2.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1394	HARBOR PLAZA 3	388630	3735737	24	151.7	84.7	2.7	2.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1395	HARBOR PLAZA 4	388678	3735737	24	151.7	84.7	2.7	2.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1396	HARBOR PLAZA 5	388726	3735736	24	151.7	84.7	2.7	2.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1397	HARBOR PLAZA 6	388771	3735723	24	151.7	84.7	2.7	2.5
Harbor Plaza: Pier G Ave - Queens Way Bridge						910.0	508.4	16.4	15.1
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	HARBOR SCENIC 25	388213	3736780	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1171	HARBOR SCENIC 26	388196	3736850	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1172	HARBOR SCENIC 27	388191	3736922	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1173	HARBOR SCENIC 28	388200	3736993	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1174	HARBOR SCENIC 29	388212	3737064	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1175	HARBOR SCENIC 30	388223	3737136	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1176	HARBOR SCENIC 31	388233	3737207	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1177	HARBOR SCENIC 32	388240	3737279	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1178	HARBOR SCENIC 33	388243	3737350	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1179	HARBOR SCENIC 34	388244	3737422	36	157.7	143.0	4.0	3.7

TableA.1.2Alt1A-10. Hourly Roadway Link Emissions - Annual Modeling Scenario - Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1180	HARBOR SCENIC 35	388243	3737494	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1181	HARBOR SCENIC 36	388241	3737566	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1182	HARBOR SCENIC 37	388241	3737638	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1183	HARBOR SCENIC 38	388242	3737710	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1184	HARBOR SCENIC 39	388243	3737782	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1185	HARBOR SCENIC 40	388244	3737854	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1186	HARBOR SCENIC 41	388245	3737926	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1187	HARBOR SCENIC 42	388245	3737998	36	157.7	143.0	4.0	3.7
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)						2,838.7	2,573.5	71.5	65.8
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	HARBOR SCENIC 25	388213	3736780	36	126.5	114.6	3.2	2.9
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1171	HARBOR SCENIC 26	388196	3736850	36	126.5	114.6	3.2	2.9
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1172	HARBOR SCENIC 27	388191	3736922	36	126.5	114.6	3.2	2.9
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1173	HARBOR SCENIC 28	388200	3736993	36	126.5	114.6	3.2	2.9
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1174	HARBOR SCENIC 29	388212	3737064	36	126.5	114.6	3.2	2.9
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)						632.3	573.2	15.9	14.7
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	HARBOR SCENIC 8	388800	3735766	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1154	HARBOR SCENIC 9	388775	3735828	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1155	HARBOR SCENIC 10	388755	3735890	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1156	HARBOR SCENIC 11	388717	3735941	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1157	HARBOR SCENIC 12	388665	3735988	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1158	HARBOR SCENIC 13	388611	3736036	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1159	HARBOR SCENIC 14	388564	3736090	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1160	HARBOR SCENIC 15	388516	3736144	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1161	HARBOR SCENIC 16	388476	3736204	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1162	HARBOR SCENIC 17	388442	3736267	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1163	HARBOR SCENIC 18	388416	3736334	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1164	HARBOR SCENIC 19	388395	3736403	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1165	HARBOR SCENIC 20	388367	3736469	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1166	HARBOR SCENIC 21	388328	3736530	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1167	HARBOR SCENIC 22	388287	3736588	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1168	HARBOR SCENIC 23	388245	3736647	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1169	HARBOR SCENIC 24	388213	3736711	36	250.1	226.8	6.3	5.8
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp						4,252.0	3,854.8	107.1	98.5
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	PIER D 17	387144	3736877	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1235	PIER D 18	387168	3736890	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1236	PIER D 19	387193	3736903	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1237	PIER D 20	387218	3736916	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1238	PIER D 21	387243	3736928	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1239	PIER D 22	387268	3736941	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1240	PIER D 23	387293	3736954	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1241	PIER D 24	387318	3736967	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1242	PIER D 25	387343	3736979	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1243	PIER D 26	387368	3736992	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1244	PIER D 27	387394	3737002	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1245	PIER D 28	387420	3737013	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1246	PIER D 29	387445	3737026	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1247	PIER D 30	387470	3737038	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1248	PIER D 31	387495	3737051	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1249	PIER D 32	387520	3737064	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1250	PIER D 33	387545	3737077	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1251	PIER D 34	387570	3737089	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1252	PIER D 35	387594	3737102	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1253	PIER D 36	387619	3737115	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1254	PIER D 37	387644	3737128	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1255	PIER D 38	387669	3737140	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1256	PIER D 39	387694	3737153	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1257	PIER D 40	387719	3737166	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1258	PIER D 41	387744	3737178	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1259	PIER D 42	387769	3737191	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1260	PIER D 43	387794	3737203	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1261	PIER D 44	387819	3737216	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1262	PIER D 45	387845	3737227	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1263	PIER D 46	387872	3737235	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1264	PIER D 47	387899	3737243	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1265	PIER D 48	387926	3737250	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1266	PIER D 49	387953	3737257	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1267	PIER D 50	387980	3737264	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1268	PIER D 51	388007	3737272	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1269	PIER D 52	388034	3737279	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave	1270	PIER D 53	388061	3737286	14	189.5	89.8	3.5	3.3
Pier D St: w/o Pico Ave - w/o Pico Ave						7,010.2	3,323.7	131.3	120.8
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	OCEAN 1	385307	3736071	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1047	OCEAN 2	385361	3736088	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1048	OCEAN 3	385414	3736105	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1049	OCEAN 4	385468	3736122	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1050	OCEAN 5	385521	3736139	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1051	OCEAN 6	385574	3736155	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1052	OCEAN 7	385627	3736173	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1053	OCEAN 8	385680	3736193	28	135.3	75.6	2.4	2.2

TableA.1.2Alt1A-10. Hourly Roadway Link Emissions - Annual Modeling Scenario - Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1054	OCEAN 9	385732	3736213	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1055	OCEAN 10	385784	3736233	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1056	OCEAN 11	385837	3736253	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1057	OCEAN 12	385889	3736274	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1058	OCEAN 13	385941	3736294	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1059	OCEAN 14	385993	3736314	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1060	OCEAN 15	386046	3736334	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1061	OCEAN 16	386098	3736355	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1062	OCEAN 17	386150	3736375	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1063	OCEAN 18	386202	3736396	28	135.3	75.6	2.4	2.2
Ocean Blvd: Seaside Blvd OnRamp - Bridge						2,435.7	1,360.7	44.0	40.4
Ocean Blvd: Bridge	1064	OCEAN 19	386254	3736417	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1065	OCEAN 20	386306	3736438	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1066	OCEAN 21	386357	3736460	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1067	OCEAN 22	386408	3736484	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1068	OCEAN 23	386459	3736507	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1069	OCEAN 24	386510	3736530	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1070	OCEAN 25	386561	3736553	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1071	OCEAN 26	386612	3736576	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1072	OCEAN 27	386663	3736599	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1073	OCEAN 28	386714	3736622	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1074	OCEAN 29	386765	3736645	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1075	OCEAN 30	386816	3736668	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1076	OCEAN 31	386867	3736692	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1077	OCEAN 32	386918	3736715	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1078	OCEAN 33	386970	3736735	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1079	OCEAN 34	387023	3736754	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1080	OCEAN 35	387074	3736777	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1081	OCEAN 36	387125	3736800	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1082	OCEAN 37	387176	3736822	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1083	OCEAN 38	387228	3736844	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1084	OCEAN 39	387280	3736865	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1085	OCEAN 40	387333	3736884	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1086	OCEAN 41	387386	3736901	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1087	OCEAN 42	387441	3736913	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge	1088	OCEAN 43	387496	3736922	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge						3,382.6	1,889.8	61.0	56.2
Ocean Blvd: Bridge - I-710 Offramp	1089	OCEAN 44	387551	3736930	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge - I-710 Offramp	1090	OCEAN 45	387607	3736937	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge - I-710 Offramp	1091	OCEAN 46	387662	3736943	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge - I-710 Offramp	1092	OCEAN 47	387718	3736949	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge - I-710 Offramp	1093	OCEAN 48	387774	3736955	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge - I-710 Offramp	1094	OCEAN 49	387829	3736961	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge - I-710 Offramp	1095	OCEAN 50	387885	3736966	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge - I-710 Offramp	1096	OCEAN 51	387941	3736972	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge - I-710 Offramp	1097	OCEAN 52	387997	3736977	28	135.3	75.6	2.4	2.2
Ocean Blvd: Bridge - I-710 Offramp						1,217.8	680.4	22.0	20.2
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	Ocean Offramp 1	388027	3736971	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1622	Ocean Offramp 2	388053	3736959	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1623	Ocean Offramp 3	388079	3736946	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1624	Ocean Offramp 4	388094	3736921	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1625	Ocean Offramp 5	388102	3736893	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1626	Ocean Offramp 6	388102	3736865	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1627	Ocean Offramp 7	388102	3736836	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1628	Ocean Offramp 8	388101	3736808	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1629	Ocean Offramp 9	388085	3736784	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1630	Ocean Offramp 10	388058	3736777	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1631	Ocean Offramp 11	388029	3736775	14	38.0	21.2	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd						418.2	233.7	7.5	6.9
Santa Fe: 9th St - Anaheim St	1417	SANTA FE 2	387462	3738556	24	39.1	21.8	0.7	0.6
Santa Fe: 9th St - Anaheim St	1418	SANTA FE 3	387463	3738604	24	39.1	21.8	0.7	0.6
Santa Fe: 9th St - Anaheim St	1419	SANTA FE 4	387464	3738652	24	39.1	21.8	0.7	0.6
Santa Fe: 9th St - Anaheim St	1420	SANTA FE 5	387465	3738700	24	39.1	21.8	0.7	0.6
Santa Fe: 9th St - Anaheim St						156.3	87.3	2.8	2.6
Santa Fe: n/o Anaheim St - s/o Willow St	1421	SANTA FE 6	387465	3738748	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1422	SANTA FE 7	387466	3738796	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1423	SANTA FE 8	387467	3738844	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1424	SANTA FE 9	387468	3738892	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1425	SANTA FE 10	387468	3738940	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1426	SANTA FE 11	387469	3738988	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1427	SANTA FE 12	387470	3739036	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1428	SANTA FE 13	387471	3739084	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1429	SANTA FE 14	387471	3739132	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1430	SANTA FE 15	387472	3739180	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1431	SANTA FE 16	387473	3739228	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1432	SANTA FE 17	387474	3739276	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1433	SANTA FE 18	387475	3739324	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1434	SANTA FE 19	387475	3739372	24	46.1	25.8	0.8	0.8

TableA.1.2Alt1A-10. Hourly Roadway Link Emissions - Annual Modeling Scenario - Alternative 1

						Emissions (Pounds/Year)			
Roadway Link	BEEST	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Santa Fe: n/o Anaheim St - s/o Willow St	1435	SANTA FE 20	387476	3739420	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St	1436	SANTA FE 21	387477	3739468	24	46.1	25.8	0.8	0.8
Santa Fe: n/o Anaheim St - s/o Willow St						738.3	412.5	13.3	12.3
I-710 : n/o 9th Street Onramp (NB)	1100	I-710 1	388241	3741119	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1101	I-710 2	388241	3741057	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1102	I-710 3	388244	3740995	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1103	I-710 4	388250	3740934	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1104	I-710 5	388256	3740872	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1105	I-710 6	388265	3740810	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1106	I-710 7	388274	3740749	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1107	I-710 8	388280	3740687	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1108	I-710 9	388281	3740625	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1109	I-710 10	388280	3740563	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1110	I-710 11	388279	3740501	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1111	I-710 12	388278	3740440	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1112	I-710 13	388277	3740378	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1113	I-710 14	388276	3740316	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1114	I-710 15	388276	3740254	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1115	I-710 16	388275	3740192	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1116	I-710 17	388273	3740130	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1117	I-710 18	388267	3740068	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1118	I-710 19	388258	3740007	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1119	I-710 20	388245	3739946	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1120	I-710 21	388231	3739886	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1121	I-710 22	388217	3739825	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1122	I-710 23	388205	3739764	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1123	I-710 24	388196	3739703	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1124	I-710 25	388188	3739642	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1125	I-710 26	388183	3739580	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1126	I-710 27	388180	3739518	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1127	I-710 28	388180	3739456	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1128	I-710 29	388184	3739394	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1129	I-710 30	388189	3739332	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1130	I-710 31	388194	3739271	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1131	I-710 32	388199	3739209	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1132	I-710 33	388199	3739147	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1133	I-710 34	388200	3739085	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1134	I-710 35	388201	3739023	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1135	I-710 36	388200	3738961	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1136	I-710 37	388198	3738899	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1137	I-710 38	388196	3738837	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1138	I-710 39	388194	3738775	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1139	I-710 40	388192	3738713	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1140	I-710 41	388190	3738651	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1141	I-710 42	388187	3738589	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1142	I-710 43	388185	3738527	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1143	I-710 44	388189	3738465	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1144	I-710 45	388190	3738403	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1145	I-710 46	388208	3738342	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1613	I-710 47	388220	3738282	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1614	I-710 48	388230	3738221	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1615	I-710 49	388240	3738160	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1616	I-710 50	388245	3738099	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)	1617	I-710 51	388245	3738038	31	259.5	235.3	6.5	6.0
I-710 : n/o 9th Street Onramp (NB)						13,235.2	11,998.7	333.4	306.7
Onramp: 9th St - I-710 (NB)	1309	CONNECTOR 16	388106	3738066	14	135.2	64.1	2.5	2.3
Onramp: 9th St - I-710 (NB)	1310	CONNECTOR 17	388089	3738044	14	135.2	64.1	2.5	2.3
Onramp: 9th St - I-710 (NB)	1311	CONNECTOR 18	388072	3738022	14	135.2	64.1	2.5	2.3
Onramp: 9th St - I-710 (NB)	1312	CONNECTOR 19	388058	3737997	14	135.2	64.1	2.5	2.3
Onramp: 9th St - I-710 (NB)	1313	CONNECTOR 20	388047	3737972	14	135.2	64.1	2.5	2.3
Onramp: 9th St - I-710 (NB)	1314	CONNECTOR 21	388044	3737944	14	135.2	64.1	2.5	2.3
Onramp: 9th St - I-710 (NB)	1315	CONNECTOR 22	388042	3737916	14	135.2	64.1	2.5	2.3
Onramp: 9th St - I-710 (NB)	1316	CONNECTOR 23	388051	3737890	14	135.2	64.1	2.5	2.3
Onramp: 9th St - I-710 (NB)	1317	CONNECTOR 24	388064	3737865	14	135.2	64.1	2.5	2.3
Onramp: 9th St - I-710 (NB)						1,216.5	576.8	22.8	21.0
Onramp: 9th St - I-710 (NB BRIDGE)	1318	CONNECTOR 25	388076	3737840	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1319	CONNECTOR 26	388091	3737817	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1320	CONNECTOR 27	388111	3737797	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1321	CONNECTOR 28	388137	3737787	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1322	CONNECTOR 29	388164	3737782	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1323	CONNECTOR 30	388192	3737785	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1324	CONNECTOR 31	388217	3737796	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1325	CONNECTOR 32	388239	3737814	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1326	CONNECTOR 33	388253	3737837	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1327	CONNECTOR 34	388263	3737863	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1328	CONNECTOR 35	388264	3737891	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1329	CONNECTOR 36	388265	3737919	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1330	CONNECTOR 37	388265	3737947	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)	1331	CONNECTOR 38	388266	3737975	14	134.7	63.9	2.5	2.3
Onramp: 9th St - I-710 (NB BRIDGE)						1,885.8	894.1	35.3	32.5

TableA.1.2Alt1A-10. Hourly Roadway Link Emissions - Annual Modeling Scenario - Alternative 1

Roadway Link	BEEST	BEEST Name	UTM X	UTM Y	Width (m)	Emissions (Pounds/Year) CO	NO2	PM10	PM2.5
Offramp: I-710 at 9th Street (SB)	1294	CONNECTOR 1	388112	3738046	14	128.8	61.0	2.4	2.2
Offramp: I-710 at 9th Street (SB)	1295	CONNECTOR 2	388096	3738023	14	128.8	61.0	2.4	2.2
Offramp: I-710 at 9th Street (SB)	1296	CONNECTOR 3	388080	3738000	14	128.8	61.0	2.4	2.2
Offramp: I-710 at 9th Street (SB)	1297	CONNECTOR 4	388065	3737977	14	128.8	61.0	2.4	2.2
Offramp: I-710 at 9th Street (SB)	1298	CONNECTOR 5	388058	3737949	14	128.8	61.0	2.4	2.2
Offramp: I-710 at 9th Street (SB)	1299	CONNECTOR 6	388058	3737922	14	128.8	61.0	2.4	2.2
Offramp: I-710 at 9th Street (SB)						772.5	366.3	14.5	13.3
Offramp: I-710 at 9th Street (SB BRIDGE)	1300	CONNECTOR 7	388072	3737898	14	127.4	60.4	2.4	2.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1301	CONNECTOR 8	388091	3737879	14	127.4	60.4	2.4	2.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1302	CONNECTOR 9	388116	3737867	14	127.4	60.4	2.4	2.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1303	CONNECTOR 10	388144	3737866	14	127.4	60.4	2.4	2.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1304	CONNECTOR 11	388170	3737874	14	127.4	60.4	2.4	2.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1305	CONNECTOR 12	388193	3737890	14	127.4	60.4	2.4	2.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1306	CONNECTOR 13	388210	3737912	14	127.4	60.4	2.4	2.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1307	CONNECTOR 14	388213	3737939	14	127.4	60.4	2.4	2.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1308	CONNECTOR 15	388214	3737967	14	127.4	60.4	2.4	2.2
Offramp: I-710 at 9th Street (SB BRIDGE)						1,146.7	543.7	21.5	19.8

Table A.2.1-Alt1D-1. Operational Hourly Emissions - POLB MHTP - Unmitigated Alternative 1

Source Activity	Pounds per Hour				
	TOG	CO	*NO 2*	PM10	PM2.5
OGV - Harbor Transit - 1 4-5k TEU	21.3	23.4	78.1	6.0	5.6
OGV - Docking - 1 4-5k TEU	9.9	9.0	30.3	2.5	2.3
OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)	2.9	5.5	17.8	1.4	1.3
OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)	0.2	1.6	1.1	0.5	0.5
OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)	2.6	4.9	16.0	1.2	1.2
OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)	0.2	1.6	1.1	0.5	0.5
Tugs - Harbor Transit - 2@ 0.72 hrs of ops	2.1	11.0	26.4	1.9	1.8
Tugs - Docking - 2@ 0.25 hrs of ops	0.7	3.8	9.2	0.7	0.6
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.3	0.5	0.7	0.1	0.1
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.7	1.2	1.7	0.2	0.2
Locomotives - Rail Yard	1.4	2.8	3.4	0.3	0.3
Rail Yard Equipment	0.2	1.0	0.9	0.11	0.10
Terminal Equipment	14.6	79.6	89.3	10.6	9.7
Trucks - On-Terminal	10.3	15.4	11.8	0.5	0.4
Pier D Entry Road	0.52	1.11	0.53	0.03	0.02
Pier D In Gate	1.16	1.54	0.83	0.04	0.04
Pier D Exit Road	0.15	0.33	0.16	0.01	0.01
Pier D Out Gate	0.68	0.90	0.49	0.02	0.02
Pier F Entry Road	0.11	0.24	0.12	0.01	0.01
Pier F Exit Road	0.39	0.84	0.40	0.02	0.02
Pier F In + Out Gates	1.20	1.58	0.86	0.04	0.04
Total	72	168	291	27	25

Table A.2.1-Alt1D-2. Operational Criteria Pollutant Emission Simulations - POLB MHTP - Unmitigated Alternative 1

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source lb/hr TOG	CO	NO_2	PM_{10}	$PM_{2.5}$
OGV - Harbor Transit - 1 4-5k TEU												
	633 - 685	100	10,000	0.04	27	270,000	1.00	0.79	0.87	2.89	0.22	0.21
Subtotals			-	-	27	270,000	-	21.30	23.37	78.13	5.98	5.61
OGV - Docking - 1 4-5k TEU												
	616	300	90,000	1.00	1	90,000	1.00	9.92	9.01	30.25	2.50	2.35
Subtotals			-	-	1	90,000	-	9.92	9.01	30.25	2.50	2.35
OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)												
	2021	NA	NA	1	1	NA	NA	2.88	5.46	17.79	1.38	1.30
Subtotals			-	-	1	-	-	2.88	5.46	17.79	1.38	1.30
OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)												
	2003	NA	NA	1	1	NA	NA	0.18	1.57	1.08	0.51	0.50
Subtotals			-	-	1	-	-	0.18	1.57	1.08	0.51	0.50
OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)												
	2019	NA	NA	1	1	NA	NA	2.59	4.91	16.01	1.25	1.17
Subtotals			-	-	1	-	-	2.59	4.91	16.01	1.25	1.17
OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)												
	2001	NA	NA	1	1	NA	NA	0.18	1.57	1.08	0.51	0.50
Subtotals			-	-	1	-	-	0.18	1.57	1.08	0.51	0.50
Tugs - Harbor Transit - 2@ 0.72 hrs of ops												
	3633 -3685	100	10,000	0.04	27	270,000	1.00	0.08	0.41	0.98	0.07	0.07
Subtotals			-	-	27	270,000	-	2.09	10.99	26.43	1.88	1.76
Tugs - Docking - 2@ 0.25 hrs of ops												
	3,616	300	90,000	1.00	1	90,000	1.00	0.73	3.82	9.18	0.65	0.61
Subtotals			-	-	1	90,000	-	0.73	3.82	9.18	0.65	0.61
Haul Line Locomotive - 10 mph - Port to Ocean Blvd												
	916 - 941	15	225	0.04	26	5,850	1.00	0.01	0.02	0.03	0.00	0.00
Subtotals			-	-	26	5,850	-	0.30	0.52	0.74	0.08	0.08
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH												
	762 - 915	15	225	0.01	154	34,650	1.00	0.00	0.01	0.01	0.00	0.00
Subtotals			-	-	154	34,650	-	0.68	1.18	1.67	0.18	0.18
Locomotives - Rail Yard												
	255 - 380	25	625	0.03	29	18,125	1.00	0.05	0.10	0.12	0.01	0.01
Subtotals			-	-	29	18,125	-	1.40	2.82	3.43	0.35	0.35
Rail Yard Equipment												
	255 - 380	25	625	0.03	29	18,125	1.00	0.01	0.03	0.03	0.00	0.00
Subtotals			-	-	29	18,125	-	0.19	0.96	0.88	0.11	0.10
Rail Yard - Locomotives + Equipment												
	255 - 380	25	625	0.03	29	18,125	1.00	0.05	0.13	0.15	0.02	0.02
Subtotals			-	-	29	18,125	-	1.59	3.77	4.31	0.45	0.45
Terminal Equipment												
	1700-1704	50	2,500	0.003	5	12,500	0.01	0.04	0.23	0.26	0.03	0.03
	1705-1713	75	5,625	0.007	9	50,625	0.06	0.10	0.52	0.59	0.07	0.06
	1714	85	7,225	0.008	1	7,225	0.01	0.12	0.67	0.75	0.09	0.08
	1715-1721	100	10,000	0.012	7	70,000	0.08	0.17	0.93	1.04	0.12	0.11
	1722-1724	125	15,625	0.018	3	46,875	0.05	0.27	1.45	1.63	0.19	0.18
	1725-1727	150	22,500	0.026	3	67,500	0.08	0.38	2.09	2.35	0.28	0.26
	1728-1729	175	30,625	0.036	2	61,250	0.07	0.52	2.85	3.19	0.38	0.35
	1730-1734	200	40,000	0.047	5	200,000	0.23	0.68	3.72	4.17	0.49	0.45
	1735-1736	300	90,000	0.105	2	180,000	0.21	1.53	8.37	9.39	1.11	1.02
	1737	400	160,000	0.187	1	160,000	0.19	2.72	14.87	16.69	1.98	1.82
Subtotals			-	-	38	855,975	1.00					
Trucks - On-Terminal												
	1700-1704	50	2,500	0.003	5	12,500	0.01	0.03	0.04	0.03	0.00	0.00
	1705-1713	75	5,625	0.007	9	50,625	0.06	0.07	0.10	0.08	0.00	0.00
	1714	85	7,225	0.008	1	7,225	0.01	0.09	0.13	0.10	0.00	0.00
	1715-1721	100	10,000	0.012	7	70,000	0.08	0.12	0.18	0.14	0.01	0.01
	1722-1724	125	15,625	0.018	3	46,875	0.05	0.19	0.28	0.22	0.01	0.01
	1725-1727	150	22,500	0.026	3	67,500	0.08	0.27	0.40	0.31	0.01	0.01
	1728-1729	175	30,625	0.036	2	61,250	0.07	0.37	0.55	0.42	0.02	0.02
	1730-1734	200	40,000	0.047	5	200,000	0.23	0.48	0.72	0.55	0.02	0.02
	1735-1736	300	90,000	0.105	2	180,000	0.21	1.09	1.62	1.24	0.05	0.05
	1737	400	160,000	0.187	1	160,000	0.19	1.93	2.87	2.21	0.09	0.08
Subtotals			-	-	38	855,975	1.00					

Table A.2.1-Alt1D-2. Operational Criteria Pollutant Emission Simulations - POLB MHTP - Unmitigated Alternative 1

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source lb/hr				
								TOG	CO	NO_2	PM_{10}	$PM_{2.5}$
Terminal - Equipment + Trucks												
	1700-1704	50	2,500	0.003	5	12,500	0.01	0.07	0.28	0.30	0.03	0.03
	1705-1713	75	5,625	0.007	9	50,625	0.06	0.16	0.62	0.66	0.07	0.07
	1714	85	7,225	0.008	1	7,225	0.01	0.21	0.80	0.85	0.09	0.09
	1715-1721	100	10,000	0.012	7	70,000	0.08	0.29	1.11	1.18	0.13	0.12
	1722-1724	125	15,625	0.018	3	46,875	0.05	0.45	1.73	1.85	0.20	0.19
	1725-1727	150	22,500	0.026	3	67,500	0.08	0.65	2.50	2.66	0.29	0.27
	1728-1729	175	30,625	0.036	2	61,250	0.07	0.89	3.40	3.62	0.40	0.36
	1730-1734	200	40,000	0.047	5	200,000	0.23	1.16	4.44	4.72	0.52	0.48
	1735-1736	300	90,000	0.105	2	180,000	0.21	2.62	9.98	10.63	1.16	1.07
	1737	400	160,000	0.187	1	160,000	0.19	4.66	17.74	18.90	2.07	1.90
Subtotals			-	-	38	855,975	1.00					
Pier D Entry Road												
	1636-1640	50	2,500	0.20	5	12,500	1.00	0.103	0.222	0.106	0.005	0.005
Subtotals			-	-	5	12,500	1.00	0.52	1.11	0.53	0.03	0.02
Pier D In Gate												
	1-3, 31,32	50	2,500	0.20	5	12,500	1.00	0.23	0.31	0.17	0.01	0.01
Subtotals			-	-	5	12,500	1.00	1.16	1.54	0.83	0.04	0.04
Pier D Exit Road												
	40,48	50	2,500	0.50	2	5,000	1.00	0.08	0.16	0.08	0.00	0.00
Subtotals			-	-	2	5,000	1.00	0.15	0.33	0.16	0.01	0.01
Pier D Out Gate												
	4-6	50	2,500	0.33	3	7,500	1.00	0.23	0.30	0.16	0.01	0.01
Subtotals			-	-	3	7,500	1.00	0.68	0.90	0.49	0.02	0.02
Pier F Entry Road												
	9-11	50	2,500	0.33	3	7,500	1.00	0.04	0.08	0.04	0.00	0.00
Subtotals			-	-	3	7,500	1.00	0.11	0.24	0.12	0.01	0.01
Pier F Exit Road												
	9-11	50	2,500	0.33	3	7,500	1.00	0.13	0.28	0.13	0.01	0.01
Subtotals			-	-	3	7,500	1.00	0.39	0.84	0.40	0.02	0.02
Pier F Entry + Exit Road												
	9-11	50	2,500	0.33	3	7,500	1.00	0.17	0.36	0.17	0.01	0.01
Subtotals			-	-	3	7,500	1.00	0.50	1.08	0.52	0.02	0.02
Pier F In + Out Gates												
	554	100	10,000	1.00	1	10,000	1.00	1.20	1.58	0.86	0.04	0.04
Subtotals			-	-	1	10,000	1.00	1.20	1.58	0.86	0.04	0.04

Table A.2.1-Alt1D-3. Hourly Roadway Link Emissions - POLB MHTP Unmitigated Alternative 1.

Roadway Link	BEEST ID Start #	Length (Mi)	MPH	Fraction of PHT	PHT	Pounds per Hour						# of Vol. Sources
						TOG	CO	NO2	SOx	PM10	PM2.5	
Alameda St: Eubank - Anaheim St	1437	0.76	26	0.03	18	0.07	0.26	0.16	0.01	0.01	0.00	26
Anaheim St: Alameda - SR-47	1463	0.21	23	0.03	18	0.03	0.09	0.05	0.00	0.00	0.00	7
Anaheim St: SR-47 - 9th St	1470	1.22	26	0.03	20	0.12	0.47	0.29	0.01	0.01	0.01	41
9th Street: Anaheim St - Santa Fe	1190	0.30	33	0.05	33	0.04	0.16	0.12	0.00	0.00	0.00	11
9th Street: Santa Fe to 10th	1201	0.16	29	0.09	59	0.05	0.19	0.11	0.00	0.00	0.00	6
9th Street: Caspian - Pico (SB only)	1207	0.44	36	0.05	33	0.04	0.19	0.16	0.01	0.00	0.00	16
10th Street: Pico - 9th (NB only)	1271	0.50	30	0.04	26	0.05	0.21	0.15	0.01	0.00	0.00	29
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	0.58	41	0.15	95	0.14	0.61	0.62	0.02	0.02	0.01	13
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	0.35	41	0.35	218	0.19	0.84	0.85	0.03	0.02	0.02	9
I-710 : n/o Anaheim SB On Ramp (Southbound)	1100	1.62	43	0.33	208	0.83	3.75	3.80	0.13	0.10	0.09	42
Pico Ave: Pier B St - Pier D St	1034	0.52	31	0.50	315	0.63	2.64	1.90	0.07	0.06	0.05	16
Pico Ave: Pier D St - Terminal Entrance	1027	0.23	30	0.30	187	0.17	0.70	0.51	0.02	0.02	0.01	7
Pico Ave: Terminal Entrance - Pier E St	1024	0.10	32	0.09	56	0.02	0.09	0.06	0.00	0.00	0.00	3
Pico Ave: Pier E St - Harbor Scenic Connector	1016	0.27	31	0.08	50	0.05	0.21	0.15	0.01	0.00	0.00	8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	0.47	31	0.23	143	0.26	1.08	0.78	0.03	0.02	0.02	14
Pier F Ave: Middle Harbor - Harbor Plaza	1360	0.83	30	0.38	238	0.75	3.17	2.28	0.08	0.07	0.06	28
Harbor Plaza: Pier F Ave - Pier G Ave	1388	0.12	29	0.38	238	0.14	0.57	0.35	0.01	0.01	0.01	4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	0.18	30	0.16	102	0.07	0.29	0.21	0.01	0.01	0.01	6
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	0.81	46	0.15	96	0.17	0.74	0.87	0.03	0.02	0.02	18
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	0.22	47	0.15	95	0.05	0.20	0.24	0.01	0.01	0.01	5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	0.74	47	0.30	191	0.31	1.36	1.61	0.06	0.04	0.04	17
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	0.64	25	0.29	181	0.57	2.25	1.37	0.05	0.05	0.04	37
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	0.63	32	0.12	78	0.19	0.78	0.56	0.02	0.02	0.02	18
Ocean Blvd: Bridge	1064	0.87	32	0.12	78	0.26	1.09	0.78	0.03	0.02	0.02	25
Ocean Blvd: Bridge - I-710 Offramp	1089	0.31	32	0.12	78	0.09	0.39	0.28	0.01	0.01	0.01	9
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	0.20	30	0.07	43	0.03	0.13	0.10	0.00	0.00	0.00	11
Santa Fe: 9th St - Anaheim St	1417	0.12	30	0.04	26	0.01	0.05	0.04	0.00	0.00	0.00	4
Santa Fe: n/o Anaheim St - s/o Willow St	1421	0.48	30	0.05	31	0.06	0.24	0.17	0.01	0.01	0.00	16
I-710 : n/o 9th Street Onramp (Northbound)	1100	1.96	46	0.36	226	0.98	4.23	5.00	0.18	0.14	0.13	51
Onramp: 9th St - I-710 (Northbound)	1309	0.16	25	0.21	130	0.10	0.39	0.24	0.01	0.01	0.01	9
Onramp: 9th St - I-710 (Northbound BRIDGE)	1318	0.24	25	0.21	130	0.15	0.60	0.37	0.01	0.01	0.01	14
Offramp: I-710 at 9th Street (Southbound)	1294	0.10	25	0.20	123	0.06	0.25	0.15	0.01	0.01	0.00	6
Offramp: I-710 at 9th Street (Southbound BRIDGE)	1300	0.15	25	0.20	123	0.09	0.37	0.22	0.01	0.01	0.01	9
Pier D Entry Road (off Pico)	1636	0.17	15	0.28	180	0.49	1.06	0.51	0.01	0.02	0.02	5
Pier D In Gate	1	0.15	5	0.28	180	1.11	1.47	0.80	0.01	0.04	0.03	5
Pier D Exit Road (off Pier D St)	40	0.09	15	0.17	105	0.14	0.31	0.15	0.00	0.01	0.01	2
Pier D Out Gate	4	0.15	5	0.17	105	0.65	0.86	0.47	0.01	0.02	0.02	3
Pier F Entry Road (off Pier F Ave)	9	0.07	15	0.15	95	0.11	0.23	0.11	0.00	0.01	0.00	3
Pier F Exit Road (off Pier F Ave)	9	0.17	15	0.22	136	0.37	0.81	0.38	0.01	0.02	0.02	3
Pier F In + Out Gates	554	0.12	5	0.22	232	1.15	1.52	0.82	0.01	0.04	0.03	1

Table A.2.1-Alt1D-4. Hourly Roadway Link Emissions - POLB MHTP - Unmitigated Alternative 1

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Alameda St: Eubank - Anaheim St	1437	ALAMEDA 1	383938	3737677	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1438	ALAMEDA 2	383976	3737707	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1439	ALAMEDA 3	384013	3737736	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1440	ALAMEDA 4	384051	3737766	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1441	ALAMEDA 5	384089	3737795	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1442	ALAMEDA 6	384126	3737826	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1443	ALAMEDA 7	384163	3737857	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1444	ALAMEDA 8	384198	3737889	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1445	ALAMEDA 9	384234	3737922	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1446	ALAMEDA 10	384267	3737956	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1447	ALAMEDA 11	384300	3737991	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1448	ALAMEDA 12	384334	3738025	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1449	ALAMEDA 13	384365	3738062	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1450	ALAMEDA 14	384395	3738099	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1451	ALAMEDA 15	384426	3738136	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1452	ALAMEDA 16	384457	3738173	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1453	ALAMEDA 17	384487	3738210	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1454	ALAMEDA 18	384515	3738249	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1455	ALAMEDA 19	384544	3738287	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1456	ALAMEDA 20	384572	3738326	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1457	ALAMEDA 21	384597	3738367	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1458	ALAMEDA 22	384622	3738408	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1459	ALAMEDA 23	384646	3738450	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1460	ALAMEDA 24	384669	3738492	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1461	ALAMEDA 25	384692	3738534	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1462	ALAMEDA 26	384707	3738562	24	0.0026	0.0104	0.0063	0.0002	0.0002
Alameda St: Eubank - Anaheim St						0.068	0.270	0.165	0.006	0.005
Anaheim St: Alameda - SR-47	1463	ANAHEIM 1	384755	3738566	24	0.0038	0.0132	0.0068	0.0003	0.0003
Anaheim St: Alameda - SR-47	1464	ANAHEIM 2	384803	3738569	24	0.0038	0.0132	0.0068	0.0003	0.0003
Anaheim St: Alameda - SR-47	1465	ANAHEIM 3	384851	3738572	24	0.0038	0.0132	0.0068	0.0003	0.0003
Anaheim St: Alameda - SR-47	1466	ANAHEIM 4	384898	3738576	24	0.0038	0.0132	0.0068	0.0003	0.0003
Anaheim St: Alameda - SR-47	1467	ANAHEIM 5	384946	3738579	24	0.0038	0.0132	0.0068	0.0003	0.0003
Anaheim St: Alameda - SR-47	1468	ANAHEIM 6	384994	3738582	24	0.0038	0.0132	0.0068	0.0003	0.0003
Anaheim St: Alameda - SR-47	1469	ANAHEIM 7	385042	3738586	24	0.0038	0.0132	0.0068	0.0003	0.0003
Anaheim St: Alameda - SR-47						0.027	0.093	0.047	0.002	0.002
Anaheim St: SR-47 - 9th St	1470	ANAHEIM 8	385090	3738589	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1471	ANAHEIM 9	385138	3738593	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1472	ANAHEIM 10	385186	3738596	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1473	ANAHEIM 11	385234	3738599	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1474	ANAHEIM 12	385282	3738603	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1475	ANAHEIM 13	385329	3738606	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1476	ANAHEIM 14	385377	3738610	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1477	ANAHEIM 15	385425	3738613	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1478	ANAHEIM 16	385473	3738617	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1479	ANAHEIM 17	385521	3738620	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1480	ANAHEIM 18	385569	3738623	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1481	ANAHEIM 19	385617	3738627	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1482	ANAHEIM 20	385665	3738630	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1483	ANAHEIM 21	385712	3738634	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1484	ANAHEIM 22	385760	3738637	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1485	ANAHEIM 23	385808	3738641	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1486	ANAHEIM 24	385856	3738644	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1487	ANAHEIM 25	385904	3738648	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1488	ANAHEIM 26	385952	3738651	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1489	ANAHEIM 27	386000	3738654	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1490	ANAHEIM 28	386048	3738658	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1491	ANAHEIM 29	386095	3738661	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1492	ANAHEIM 30	386143	3738665	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1493	ANAHEIM 31	386191	3738668	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1494	ANAHEIM 32	386239	3738672	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1495	ANAHEIM 33	386287	3738675	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1496	ANAHEIM 34	386335	3738678	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1497	ANAHEIM 35	386383	3738682	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1498	ANAHEIM 36	386431	3738685	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1499	ANAHEIM 37	386478	3738689	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1500	ANAHEIM 38	386526	3738692	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1501	ANAHEIM 39	386574	3738696	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1502	ANAHEIM 40	386622	3738699	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1503	ANAHEIM 41	386670	3738703	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1504	ANAHEIM 42	386718	3738706	24	0.0030	0.0119	0.0073	0.0002	0.0002

Table A.2.1-Alt1D-4. Hourly Roadway Link Emissions - POLB MHTP - Unmitigated Alternative 1

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Anaheim St: SR-47 - 9th St	1505	ANAHEIM 43	386766	3738709	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1506	ANAHEIM 44	386814	3738713	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1507	ANAHEIM 45	386861	3738716	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1508	ANAHEIM 46	386909	3738720	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1509	ANAHEIM 47	386957	3738723	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1510	ANAHEIM 48	387005	3738727	24	0.0030	0.0119	0.0073	0.0002	0.0002
Anaheim St: SR-47 - 9th St						0.123	0.489	0.299	0.010	0.009
9th Street: Anaheim St - Santa Fe	1190	Ninth St 1	387057	3738731	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1191	Ninth St 2	387090	3738702	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1192	Ninth St 3	387110	3738663	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1193	Ninth St 4	387131	3738625	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1194	Ninth St 5	387168	3738603	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1195	Ninth St 6	387210	3738589	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1196	Ninth St 7	387252	3738576	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1197	Ninth St 8	387294	3738562	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1198	Ninth St 9	387335	3738547	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1199	Ninth St 10	387377	3738533	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe	1200	Ninth St 11	387418	3738518	22	0.0036	0.0153	0.0110	0.0003	0.0003
9th Street: Anaheim St - Santa Fe						0.040	0.168	0.121	0.004	0.003
9th Street: Santa Fe to 10th	1201	Ninth St 12	387460	3738504	22	0.0081	0.0323	0.0197	0.0007	0.0006
9th Street: Santa Fe to 10th	1202	Ninth St 13	387502	3738489	22	0.0081	0.0323	0.0197	0.0007	0.0006
9th Street: Santa Fe to 10th	1203	Ninth St 14	387543	3738475	22	0.0081	0.0323	0.0197	0.0007	0.0006
9th Street: Santa Fe to 10th	1204	Ninth St 15	387584	3738460	22	0.0081	0.0323	0.0197	0.0007	0.0006
9th Street: Santa Fe to 10th	1205	Ninth St 16	387626	3738446	22	0.0081	0.0323	0.0197	0.0007	0.0006
9th Street: Santa Fe to 10th	1206	Ninth St 17	387668	3738433	22	0.0081	0.0323	0.0197	0.0007	0.0006
9th Street: Santa Fe to 10th						0.049	0.194	0.118	0.004	0.004
9th Street: Caspian - Pico (SB only)	1207	Ninth St 18	387710	3738419	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1208	Ninth St 19	387751	3738404	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1209	Ninth St 20	387793	3738389	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1210	Ninth St 21	387834	3738374	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1211	Ninth St 22	387875	3738359	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1212	Ninth St 23	387917	3738344	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1213	Ninth St 24	387958	3738329	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1214	Ninth St 25	387999	3738314	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1215	Ninth St 26	388041	3738299	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1216	Ninth St 27	388082	3738284	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1217	Ninth St 28	388124	3738269	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1601	Ninth Street 29	388163	3738248	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1602	Ninth Street 30	388181	3738207	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1603	Ninth Street 31	388183	3738163	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1604	Ninth Street 32	388164	3738124	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)	1605	Ninth Street 33	388138	3738091	22	0.0028	0.0125	0.0107	0.0003	0.0003
9th Street: Caspian - Pico (SB only)						0.045	0.200	0.171	0.005	0.004
10th Street: Pico - 9th (NB only)	1271	Tenth St 1	387717	3738420	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1272	Tenth St 2	387744	3738413	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1273	Tenth St 3	387771	3738407	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1274	Tenth St 4	387799	3738405	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1275	Tenth St 5	387827	3738408	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1276	Tenth St 6	387855	3738412	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1277	Tenth St 7	387882	3738414	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1278	Tenth St 8	387910	3738416	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1279	Tenth St 9	387938	3738420	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1280	Tenth St 10	387966	3738425	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1281	Tenth St 11	387993	3738430	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1282	Tenth St 12	388021	3738435	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1283	Tenth St 13	388048	3738440	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1284	Tenth St 14	388076	3738444	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1285	Tenth St 15	388104	3738441	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1286	Tenth St 16	388128	3738429	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1287	Tenth St 17	388145	3738407	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1288	Tenth St 18	388154	3738380	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1289	Tenth St 19	388160	3738353	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1290	Tenth St 20	388167	3738326	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1291	Tenth St 21	388173	3738298	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1292	Tenth St 22	388179	3738271	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1293	Tenth St 23	388185	3738244	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1607	Tenth St 24	388188	3738216	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1608	Tenth St 25	388189	3738189	14	0.0018	0.0076	0.0055	0.0002	0.0002

Table A.2.1-Alt1D-4. Hourly Roadway Link Emissions - POLB MHTP - Unmitigated Alternative 1

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
10th Street: Pico - 9th (NB only)	1609	Tenth St 26	388187	3738162	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1610	Tenth St 27	388175	3738137	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1611	Tenth St 28	388163	3738113	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)	1612	Tenth St 29	388147	3738092	14	0.0018	0.0076	0.0055	0.0002	0.0002
10th Street: Pico - 9th (NB only)						0.052	0.219	0.158	0.005	0.004
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	HARBOR SCENIC 30	388223	3737136	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1176	HARBOR SCENIC 31	388233	3737207	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1177	HARBOR SCENIC 32	388240	3737279	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1178	HARBOR SCENIC 33	388243	3737350	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1179	HARBOR SCENIC 34	388244	3737422	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1180	HARBOR SCENIC 35	388243	3737494	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1181	HARBOR SCENIC 36	388241	3737566	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1182	HARBOR SCENIC 37	388241	3737638	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1183	HARBOR SCENIC 38	388242	3737710	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1184	HARBOR SCENIC 39	388243	3737782	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1185	HARBOR SCENIC 40	388244	3737854	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1186	HARBOR SCENIC 41	388245	3737926	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1187	HARBOR SCENIC 42	388245	3737998	36	0.0110	0.0493	0.0500	0.0013	0.0012
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)						0.143	0.641	0.650	0.017	0.015
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1142	I-710 43	388185	3738527	31	0.0217	0.0975	0.0989	0.0025	0.0023
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1143	I-710 44	388189	3738465	31	0.0217	0.0975	0.0989	0.0025	0.0023
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1144	I-710 45	388190	3738403	31	0.0217	0.0975	0.0989	0.0025	0.0023
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1145	I-710 46	388208	3738342	31	0.0217	0.0975	0.0989	0.0025	0.0023
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	I-710 47	388220	3738282	31	0.0217	0.0975	0.0989	0.0025	0.0023
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1614	I-710 48	388230	3738221	31	0.0217	0.0975	0.0989	0.0025	0.0023
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1615	I-710 49	388240	3738160	31	0.0217	0.0975	0.0989	0.0025	0.0023
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1616	I-710 50	388245	3738099	31	0.0217	0.0975	0.0989	0.0025	0.0023
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1617	I-710 51	388245	3738038	31	0.0217	0.0975	0.0989	0.0025	0.0023
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)						0.196	0.878	0.890	0.023	0.021
I-710 : n/o Anaheim SB On Ramp (SB)	1100	I-710 1	388241	3741119	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1101	I-710 2	388241	3741057	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1102	I-710 3	388244	3740995	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1103	I-710 4	388250	3740934	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1104	I-710 5	388256	3740872	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1105	I-710 6	388265	3740810	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1106	I-710 7	388274	3740749	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1107	I-710 8	388280	3740687	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1108	I-710 9	388281	3740625	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1109	I-710 10	388280	3740563	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1110	I-710 11	388279	3740501	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1111	I-710 12	388278	3740440	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1112	I-710 13	388277	3740378	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1113	I-710 14	388276	3740316	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1114	I-710 15	388276	3740254	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1115	I-710 16	388275	3740192	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1116	I-710 17	388273	3740130	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1117	I-710 18	388267	3740068	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1118	I-710 19	388258	3740007	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1119	I-710 20	388245	3739946	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1120	I-710 21	388231	3739886	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1121	I-710 22	388217	3739825	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1122	I-710 23	388205	3739764	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1123	I-710 24	388196	3739703	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1124	I-710 25	388188	3739642	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1125	I-710 26	388183	3739580	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1126	I-710 27	388180	3739518	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1127	I-710 28	388180	3739456	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1128	I-710 29	388184	3739394	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1129	I-710 30	388189	3739332	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1130	I-710 31	388194	3739271	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1131	I-710 32	388199	3739209	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1132	I-710 33	388199	3739147	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1133	I-710 34	388200	3739085	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1134	I-710 35	388201	3739023	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1135	I-710 36	388200	3738961	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1136	I-710 37	388198	3738899	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1137	I-710 38	388196	3738837	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1138	I-710 39	388194	3738775	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1139	I-710 40	388192	3738713	31	0.0207	0.0931	0.0945	0.0024	0.0022

Table A.2.1-Alt1D-4. Hourly Roadway Link Emissions - POLB MHTP - Unmitigated Alternative 1

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
I-710 : n/o Anaheim SB On Ramp (SB)	1140	I-710 41	388190	3738651	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)	1141	I-710 42	388187	3738589	31	0.0207	0.0931	0.0945	0.0024	0.0022
I-710 : n/o Anaheim SB On Ramp (SB)						0.871	3.912	3.967	0.101	0.093
Pico Ave: Pier B St - Pier D St	1034	PICO 34	388126	3737305	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1035	PICO 35	388152	3737352	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1036	PICO 36	388168	3737404	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1037	PICO 37	388174	3737458	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1038	PICO 38	388175	3737512	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1039	PICO 39	388176	3737566	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1040	PICO 40	388176	3737620	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1041	PICO 41	388174	3737674	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1042	PICO 42	388173	3737728	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1043	PICO 43	388172	3737782	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1044	PICO 44	388172	3737836	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1045	PICO 45	388172	3737890	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1620	Pico 48	388169	3737918	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1619	Pico 47	388164	3737972	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1618	Pico 46	388150	3738027	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St	1606	Ninth Street 34	388122	3738073	27	0.0409	0.1721	0.1241	0.0038	0.0035
Pico Ave: Pier B St - Pier D St						0.654	2.754	1.986	0.061	0.056
Pico Ave: Pier D St - Terminal Entrance	1027	PICO 27	387996	3736962	27	0.0249	0.1048	0.0756	0.0023	0.0021
Pico Ave: Pier D St - Terminal Entrance	1028	PICO 28	387993	3737016	27	0.0249	0.1048	0.0756	0.0023	0.0021
Pico Ave: Pier D St - Terminal Entrance	1029	PICO 29	387998	3737070	27	0.0249	0.1048	0.0756	0.0023	0.0021
Pico Ave: Pier D St - Terminal Entrance	1030	PICO 30	388013	3737121	27	0.0249	0.1048	0.0756	0.0023	0.0021
Pico Ave: Pier D St - Terminal Entrance	1031	PICO 31	388038	3737169	27	0.0249	0.1048	0.0756	0.0023	0.0021
Pico Ave: Pier D St - Terminal Entrance	1032	PICO 32	388066	3737215	27	0.0249	0.1048	0.0756	0.0023	0.0021
Pico Ave: Pier D St - Terminal Entrance	1033	PICO 33	388096	3737260	27	0.0249	0.1048	0.0756	0.0023	0.0021
Pico Ave: Pier D St - Terminal Entrance						0.174	0.734	0.529	0.016	0.015
Pico Ave: Terminal Entrance - Pier E St	1024	PICO 24	388011	3736801	27	0.0074	0.0312	0.0225	0.0007	0.0006
Pico Ave: Terminal Entrance - Pier E St	1025	PICO 25	388006	3736855	27	0.0074	0.0312	0.0225	0.0007	0.0006
Pico Ave: Terminal Entrance - Pier E St	1026	PICO 26	388001	3736908	27	0.0074	0.0312	0.0225	0.0007	0.0006
Pico Ave: Terminal Entrance - Pier E St						0.022	0.094	0.068	0.002	0.002
Pico Ave: Pier E St - Harbor Scenic Connector	1016	PICO 16	388261	3736501	27	0.0066	0.0279	0.0201	0.0006	0.0006
Pico Ave: Pier E St - Harbor Scenic Connector	1017	PICO 17	388229	3736544	27	0.0066	0.0279	0.0201	0.0006	0.0006
Pico Ave: Pier E St - Harbor Scenic Connector	1018	PICO 18	388184	3736574	27	0.0066	0.0279	0.0201	0.0006	0.0006
Pico Ave: Pier E St - Harbor Scenic Connector	1019	PICO 19	388134	3736593	27	0.0066	0.0279	0.0201	0.0006	0.0006
Pico Ave: Pier E St - Harbor Scenic Connector	1020	PICO 20	388083	3736610	27	0.0066	0.0279	0.0201	0.0006	0.0006
Pico Ave: Pier E St - Harbor Scenic Connector	1021	PICO 21	388043	3736645	27	0.0066	0.0279	0.0201	0.0006	0.0006
Pico Ave: Pier E St - Harbor Scenic Connector	1022	PICO 22	388019	3736694	27	0.0066	0.0279	0.0201	0.0006	0.0006
Pico Ave: Pier E St - Harbor Scenic Connector	1023	PICO 23	388015	3736747	27	0.0066	0.0279	0.0201	0.0006	0.0006
Pico Ave: Pier E St - Harbor Scenic Connector						0.0531	0.2233	0.1610	0.0049	0.0045
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	PICO 2	388479	3735798	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1003	PICO 3	388476	3735852	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1004	PICO 4	388476	3735906	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1005	PICO 5	388477	3735960	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1006	PICO 6	388478	3736014	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1007	PICO 7	388476	3736068	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1008	PICO 8	388461	3736119	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1009	PICO 9	388434	3736166	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1010	PICO 10	388403	3736210	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1011	PICO 11	388375	3736256	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1012	PICO 12	388350	3736304	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1013	PICO 13	388328	3736354	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1014	PICO 14	388307	3736403	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1015	PICO 15	388286	3736453	27	0.0191	0.0804	0.0580	0.0018	0.0016
Pico Ave: Harbor Scenic Connector - Harbor Plaza						0.267	1.125	0.812	0.025	0.023
Pier F Ave: Middle Harbor - Harbor Plaza	1360	PIER F 1	387539	3734879	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1361	PIER F 2	387550	3734926	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1362	PIER F 3	387568	3734970	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1363	PIER F 4	387599	3735006	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1364	PIER F 5	387640	3735031	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1365	PIER F 6	387681	3735056	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1366	PIER F 7	387722	3735081	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1367	PIER F 8	387763	3735106	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1368	PIER F 9	387804	3735131	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1369	PIER F 10	387845	3735156	24	0.0281	0.1181	0.0852	0.0026	0.0024

Table A.2.1-Alt1D-4. Hourly Roadway Link Emissions - POLB MHTP - Unmitigated Alternative 1

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Pier F Ave: Middle Harbor - Harbor Plaza	1370	PIER F 11	387886	3735181	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1371	PIER F 12	387927	3735206	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1372	PIER F 13	387968	3735231	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1373	PIER F 14	388009	3735256	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1374	PIER F 15	388050	3735281	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1375	PIER F 16	388091	3735306	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1376	PIER F 17	388135	3735325	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1377	PIER F 18	388182	3735331	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1378	PIER F 19	388230	3735331	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1379	PIER F 20	388276	3735339	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1380	PIER F 21	388288	3735383	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1381	PIER F 22	388289	3735431	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1382	PIER F 23	388289	3735479	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1383	PIER F 24	388290	3735527	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1384	PIER F 25	388290	3735575	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1385	PIER F 26	388290	3735623	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1386	PIER F 27	388289	3735671	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza	1387	PIER F 28	388296	3735718	24	0.0281	0.1181	0.0852	0.0026	0.0024
Pier F Ave: Middle Harbor - Harbor Plaza						0.786	3.307	2.384	0.073	0.067
Harbor Plaza: Pier F Ave - Pier G Ave	1388	PIER F 29	388336	3735740	24	0.0375	0.1487	0.0908	0.0031	0.0028
Harbor Plaza: Pier F Ave - Pier G Ave	1389	PIER F 30	388384	3735741	24	0.0375	0.1487	0.0908	0.0031	0.0028
Harbor Plaza: Pier F Ave - Pier G Ave	1390	PIER F 31	388432	3735740	24	0.0375	0.1487	0.0908	0.0031	0.0028
Harbor Plaza: Pier F Ave - Pier G Ave	1391	PIER F 32	388486	3735740	24	0.0375	0.1487	0.0908	0.0031	0.0028
Harbor Plaza: Pier F Ave - Pier G Ave						0.150	0.595	0.363	0.012	0.011
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	HARBOR PLAZA 1	388534	3735739	24	0.0121	0.0508	0.0366	0.0011	0.0010
Harbor Plaza: Pier G Ave - Queens Way Bridge	1393	HARBOR PLAZA 2	388582	3735738	24	0.0121	0.0508	0.0366	0.0011	0.0010
Harbor Plaza: Pier G Ave - Queens Way Bridge	1394	HARBOR PLAZA 3	388630	3735737	24	0.0121	0.0508	0.0366	0.0011	0.0010
Harbor Plaza: Pier G Ave - Queens Way Bridge	1395	HARBOR PLAZA 4	388678	3735737	24	0.0121	0.0508	0.0366	0.0011	0.0010
Harbor Plaza: Pier G Ave - Queens Way Bridge	1396	HARBOR PLAZA 5	388726	3735736	24	0.0121	0.0508	0.0366	0.0011	0.0010
Harbor Plaza: Pier G Ave - Queens Way Bridge	1397	HARBOR PLAZA 6	388771	3735723	24	0.0121	0.0508	0.0366	0.0011	0.0010
Harbor Plaza: Pier G Ave - Queens Way Bridge						0.072	0.305	0.220	0.007	0.006
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	HARBOR SCENIC 25	388213	3736780	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1171	HARBOR SCENIC 26	388196	3736850	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1172	HARBOR SCENIC 27	388191	3736922	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1173	HARBOR SCENIC 28	388200	3736993	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1174	HARBOR SCENIC 29	388212	3737064	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1175	HARBOR SCENIC 30	388223	3737136	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1176	HARBOR SCENIC 31	388233	3737207	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1177	HARBOR SCENIC 32	388240	3737279	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1178	HARBOR SCENIC 33	388243	3737350	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1179	HARBOR SCENIC 34	388244	3737422	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1180	HARBOR SCENIC 35	388243	3737494	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1181	HARBOR SCENIC 36	388241	3737566	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1182	HARBOR SCENIC 37	388241	3737638	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1183	HARBOR SCENIC 38	388242	3737710	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1184	HARBOR SCENIC 39	388243	3737782	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1185	HARBOR SCENIC 40	388244	3737854	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1186	HARBOR SCENIC 41	388245	3737926	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1187	HARBOR SCENIC 42	388245	3737998	36	0.0099	0.0429	0.0508	0.0014	0.0013
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)						0.179	0.772	0.914	0.025	0.023
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	HARBOR SCENIC 25	388213	3736780	36	0.0098	0.0422	0.0499	0.0014	0.0013
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1171	HARBOR SCENIC 26	388196	3736850	36	0.0098	0.0422	0.0499	0.0014	0.0013
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1172	HARBOR SCENIC 27	388191	3736922	36	0.0098	0.0422	0.0499	0.0014	0.0013
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1173	HARBOR SCENIC 28	388200	3736993	36	0.0098	0.0422	0.0499	0.0014	0.0013
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1174	HARBOR SCENIC 29	388212	3737064	36	0.0098	0.0422	0.0499	0.0014	0.0013
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)						0.049	0.211	0.249	0.007	0.006
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	HARBOR SCENIC 8	388800	3735766	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1154	HARBOR SCENIC 9	388775	3735828	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1155	HARBOR SCENIC 10	388755	3735890	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1156	HARBOR SCENIC 11	388717	3735941	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1157	HARBOR SCENIC 12	388665	3735988	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1158	HARBOR SCENIC 13	388611	3736036	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1159	HARBOR SCENIC 14	388564	3736090	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1160	HARBOR SCENIC 15	388516	3736144	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1161	HARBOR SCENIC 16	388476	3736204	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1162	HARBOR SCENIC 17	388442	3736267	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1163	HARBOR SCENIC 18	388416	3736334	36	0.0193	0.0834	0.0987	0.0027	0.0025

Table A.2.1-Alt1D-4. Hourly Roadway Link Emissions - POLB MHTP - Unmitigated Alternative 1

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1164	HARBOR SCENIC 19	388395	3736403	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1165	HARBOR SCENIC 20	388367	3736469	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1166	HARBOR SCENIC 21	388328	3736530	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1167	HARBOR SCENIC 22	388287	3736588	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1168	HARBOR SCENIC 23	388245	3736647	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1169	HARBOR SCENIC 24	388213	3736711	36	0.0193	0.0834	0.0987	0.0027	0.0025
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp						0.328	1.418	1.678	0.046	0.042
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	PIER D 17	387144	3736877	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1235	PIER D 18	387168	3736890	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1236	PIER D 19	387193	3736903	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1237	PIER D 20	387218	3736916	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1238	PIER D 21	387243	3736928	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1239	PIER D 22	387268	3736941	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1240	PIER D 23	387293	3736954	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1241	PIER D 24	387318	3736967	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1242	PIER D 25	387343	3736979	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1243	PIER D 26	387368	3736992	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1244	PIER D 27	387394	3737002	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1245	PIER D 28	387420	3737013	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1246	PIER D 29	387445	3737026	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1247	PIER D 30	387470	3737038	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1248	PIER D 31	387495	3737051	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1249	PIER D 32	387520	3737064	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1250	PIER D 33	387545	3737077	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1251	PIER D 34	387570	3737089	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1252	PIER D 35	387594	3737102	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1253	PIER D 36	387619	3737115	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1254	PIER D 37	387644	3737128	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1255	PIER D 38	387669	3737140	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1256	PIER D 39	387694	3737153	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1257	PIER D 40	387719	3737166	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1258	PIER D 41	387744	3737178	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1259	PIER D 42	387769	3737191	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1260	PIER D 43	387794	3737203	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1261	PIER D 44	387819	3737216	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1262	PIER D 45	387845	3737227	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1263	PIER D 46	387872	3737235	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1264	PIER D 47	387899	3737243	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1265	PIER D 48	387926	3737250	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1266	PIER D 49	387953	3737257	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1267	PIER D 50	387980	3737264	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1268	PIER D 51	388007	3737272	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1269	PIER D 52	388034	3737279	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave	1270	PIER D 53	388061	3737286	14	0.0160	0.0634	0.0387	0.0013	0.0012
Pier D St: w/o Pico Ave - w/o Pico Ave						0.591	2.347	1.434	0.048	0.044
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	OCEAN 1	385307	3736071	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1047	OCEAN 2	385361	3736088	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1048	OCEAN 3	385414	3736105	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1049	OCEAN 4	385468	3736122	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1050	OCEAN 5	385521	3736139	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1051	OCEAN 6	385574	3736155	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1052	OCEAN 7	385627	3736173	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1053	OCEAN 8	385680	3736193	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1054	OCEAN 9	385732	3736213	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1055	OCEAN 10	385784	3736233	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1056	OCEAN 11	385837	3736253	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1057	OCEAN 12	385889	3736274	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1058	OCEAN 13	385941	3736294	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1059	OCEAN 14	385993	3736314	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1060	OCEAN 15	386046	3736334	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1061	OCEAN 16	386098	3736355	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1062	OCEAN 17	386150	3736375	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1063	OCEAN 18	386202	3736396	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Seaside Blvd OnRamp - Bridge						0.194	0.816	0.588	0.018	0.017
Ocean Blvd: Bridge	1064	OCEAN 19	386254	3736417	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1065	OCEAN 20	386306	3736438	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1066	OCEAN 21	386357	3736460	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1067	OCEAN 22	386408	3736484	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1068	OCEAN 23	386459	3736507	28	0.0108	0.0453	0.0327	0.0010	0.0009

Table A.2.1-Alt1D-4. Hourly Roadway Link Emissions - POLB MHTP - Unmitigated Alternative 1

Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	Emissions (Pounds/Hour) TOG	CO	NO2	PM10	PM2.5
Ocean Blvd: Bridge	1069	OCEAN 24	386510	3736530	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1070	OCEAN 25	386561	3736553	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1071	OCEAN 26	386612	3736576	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1072	OCEAN 27	386663	3736599	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1073	OCEAN 28	386714	3736622	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1074	OCEAN 29	386765	3736645	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1075	OCEAN 30	386816	3736668	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1076	OCEAN 31	386867	3736692	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1077	OCEAN 32	386918	3736715	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1078	OCEAN 33	386970	3736735	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1079	OCEAN 34	387023	3736754	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1080	OCEAN 35	387074	3736777	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1081	OCEAN 36	387125	3736800	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1082	OCEAN 37	387176	3736822	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1083	OCEAN 38	387228	3736844	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1084	OCEAN 39	387280	3736865	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1085	OCEAN 40	387333	3736884	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1086	OCEAN 41	387386	3736901	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1087	OCEAN 42	387441	3736913	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge	1088	OCEAN 43	387496	3736922	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge						0.269	1.133	0.817	0.025	0.023
Ocean Blvd: Bridge - I-710 Offramp	1089	OCEAN 44	387551	3736930	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge - I-710 Offramp	1090	OCEAN 45	387607	3736937	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge - I-710 Offramp	1091	OCEAN 46	387662	3736943	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge - I-710 Offramp	1092	OCEAN 47	387718	3736949	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge - I-710 Offramp	1093	OCEAN 48	387774	3736955	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge - I-710 Offramp	1094	OCEAN 49	387829	3736961	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge - I-710 Offramp	1095	OCEAN 50	387885	3736966	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge - I-710 Offramp	1096	OCEAN 51	387941	3736972	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge - I-710 Offramp	1097	OCEAN 52	387997	3736977	28	0.0108	0.0453	0.0327	0.0010	0.0009
Ocean Blvd: Bridge - I-710 Offramp						0.097	0.408	0.294	0.009	0.008
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	Ocean Offramp 1	388027	3736971	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1622	Ocean Offramp 2	388053	3736959	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1623	Ocean Offramp 3	388079	3736946	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1624	Ocean Offramp 4	388094	3736921	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1625	Ocean Offramp 5	388102	3736893	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1626	Ocean Offramp 6	388102	3736865	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1627	Ocean Offramp 7	388102	3736836	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1628	Ocean Offramp 8	388101	3736808	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1629	Ocean Offramp 9	388085	3736784	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1630	Ocean Offramp 10	388058	3736777	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1631	Ocean Offramp 11	388029	3736775	14	0.0030	0.0127	0.0092	0.0003	0.0003
Pier E St Off Ramp : Pico Ave - Ocean Blvd						0.033	0.140	0.101	0.003	0.003
Santa Fe: 9th St - Anaheim St	1417	SANTA FE 2	387462	3738556	24	0.0031	0.0131	0.0094	0.0003	0.0003
Santa Fe: 9th St - Anaheim St	1418	SANTA FE 3	387463	3738604	24	0.0031	0.0131	0.0094	0.0003	0.0003
Santa Fe: 9th St - Anaheim St	1419	SANTA FE 4	387464	3738652	24	0.0031	0.0131	0.0094	0.0003	0.0003
Santa Fe: 9th St - Anaheim St	1420	SANTA FE 5	387465	3738700	24	0.0031	0.0131	0.0094	0.0003	0.0003
Santa Fe: 9th St - Anaheim St						0.012	0.052	0.038	0.001	0.001
Santa Fe: n/o Anaheim St - s/o Willow St	1421	SANTA FE 6	387465	3738748	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1422	SANTA FE 7	387466	3738796	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1423	SANTA FE 8	387467	3738844	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1424	SANTA FE 9	387468	3738892	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1425	SANTA FE 10	387468	3738940	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1426	SANTA FE 11	387469	3738988	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1427	SANTA FE 12	387470	3739036	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1428	SANTA FE 13	387471	3739084	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1429	SANTA FE 14	387471	3739132	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1430	SANTA FE 15	387472	3739180	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1431	SANTA FE 16	387473	3739228	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1432	SANTA FE 17	387474	3739276	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1433	SANTA FE 18	387475	3739324	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1434	SANTA FE 19	387475	3739372	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1435	SANTA FE 20	387476	3739420	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St	1436	SANTA FE 21	387477	3739468	24	0.0037	0.0155	0.0111	0.0003	0.0003
Santa Fe: n/o Anaheim St - s/o Willow St						0.059	0.247	0.178	0.005	0.005
I-710 : n/o 9th Street Onramp (NB)	1100	I-710 1	388241	3741119	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1101	I-710 2	388241	3741057	31	0.0200	0.0865	0.1024	0.0028	0.0026

Table A.2.1-Alt1D-4. Hourly Roadway Link Emissions - POLB MHTP - Unmitigated Alternative 1

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
I-710 : n/o 9th Street Onramp (NB)	1102	I-710 3	388244	3740995	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1103	I-710 4	388250	3740934	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1104	I-710 5	388256	3740872	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1105	I-710 6	388265	3740810	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1106	I-710 7	388274	3740749	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1107	I-710 8	388280	3740687	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1108	I-710 9	388281	3740625	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1109	I-710 10	388280	3740563	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1110	I-710 11	388279	3740501	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1111	I-710 12	388278	3740440	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1112	I-710 13	388277	3740378	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1113	I-710 14	388276	3740316	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1114	I-710 15	388276	3740254	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1115	I-710 16	388275	3740192	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1116	I-710 17	388273	3740130	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1117	I-710 18	388267	3740068	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1118	I-710 19	388258	3740007	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1119	I-710 20	388245	3739946	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1120	I-710 21	388231	3739886	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1121	I-710 22	388217	3739825	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1122	I-710 23	388205	3739764	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1123	I-710 24	388196	3739703	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1124	I-710 25	388188	3739642	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1125	I-710 26	388183	3739580	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1126	I-710 27	388180	3739518	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1127	I-710 28	388180	3739456	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1128	I-710 29	388184	3739394	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1129	I-710 30	388189	3739332	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1130	I-710 31	388194	3739271	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1131	I-710 32	388199	3739209	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1132	I-710 33	388199	3739147	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1133	I-710 34	388200	3739085	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1134	I-710 35	388201	3739023	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1135	I-710 36	388200	3738961	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1136	I-710 37	388198	3738899	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1137	I-710 38	388196	3738837	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1138	I-710 39	388194	3738775	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1139	I-710 40	388192	3738713	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1140	I-710 41	388190	3738651	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1141	I-710 42	388187	3738589	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1142	I-710 43	388185	3738527	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1143	I-710 44	388189	3738465	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1144	I-710 45	388190	3738403	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1145	I-710 46	388208	3738342	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1613	I-710 47	388220	3738282	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1614	I-710 48	388230	3738221	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1615	I-710 49	388240	3738160	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1616	I-710 50	388245	3738099	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)	1617	I-710 51	388245	3738038	31	0.0200	0.0865	0.1024	0.0028	0.0026
I-710 : n/o 9th Street Onramp (NB)						1.022	4.414	5.222	0.143	0.132
Onramp: 9th St - I-710 (NB)	1309	CONNECTOR 16	388106	3738066	14	0.0114	0.0453	0.0276	0.0009	0.0009
Onramp: 9th St - I-710 (NB)	1310	CONNECTOR 17	388089	3738044	14	0.0114	0.0453	0.0276	0.0009	0.0009
Onramp: 9th St - I-710 (NB)	1311	CONNECTOR 18	388072	3738022	14	0.0114	0.0453	0.0276	0.0009	0.0009
Onramp: 9th St - I-710 (NB)	1312	CONNECTOR 19	388058	3737997	14	0.0114	0.0453	0.0276	0.0009	0.0009
Onramp: 9th St - I-710 (NB)	1313	CONNECTOR 20	388047	3737972	14	0.0114	0.0453	0.0276	0.0009	0.0009
Onramp: 9th St - I-710 (NB)	1314	CONNECTOR 21	388044	3737944	14	0.0114	0.0453	0.0276	0.0009	0.0009
Onramp: 9th St - I-710 (NB)	1315	CONNECTOR 22	388042	3737916	14	0.0114	0.0453	0.0276	0.0009	0.0009
Onramp: 9th St - I-710 (NB)	1316	CONNECTOR 23	388051	3737890	14	0.0114	0.0453	0.0276	0.0009	0.0009
Onramp: 9th St - I-710 (NB)	1317	CONNECTOR 24	388064	3737865	14	0.0114	0.0453	0.0276	0.0009	0.0009
Onramp: 9th St - I-710 (NB)						0.103	0.407	0.249	0.008	0.008
Onramp: 9th St - I-710 (NB BRIDGE)	1318	CONNECTOR 25	388076	3737840	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1319	CONNECTOR 26	388091	3737817	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1320	CONNECTOR 27	388111	3737797	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1321	CONNECTOR 28	388137	3737787	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1322	CONNECTOR 29	388164	3737782	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1323	CONNECTOR 30	388192	3737785	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1324	CONNECTOR 31	388217	3737796	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1325	CONNECTOR 32	388239	3737814	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1326	CONNECTOR 33	388253	3737837	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1327	CONNECTOR 34	388263	3737863	14	0.0114	0.0451	0.0275	0.0009	0.0009

Table A.2.1-Alt1D-4. Hourly Roadway Link Emissions - POLB MHTP - Unmitigated Alternative 1

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Onramp: 9th St - I-710 (NB BRIDGE)	1328	CONNECTOR 35	388264	3737891	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1329	CONNECTOR 36	388265	3737919	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1330	CONNECTOR 37	388265	3737947	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)	1331	CONNECTOR 38	388266	3737975	14	0.0114	0.0451	0.0275	0.0009	0.0009
Onramp: 9th St - I-710 (NB BRIDGE)						0.159	0.631	0.386	0.013	0.012
Offramp: I-710 at 9th Street (SB)	1294	CONNECTOR 1	388112	3738046	14	0.0109	0.0431	0.0263	0.0009	0.0008
Offramp: I-710 at 9th Street (SB)	1295	CONNECTOR 2	388096	3738023	14	0.0109	0.0431	0.0263	0.0009	0.0008
Offramp: I-710 at 9th Street (SB)	1296	CONNECTOR 3	388080	3738000	14	0.0109	0.0431	0.0263	0.0009	0.0008
Offramp: I-710 at 9th Street (SB)	1297	CONNECTOR 4	388065	3737977	14	0.0109	0.0431	0.0263	0.0009	0.0008
Offramp: I-710 at 9th Street (SB)	1298	CONNECTOR 5	388058	3737949	14	0.0109	0.0431	0.0263	0.0009	0.0008
Offramp: I-710 at 9th Street (SB)	1299	CONNECTOR 6	388058	3737922	14	0.0109	0.0431	0.0263	0.0009	0.0008
Offramp: I-710 at 9th Street (SB)						0.065	0.259	0.158	0.005	0.005
Offramp: I-710 at 9th Street (SB BRIDGE)	1300	CONNECTOR 7	388072	3737898	14	0.0107	0.0427	0.0261	0.0009	0.0008
Offramp: I-710 at 9th Street (SB BRIDGE)	1301	CONNECTOR 8	388091	3737879	14	0.0107	0.0427	0.0261	0.0009	0.0008
Offramp: I-710 at 9th Street (SB BRIDGE)	1302	CONNECTOR 9	388116	3737867	14	0.0107	0.0427	0.0261	0.0009	0.0008
Offramp: I-710 at 9th Street (SB BRIDGE)	1303	CONNECTOR 10	388144	3737866	14	0.0107	0.0427	0.0261	0.0009	0.0008
Offramp: I-710 at 9th Street (SB BRIDGE)	1304	CONNECTOR 11	388170	3737874	14	0.0107	0.0427	0.0261	0.0009	0.0008
Offramp: I-710 at 9th Street (SB BRIDGE)	1305	CONNECTOR 12	388193	3737890	14	0.0107	0.0427	0.0261	0.0009	0.0008
Offramp: I-710 at 9th Street (SB BRIDGE)	1306	CONNECTOR 13	388210	3737912	14	0.0107	0.0427	0.0261	0.0009	0.0008
Offramp: I-710 at 9th Street (SB BRIDGE)	1307	CONNECTOR 14	388213	3737939	14	0.0107	0.0427	0.0261	0.0009	0.0008
Offramp: I-710 at 9th Street (SB BRIDGE)	1308	CONNECTOR 15	388214	3737967	14	0.0107	0.0427	0.0261	0.0009	0.0008
Offramp: I-710 at 9th Street (SB BRIDGE)						0.097	0.384	0.235	0.008	0.007

Table A.2.1-Alt1D-5. Operational Hourly Emissions - POLB MHTP - Mitigated Alternative 1

Source Activity	Pounds per Hour				
	TOG	CO	*NO 2*	PM10	PM2.5
OGV - Harbor Transit - 1 4-5k TEU	21.3	23.4	78.1	6.0	5.6
OGV - Docking - 1 4-5k TEU	9.9	9.0	30.3	2.5	2.3
OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)	2.9	5.5	17.8	1.4	1.3
OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)	0.2	1.6	1.1	0.5	0.5
OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)	0.3	0.5	1.6	0.1	0.1
OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)	0.2	1.6	1.1	0.5	0.5
Tugs - Harbor Transit - 2@ 0.72 hrs of ops	2.1	11.0	26.4	1.9	1.8
Tugs - Docking - 2@ 0.25 hrs of ops	0.7	3.8	9.2	0.7	0.6
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.3	0.5	0.7	0.1	0.1
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.7	1.2	1.7	0.2	0.2
Locomotives - Rail Yard	1.4	2.8	3.4	0.3	0.3
Rail Yard Equipment	0.1	0.5	0.5	0.04	0.03
Terminal Equipment	9.6	40.4	62.3	4.9	4.5
Trucks - On-Terminal	9.6	14.5	10.1	0.5	0.4
Pier D Entry Road	0.47	1.02	0.38	0.02	0.02
Pier D In Gate	1.06	1.41	0.59	0.03	0.03
Pier D Exit Road	0.14	0.30	0.11	0.01	0.01
Pier D Out Gate	0.62	0.83	0.34	0.02	0.02
Pier F Entry Road	0.10	0.22	0.08	0.00	0.00
Pier F Exit Road	0.36	0.77	0.29	0.02	0.01
Pier F In + Out Gates	1.10	1.45	0.61	0.03	0.03
Total	63	122	247	20	18

Table A.2.1-Alt1D-6. Operational Criteria Pollutant Emission Simulations - POLB MHTP Alternative 1

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source lb/hr TOG	CO	NO 2	PM10	PM2.5
OGV - Harbor Transit - 1 4-5k TEU												
	633 - 685	100	10,000	0.04	27	270,000	1.00	0.79	0.87	2.89	0.22	0.21
Subtotals			-	-	27	270,000	-	21.30	23.37	78.13	5.98	5.61
OGV - Docking - 1 4-5k TEU												
	616	300	90,000	1.00	1	90,000	1.00	9.92	9.01	30.25	2.50	2.35
Subtotals			-	-	1	90,000	-	9.92	9.01	30.25	2.50	2.35
OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)												
	2021	NA	NA	1	1	NA	NA	2.88	5.46	17.79	1.38	1.30
Subtotals			-	-	1	-	-	2.88	5.46	17.79	1.38	1.30
OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)												
	2003	NA	NA	1	1	NA	NA	0.18	1.57	1.08	0.51	0.50
Subtotals			-	-	1	-	-	0.18	1.57	1.08	0.51	0.50
OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)												
	2019	NA	NA	1	1	NA	NA	0.26	0.49	1.60	0.12	0.12
Subtotals			-	-	1	-	-	0.26	0.49	1.60	0.12	0.12
OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)												
	2001	NA	NA	1	1	NA	NA	0.18	1.57	1.08	0.51	0.50
Subtotals			-	-	1	-	-	0.18	1.57	1.08	0.51	0.50
Tugs - Harbor Transit - 2@ 0.72 hrs of ops												
	3633 -3685	100	10,000	0.04	27	270,000	1.00	0.08	0.41	0.98	0.07	0.07
Subtotals			-	-	27	270,000	-	2.09	10.99	26.43	1.88	1.76
Tugs - Docking - 2@ 0.25 hrs of ops												
	3,616	300	90,000	1.00	1	90,000	1.00	0.73	3.82	9.18	0.65	0.61
Subtotals			-	-	1	90,000	-	0.73	3.82	9.18	0.65	0.61
Haul Line Locomotive - 10 mph - Port to Ocean Blvd												
	916 - 941	15	225	0.04	26	5,850	1.00	0.01	0.02	0.03	0.00	0.00
Subtotals			-	-	26	5,850	-	0.30	0.52	0.74	0.08	0.08
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH												
	762 - 915	15	225	0.01	154	34,650	1.00	0.00	0.01	0.01	0.00	0.00
Subtotals			-	-	154	34,650	-	0.68	1.18	1.67	0.18	0.18
Locomotives - Rail Yard												
	255 - 380	25	625	0.03	29	18,125	1.00	0.05	0.10	0.12	0.01	0.01
Subtotals			-	-	29	18,125	-	1.40	2.82	3.43	0.35	0.35
Rail Yard Equipment												
	255 - 380	25	625	0.03	29	18,125	1.00	0.00	0.02	0.02	0.00	0.00
Subtotals			-	-	29	18,125	-	0.11	0.47	0.53	0.04	0.03
Rail Yard - Locomotives + Equipment												
	255 - 380	25	625	0.03	29	18,125	1.00	0.05	0.11	0.14	0.01	0.01
Subtotals			-	-	29	18,125	-	1.51	3.29	3.96	0.38	0.38
Terminal Equipment												
	1700-1704	50	2,500	0.003	5	12,500	0.01	0.03	0.12	0.18	0.01	0.01
	1705-1713	75	5,625	0.007	9	50,625	0.06	0.06	0.27	0.41	0.03	0.03
	1714	85	7,225	0.008	1	7,225	0.01	0.08	0.34	0.53	0.04	0.04
	1715-1721	100	10,000	0.012	7	70,000	0.08	0.11	0.47	0.73	0.06	0.05
	1722-1724	125	15,625	0.018	3	46,875	0.05	0.18	0.74	1.14	0.09	0.08
	1725-1727	150	22,500	0.026	3	67,500	0.08	0.25	1.06	1.64	0.13	0.12
	1728-1729	175	30,625	0.036	2	61,250	0.07	0.34	1.45	2.23	0.17	0.16
	1730-1734	200	40,000	0.047	5	200,000	0.23	0.45	1.89	2.91	0.23	0.21
	1735-1736	300	90,000	0.105	2	180,000	0.21	1.01	4.25	6.55	0.51	0.47
	1737	400	160,000	0.187	1	160,000	0.19	1.79	7.56	11.64	0.91	0.84
Subtotals			-	-	38	855,975	1.00					
Trucks - On-Terminal												
	1700-1704	50	2,500	0.003	5	12,500	0.01	0.03	0.04	0.03	0.00	0.00
	1705-1713	75	5,625	0.007	9	50,625	0.06	0.06	0.10	0.07	0.00	0.00
	1714	85	7,225	0.008	1	7,225	0.01	0.08	0.12	0.09	0.00	0.00
	1715-1721	100	10,000	0.012	7	70,000	0.08	0.11	0.17	0.12	0.01	0.00
	1722-1724	125	15,625	0.018	3	46,875	0.05	0.18	0.26	0.18	0.01	0.01
	1725-1727	150	22,500	0.026	3	67,500	0.08	0.25	0.38	0.27	0.01	0.01
	1728-1729	175	30,625	0.036	2	61,250	0.07	0.35	0.52	0.36	0.02	0.01
	1730-1734	200	40,000	0.047	5	200,000	0.23	0.45	0.68	0.47	0.02	0.02
	1735-1736	300	90,000	0.105	2	180,000	0.21	1.01	1.52	1.06	0.05	0.04
	1737	400	160,000	0.187	1	160,000	0.19	1.80	2.70	1.89	0.08	0.08
Subtotals			-	-	38	855,975	1.00					

Table A.2.1-Alt1D-6. Operational Criteria Pollutant Emission Simulations - POLB MHTP Alternative 1

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source lb/hr				
								TOG	CO	NO_2	PM_{10}	$PM_{2.5}$
Terminal - Equipment + Trucks												
	1700-1704	50	2,500	0.003	5	12,500	0.01	0.06	0.16	0.21	0.02	0.01
	1705-1713	75	5,625	0.007	9	50,625	0.06	0.13	0.36	0.48	0.03	0.03
	1714	85	7,225	0.008	1	7,225	0.01	0.16	0.46	0.61	0.04	0.04
	1715-1721	100	10,000	0.012	7	70,000	0.08	0.22	0.64	0.85	0.06	0.06
	1722-1724	125	15,625	0.018	3	46,875	0.05	0.35	1.00	1.32	0.10	0.09
	1725-1727	150	22,500	0.026	3	67,500	0.08	0.51	1.44	1.90	0.14	0.13
	1728-1729	175	30,625	0.036	2	61,250	0.07	0.69	1.96	2.59	0.19	0.18
	1730-1734	200	40,000	0.047	5	200,000	0.23	0.90	2.56	3.38	0.25	0.23
	1735-1736	300	90,000	0.105	2	180,000	0.21	2.02	5.77	7.61	0.56	0.51
	1737	400	160,000	0.187	1	160,000	0.19	3.60	10.26	13.54	0.99	0.91
Subtotals			-	-	38	855,975	1.00					
Pier D Entry Road												
	1636-1640	50	2,500	0.20	5	12,500	1.00	0.094	0.203	0.075	0.004	0.004
Subtotals			-	-	5	12,500	1.00	0.47	1.02	0.38	0.02	0.02
Pier D In Gate												
	1-3, 31,32	50	2,500	0.20	5	12,500	1.00	0.21	0.28	0.12	0.01	0.01
Subtotals			-	-	5	12,500	1.00	1.06	1.41	0.59	0.03	0.03
Pier D Exit Road												
	40,48	50	2,500	0.50	2	5,000	1.00	0.07	0.15	0.06	0.00	0.00
Subtotals			-	-	2	5,000	1.00	0.14	0.30	0.11	0.01	0.01
Pier D Out Gate												
	4-6	50	2,500	0.33	3	7,500	1.00	0.21	0.28	0.11	0.01	0.01
Subtotals			-	-	3	7,500	1.00	0.62	0.83	0.34	0.02	0.02
Pier F Entry Road												
	9-11	50	2,500	0.33	3	7,500	1.00	0.03	0.07	0.03	0.00	0.00
Subtotals			-	-	3	7,500	1.00	0.10	0.22	0.08	0.00	0.00
Pier F Exit Road												
	9-11	50	2,500	0.33	3	7,500	1.00	0.12	0.26	0.10	0.01	0.00
Subtotals			-	-	3	7,500	1.00	0.36	0.77	0.29	0.02	0.01
Pier F Entry + Exit Road												
	9-11	50	2,500	0.33	3	7,500	1.00	0.15	0.33	0.12	0.01	0.01
Subtotals			-	-	3	7,500	1.00	0.46	0.99	0.37	0.02	0.02
Pier F In + Out Gates												
	554	100	10,000	1.00	1	10,000	1.00	1.10	1.45	0.61	0.03	0.03
Subtotals			-	-	1	10,000	1.00	1.10	1.45	0.61	0.03	0.03

Table A.2.1-Alt1D-7. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 1.

Roadway Link	BEEST ID Start #	Length (Mi)	MPH	Fraction of PHT	PHT	Pounds per Hour						# of Vol. Sources
						TOG	CO	NO2	SOx	PM10	PM2.5	
Alameda St: Eubank - Anaheim St	1437	0.76	26	0.03	18	0.06	0.25	0.12	0.01	0.00	0.00	26
Anaheim St: Alameda - SR-47	1463	0.21	23	0.03	18	0.02	0.08	0.03	0.00	0.00	0.00	7
Anaheim St: SR-47 - 9th St	1470	1.22	26	0.03	21	0.11	0.45	0.21	0.01	0.01	0.01	41
9th Street: Anaheim St - Santa Fe	1190	0.30	33	0.05	35	0.04	0.15	0.09	0.00	0.00	0.00	11
9th Street: Santa Fe to 10th	1201	0.16	29	0.09	61	0.04	0.18	0.08	0.00	0.00	0.00	6
9th Street: Caspian - Pico (SB only)	1207	0.44	36	0.05	34	0.04	0.18	0.12	0.01	0.00	0.00	16
10th Street: Pico - 9th (NB only)	1271	0.50	30	0.04	27	0.05	0.20	0.11	0.01	0.00	0.00	29
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	0.58	41	0.15	99	0.13	0.59	0.46	0.02	0.01	0.01	13
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	0.35	41	0.35	228	0.18	0.80	0.63	0.03	0.02	0.02	9
I-710 : n/o Anaheim SB On Ramp (Southbound)	1100	1.62	43	0.33	217	0.79	3.59	2.80	0.14	0.08	0.07	42
Pico Ave: Pier B St - Pier D St	1034	0.52	31	0.50	329	0.60	2.52	1.41	0.07	0.05	0.04	16
Pico Ave: Pier D St - Terminal Entrance	1027	0.23	30	0.30	195	0.16	0.67	0.37	0.02	0.01	0.01	7
Pico Ave: Terminal Entrance - Pier E St	1024	0.10	32	0.09	58	0.02	0.09	0.05	0.00	0.00	0.00	3
Pico Ave: Pier E St - Harbor Scenic Connector	1016	0.27	31	0.08	52	0.05	0.20	0.11	0.01	0.00	0.00	8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	0.47	31	0.23	150	0.24	1.03	0.58	0.03	0.02	0.02	14
Pier F Ave: Middle Harbor - Harbor Plaza	1360	0.83	30	0.38	248	0.72	3.02	1.69	0.08	0.05	0.05	28
Harbor Plaza: Pier F Ave - Pier G Ave	1388	0.12	29	0.38	248	0.14	0.54	0.26	0.01	0.01	0.01	4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	0.18	30	0.16	107	0.07	0.28	0.16	0.01	0.01	0.00	6
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	0.81	46	0.15	101	0.16	0.71	0.64	0.03	0.02	0.02	18
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	0.22	47	0.15	99	0.04	0.19	0.18	0.01	0.00	0.00	5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	0.74	47	0.30	200	0.30	1.30	1.18	0.06	0.03	0.03	17
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	0.64	25	0.29	189	0.54	2.15	1.02	0.05	0.04	0.04	37
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	0.63	32	0.12	81	0.18	0.75	0.42	0.02	0.01	0.01	18
Ocean Blvd: Bridge	1064	0.87	32	0.12	81	0.25	1.04	0.58	0.03	0.02	0.02	25
Ocean Blvd: Bridge - I-710 Offramp	1089	0.31	32	0.12	81	0.09	0.37	0.21	0.01	0.01	0.01	9
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	0.20	30	0.07	45	0.03	0.13	0.07	0.00	0.00	0.00	11
Santa Fe: 9th St - Anaheim St	1417	0.12	30	0.04	27	0.01	0.05	0.03	0.00	0.00	0.00	4
Santa Fe: n/o Anaheim St - s/o Willow St	1421	0.48	30	0.05	32	0.05	0.23	0.13	0.01	0.00	0.00	16
I-710 : n/o 9th Street Onramp (Northbound)	1100	1.96	46	0.36	236	0.93	4.06	3.68	0.18	0.10	0.09	51
Onramp: 9th St - I-710 (Northbound)	1309	0.16	25	0.21	135	0.09	0.37	0.18	0.01	0.01	0.01	9
Onramp: 9th St - I-710 (Northbound BRIDGE)	1318	0.24	25	0.21	135	0.15	0.58	0.27	0.01	0.01	0.01	14
Offramp: I-710 at 9th Street (Southbound)	1294	0.10	25	0.20	129	0.06	0.24	0.11	0.01	0.00	0.00	6
Offramp: I-710 at 9th Street (Southbound BRIDGE)	1300	0.15	25	0.20	129	0.09	0.35	0.17	0.01	0.01	0.01	9
Pier D Entry Road (off Pico)	1636	0.17	15	0.28	188	0.47	1.02	0.38	0.01	0.02	0.02	5
Pier D In Gate	1	0.15	5	0.28	188	1.06	1.41	0.59	0.01	0.03	0.03	5
Pier D Exit Road (off Pier D St)	40	0.09	15	0.17	110	0.14	0.30	0.11	0.00	0.01	0.01	2
Pier D Out Gate	4	0.15	5	0.17	110	0.62	0.83	0.34	0.01	0.02	0.02	3
Pier F Entry Road (off Pier F Ave)	9	0.07	15	0.15	100	0.10	0.22	0.08	0.00	0.00	0.00	3
Pier F Exit Road (off Pier F Ave)	9	0.17	15	0.22	142	0.36	0.77	0.29	0.01	0.02	0.01	3
Pier F In + Out Gates	554	0.12	5	0.22	242	1.10	1.45	0.61	0.01	0.03	0.03	1

Table A.2.1-Alt1D-8. Hourly Roadway Link Emissions - POLB MHTP - Alternative 1.

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Alameda St: Eubank - Anaheim St	1437	ALAMEDA 1	383938	3737677	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1438	ALAMEDA 2	383976	3737707	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1439	ALAMEDA 3	384013	3737736	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1440	ALAMEDA 4	384051	3737766	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1441	ALAMEDA 5	384089	3737795	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1442	ALAMEDA 6	384126	3737826	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1443	ALAMEDA 7	384163	3737857	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1444	ALAMEDA 8	384198	3737889	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1445	ALAMEDA 9	384234	3737922	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1446	ALAMEDA 10	384267	3737956	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1447	ALAMEDA 11	384300	3737991	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1448	ALAMEDA 12	384334	3738025	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1449	ALAMEDA 13	384365	3738062	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1450	ALAMEDA 14	384395	3738099	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1451	ALAMEDA 15	384426	3738136	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1452	ALAMEDA 16	384457	3738173	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1453	ALAMEDA 17	384487	3738210	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1454	ALAMEDA 18	384515	3738249	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1455	ALAMEDA 19	384544	3738287	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1456	ALAMEDA 20	384572	3738326	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1457	ALAMEDA 21	384597	3738367	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1458	ALAMEDA 22	384622	3738408	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1459	ALAMEDA 23	384646	3738450	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1460	ALAMEDA 24	384669	3738492	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1461	ALAMEDA 25	384692	3738534	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St	1462	ALAMEDA 26	384707	3738562	24	0.0024	0.0095	0.0045	0.0002	0.0002
Alameda St: Eubank - Anaheim St						0.062	0.247	0.117	0.005	0.004
Anaheim St: Alameda - SR-47	1463	ANAHEIM 1	384755	3738566	24	0.0035	0.0121	0.0048	0.0002	0.0002
Anaheim St: Alameda - SR-47	1464	ANAHEIM 2	384803	3738569	24	0.0035	0.0121	0.0048	0.0002	0.0002
Anaheim St: Alameda - SR-47	1465	ANAHEIM 3	384851	3738572	24	0.0035	0.0121	0.0048	0.0002	0.0002
Anaheim St: Alameda - SR-47	1466	ANAHEIM 4	384898	3738576	24	0.0035	0.0121	0.0048	0.0002	0.0002
Anaheim St: Alameda - SR-47	1467	ANAHEIM 5	384946	3738579	24	0.0035	0.0121	0.0048	0.0002	0.0002
Anaheim St: Alameda - SR-47	1468	ANAHEIM 6	384994	3738582	24	0.0035	0.0121	0.0048	0.0002	0.0002
Anaheim St: Alameda - SR-47	1469	ANAHEIM 7	385042	3738586	24	0.0035	0.0121	0.0048	0.0002	0.0002
Anaheim St: Alameda - SR-47						0.024	0.085	0.034	0.002	0.001
Anaheim St: SR-47 - 9th St	1470	ANAHEIM 8	385090	3738589	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1471	ANAHEIM 9	385138	3738593	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1472	ANAHEIM 10	385186	3738596	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1473	ANAHEIM 11	385234	3738599	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1474	ANAHEIM 12	385282	3738603	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1475	ANAHEIM 13	385329	3738606	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1476	ANAHEIM 14	385377	3738610	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1477	ANAHEIM 15	385425	3738613	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1478	ANAHEIM 16	385473	3738617	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1479	ANAHEIM 17	385521	3738620	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1480	ANAHEIM 18	385569	3738623	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1481	ANAHEIM 19	385617	3738627	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1482	ANAHEIM 20	385665	3738630	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1483	ANAHEIM 21	385712	3738634	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1484	ANAHEIM 22	385760	3738637	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1485	ANAHEIM 23	385808	3738641	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1486	ANAHEIM 24	385856	3738644	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1487	ANAHEIM 25	385904	3738648	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1488	ANAHEIM 26	385952	3738651	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1489	ANAHEIM 27	386000	3738654	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1490	ANAHEIM 28	386048	3738658	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1491	ANAHEIM 29	386095	3738661	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1492	ANAHEIM 30	386143	3738665	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1493	ANAHEIM 31	386191	3738668	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1494	ANAHEIM 32	386239	3738672	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1495	ANAHEIM 33	386287	3738675	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1496	ANAHEIM 34	386335	3738678	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1497	ANAHEIM 35	386383	3738682	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1498	ANAHEIM 36	386431	3738685	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1499	ANAHEIM 37	386478	3738689	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1500	ANAHEIM 38	386526	3738692	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1501	ANAHEIM 39	386574	3738696	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1502	ANAHEIM 40	386622	3738699	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1503	ANAHEIM 41	386670	3738703	24	0.0028	0.0109	0.0052	0.0002	0.0002

Table A.2.1-Alt1D-8. Hourly Roadway Link Emissions - POLB MHTP - Alternative 1.

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Anaheim St: SR-47 - 9th St	1504	ANAHEIM 42	386718	3738706	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1505	ANAHEIM 43	386766	3738709	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1506	ANAHEIM 44	386814	3738713	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1507	ANAHEIM 45	386861	3738716	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1508	ANAHEIM 46	386909	3738720	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1509	ANAHEIM 47	386957	3738723	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St	1510	ANAHEIM 48	387005	3738727	24	0.0028	0.0109	0.0052	0.0002	0.0002
Anaheim St: SR-47 - 9th St						0.113	0.447	0.212	0.008	0.008
9th Street: Anaheim St - Santa Fe	1190	Ninth St 1	387057	3738731	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1191	Ninth St 2	387090	3738702	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1192	Ninth St 3	387110	3738663	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1193	Ninth St 4	387131	3738625	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1194	Ninth St 5	387168	3738603	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1195	Ninth St 6	387210	3738589	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1196	Ninth St 7	387252	3738576	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1197	Ninth St 8	387294	3738562	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1198	Ninth St 9	387335	3738547	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1199	Ninth St 10	387377	3738533	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe	1200	Ninth St 11	387418	3738518	22	0.0033	0.0140	0.0078	0.0003	0.0002
9th Street: Anaheim St - Santa Fe						0.036	0.154	0.086	0.003	0.003
9th Street: Santa Fe to 10th	1201	Ninth St 12	387460	3738504	22	0.0075	0.0296	0.0140	0.0006	0.0005
9th Street: Santa Fe to 10th	1202	Ninth St 13	387502	3738489	22	0.0075	0.0296	0.0140	0.0006	0.0005
9th Street: Santa Fe to 10th	1203	Ninth St 14	387543	3738475	22	0.0075	0.0296	0.0140	0.0006	0.0005
9th Street: Santa Fe to 10th	1204	Ninth St 15	387584	3738460	22	0.0075	0.0296	0.0140	0.0006	0.0005
9th Street: Santa Fe to 10th	1205	Ninth St 16	387626	3738446	22	0.0075	0.0296	0.0140	0.0006	0.0005
9th Street: Santa Fe to 10th	1206	Ninth St 17	387668	3738433	22	0.0075	0.0296	0.0140	0.0006	0.0005
9th Street: Santa Fe to 10th						0.045	0.177	0.084	0.003	0.003
9th Street: Caspian - Pico (SB only)	1207	Ninth St 18	387710	3738419	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1208	Ninth St 19	387751	3738404	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1209	Ninth St 20	387793	3738389	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1210	Ninth St 21	387834	3738374	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1211	Ninth St 22	387875	3738359	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1212	Ninth St 23	387917	3738344	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1213	Ninth St 24	387958	3738329	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1214	Ninth St 25	387999	3738314	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1215	Ninth St 26	388041	3738299	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1216	Ninth St 27	388082	3738284	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1217	Ninth St 28	388124	3738269	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1601	Ninth Street 29	388163	3738248	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1602	Ninth Street 30	388181	3738207	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1603	Ninth Street 31	388183	3738163	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1604	Ninth Street 32	388164	3738124	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)	1605	Ninth Street 33	388138	3738091	22	0.0026	0.0115	0.0076	0.0002	0.0002
9th Street: Caspian - Pico (SB only)						0.041	0.183	0.121	0.004	0.003
10th Street: Pico - 9th (NB only)	1271	Tenth St 1	387717	3738420	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1272	Tenth St 2	387744	3738413	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1273	Tenth St 3	387771	3738407	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1274	Tenth St 4	387799	3738405	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1275	Tenth St 5	387827	3738408	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1276	Tenth St 6	387855	3738412	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1277	Tenth St 7	387882	3738414	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1278	Tenth St 8	387910	3738416	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1279	Tenth St 9	387938	3738420	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1280	Tenth St 10	387966	3738425	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1281	Tenth St 11	387993	3738430	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1282	Tenth St 12	388021	3738435	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1283	Tenth St 13	388048	3738440	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1284	Tenth St 14	388076	3738444	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1285	Tenth St 15	388104	3738441	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1286	Tenth St 16	388128	3738429	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1287	Tenth St 17	388145	3738407	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1288	Tenth St 18	388154	3738380	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1289	Tenth St 19	388160	3738353	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1290	Tenth St 20	388167	3738326	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1291	Tenth St 21	388173	3738298	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1292	Tenth St 22	388179	3738271	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1293	Tenth St 23	388185	3738244	14	0.0016	0.0069	0.0039	0.0001	0.0001

Table A.2.1-Alt1D-8. Hourly Roadway Link Emissions - POLB MHTP - Alternative 1.

Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	Emissions (Pounds/Hour) TOG	CO	NO2	PM10	PM2.5
10th Street: Pico - 9th (NB only)	1607	Tenth St 24	388188	3738216	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1608	Tenth St 25	388189	3738189	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1609	Tenth St 26	388187	3738162	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1610	Tenth St 27	388175	3738137	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1611	Tenth St 28	388163	3738113	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)	1612	Tenth St 29	388147	3738092	14	0.0016	0.0069	0.0039	0.0001	0.0001
10th Street: Pico - 9th (NB only)						0.048	0.201	0.112	0.004	0.003
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	HARBOR SCENIC 30	388223	3737136	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1176	HARBOR SCENIC 31	388233	3737207	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1177	HARBOR SCENIC 32	388240	3737279	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1178	HARBOR SCENIC 33	388243	3737350	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1179	HARBOR SCENIC 34	388244	3737422	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1180	HARBOR SCENIC 35	388243	3737494	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1181	HARBOR SCENIC 36	388241	3737566	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1182	HARBOR SCENIC 37	388241	3737638	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1183	HARBOR SCENIC 38	388242	3737710	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1184	HARBOR SCENIC 39	388243	3737782	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1185	HARBOR SCENIC 40	388244	3737854	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1186	HARBOR SCENIC 41	388245	3737926	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1187	HARBOR SCENIC 42	388245	3737998	36	0.0100	0.0452	0.0353	0.0010	0.0009
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)						0.130	0.588	0.458	0.013	0.012
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1142	I-710 43	388185	3738527	31	0.0197	0.0894	0.0697	0.0019	0.0018
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1143	I-710 44	388189	3738465	31	0.0197	0.0894	0.0697	0.0019	0.0018
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1144	I-710 45	388190	3738403	31	0.0197	0.0894	0.0697	0.0019	0.0018
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1145	I-710 46	388208	3738342	31	0.0197	0.0894	0.0697	0.0019	0.0018
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	I-710 47	388220	3738282	31	0.0197	0.0894	0.0697	0.0019	0.0018
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1614	I-710 48	388230	3738221	31	0.0197	0.0894	0.0697	0.0019	0.0018
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1615	I-710 49	388240	3738160	31	0.0197	0.0894	0.0697	0.0019	0.0018
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1616	I-710 50	388245	3738099	31	0.0197	0.0894	0.0697	0.0019	0.0018
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1617	I-710 51	388245	3738038	31	0.0197	0.0894	0.0697	0.0019	0.0018
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)						0.178	0.805	0.627	0.017	0.016
I-710 : n/o Anaheim SB On Ramp (SB)	1100	I-710 1	388241	3741119	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1101	I-710 2	388241	3741057	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1102	I-710 3	388244	3740995	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1103	I-710 4	388250	3740934	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1104	I-710 5	388256	3740872	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1105	I-710 6	388265	3740810	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1106	I-710 7	388274	3740749	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1107	I-710 8	388280	3740687	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1108	I-710 9	388281	3740625	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1109	I-710 10	388280	3740563	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1110	I-710 11	388279	3740501	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1111	I-710 12	388278	3740440	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1112	I-710 13	388277	3740378	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1113	I-710 14	388276	3740316	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1114	I-710 15	388276	3740254	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1115	I-710 16	388275	3740192	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1116	I-710 17	388273	3740130	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1117	I-710 18	388267	3740068	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1118	I-710 19	388258	3740007	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1119	I-710 20	388245	3739946	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1120	I-710 21	388231	3739886	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1121	I-710 22	388217	3739825	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1122	I-710 23	388205	3739764	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1123	I-710 24	388196	3739703	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1124	I-710 25	388188	3739642	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1125	I-710 26	388183	3739580	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1126	I-710 27	388180	3739518	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1127	I-710 28	388180	3739456	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1128	I-710 29	388184	3739394	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1129	I-710 30	388189	3739332	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1130	I-710 31	388194	3739271	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1131	I-710 32	388199	3739209	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1132	I-710 33	388199	3739147	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1133	I-710 34	388200	3739085	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1134	I-710 35	388201	3739023	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1135	I-710 36	388200	3738961	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1136	I-710 37	388198	3738899	31	0.0189	0.0854	0.0666	0.0018	0.0017

Table A.2.1-Alt1D-8. Hourly Roadway Link Emissions - POLB MHTP - Alternative 1.

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
I-710 : n/o Anaheim SB On Ramp (SB)	1137	I-710 38	388196	3738837	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1138	I-710 39	388194	3738775	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1139	I-710 40	388192	3738713	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1140	I-710 41	388190	3738651	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)	1141	I-710 42	388187	3738589	31	0.0189	0.0854	0.0666	0.0018	0.0017
I-710 : n/o Anaheim SB On Ramp (SB)						0.792	3.586	2.796	0.077	0.071
Pico Ave: Pier B St - Pier D St	1034	PICO 34	388126	3737305	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1035	PICO 35	388152	3737352	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1036	PICO 36	388168	3737404	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1037	PICO 37	388174	3737458	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1038	PICO 38	388175	3737512	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1039	PICO 39	388176	3737566	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1040	PICO 40	388176	3737620	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1041	PICO 41	388174	3737674	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1042	PICO 42	388173	3737728	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1043	PICO 43	388172	3737782	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1044	PICO 44	388172	3737836	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1045	PICO 45	388172	3737890	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1620	Pico 48	388169	3737918	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1619	Pico 47	388164	3737972	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1618	Pico 46	388150	3738027	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St	1606	Ninth Street 34	388122	3738073	27	0.0374	0.1574	0.0879	0.0028	0.0026
Pico Ave: Pier B St - Pier D St						0.598	2.519	1.407	0.045	0.042
Pico Ave: Pier D St - Terminal Entrance	1027	PICO 27	387996	3736962	27	0.0228	0.0959	0.0536	0.0017	0.0016
Pico Ave: Pier D St - Terminal Entrance	1028	PICO 28	387993	3737016	27	0.0228	0.0959	0.0536	0.0017	0.0016
Pico Ave: Pier D St - Terminal Entrance	1029	PICO 29	387998	3737070	27	0.0228	0.0959	0.0536	0.0017	0.0016
Pico Ave: Pier D St - Terminal Entrance	1030	PICO 30	388013	3737121	27	0.0228	0.0959	0.0536	0.0017	0.0016
Pico Ave: Pier D St - Terminal Entrance	1031	PICO 31	388038	3737169	27	0.0228	0.0959	0.0536	0.0017	0.0016
Pico Ave: Pier D St - Terminal Entrance	1032	PICO 32	388066	3737215	27	0.0228	0.0959	0.0536	0.0017	0.0016
Pico Ave: Pier D St - Terminal Entrance	1033	PICO 33	388096	3737260	27	0.0228	0.0959	0.0536	0.0017	0.0016
Pico Ave: Pier D St - Terminal Entrance						0.159	0.671	0.375	0.012	0.011
Pico Ave: Terminal Entrance - Pier E St	1024	PICO 24	388011	3736801	27	0.0068	0.0286	0.0160	0.0005	0.0005
Pico Ave: Terminal Entrance - Pier E St	1025	PICO 25	388006	3736855	27	0.0068	0.0286	0.0160	0.0005	0.0005
Pico Ave: Terminal Entrance - Pier E St	1026	PICO 26	388001	3736908	27	0.0068	0.0286	0.0160	0.0005	0.0005
Pico Ave: Terminal Entrance - Pier E St						0.020	0.086	0.048	0.002	0.001
Pico Ave: Pier E St - Harbor Scenic Connector	1016	PICO 16	388261	3736501	27	0.0061	0.0255	0.0143	0.0005	0.0004
Pico Ave: Pier E St - Harbor Scenic Connector	1017	PICO 17	388229	3736544	27	0.0061	0.0255	0.0143	0.0005	0.0004
Pico Ave: Pier E St - Harbor Scenic Connector	1018	PICO 18	388184	3736574	27	0.0061	0.0255	0.0143	0.0005	0.0004
Pico Ave: Pier E St - Harbor Scenic Connector	1019	PICO 19	388134	3736593	27	0.0061	0.0255	0.0143	0.0005	0.0004
Pico Ave: Pier E St - Harbor Scenic Connector	1020	PICO 20	388083	3736610	27	0.0061	0.0255	0.0143	0.0005	0.0004
Pico Ave: Pier E St - Harbor Scenic Connector	1021	PICO 21	388043	3736645	27	0.0061	0.0255	0.0143	0.0005	0.0004
Pico Ave: Pier E St - Harbor Scenic Connector	1022	PICO 22	388019	3736694	27	0.0061	0.0255	0.0143	0.0005	0.0004
Pico Ave: Pier E St - Harbor Scenic Connector	1023	PICO 23	388015	3736747	27	0.0061	0.0255	0.0143	0.0005	0.0004
Pico Ave: Pier E St - Harbor Scenic Connector						0.0485	0.2043	0.1141	0.0037	0.0034
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	PICO 2	388479	3735798	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1003	PICO 3	388476	3735852	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1004	PICO 4	388476	3735906	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1005	PICO 5	388477	3735960	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1006	PICO 6	388478	3736014	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1007	PICO 7	388476	3736068	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1008	PICO 8	388461	3736119	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1009	PICO 9	388434	3736166	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1010	PICO 10	388403	3736210	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1011	PICO 11	388375	3736256	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1012	PICO 12	388350	3736304	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1013	PICO 13	388328	3736354	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1014	PICO 14	388307	3736403	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1015	PICO 15	388286	3736453	27	0.0175	0.0735	0.0411	0.0013	0.0012
Pico Ave: Harbor Scenic Connector - Harbor Plaza						0.245	1.029	0.575	0.019	0.017
Pier F Ave: Middle Harbor - Harbor Plaza	1360	PIER F 1	387539	3734879	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1361	PIER F 2	387550	3734926	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1362	PIER F 3	387568	3734970	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1363	PIER F 4	387599	3735006	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1364	PIER F 5	387640	3735031	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1365	PIER F 6	387681	3735056	24	0.0257	0.1080	0.0603	0.0019	0.0018

Table A.2.1-Alt1D-8. Hourly Roadway Link Emissions - POLB MHTP - Alternative 1.

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Pier F Ave: Middle Harbor - Harbor Plaza	1366	PIER F 7	387722	3735081	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1367	PIER F 8	387763	3735106	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1368	PIER F 9	387804	3735131	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1369	PIER F 10	387845	3735156	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1370	PIER F 11	387886	3735181	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1371	PIER F 12	387927	3735206	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1372	PIER F 13	387968	3735231	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1373	PIER F 14	388009	3735256	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1374	PIER F 15	388050	3735281	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1375	PIER F 16	388091	3735306	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1376	PIER F 17	388135	3735325	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1377	PIER F 18	388182	3735331	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1378	PIER F 19	388230	3735331	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1379	PIER F 20	388276	3735339	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1380	PIER F 21	388288	3735383	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1381	PIER F 22	388289	3735431	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1382	PIER F 23	388289	3735479	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1383	PIER F 24	388290	3735527	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1384	PIER F 25	388290	3735575	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1385	PIER F 26	388290	3735623	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1386	PIER F 27	388289	3735671	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza	1387	PIER F 28	388296	3735718	24	0.0257	0.1080	0.0603	0.0019	0.0018
Pier F Ave: Middle Harbor - Harbor Plaza						0.718	3.025	1.690	0.055	0.050
Harbor Plaza: Pier F Ave - Pier G Ave	1388	PIER F 29	388336	3735740	24	0.0344	0.1361	0.0645	0.0025	0.0023
Harbor Plaza: Pier F Ave - Pier G Ave	1389	PIER F 30	388384	3735741	24	0.0344	0.1361	0.0645	0.0025	0.0023
Harbor Plaza: Pier F Ave - Pier G Ave	1390	PIER F 31	388432	3735740	24	0.0344	0.1361	0.0645	0.0025	0.0023
Harbor Plaza: Pier F Ave - Pier G Ave	1391	PIER F 32	388486	3735740	24	0.0344	0.1361	0.0645	0.0025	0.0023
Harbor Plaza: Pier F Ave - Pier G Ave						0.137	0.544	0.258	0.010	0.009
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	HARBOR PLAZA 1	388534	3735739	24	0.0110	0.0465	0.0260	0.0008	0.0008
Harbor Plaza: Pier G Ave - Queens Way Bridge	1393	HARBOR PLAZA 2	388582	3735738	24	0.0110	0.0465	0.0260	0.0008	0.0008
Harbor Plaza: Pier G Ave - Queens Way Bridge	1394	HARBOR PLAZA 3	388630	3735737	24	0.0110	0.0465	0.0260	0.0008	0.0008
Harbor Plaza: Pier G Ave - Queens Way Bridge	1395	HARBOR PLAZA 4	388678	3735737	24	0.0110	0.0465	0.0260	0.0008	0.0008
Harbor Plaza: Pier G Ave - Queens Way Bridge	1396	HARBOR PLAZA 5	388726	3735736	24	0.0110	0.0465	0.0260	0.0008	0.0008
Harbor Plaza: Pier G Ave - Queens Way Bridge	1397	HARBOR PLAZA 6	388771	3735723	24	0.0110	0.0465	0.0260	0.0008	0.0008
Harbor Plaza: Pier G Ave - Queens Way Bridge						0.066	0.279	0.156	0.005	0.005
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	HARBOR SCENIC 25	388213	3736780	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1171	HARBOR SCENIC 26	388196	3736850	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1172	HARBOR SCENIC 27	388191	3736922	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1173	HARBOR SCENIC 28	388200	3736993	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1174	HARBOR SCENIC 29	388212	3737064	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1175	HARBOR SCENIC 30	388223	3737136	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1176	HARBOR SCENIC 31	388233	3737207	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1177	HARBOR SCENIC 32	388240	3737279	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1178	HARBOR SCENIC 33	388243	3737350	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1179	HARBOR SCENIC 34	388244	3737422	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1180	HARBOR SCENIC 35	388243	3737494	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1181	HARBOR SCENIC 36	388241	3737566	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1182	HARBOR SCENIC 37	388241	3737638	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1183	HARBOR SCENIC 38	388242	3737710	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1184	HARBOR SCENIC 39	388243	3737782	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1185	HARBOR SCENIC 40	388244	3737854	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1186	HARBOR SCENIC 41	388245	3737926	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1187	HARBOR SCENIC 42	388245	3737998	36	0.0090	0.0394	0.0357	0.0010	0.0009
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)						0.163	0.710	0.643	0.018	0.016
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	HARBOR SCENIC 25	388213	3736780	36	0.0089	0.0388	0.0351	0.0010	0.0009
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1171	HARBOR SCENIC 26	388196	3736850	36	0.0089	0.0388	0.0351	0.0010	0.0009
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1172	HARBOR SCENIC 27	388191	3736922	36	0.0089	0.0388	0.0351	0.0010	0.0009
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1173	HARBOR SCENIC 28	388200	3736993	36	0.0089	0.0388	0.0351	0.0010	0.0009
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1174	HARBOR SCENIC 29	388212	3737064	36	0.0089	0.0388	0.0351	0.0010	0.0009
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)						0.044	0.194	0.176	0.005	0.004
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	HARBOR SCENIC 8	388800	3735766	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1154	HARBOR SCENIC 9	388775	3735828	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1155	HARBOR SCENIC 10	388755	3735890	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1156	HARBOR SCENIC 11	388717	3735941	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1157	HARBOR SCENIC 12	388665	3735988	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1158	HARBOR SCENIC 13	388611	3736036	36	0.0176	0.0766	0.0695	0.0019	0.0018

Table A.2.1-Alt1D-8. Hourly Roadway Link Emissions - POLB MHTP - Alternative 1.

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1159	HARBOR SCENIC 14	388564	3736090	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1160	HARBOR SCENIC 15	388516	3736144	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1161	HARBOR SCENIC 16	388476	3736204	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1162	HARBOR SCENIC 17	388442	3736267	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1163	HARBOR SCENIC 18	388416	3736334	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1164	HARBOR SCENIC 19	388395	3736403	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1165	HARBOR SCENIC 20	388367	3736469	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1166	HARBOR SCENIC 21	388328	3736530	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1167	HARBOR SCENIC 22	388287	3736588	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1168	HARBOR SCENIC 23	388245	3736647	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1169	HARBOR SCENIC 24	388213	3736711	36	0.0176	0.0766	0.0695	0.0019	0.0018
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp						0.298	1.303	1.181	0.033	0.030
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	PIER D 17	387144	3736877	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1235	PIER D 18	387168	3736890	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1236	PIER D 19	387193	3736903	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1237	PIER D 20	387218	3736916	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1238	PIER D 21	387243	3736928	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1239	PIER D 22	387268	3736941	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1240	PIER D 23	387293	3736954	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1241	PIER D 24	387318	3736967	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1242	PIER D 25	387343	3736979	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1243	PIER D 26	387368	3736992	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1244	PIER D 27	387394	3737002	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1245	PIER D 28	387420	3737013	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1246	PIER D 29	387445	3737026	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1247	PIER D 30	387470	3737038	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1248	PIER D 31	387495	3737051	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1249	PIER D 32	387520	3737064	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1250	PIER D 33	387545	3737077	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1251	PIER D 34	387570	3737089	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1252	PIER D 35	387594	3737102	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1253	PIER D 36	387619	3737115	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1254	PIER D 37	387644	3737128	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1255	PIER D 38	387669	3737140	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1256	PIER D 39	387694	3737153	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1257	PIER D 40	387719	3737166	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1258	PIER D 41	387744	3737178	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1259	PIER D 42	387769	3737191	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1260	PIER D 43	387794	3737203	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1261	PIER D 44	387819	3737216	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1262	PIER D 45	387845	3737227	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1263	PIER D 46	387872	3737235	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1264	PIER D 47	387899	3737243	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1265	PIER D 48	387926	3737250	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1266	PIER D 49	387953	3737257	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1267	PIER D 50	387980	3737264	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1268	PIER D 51	388007	3737272	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1269	PIER D 52	388034	3737279	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave	1270	PIER D 53	388061	3737286	14	0.0147	0.0581	0.0275	0.0011	0.0010
Pier D St: w/o Pico Ave - w/o Pico Ave						0.542	2.148	1.019	0.040	0.037
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	OCEAN 1	385307	3736071	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1047	OCEAN 2	385361	3736088	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1048	OCEAN 3	385414	3736105	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1049	OCEAN 4	385468	3736122	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1050	OCEAN 5	385521	3736139	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1051	OCEAN 6	385574	3736155	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1052	OCEAN 7	385627	3736173	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1053	OCEAN 8	385680	3736193	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1054	OCEAN 9	385732	3736213	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1055	OCEAN 10	385784	3736233	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1056	OCEAN 11	385837	3736253	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1057	OCEAN 12	385889	3736274	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1058	OCEAN 13	385941	3736294	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1059	OCEAN 14	385993	3736314	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1060	OCEAN 15	386046	3736334	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1061	OCEAN 16	386098	3736355	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1062	OCEAN 17	386150	3736375	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1063	OCEAN 18	386202	3736396	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Seaside Blvd OnRamp - Bridge						0.177	0.746	0.417	0.013	0.012

Table A.2.1-Alt1D-8. Hourly Roadway Link Emissions - POLB MHTP - Alternative 1.

Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	Emissions (Pounds/Hour) TOG	CO	NO2	PM10	PM2.5
Ocean Blvd: Bridge	1064	OCEAN 19	386254	3736417	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1065	OCEAN 20	386306	3736438	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1066	OCEAN 21	386357	3736460	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1067	OCEAN 22	386408	3736484	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1068	OCEAN 23	386459	3736507	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1069	OCEAN 24	386510	3736530	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1070	OCEAN 25	386561	3736553	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1071	OCEAN 26	386612	3736576	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1072	OCEAN 27	386663	3736599	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1073	OCEAN 28	386714	3736622	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1074	OCEAN 29	386765	3736645	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1075	OCEAN 30	386816	3736668	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1076	OCEAN 31	386867	3736692	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1077	OCEAN 32	386918	3736715	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1078	OCEAN 33	386970	3736735	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1079	OCEAN 34	387023	3736754	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1080	OCEAN 35	387074	3736777	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1081	OCEAN 36	387125	3736800	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1082	OCEAN 37	387176	3736822	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1083	OCEAN 38	387228	3736844	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1084	OCEAN 39	387280	3736865	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1085	OCEAN 40	387333	3736884	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1086	OCEAN 41	387386	3736901	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1087	OCEAN 42	387441	3736913	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge	1088	OCEAN 43	387496	3736922	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge						0.246	1.037	0.579	0.019	0.017
Ocean Blvd: Bridge - I-710 Offramp	1089	OCEAN 44	387551	3736930	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge - I-710 Offramp	1090	OCEAN 45	387607	3736937	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge - I-710 Offramp	1091	OCEAN 46	387662	3736943	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge - I-710 Offramp	1092	OCEAN 47	387718	3736949	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge - I-710 Offramp	1093	OCEAN 48	387774	3736955	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge - I-710 Offramp	1094	OCEAN 49	387829	3736961	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge - I-710 Offramp	1095	OCEAN 50	387885	3736966	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge - I-710 Offramp	1096	OCEAN 51	387941	3736972	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge - I-710 Offramp	1097	OCEAN 52	387997	3736977	28	0.0098	0.0415	0.0232	0.0007	0.0007
Ocean Blvd: Bridge - I-710 Offramp						0.089	0.373	0.209	0.007	0.006
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	Ocean Offramp 1	388027	3736971	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1622	Ocean Offramp 2	388053	3736959	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1623	Ocean Offramp 3	388079	3736946	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1624	Ocean Offramp 4	388094	3736921	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1625	Ocean Offramp 5	388102	3736893	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1626	Ocean Offramp 6	388102	3736865	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1627	Ocean Offramp 7	388102	3736836	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1628	Ocean Offramp 8	388101	3736808	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1629	Ocean Offramp 9	388085	3736784	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1630	Ocean Offramp 10	388058	3736777	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1631	Ocean Offramp 11	388029	3736775	14	0.0028	0.0117	0.0065	0.0002	0.0002
Pier E St Off Ramp : Pico Ave - Ocean Blvd						0.030	0.128	0.072	0.002	0.002
Santa Fe: 9th St - Anaheim St	1417	SANTA FE 2	387462	3738556	24	0.0028	0.0120	0.0067	0.0002	0.0002
Santa Fe: 9th St - Anaheim St	1418	SANTA FE 3	387463	3738604	24	0.0028	0.0120	0.0067	0.0002	0.0002
Santa Fe: 9th St - Anaheim St	1419	SANTA FE 4	387464	3738652	24	0.0028	0.0120	0.0067	0.0002	0.0002
Santa Fe: 9th St - Anaheim St	1420	SANTA FE 5	387465	3738700	24	0.0028	0.0120	0.0067	0.0002	0.0002
Santa Fe: 9th St - Anaheim St						0.011	0.048	0.027	0.001	0.001
Santa Fe: n/o Anaheim St - s/o Willow St	1421	SANTA FE 6	387465	3738748	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1422	SANTA FE 7	387466	3738796	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1423	SANTA FE 8	387467	3738844	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1424	SANTA FE 9	387468	3738892	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1425	SANTA FE 10	387468	3738940	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1426	SANTA FE 11	387469	3738988	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1427	SANTA FE 12	387470	3739036	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1428	SANTA FE 13	387471	3739084	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1429	SANTA FE 14	387471	3739132	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1430	SANTA FE 15	387472	3739180	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1431	SANTA FE 16	387473	3739228	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1432	SANTA FE 17	387474	3739276	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1433	SANTA FE 18	387475	3739324	24	0.0034	0.0141	0.0079	0.0003	0.0002

Table A.2.1-Alt1D-8. Hourly Roadway Link Emissions - POLB MHTP - Alternative 1.

Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	Emissions (Pounds/Hour) TOG	CO	NO2	PM10	PM2.5
Santa Fe: n/o Anaheim St - s/o Willow St	1434	SANTA FE 19	387475	3739372	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1435	SANTA FE 20	387476	3739420	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St	1436	SANTA FE 21	387477	3739468	24	0.0034	0.0141	0.0079	0.0003	0.0002
Santa Fe: n/o Anaheim St - s/o Willow St						0.054	0.226	0.126	0.004	0.004
I-710 : n/o 9th Street Onramp (NB)	1100	I-710 1	388241	3741119	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1101	I-710 2	388241	3741057	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1102	I-710 3	388244	3740995	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1103	I-710 4	388250	3740934	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1104	I-710 5	388256	3740872	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1105	I-710 6	388265	3740810	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1106	I-710 7	388274	3740749	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1107	I-710 8	388280	3740687	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1108	I-710 9	388281	3740625	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1109	I-710 10	388280	3740563	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1110	I-710 11	388279	3740501	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1111	I-710 12	388278	3740440	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1112	I-710 13	388277	3740378	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1113	I-710 14	388276	3740316	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1114	I-710 15	388276	3740254	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1115	I-710 16	388275	3740192	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1116	I-710 17	388273	3740130	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1117	I-710 18	388267	3740068	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1118	I-710 19	388258	3740007	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1119	I-710 20	388245	3739946	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1120	I-710 21	388231	3739886	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1121	I-710 22	388217	3739825	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1122	I-710 23	388205	3739764	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1123	I-710 24	388196	3739703	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1124	I-710 25	388188	3739642	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1125	I-710 26	388183	3739580	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1126	I-710 27	388180	3739518	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1127	I-710 28	388180	3739456	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1128	I-710 29	388184	3739394	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1129	I-710 30	388189	3739332	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1130	I-710 31	388194	3739271	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1131	I-710 32	388199	3739209	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1132	I-710 33	388199	3739147	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1133	I-710 34	388200	3739085	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1134	I-710 35	388201	3739023	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1135	I-710 36	388200	3738961	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1136	I-710 37	388198	3738899	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1137	I-710 38	388196	3738837	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1138	I-710 39	388194	3738775	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1139	I-710 40	388192	3738713	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1140	I-710 41	388190	3738651	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1141	I-710 42	388187	3738589	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1142	I-710 43	388185	3738527	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1143	I-710 44	388189	3738465	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1144	I-710 45	388190	3738403	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1145	I-710 46	388208	3738342	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1613	I-710 47	388220	3738282	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1614	I-710 48	388230	3738221	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1615	I-710 49	388240	3738160	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1616	I-710 50	388245	3738099	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)	1617	I-710 51	388245	3738038	31	0.0182	0.0795	0.0721	0.0020	0.0018
I-710 : n/o 9th Street Onramp (NB)						0.929	4.056	3.677	0.102	0.094
Onramp: 9th St - I-710 (NB)	1309	CONNECTOR 16	388106	3738066	14	0.0105	0.0414	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB)	1310	CONNECTOR 17	388089	3738044	14	0.0105	0.0414	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB)	1311	CONNECTOR 18	388072	3738022	14	0.0105	0.0414	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB)	1312	CONNECTOR 19	388058	3737997	14	0.0105	0.0414	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB)	1313	CONNECTOR 20	388047	3737972	14	0.0105	0.0414	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB)	1314	CONNECTOR 21	388044	3737944	14	0.0105	0.0414	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB)	1315	CONNECTOR 22	388042	3737916	14	0.0105	0.0414	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB)	1316	CONNECTOR 23	388051	3737890	14	0.0105	0.0414	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB)	1317	CONNECTOR 24	388064	3737865	14	0.0105	0.0414	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB)						0.094	0.373	0.177	0.007	0.006
Onramp: 9th St - I-710 (NB BRIDGE)	1318	CONNECTOR 25	388076	3737840	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1319	CONNECTOR 26	388091	3737817	14	0.0104	0.0413	0.0196	0.0008	0.0007

Table A.2.1-Alt1D-8. Hourly Roadway Link Emissions - POLB MHTP - Alternative 1.

						Emissions (Pounds/Hour)				
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	TOG	CO	NO2	PM10	PM2.5
Onramp: 9th St - I-710 (NB BRIDGE)	1320	CONNECTOR 27	388111	3737797	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1321	CONNECTOR 28	388137	3737787	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1322	CONNECTOR 29	388164	3737782	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1323	CONNECTOR 30	388192	3737785	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1324	CONNECTOR 31	388217	3737796	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1325	CONNECTOR 32	388239	3737814	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1326	CONNECTOR 33	388253	3737837	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1327	CONNECTOR 34	388263	3737863	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1328	CONNECTOR 35	388264	3737891	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1329	CONNECTOR 36	388265	3737919	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1330	CONNECTOR 37	388265	3737947	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)	1331	CONNECTOR 38	388266	3737975	14	0.0104	0.0413	0.0196	0.0008	0.0007
Onramp: 9th St - I-710 (NB BRIDGE)						0.146	0.578	0.274	0.011	0.010
Offramp: I-710 at 9th Street (SB)	1294	CONNECTOR 1	388112	3738046	14	0.0100	0.0395	0.0187	0.0007	0.0007
Offramp: I-710 at 9th Street (SB)	1295	CONNECTOR 2	388096	3738023	14	0.0100	0.0395	0.0187	0.0007	0.0007
Offramp: I-710 at 9th Street (SB)	1296	CONNECTOR 3	388080	3738000	14	0.0100	0.0395	0.0187	0.0007	0.0007
Offramp: I-710 at 9th Street (SB)	1297	CONNECTOR 4	388065	3737977	14	0.0100	0.0395	0.0187	0.0007	0.0007
Offramp: I-710 at 9th Street (SB)	1298	CONNECTOR 5	388058	3737949	14	0.0100	0.0395	0.0187	0.0007	0.0007
Offramp: I-710 at 9th Street (SB)	1299	CONNECTOR 6	388058	3737922	14	0.0100	0.0395	0.0187	0.0007	0.0007
Offramp: I-710 at 9th Street (SB)						0.060	0.237	0.112	0.004	0.004
Offramp: I-710 at 9th Street (SB BRIDGE)	1300	CONNECTOR 7	388072	3737898	14	0.0099	0.0390	0.0185	0.0007	0.0007
Offramp: I-710 at 9th Street (SB BRIDGE)	1301	CONNECTOR 8	388091	3737879	14	0.0099	0.0390	0.0185	0.0007	0.0007
Offramp: I-710 at 9th Street (SB BRIDGE)	1302	CONNECTOR 9	388116	3737867	14	0.0099	0.0390	0.0185	0.0007	0.0007
Offramp: I-710 at 9th Street (SB BRIDGE)	1303	CONNECTOR 10	388144	3737866	14	0.0099	0.0390	0.0185	0.0007	0.0007
Offramp: I-710 at 9th Street (SB BRIDGE)	1304	CONNECTOR 11	388170	3737874	14	0.0099	0.0390	0.0185	0.0007	0.0007
Offramp: I-710 at 9th Street (SB BRIDGE)	1305	CONNECTOR 12	388193	3737890	14	0.0099	0.0390	0.0185	0.0007	0.0007
Offramp: I-710 at 9th Street (SB BRIDGE)	1306	CONNECTOR 13	388210	3737912	14	0.0099	0.0390	0.0185	0.0007	0.0007
Offramp: I-710 at 9th Street (SB BRIDGE)	1307	CONNECTOR 14	388213	3737939	14	0.0099	0.0390	0.0185	0.0007	0.0007
Offramp: I-710 at 9th Street (SB BRIDGE)	1308	CONNECTOR 15	388214	3737967	14	0.0099	0.0390	0.0185	0.0007	0.0007
Offramp: I-710 at 9th Street (SB BRIDGE)						0.089	0.351	0.167	0.007	0.006

Alternative 2 (Annual and Daily)

Annual

Daily

Table A.2.1-Alt2A-1. Operational Annual Modeling Emissions - POLB MHTP - Unmitigated Alternative 2

Source Activity	Annual Average Pounds per Hour (1)			
	CO	NO2	PM10	PM2.5
OGVs - Fairway Transit		42.53		
OGVs - Precautionary Area Transit		13.11		
OGVs - Harbor Transit		5.41		
OGVs - Docking		1.95		
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth E24		1.58		
OGVs - Hoteling Aux. Gens. - Berth E26 (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth E26		1.58		
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth F6		1.58		
Tugs - Harbor Transit		0.94		
Tugs - Docking		0.31		
Haul Line Locomotive - 10 mph - Port to Ocean Blvd		0.020		
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH		0.046		
Locomotives - Rail Yard		0.17		
Rail Yard Equipment		0.11		
Terminal Equipment		10.05		
Trucks - On-Terminal		4.21		
Pier D Entry Road		0.19		
Pier D In Gate		0.30		
Pier D Exit Road		0.06		
Pier D Out Gate		0.17		
Pier F Entry Road		0.04		
Pier F Exit Road		0.14		
Pier F In + Out Gates		0.31		

Note: (1) annual emissions divided by 8760 hours.

(2) Used the following NOx to NO2 SCAQMD convertion factors: (a) OGV fairway and precautionary area, 5000m or 100%,

(b) OGV and tug harbor transit and docking, 1000m or 46.7%, (c) all other sources, 500m or 25.8%.

Table A.2.1-Alt2A-2. Annual Operational Criteria Pollutant Emission Simulations - POLB MHTP - Unmitigated Alterative 2

	Source	Width	Area	Source Area/	# of	Total Source	Combined Sources Area/	Volume Source Pounds per Hour			
Activity/Source ID	Number(s)	(meters)	(m2)	Total Source Area	Sources	Area (m2)	Total Source Area	CO	NO2	PM10	PM2.5
OGVs - Fairway Transit											
	719-761	300	90,000	0.02	43	3,870,000	1.00		0.99		
Subtotals			-	-	43	3,870,000	-		42.53		
OGVs - Precautionary Area Transit											
	686-718	300	90,000	0.03	33	2,970,000	1.00	-	0.40	-	-
Subtotals			-	-	33	2,970,000	-	-	13.11	-	-
OGVs - Harbor Transit											
	633 - 685	100	10,000	0.04	27	270,000	1.00	-	0.20	-	-
Subtotals			-	-	27	270,000	-	-	5.41	-	-
OGVs - Docking											
	616	300	90,000	1.00	1	90,000	1.00	-	1.95	-	-
Subtotals			-	-	1	90,000	-	-	1.95	-	-
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)											
	2020	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth E24											
	2002	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
OGVs - Hoteling Aux. Gens. - Berth E26 (no cold-iron)											
	2019	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth E26											
	2001	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)											
	2021	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth F6											
	2003	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
Tugs - Harbor Transit											
	3633 -3685	100	10,000	0.04	27	270,000	1.00	-	0.03	-	-
Subtotals			-	-	27	270,000	-	-	0.94	-	-
Tugs - Docking											
	3,616	300	90,000	1.00	1	90,000	1.00	-	0.31	-	-
Subtotals			-	-	1	90,000	-	-	0.31	-	-
Haul Line Locomotive - 10 mph - Port to Ocean Blvd											
	916 - 941	15	225	0.04	26	5,850	1.00	-	0.001	-	-
Subtotals			-	-	26	5,850	-	-	0.02	-	-
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH											
	762 - 915	15	225	0.01	154	34,650	1.00	-	0.0003	-	-
Subtotals			-	-	154	34,650	-	-	0.05	-	-
Locomotives - Rail Yard											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.01	-	-
Subtotals			-	-	29	18,125	-	-	0.17	-	-
Rail Yard Equipment											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.00	-	-
Subtotals			-	-	29	18,125	-	-	0.11	-	-
Rail Yard - Locomotives + Equipment											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.01	-	-
Subtotals			-	-	29	18,125	-	-	0.28	-	-
Terminal Equipment											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.03	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.07	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.08	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.12	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.18	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.26	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.36	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.47	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	1.06	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	1.88	-	-
			-	-	38	855,975	1.00				

Table A.2.1-Alt2A-2. Annual Operational Criteria Pollutant Emission Simulations - POLB MHTP - Unmitigated Alterative 2

	Source	Width	Area	Source Area/	# of	Total Source	Combined Sources Area/	Volume Source Pounds per Hour			
Activity/Source ID	Number(s)	(meters)	(m2)	Total Source Area	Sources	Area (m2)	Total Source Area	CO	NO2	PM10	PM2.5
Trucks - On-Terminal											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.01	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.03	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.04	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.05	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.08	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.11	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.15	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.20	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	0.44	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	0.79	-	-
			-	-	38	855,975	1.00				
Terminal - Equipment + Trucks											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.04	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.09	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.12	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.17	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.26	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.37	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.51	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.67	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	1.50	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	2.66	-	-
			-	-	38	855,975	1.00				
Pier D Entry Road											
	1636-1640	50	2,500	0.20	5	12,500	1.00	-	0.038	-	-
Subtotals			-	-	5	12,500	1.00	-	0.19	-	-
Pier D In Gate											
	1-3, 31,32	50	2,500	0.20	5	12,500	1.00	-	0.06	-	-
Subtotals			-	-	5	12,500	1.00	-	0.30	-	-
Pier D Exit Road											
	40,48	50	2,500	0.50	2	5,000	1.00	-	0.03	-	-
Subtotals			-	-	2	5,000	1.00	-	0.06	-	-
Pier D Out Gate											
	4-6	50	2,500	0.33	3	7,500	1.00	-	0.06	-	-
Subtotals			-	-	3	7,500	1.00	-	0.17	-	-
Pier F Entry Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.01	-	-
Subtotals			-	-	3	7,500	1.00	-	0.04	-	-
Pier F Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.05	-	-
Subtotals			-	-	3	7,500	1.00	-	0.14	-	-
Pier F Entry + Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.06	-	-
Subtotals			-	-	3	7,500	1.00	-	0.18	-	-
Pier F In + Out Gates											
	554	100	10,000	1.00	1	10,000	1.00	-	0.31	-	-
Subtotals			-	-	1	10,000	1.00	-	0.31	-	-

Table A.2.1-Alt2A-3. Annual Roadway Emissions - POLB MHTP - Unmitigated Alternative 2

Roadway Link	BEEST ID Start #	Length (Mi)	MPH	Fraction of AnT	Annual Trips	Pounds per Year						# of Vol. Sources
						TOG	CO	NO2	SOx	PM10	PM2.5	
Alameda St: Eubank - Anaheim St	1437	0.76	26	0.03	57,976	215	855	523	18	18	16	26
Anaheim St: Alameda - SR-47	1463	0.21	23	0.03	57,976	85	294	150	5	6	6	7
Anaheim St: SR-47 - 9th St	1470	1.22	26	0.03	65,920	392	1,554	950	32	32	29	41
9th Street: Anaheim St - Santa Fe	1190	0.30	33	0.05	109,356	125	525	379	13	12	11	11
9th Street: Santa Fe to 10th	1201	0.16	29	0.09	192,389	153	609	372	13	13	12	6
9th Street: Caspian - Pico (SB only)	1207	0.44	36	0.05	107,902	142	626	536	19	15	13	16
10th Street: Pico - 9th (NB only)	1271	0.50	30	0.04	85,733	163	688	496	17	15	14	29
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	0.58	41	0.15	303,726	438	1,966	1,993	70	51	47	13
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	0.35	41	0.33	680,427	584	2,620	2,657	93	67	62	9
I-710 : n/o Anaheim SB On Ramp (Southbound)	1100	1.62	43	0.31	646,969	2,595	11,648	11,812	415	300	276	42
Pico Ave: Pier B St - Pier D St	1034	0.52	31	0.49	1,006,364	1,998	8,410	6,065	208	185	170	16
Pico Ave: Pier D St - Terminal Entrance	1027	0.23	30	0.28	581,365	519	2,185	1,575	54	48	44	7
Pico Ave: Terminal Entrance - Pier E St	1024	0.10	32	0.09	182,582	70	294	212	7	6	6	3
Pico Ave: Pier E St - Harbor Scenic Connector	1016	0.27	31	0.08	162,391	165	694	501	17	15	14	8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	0.47	31	0.23	467,560	835	3,516	2,536	87	77	71	14
Pier F Ave: Middle Harbor - Harbor Plaza	1360	0.83	30	0.37	769,555	2,435	10,248	7,390	254	226	208	28
Harbor Plaza: Pier F Ave - Pier G Ave	1388	0.12	29	0.37	769,555	464	1,843	1,126	38	38	35	4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	0.18	30	0.16	327,955	222	936	675	23	21	19	6
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	0.99	46	0.15	315,068	686	2,962	3,504	123	96	88	18
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	0.22	47	0.15	303,726	150	646	765	27	21	19	5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	0.74	47	0.30	618,990	1,017	4,392	5,196	183	142	131	17
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	0.64	25	0.29	595,338	1,862	7,389	4,514	152	152	140	37
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	0.63	32	0.12	254,403	607	2,553	1,841	63	56	52	18
Ocean Blvd: Bridge	1064	0.87	32	0.12	254,403	842	3,545	2,557	88	78	72	25
Ocean Blvd: Bridge - I-710 Offramp	1089	0.31	32	0.12	254,403	303	1,276	920	32	28	26	9
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	0.20	30	0.07	139,316	104	438	316	11	10	9	11
Santa Fe: 9th St - Anaheim St	1417	0.12	30	0.04	85,955	39	164	118	4	4	3	4
Santa Fe: n/o Anaheim St - s/o Willow St	1421	0.48	30	0.05	100,377	182	767	553	19	17	16	16
I-710 : n/o 9th Street Onramp (Northbound)	1100	1.96	46	0.36	742,663	3,214	13,884	16,427	579	450	414	51
Onramp: 9th St - I-710 (Northbound)	1309	0.16	25	0.21	427,399	324	1,286	786	26	26	24	9
Onramp: 9th St - I-710 (Northbound BRIDGE)	1318	0.24	25	0.21	427,399	502	1,994	1,218	41	41	38	14
Offramp: I-710 at 9th Street (Southbound)	1294	0.10	25	0.18	376,701	190	756	462	16	16	14	6
Offramp: I-710 at 9th Street (Southbound BRIDGE)	1300	0.15	25	0.18	376,701	283	1,122	686	23	23	21	9
Pier D Entry Road (off Pico)	1636	0.17	15	0.28	585,531	1,607	3,462	1,652	40	79	72	5
Pier D In Gate	1	0.15	5	0.28	585,531	3,624	4,794	2,591	35	120	110	5
Pier D Exit Road (off Pier D St)	40	0.09	15	0.17	343,451	471	1,015	485	12	23	21	2
Pier D Out Gate	4	0.15	5	0.17	343,451	2,126	2,812	1,520	20	70	65	3
Pier F Entry Road (off Pier F Ave)	9	0.07	15	0.15	310,855	350	755	360	9	17	16	3
Pier F Exit Road (off Pier F Ave)	9	0.17	15	0.22	444,112	1,219	2,626	1,253	31	60	55	3
Pier F In + Out Gates	554	0.12	5	0.22	754,967	3,738	4,945	2,673	36	124	114	1

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	PICO 2	388479	3735798	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1003	PICO 3	388476	3735852	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1004	PICO 4	388476	3735906	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1005	PICO 5	388477	3735960	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1006	PICO 6	388478	3736014	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1007	PICO 7	388476	3736068	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1008	PICO 8	388461	3736119	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1009	PICO 9	388434	3736166	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1010	PICO 10	388403	3736210	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1011	PICO 11	388375	3736256	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1012	PICO 12	388350	3736304	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1013	PICO 13	388328	3736354	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1014	PICO 14	388307	3736403	27	181.1
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1015	PICO 15	388286	3736453	27	181.1
Pico Ave: Pier E St - Harbor Scenic Connector	1016	PICO 16	388261	3736501	27	62.6
Pico Ave: Pier E St - Harbor Scenic Connector	1017	PICO 17	388229	3736544	27	62.6
Pico Ave: Pier E St - Harbor Scenic Connector	1018	PICO 18	388184	3736574	27	62.6
Pico Ave: Pier E St - Harbor Scenic Connector	1019	PICO 19	388134	3736593	27	62.6
Pico Ave: Pier E St - Harbor Scenic Connector	1020	PICO 20	388083	3736610	27	62.6
Pico Ave: Pier E St - Harbor Scenic Connector	1021	PICO 21	388043	3736645	27	62.6
Pico Ave: Pier E St - Harbor Scenic Connector	1022	PICO 22	388019	3736694	27	62.6
Pico Ave: Pier E St - Harbor Scenic Connector	1023	PICO 23	388015	3736747	27	62.6
Pico Ave: Terminal Entrance - Pier E St	1024	PICO 24	388011	3736801	27	70.8
Pico Ave: Terminal Entrance - Pier E St	1025	PICO 25	388006	3736855	27	70.8
Pico Ave: Terminal Entrance - Pier E St	1026	PICO 26	388001	3736908	27	70.8
Pico Ave: Pier D St - Terminal Entrance	1027	PICO 27	387996	3736962	27	225.0
Pico Ave: Pier D St - Terminal Entrance	1028	PICO 28	387993	3737016	27	225.0
Pico Ave: Pier D St - Terminal Entrance	1029	PICO 29	387998	3737070	27	225.0
Pico Ave: Pier D St - Terminal Entrance	1030	PICO 30	388013	3737121	27	225.0
Pico Ave: Pier D St - Terminal Entrance	1031	PICO 31	388038	3737169	27	225.0
Pico Ave: Pier D St - Terminal Entrance	1032	PICO 32	388066	3737215	27	225.0
Pico Ave: Pier D St - Terminal Entrance	1033	PICO 33	388096	3737260	27	225.0
Pico Ave: Pier B St - Pier D St	1034	PICO 34	388126	3737305	27	379.0
Pico Ave: Pier B St - Pier D St	1035	PICO 35	388152	3737352	27	379.0
Pico Ave: Pier B St - Pier D St	1036	PICO 36	388168	3737404	27	379.0
Pico Ave: Pier B St - Pier D St	1037	PICO 37	388174	3737458	27	379.0

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Pico Ave: Pier B St - Pier D St	1038	PICO 38	388175	3737512	27	379.0
Pico Ave: Pier B St - Pier D St	1039	PICO 39	388176	3737566	27	379.0
Pico Ave: Pier B St - Pier D St	1040	PICO 40	388176	3737620	27	379.0
Pico Ave: Pier B St - Pier D St	1041	PICO 41	388174	3737674	27	379.0
Pico Ave: Pier B St - Pier D St	1042	PICO 42	388173	3737728	27	379.0
Pico Ave: Pier B St - Pier D St	1043	PICO 43	388172	3737782	27	379.0
Pico Ave: Pier B St - Pier D St	1044	PICO 44	388172	3737836	27	379.0
Pico Ave: Pier B St - Pier D St	1045	PICO 45	388172	3737890	27	379.0
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	OCEAN 1	385307	3736071	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1047	OCEAN 2	385361	3736088	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1048	OCEAN 3	385414	3736105	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1049	OCEAN 4	385468	3736122	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1050	OCEAN 5	385521	3736139	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1051	OCEAN 6	385574	3736155	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1052	OCEAN 7	385627	3736173	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1053	OCEAN 8	385680	3736193	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1054	OCEAN 9	385732	3736213	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1055	OCEAN 10	385784	3736233	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1056	OCEAN 11	385837	3736253	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1057	OCEAN 12	385889	3736274	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1058	OCEAN 13	385941	3736294	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1059	OCEAN 14	385993	3736314	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1060	OCEAN 15	386046	3736334	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1061	OCEAN 16	386098	3736355	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1062	OCEAN 17	386150	3736375	28	102.3
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1063	OCEAN 18	386202	3736396	28	102.3
Ocean Blvd: Bridge	1064	OCEAN 19	386254	3736417	28	102.3
Ocean Blvd: Bridge	1065	OCEAN 20	386306	3736438	28	102.3
Ocean Blvd: Bridge	1066	OCEAN 21	386357	3736460	28	102.3
Ocean Blvd: Bridge	1067	OCEAN 22	386408	3736484	28	102.3
Ocean Blvd: Bridge	1068	OCEAN 23	386459	3736507	28	102.3
Ocean Blvd: Bridge	1069	OCEAN 24	386510	3736530	28	102.3
Ocean Blvd: Bridge	1070	OCEAN 25	386561	3736553	28	102.3
Ocean Blvd: Bridge	1071	OCEAN 26	386612	3736576	28	102.3
Ocean Blvd: Bridge	1072	OCEAN 27	386663	3736599	28	102.3
Ocean Blvd: Bridge	1073	OCEAN 28	386714	3736622	28	102.3

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Ocean Blvd: Bridge	1074	OCEAN 29	386765	3736645	28	102.3
Ocean Blvd: Bridge	1075	OCEAN 30	386816	3736668	28	102.3
Ocean Blvd: Bridge	1076	OCEAN 31	386867	3736692	28	102.3
Ocean Blvd: Bridge	1077	OCEAN 32	386918	3736715	28	102.3
Ocean Blvd: Bridge	1078	OCEAN 33	386970	3736735	28	102.3
Ocean Blvd: Bridge	1079	OCEAN 34	387023	3736754	28	102.3
Ocean Blvd: Bridge	1080	OCEAN 35	387074	3736777	28	102.3
Ocean Blvd: Bridge	1081	OCEAN 36	387125	3736800	28	102.3
Ocean Blvd: Bridge	1082	OCEAN 37	387176	3736822	28	102.3
Ocean Blvd: Bridge	1083	OCEAN 38	387228	3736844	28	102.3
Ocean Blvd: Bridge	1084	OCEAN 39	387280	3736865	28	102.3
Ocean Blvd: Bridge	1085	OCEAN 40	387333	3736884	28	102.3
Ocean Blvd: Bridge	1086	OCEAN 41	387386	3736901	28	102.3
Ocean Blvd: Bridge	1087	OCEAN 42	387441	3736913	28	102.3
Ocean Blvd: Bridge	1088	OCEAN 43	387496	3736922	28	102.3
Ocean Blvd: Bridge - I-710 Offramp	1089	OCEAN 44	387551	3736930	28	102.3
Ocean Blvd: Bridge - I-710 Offramp	1090	OCEAN 45	387607	3736937	28	102.3
Ocean Blvd: Bridge - I-710 Offramp	1091	OCEAN 46	387662	3736943	28	102.3
Ocean Blvd: Bridge - I-710 Offramp	1092	OCEAN 47	387718	3736949	28	102.3
Ocean Blvd: Bridge - I-710 Offramp	1093	OCEAN 48	387774	3736955	28	102.3
Ocean Blvd: Bridge - I-710 Offramp	1094	OCEAN 49	387829	3736961	28	102.3
Ocean Blvd: Bridge - I-710 Offramp	1095	OCEAN 50	387885	3736966	28	102.3
Ocean Blvd: Bridge - I-710 Offramp	1096	OCEAN 51	387941	3736972	28	102.3
Ocean Blvd: Bridge - I-710 Offramp	1097	OCEAN 52	387997	3736977	28	102.3
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1100	I-710 1	388240.92	3741119.15	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1101	I-710 2	388241.31	3741057.15	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1102	I-710 3	388243.97	3740995.21	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1103	I-710 4	388249.99	3740933.51	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1104	I-710 5	388256.45	3740871.85	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1105	I-710 6	388265.09	3740810.46	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1106	I-710 7	388273.78	3740749.07	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1107	I-710 8	388279.73	3740687.39	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1108	I-710 9	388281.42	3740625.47	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1109	I-710 10	388280.43	3740563.48	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1110	I-710 11	388279.44	3740501.49	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1111	I-710 12	388278.46	3740439.5	31	603.34

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1112	I-710 13	388277.47	3740377.5	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1113	I-710 14	388276.49	3740315.51	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1114	I-710 15	388275.5	3740253.52	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1115	I-710 16	388274.51	3740191.53	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1116	I-710 17	388273.35	3740129.54	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1117	I-710 18	388267.27	3740067.9	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1118	I-710 19	388258.34	3740006.62	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1119	I-710 20	388244.55	3739946.17	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1120	I-710 21	388230.76	3739885.73	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1121	I-710 22	388216.97	3739825.28	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1122	I-710 23	388204.89	3739764.48	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1123	I-710 24	388195.56	3739703.19	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1124	I-710 25	388188.02	3739641.68	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1125	I-710 26	388183.3	3739579.87	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1126	I-710 27	388180.09	3739517.96	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1127	I-710 28	388179.51	3739456.02	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1128	I-710 29	388183.74	3739394.16	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1129	I-710 30	388188.83	3739332.38	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1130	I-710 31	388194.17	3739270.61	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1131	I-710 32	388199.46	3739208.83	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1132	I-710 33	388199.39	3739146.84	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1133	I-710 34	388199.85	3739084.85	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1134	I-710 35	388200.87	3739022.86	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1135	I-710 36	388199.51	3738960.88	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1136	I-710 37	388197.57	3738898.91	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1137	I-710 38	388195.63	3738836.94	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1138	I-710 39	388193.68	3738774.97	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1139	I-710 40	388191.74	3738713.01	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1140	I-710 41	388189.5	3738651.05	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1141	I-710 42	388187.25	3738589.09	31	603.34
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1142	I-710 43	388184.99	3738527.13	31	617.26
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1143	I-710 44	388189	3738465.17	31	617.26
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1144	I-710 45	388190	3738403.2	31	617.26
I-710 : A SB OR - P SB R (SB) /n/o 9th St OR (NB) combo	1145	I-710 46	388208	3738342	31	617.26
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	HARBOR SCENIC 8	388800	3735766	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1154	HARBOR SCENIC 9	388775	3735828	36	305.6

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1155	HARBOR SCENIC 10	388755	3735890	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1156	HARBOR SCENIC 11	388717	3735941	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1157	HARBOR SCENIC 12	388665	3735988	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1158	HARBOR SCENIC 13	388611	3736036	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1159	HARBOR SCENIC 14	388564	3736090	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1160	HARBOR SCENIC 15	388516	3736144	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1161	HARBOR SCENIC 16	388476	3736204	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1162	HARBOR SCENIC 17	388442	3736267	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1163	HARBOR SCENIC 18	388416	3736334	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1164	HARBOR SCENIC 19	388395	3736403	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1165	HARBOR SCENIC 20	388367	3736469	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1166	HARBOR SCENIC 21	388328	3736530	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1167	HARBOR SCENIC 22	388287	3736588	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1168	HARBOR SCENIC 23	388245	3736647	36	305.6
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1169	HARBOR SCENIC 24	388213	3736711	36	305.6
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1170	HARBOR SCENIC 25	388212.54	3736780.24	36	347.59
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1171	HARBOR SCENIC 26	388196.24	3736850.34	36	347.59
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1172	HARBOR SCENIC 27	388191.38	3736922.09	36	347.59
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1173	HARBOR SCENIC 28	388200.37	3736993.43	36	347.59
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1174	HARBOR SCENIC 29	388212.45	3737064.41	36	347.59
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1175	HARBOR SCENIC 30	388223.28	3737135.59	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1176	HARBOR SCENIC 31	388232.96	3737206.93	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1177	HARBOR SCENIC 32	388239.74	3737278.53	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1178	HARBOR SCENIC 33	388242.54	3737350.48	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1179	HARBOR SCENIC 34	388244.23	3737422.43	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1180	HARBOR SCENIC 35	388242.79	3737494.42	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1181	HARBOR SCENIC 36	388241.35	3737566.4	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1182	HARBOR SCENIC 37	388241.06	3737638.39	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1183	HARBOR SCENIC 38	388241.93	3737710.39	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1184	HARBOR SCENIC 39	388242.8	3737782.38	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1185	HARBOR SCENIC 40	388243.68	3737854.38	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1186	HARBOR SCENIC 41	388244.55	3737926.37	36	347.99
Harbor Scenic Dr: P C - I-710 9th St OR (NB)/ O C - P C (SB) combo	1187	HARBOR SCENIC 42	388245.43	3737998.37	36	347.99
9th Street: Anaheim St - Santa Fe	1190	Ninth St 1	387057	3738731	22	34.4
9th Street: Anaheim St - Santa Fe	1191	Ninth St 2	387090	3738702	22	34.4
9th Street: Anaheim St - Santa Fe	1192	Ninth St 3	387110	3738663	22	34.4

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
9th Street: Anaheim St - Santa Fe	1193	Ninth St 4	387131	3738625	22	34.4
9th Street: Anaheim St - Santa Fe	1194	Ninth St 5	387168	3738603	22	34.4
9th Street: Anaheim St - Santa Fe	1195	Ninth St 6	387210	3738589	22	34.4
9th Street: Anaheim St - Santa Fe	1196	Ninth St 7	387252	3738576	22	34.4
9th Street: Anaheim St - Santa Fe	1197	Ninth St 8	387294	3738562	22	34.4
9th Street: Anaheim St - Santa Fe	1198	Ninth St 9	387335	3738547	22	34.4
9th Street: Anaheim St - Santa Fe	1199	Ninth St 10	387377	3738533	22	34.4
9th Street: Anaheim St - Santa Fe	1200	Ninth St 11	387418	3738518	22	34.4
9th Street: Santa Fe to 10th	1201	Ninth St 12	387460	3738504	22	62.0
9th Street: Santa Fe to 10th	1202	Ninth St 13	387502	3738489	22	62.0
9th Street: Santa Fe to 10th	1203	Ninth St 14	387543	3738475	22	62.0
9th Street: Santa Fe to 10th	1204	Ninth St 15	387584	3738460	22	62.0
9th Street: Santa Fe to 10th	1205	Ninth St 16	387626	3738446	22	62.0
9th Street: Santa Fe to 10th	1206	Ninth St 17	387668	3738433	22	62.0
9th Street: Caspian - Pico (SB only)	1207	Ninth St 18	387710	3738419	22	33.5
9th Street: Caspian - Pico (SB only)	1208	Ninth St 19	387751	3738404	22	33.5
9th Street: Caspian - Pico (SB only)	1209	Ninth St 20	387793	3738389	22	33.5
9th Street: Caspian - Pico (SB only)	1210	Ninth St 21	387834	3738374	22	33.5
9th Street: Caspian - Pico (SB only)	1211	Ninth St 22	387875	3738359	22	33.5
9th Street: Caspian - Pico (SB only)	1212	Ninth St 23	387917	3738344	22	33.5
9th Street: Caspian - Pico (SB only)	1213	Ninth St 24	387958	3738329	22	33.5
9th Street: Caspian - Pico (SB only)	1214	Ninth St 25	387999	3738314	22	33.5
9th Street: Caspian - Pico (SB only)	1215	Ninth St 26	388041	3738299	22	33.5
9th Street: Caspian - Pico (SB only)	1216	Ninth St 27	388082	3738284	22	33.5
9th Street: Caspian - Pico (SB only)	1217	Ninth St 28	388124	3738269	22	33.5
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	PIER D 17	387144	3736877	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1235	PIER D 18	387168	3736890	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1236	PIER D 19	387193	3736903	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1237	PIER D 20	387218	3736916	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1238	PIER D 21	387243	3736928	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1239	PIER D 22	387268	3736941	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1240	PIER D 23	387293	3736954	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1241	PIER D 24	387318	3736967	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1242	PIER D 25	387343	3736979	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1243	PIER D 26	387368	3736992	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1244	PIER D 27	387394	3737002	14	122.0

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Pier D St: w/o Pico Ave - w/o Pico Ave	1245	PIER D 28	387420	3737013	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1246	PIER D 29	387445	3737026	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1247	PIER D 30	387470	3737038	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1248	PIER D 31	387495	3737051	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1249	PIER D 32	387520	3737064	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1250	PIER D 33	387545	3737077	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1251	PIER D 34	387570	3737089	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1252	PIER D 35	387594	3737102	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1253	PIER D 36	387619	3737115	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1254	PIER D 37	387644	3737128	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1255	PIER D 38	387669	3737140	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1256	PIER D 39	387694	3737153	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1257	PIER D 40	387719	3737166	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1258	PIER D 41	387744	3737178	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1259	PIER D 42	387769	3737191	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1260	PIER D 43	387794	3737203	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1261	PIER D 44	387819	3737216	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1262	PIER D 45	387845	3737227	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1263	PIER D 46	387872	3737235	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1264	PIER D 47	387899	3737243	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1265	PIER D 48	387926	3737250	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1266	PIER D 49	387953	3737257	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1267	PIER D 50	387980	3737264	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1268	PIER D 51	388007	3737272	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1269	PIER D 52	388034	3737279	14	122.0
Pier D St: w/o Pico Ave - w/o Pico Ave	1270	PIER D 53	388061	3737286	14	122.0
10th Street: Pico - 9th (NB only)	1271	Tenth St 1	387717	3738420	14	17.1
10th Street: Pico - 9th (NB only)	1272	Tenth St 2	387744	3738413	14	17.1
10th Street: Pico - 9th (NB only)	1273	Tenth St 3	387771	3738407	14	17.1
10th Street: Pico - 9th (NB only)	1274	Tenth St 4	387799	3738405	14	17.1
10th Street: Pico - 9th (NB only)	1275	Tenth St 5	387827	3738408	14	17.1
10th Street: Pico - 9th (NB only)	1276	Tenth St 6	387855	3738412	14	17.1
10th Street: Pico - 9th (NB only)	1277	Tenth St 7	387882	3738414	14	17.1
10th Street: Pico - 9th (NB only)	1278	Tenth St 8	387910	3738416	14	17.1
10th Street: Pico - 9th (NB only)	1279	Tenth St 9	387938	3738420	14	17.1
10th Street: Pico - 9th (NB only)	1280	Tenth St 10	387966	3738425	14	17.1

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
10th Street: Pico - 9th (NB only)	1281	Tenth St 11	387993	3738430	14	17.1
10th Street: Pico - 9th (NB only)	1282	Tenth St 12	388021	3738435	14	17.1
10th Street: Pico - 9th (NB only)	1283	Tenth St 13	388048	3738440	14	17.1
10th Street: Pico - 9th (NB only)	1284	Tenth St 14	388076	3738444	14	17.1
10th Street: Pico - 9th (NB only)	1285	Tenth St 15	388104	3738441	14	17.1
10th Street: Pico - 9th (NB only)	1286	Tenth St 16	388128	3738429	14	17.1
10th Street: Pico - 9th (NB only)	1287	Tenth St 17	388145	3738407	14	17.1
10th Street: Pico - 9th (NB only)	1288	Tenth St 18	388154	3738380	14	17.1
10th Street: Pico - 9th (NB only)	1289	Tenth St 19	388160	3738353	14	17.1
10th Street: Pico - 9th (NB only)	1290	Tenth St 20	388167	3738326	14	17.1
10th Street: Pico - 9th (NB only)	1291	Tenth St 21	388173	3738298	14	17.1
10th Street: Pico - 9th (NB only)	1292	Tenth St 22	388179	3738271	14	17.1
10th Street: Pico - 9th (NB only)	1293	Tenth St 23	388185	3738244	14	17.1
Offramp: I-710 at 9th Street (SB)	1294	CONNECTOR 1	388112	3738046	14	77.0
Offramp: I-710 at 9th Street (SB)	1295	CONNECTOR 2	388096	3738023	14	77.0
Offramp: I-710 at 9th Street (SB)	1296	CONNECTOR 3	388080	3738000	14	77.0
Offramp: I-710 at 9th Street (SB)	1297	CONNECTOR 4	388065	3737977	14	77.0
Offramp: I-710 at 9th Street (SB)	1298	CONNECTOR 5	388058	3737949	14	77.0
Offramp: I-710 at 9th Street (SB)	1299	CONNECTOR 6	388058	3737922	14	77.0
Offramp: I-710 at 9th Street (SB BRIDGE)	1300	CONNECTOR 7	388072	3737898	14	76.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1301	CONNECTOR 8	388091	3737879	14	76.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1302	CONNECTOR 9	388116	3737867	14	76.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1303	CONNECTOR 10	388144	3737866	14	76.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1304	CONNECTOR 11	388170	3737874	14	76.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1305	CONNECTOR 12	388193	3737890	14	76.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1306	CONNECTOR 13	388210	3737912	14	76.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1307	CONNECTOR 14	388213	3737939	14	76.2
Offramp: I-710 at 9th Street (SB BRIDGE)	1308	CONNECTOR 15	388214	3737967	14	76.2
Onramp: 9th St - I-710 (NB)	1309	CONNECTOR 16	388106	3738066	14	87.3
Onramp: 9th St - I-710 (NB)	1310	CONNECTOR 17	388089	3738044	14	87.3
Onramp: 9th St - I-710 (NB)	1311	CONNECTOR 18	388072	3738022	14	87.3
Onramp: 9th St - I-710 (NB)	1312	CONNECTOR 19	388058	3737997	14	87.3
Onramp: 9th St - I-710 (NB)	1313	CONNECTOR 20	388047	3737972	14	87.3
Onramp: 9th St - I-710 (NB)	1314	CONNECTOR 21	388044	3737944	14	87.3
Onramp: 9th St - I-710 (NB)	1315	CONNECTOR 22	388042	3737916	14	87.3
Onramp: 9th St - I-710 (NB)	1316	CONNECTOR 23	388051	3737890	14	87.3

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Onramp: 9th St - I-710 (NB)	1317	CONNECTOR 24	388064	3737865	14	87.3
Onramp: 9th St - I-710 (NB BRIDGE)	1318	CONNECTOR 25	388076	3737840	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1319	CONNECTOR 26	388091	3737817	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1320	CONNECTOR 27	388111	3737797	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1321	CONNECTOR 28	388137	3737787	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1322	CONNECTOR 29	388164	3737782	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1323	CONNECTOR 30	388192	3737785	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1324	CONNECTOR 31	388217	3737796	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1325	CONNECTOR 32	388239	3737814	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1326	CONNECTOR 33	388253	3737837	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1327	CONNECTOR 34	388263	3737863	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1328	CONNECTOR 35	388264	3737891	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1329	CONNECTOR 36	388265	3737919	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1330	CONNECTOR 37	388265	3737947	14	87.0
Onramp: 9th St - I-710 (NB BRIDGE)	1331	CONNECTOR 38	388266	3737975	14	87.0
Pier F Ave: Middle Harbor - Harbor Plaza	1360	PIER F 1	387539	3734879	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1361	PIER F 2	387550	3734926	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1362	PIER F 3	387568	3734970	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1363	PIER F 4	387599	3735006	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1364	PIER F 5	387640	3735031	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1365	PIER F 6	387681	3735056	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1366	PIER F 7	387722	3735081	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1367	PIER F 8	387763	3735106	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1368	PIER F 9	387804	3735131	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1369	PIER F 10	387845	3735156	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1370	PIER F 11	387886	3735181	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1371	PIER F 12	387927	3735206	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1372	PIER F 13	387968	3735231	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1373	PIER F 14	388009	3735256	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1374	PIER F 15	388050	3735281	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1375	PIER F 16	388091	3735306	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1376	PIER F 17	388135	3735325	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1377	PIER F 18	388182	3735331	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1378	PIER F 19	388230	3735331	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1379	PIER F 20	388276	3735339	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1380	PIER F 21	388288	3735383	24	263.9

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Pier F Ave: Middle Harbor - Harbor Plaza	1381	PIER F 22	388289	3735431	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1382	PIER F 23	388289	3735479	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1383	PIER F 24	388290	3735527	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1384	PIER F 25	388290	3735575	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1385	PIER F 26	388290	3735623	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1386	PIER F 27	388289	3735671	24	263.9
Pier F Ave: Middle Harbor - Harbor Plaza	1387	PIER F 28	388296	3735718	24	263.9
Harbor Plaza: Pier F Ave - Pier G Ave	1388	PIER F 29	388336	3735740	24	281.6
Harbor Plaza: Pier F Ave - Pier G Ave	1389	PIER F 30	388384	3735741	24	281.6
Harbor Plaza: Pier F Ave - Pier G Ave	1390	PIER F 31	388432	3735740	24	281.6
Harbor Plaza: Pier F Ave - Pier G Ave	1391	PIER F 32	388486	3735740	24	281.6
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	HARBOR PLAZA 1	388534	3735739	24	112.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1393	HARBOR PLAZA 2	388582	3735738	24	112.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1394	HARBOR PLAZA 3	388630	3735737	24	112.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1395	HARBOR PLAZA 4	388678	3735737	24	112.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1396	HARBOR PLAZA 5	388726	3735736	24	112.5
Harbor Plaza: Pier G Ave - Queens Way Bridge	1397	HARBOR PLAZA 6	388771	3735723	24	112.5
Santa Fe: 9th St - Anaheim St	1417	SANTA FE 2	387462	3738556	24	29.6
Santa Fe: 9th St - Anaheim St	1418	SANTA FE 3	387463	3738604	24	29.6
Santa Fe: 9th St - Anaheim St	1419	SANTA FE 4	387464	3738652	24	29.6
Santa Fe: 9th St - Anaheim St	1420	SANTA FE 5	387465	3738700	24	29.6
Santa Fe: n/o Anaheim St - s/o Willow St	1421	SANTA FE 6	387465	3738748	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1422	SANTA FE 7	387466	3738796	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1423	SANTA FE 8	387467	3738844	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1424	SANTA FE 9	387468	3738892	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1425	SANTA FE 10	387468	3738940	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1426	SANTA FE 11	387469	3738988	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1427	SANTA FE 12	387470	3739036	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1428	SANTA FE 13	387471	3739084	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1429	SANTA FE 14	387471	3739132	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1430	SANTA FE 15	387472	3739180	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1431	SANTA FE 16	387473	3739228	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1432	SANTA FE 17	387474	3739276	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1433	SANTA FE 18	387475	3739324	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1434	SANTA FE 19	387475	3739372	24	34.6
Santa Fe: n/o Anaheim St - s/o Willow St	1435	SANTA FE 20	387476	3739420	24	34.6

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Santa Fe: n/o Anaheim St - s/o Willow St	1436	SANTA FE 21	387477	3739468	24	34.6
Alameda St: Eubank - Anaheim St	1437	ALAMEDA 1	383938	3737677	24	20.10
Alameda St: Eubank - Anaheim St	1438	ALAMEDA 2	383976	3737707	24	20.10
Alameda St: Eubank - Anaheim St	1439	ALAMEDA 3	384013	3737736	24	20.10
Alameda St: Eubank - Anaheim St	1440	ALAMEDA 4	384051	3737766	24	20.10
Alameda St: Eubank - Anaheim St	1441	ALAMEDA 5	384089	3737795	24	20.10
Alameda St: Eubank - Anaheim St	1442	ALAMEDA 6	384126	3737826	24	20.10
Alameda St: Eubank - Anaheim St	1443	ALAMEDA 7	384163	3737857	24	20.10
Alameda St: Eubank - Anaheim St	1444	ALAMEDA 8	384198	3737889	24	20.10
Alameda St: Eubank - Anaheim St	1445	ALAMEDA 9	384234	3737922	24	20.10
Alameda St: Eubank - Anaheim St	1446	ALAMEDA 10	384267	3737956	24	20.10
Alameda St: Eubank - Anaheim St	1447	ALAMEDA 11	384300	3737991	24	20.10
Alameda St: Eubank - Anaheim St	1448	ALAMEDA 12	384334	3738025	24	20.10
Alameda St: Eubank - Anaheim St	1449	ALAMEDA 13	384365	3738062	24	20.10
Alameda St: Eubank - Anaheim St	1450	ALAMEDA 14	384395	3738099	24	20.10
Alameda St: Eubank - Anaheim St	1451	ALAMEDA 15	384426	3738136	24	20.10
Alameda St: Eubank - Anaheim St	1452	ALAMEDA 16	384457	3738173	24	20.10
Alameda St: Eubank - Anaheim St	1453	ALAMEDA 17	384487	3738210	24	20.1
Alameda St: Eubank - Anaheim St	1454	ALAMEDA 18	384515	3738249	24	20.1
Alameda St: Eubank - Anaheim St	1455	ALAMEDA 19	384544	3738287	24	20.1
Alameda St: Eubank - Anaheim St	1456	ALAMEDA 20	384572	3738326	24	20.1
Alameda St: Eubank - Anaheim St	1457	ALAMEDA 21	384597	3738367	24	20.1
Alameda St: Eubank - Anaheim St	1458	ALAMEDA 22	384622	3738408	24	20.1
Alameda St: Eubank - Anaheim St	1459	ALAMEDA 23	384646	3738450	24	20.1
Alameda St: Eubank - Anaheim St	1460	ALAMEDA 24	384669	3738492	24	20.1
Alameda St: Eubank - Anaheim St	1461	ALAMEDA 25	384692	3738534	24	20.1
Alameda St: Eubank - Anaheim St	1462	ALAMEDA 26	384707	3738562	24	20.1
Anaheim St: Alameda - SR-47	1463	ANAHEIM 1	384755	3738566	24	21.5
Anaheim St: Alameda - SR-47	1464	ANAHEIM 2	384803	3738569	24	21.5
Anaheim St: Alameda - SR-47	1465	ANAHEIM 3	384851	3738572	24	21.5
Anaheim St: Alameda - SR-47	1466	ANAHEIM 4	384898	3738576	24	21.5
Anaheim St: Alameda - SR-47	1467	ANAHEIM 5	384946	3738579	24	21.5
Anaheim St: Alameda - SR-47	1468	ANAHEIM 6	384994	3738582	24	21.5
Anaheim St: Alameda - SR-47	1469	ANAHEIM 7	385042	3738586	24	21.5
Anaheim St: SR-47 - 9th St	1470	ANAHEIM 8	385090	3738589	24	23.2
Anaheim St: SR-47 - 9th St	1471	ANAHEIM 9	385138	3738593	24	23.2

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Anaheim St: SR-47 - 9th St	1472	ANAHEIM 10	385186	3738596	24	23.2
Anaheim St: SR-47 - 9th St	1473	ANAHEIM 11	385234	3738599	24	23.2
Anaheim St: SR-47 - 9th St	1474	ANAHEIM 12	385282	3738603	24	23.2
Anaheim St: SR-47 - 9th St	1475	ANAHEIM 13	385329	3738606	24	23.2
Anaheim St: SR-47 - 9th St	1476	ANAHEIM 14	385377	3738610	24	23.2
Anaheim St: SR-47 - 9th St	1477	ANAHEIM 15	385425	3738613	24	23.2
Anaheim St: SR-47 - 9th St	1478	ANAHEIM 16	385473	3738617	24	23.2
Anaheim St: SR-47 - 9th St	1479	ANAHEIM 17	385521	3738620	24	23.2
Anaheim St: SR-47 - 9th St	1480	ANAHEIM 18	385569	3738623	24	23.2
Anaheim St: SR-47 - 9th St	1481	ANAHEIM 19	385617	3738627	24	23.2
Anaheim St: SR-47 - 9th St	1482	ANAHEIM 20	385665	3738630	24	23.2
Anaheim St: SR-47 - 9th St	1483	ANAHEIM 21	385712	3738634	24	23.2
Anaheim St: SR-47 - 9th St	1484	ANAHEIM 22	385760	3738637	24	23.2
Anaheim St: SR-47 - 9th St	1485	ANAHEIM 23	385808	3738641	24	23.2
Anaheim St: SR-47 - 9th St	1486	ANAHEIM 24	385856	3738644	24	23.2
Anaheim St: SR-47 - 9th St	1487	ANAHEIM 25	385904	3738648	24	23.2
Anaheim St: SR-47 - 9th St	1488	ANAHEIM 26	385952	3738651	24	23.2
Anaheim St: SR-47 - 9th St	1489	ANAHEIM 27	386000	3738654	24	23.2
Anaheim St: SR-47 - 9th St	1490	ANAHEIM 28	386048	3738658	24	23.2
Anaheim St: SR-47 - 9th St	1491	ANAHEIM 29	386095	3738661	24	23.2
Anaheim St: SR-47 - 9th St	1492	ANAHEIM 30	386143	3738665	24	23.2
Anaheim St: SR-47 - 9th St	1493	ANAHEIM 31	386191	3738668	24	23.2
Anaheim St: SR-47 - 9th St	1494	ANAHEIM 32	386239	3738672	24	23.2
Anaheim St: SR-47 - 9th St	1495	ANAHEIM 33	386287	3738675	24	23.2
Anaheim St: SR-47 - 9th St	1496	ANAHEIM 34	386335	3738678	24	23.2
Anaheim St: SR-47 - 9th St	1497	ANAHEIM 35	386383	3738682	24	23.2
Anaheim St: SR-47 - 9th St	1498	ANAHEIM 36	386431	3738685	24	23.2
Anaheim St: SR-47 - 9th St	1499	ANAHEIM 37	386478	3738689	24	23.2
Anaheim St: SR-47 - 9th St	1500	ANAHEIM 38	386526	3738692	24	23.2
Anaheim St: SR-47 - 9th St	1501	ANAHEIM 39	386574	3738696	24	23.2
Anaheim St: SR-47 - 9th St	1502	ANAHEIM 40	386622	3738699	24	23.2
Anaheim St: SR-47 - 9th St	1503	ANAHEIM 41	386670	3738703	24	23.2
Anaheim St: SR-47 - 9th St	1504	ANAHEIM 42	386718	3738706	24	23.2
Anaheim St: SR-47 - 9th St	1505	ANAHEIM 43	386766	3738709	24	23.2
Anaheim St: SR-47 - 9th St	1506	ANAHEIM 44	386814	3738713	24	23.2
Anaheim St: SR-47 - 9th St	1507	ANAHEIM 45	386861	3738716	24	23.2

Table A.2.1-Alt2A-4. Hourly Roadway Link Emissions - Annual Modeling Scenario - POLB MHTP - Unmitigated Alternative 2

						Lb/Yr
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	NO2
Anaheim St: SR-47 - 9th St	1508	ANAHEIM 46	386909	3738720	24	23.2
Anaheim St: SR-47 - 9th St	1509	ANAHEIM 47	386957	3738723	24	23.2
Anaheim St: SR-47 - 9th St	1510	ANAHEIM 48	387005	3738727	24	23.2
9th Street: Caspian - Pico (SB only)	1601	Ninth Street 29	388163	3738248	22	33.5
9th Street: Caspian - Pico (SB only)	1602	Ninth Street 30	388181	3738207	22	33.5
9th Street: Caspian - Pico (SB only)	1603	Ninth Street 31	388183	3738163	22	33.5
9th Street: Caspian - Pico (SB only)	1604	Ninth Street 32	388164	3738124	22	33.5
9th Street: Caspian - Pico (SB only)	1605	Ninth Street 33	388138	3738091	22	33.5
Pico Ave: Pier B St - Pier D St	1606	Ninth Street 34	388122	3738073	27	379.0
10th Street: Pico - 9th (NB only)	1607	Tenth St 24	388188	3738216	14	17.1
10th Street: Pico - 9th (NB only)	1608	Tenth St 25	388189	3738189	14	17.1
10th Street: Pico - 9th (NB only)	1609	Tenth St 26	388187	3738162	14	17.1
10th Street: Pico - 9th (NB only)	1610	Tenth St 27	388175	3738137	14	17.1
10th Street: Pico - 9th (NB only)	1611	Tenth St 28	388163	3738113	14	17.1
10th Street: Pico - 9th (NB only)	1612	Tenth St 29	388147	3738092	14	17.1
I-710 : A SB OR - P SB Rs (SB)/ n/o 9th St OR (NB) - combo	1613	I-710 47	388220	3738282	31	617.26
I-710 : A SB OR - P SB Rs (SB)/ n/o 9th St OR (NB) - combo	1614	I-710 48	388230	3738221	31	617.26
I-710 : A SB OR - P SB Rs (SB)/ n/o 9th St OR (NB) - combo	1615	I-710 49	388240	3738160	31	617.26
I-710 : A SB OR - P SB Rs (SB)/ n/o 9th St OR (NB) - combo	1616	I-710 50	388245	3738099	31	617.26
I-710 : A SB OR - P SB Rs (SB)/ n/o 9th St OR (NB) - combo	1617	I-710 51	388245	3738038	31	617.26
Pico Ave: Pier B St - Pier D St	1618	Pico 46	388150	3738027	27	379.0
Pico Ave: Pier B St - Pier D St	1619	Pico 47	388164	3737972	27	379.0
Pico Ave: Pier B St - Pier D St	1620	Pico 48	388169	3737918	27	379.0
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	Ocean Offramp 1	388027	3736971	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1622	Ocean Offramp 2	388053	3736959	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1623	Ocean Offramp 3	388079	3736946	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1624	Ocean Offramp 4	388094	3736921	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1625	Ocean Offramp 5	388102	3736893	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1626	Ocean Offramp 6	388102	3736865	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1627	Ocean Offramp 7	388102	3736836	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1628	Ocean Offramp 8	388101	3736808	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1629	Ocean Offramp 9	388085	3736784	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1630	Ocean Offramp 10	388058	3736777	14	28.7
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1631	Ocean Offramp 11	388029	3736775	14	28.7

Table A.2.1-Alt2A-5. Operational Annual Emissions - POLB MHTP - Mitigated Alternative 2

Source Activity	Annual Average Pounds per Hour (1)			
	CO	NO2	PM10	PM2.5
OGVs - Fairway Transit		42.53		
OGVs - Precautionary Area Transit		13.11		
OGVs - Harbor Transit		5.41		
OGVs - Docking		1.95		
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth E24		1.58		
OGVs - Hoteling Aux. Gens. - Berth E26 (cold-iron)		0.45		
OGVs - Hoteling Boilers - Berth E26		1.58		
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)		4.46		
OGVs - Hoteling Boilers - Berth F6		1.58		
Tugs - Harbor Transit		0.94		
Tugs - Docking		0.31		
Haul Line Locomotive - 10 mph - Port to Ocean Blvd		0.02		
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH		0.05		
Locomotives - Rail Yard		0.17		
Rail Yard Equipment		0.07		
Terminal Equipment		7.01		
Trucks - On-Terminal		3.60		
Pier D Entry Road		0.13		
Pier D In Gate		0.21		
Pier D Exit Road		0.04		
Pier D Out Gate		0.12		
Pier F Entry Road		0.03		
Pier F Exit Road		0.10		
Pier F In + Out Gates		0.22		

Note: (1) annual emissions divided by 8760 hours.

(2) Used the following NOx to NO2 SCAQMD convertion factors: (a) OGV fairway and precautionary area, 5000m or 100%,

(b) OGV and tug harbor transit and docking, 1000m or 46.7%, (c) all other sources, 500m or 25.8%.

Table A.2.1-Alt2A-6. Operational Criteria Pollutant Emission Simulations - POLB MHTP - Alternative 2

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source Pounds per Hour CO	NO2	PM10	PM2.5
OGVs - Fairway Transit											
	719-761	300	90,000	0.02	43	3,870,000	1.00		0.99		
Subtotals			-	-	43	3,870,000	-		42.53		
OGVs - Precautionary Area Transit											
	686-718	300	90,000	0.03	33	2,970,000	1.00	-	0.40	-	-
Subtotals			-	-	33	2,970,000	-	-	13.11	-	-
OGVs - Harbor Transit											
	633 - 685	100	10,000	0.04	27	270,000	1.00	-	0.20	-	-
Subtotals			-	-	27	270,000	-	-	5.41	-	-
OGVs - Docking											
	616	300	90,000	1.00	1	90,000	1.00	-	1.95	-	-
Subtotals			-	-	1	90,000	-	-	1.95	-	-
OGVs - Hoteling Aux. Gens. - Berth E24 - (no cold-iron)											
	2020	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth E24											
	2002	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
OGVs - Hoteling Aux. Gens. - Berth E26 (cold-iron)											
	2019	NA	NA	0.50	2	NA	NA	-	0.22	-	-
Subtotals			-	-	2	-	-	-	0.45	-	-
OGVs - Hoteling Boilers - Berth E26											
	2001	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
OGVs - Hoteling Aux. Gens. - Berth F6 (no cold-iron)											
	2021	NA	NA	0.50	2	NA	NA	-	2.23	-	-
Subtotals			-	-	2	-	-	-	4.46	-	-
OGVs - Hoteling Boilers - Berth F6											
	2003	NA	NA	0.50	2	NA	NA	-	0.79	-	-
Subtotals			-	-	2	-	-	-	1.58	-	-
Tugs - Harbor Transit											
	3633 -3685	100	10,000	0.04	27	270,000	1.00	-	0.03	-	-
Subtotals			-	-	27	270,000	-	-	0.94	-	-
Tugs - Docking											
	3,616	300	90,000	1.00	1	90,000	1.00	-	0.31	-	-
Subtotals			-	-	1	90,000	-	-	0.31	-	-
Haul Line Locomotive - 10 mph - Port to Ocean Blvd											
	916 - 941	15	225	0.04	26	5,850	1.00	-	0.001	-	-
Subtotals			-	-	26	5,850	-	-	0.02	-	-
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH											
	762 - 915	15	225	0.01	154	34,650	1.00	-	0.0003	-	-
Subtotals			-	-	154	34,650	-	-	0.05	-	-
Locomotives - Rail Yard											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.01	-	-
Subtotals			-	-	29	18,125	-	-	0.17	-	-
Rail Yard Equipment											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.00	-	-
Subtotals			-	-	29	18,125	-	-	0.07	-	-
Rail Yard - Locomotives + Equipment											
	255 - 380	25	625	0.03	29	18,125	1.00	-	0.01	-	-
Subtotals			-	-	29	18,125	-	-	0.23	-	-
Terminal Equipment											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.02	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.05	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.06	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.08	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.13	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.18	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.25	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.33	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	0.74	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	1.31	-	-
			-	-	38	855,975	1.00				
Trucks - On-Terminal											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.01	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.02	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.03	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.04	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.07	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.09	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.13	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.17	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	0.38	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	0.67	-	-
			-	-	38	855,975	1.00				

Table A.2.1-Alt2A-6. Operational Criteria Pollutant Emission Simulations - POLB MHTP - Alternative 2

Activity/Source ID	Source Number(s)	Width (meters)	Area (m2)	Source Area/ Total Source Area	# of Sources	Total Source Area (m2)	Combined Sources Area/ Total Source Area	Volume Source Pounds per Hour CO	NO2	PM10	PM2.5
Terminal - Equipment + Trucks											
	1700-1704	50	2,500	0.003	5	12,500	0.01	-	0.03	-	-
	1705-1713	75	5,625	0.007	9	50,625	0.06	-	0.07	-	-
	1714	85	7,225	0.008	1	7,225	0.01	-	0.09	-	-
	1715-1721	100	10,000	0.012	7	70,000	0.08	-	0.12	-	-
	1722-1724	125	15,625	0.018	3	46,875	0.05	-	0.19	-	-
	1725-1727	150	22,500	0.026	3	67,500	0.08	-	0.28	-	-
	1728-1729	175	30,625	0.036	2	61,250	0.07	-	0.38	-	-
	1730-1734	200	40,000	0.047	5	200,000	0.23	-	0.50	-	-
	1735-1736	300	90,000	0.105	2	180,000	0.21	-	1.12	-	-
	1737	400	160,000	0.187	1	160,000	0.19	-	1.98	-	-
			-	-	38	855,975	1.00				
Pier D Entry Road											
	1636-1640	50	2,500	0.20	5	12,500	1.00	-	0.027	-	-
Subtotals			-	-	5	12,500	1.00	-	0.13	-	-
Pier D In Gate											
	1-3, 31,32	50	2,500	0.20	5	12,500	1.00	-	0.04	-	-
Subtotals			-	-	5	12,500	1.00	-	0.21	-	-
Pier D Exit Road											
	40,48	50	2,500	0.50	2	5,000	1.00	-	0.02	-	-
Subtotals			-	-	2	5,000	1.00	-	0.04	-	-
Pier D Out Gate											
	4-6	50	2,500	0.33	3	7,500	1.00	-	0.04	-	-
Subtotals			-	-	3	7,500	1.00	-	0.12	-	-
Pier F Entry Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.01	-	-
Subtotals			-	-	3	7,500	1.00	-	0.03	-	-
Pier F Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.03	-	-
Subtotals			-	-	3	7,500	1.00	-	0.10	-	-
Pier F Entry + Exit Road											
	9-11	50	2,500	0.33	3	7,500	1.00	-	0.04	-	-
Subtotals			-	-	3	7,500	1.00	-	0.13	-	-
Pier F In + Out Gates											
	554	100	10,000	1.00	1	10,000	1.00	-	0.22	-	-
Subtotals			-	-	1	10,000	1.00	-	0.22	-	-

Table A.2.1-Alt2A-7. Annual Roadway Emissions - POLB MHTP - Mitigated Alternative 2.

Roadway Link	BEEST ID Start #	Length (Mi)	MPH	Annual Trips	Pounds per Year						# of Vol. Sources
					TOG	CO	NO2	SOx	PM10	PM2.5	
Alameda St: Eubank - Anaheim St	1437	0.76	26	57,097	195	771	366	17	14	13	26
Anaheim St: Alameda - SR-47	1463	0.21	23	57,097	76	265	105	5	5	5	7
Anaheim St: SR-47 - 9th St	1470	1.22	26	64,693	353	1,396	662	31	26	24	41
9th Street: Anaheim St - Santa Fe	1190	0.30	33	109,122	114	479	268	13	9	8	11
9th Street: Santa Fe to 10th	1201	0.16	29	191,151	140	553	262	12	10	10	6
9th Street: Caspian - Pico (SB only)	1207	0.44	36	107,574	129	572	378	19	11	10	16
10th Street: Pico - 9th (NB only)	1271	0.50	30	85,296	149	626	350	17	11	10	29
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	0.58	41	309,207	405	1,835	1,430	71	40	36	13
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	0.35	41	711,369	555	2,511	1,957	98	54	50	9
I-710 : n/o Anaheim SB On Ramp (Southbound)	1100	1.62	43	677,993	2,472	11,191	8,724	435	242	222	42
Pico Ave: Pier B St - Pier D St	1034	0.52	31	1,028,197	1,867	7,860	4,391	213	142	130	16
Pico Ave: Pier D St - Terminal Entrance	1027	0.23	30	609,158	497	2,094	1,170	57	38	35	7
Pico Ave: Terminal Entrance - Pier E St	1024	0.10	32	181,221	63	267	149	7	5	4	3
Pico Ave: Pier E St - Harbor Scenic Connector	1016	0.27	31	163,016	151	637	356	17	12	11	8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	0.47	31	466,982	763	3,212	1,795	87	58	53	14
Pier F Ave: Middle Harbor - Harbor Plaza	1360	0.83	30	774,810	2,242	9,438	5,273	255	170	157	28
Harbor Plaza: Pier F Ave - Pier G Ave	1388	0.12	29	774,810	429	1,699	806	38	32	29	4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	0.18	30	333,204	207	870	486	24	16	14	6
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	0.99	46	314,252	622	2,715	2,461	123	68	63	18
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	0.22	47	309,207	138	605	548	27	15	14	5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	0.74	47	623,654	931	4,066	3,686	184	102	94	17
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	0.64	25	590,003	1,693	6,704	3,178	151	126	115	37
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	0.63	32	253,765	553	2,329	1,301	63	42	39	18
Ocean Blvd: Bridge	1064	0.87	32	253,765	768	3,235	1,807	88	58	54	25
Ocean Blvd: Bridge - I-710 Offramp	1089	0.31	32	253,765	277	1,165	651	32	21	19	9
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	0.20	30	139,019	95	400	223	11	7	7	11
Santa Fe: 9th St - Anaheim St	1417	0.12	30	85,508	36	150	84	4	3	2	4
Santa Fe: n/o Anaheim St - s/o Willow St	1421	0.48	30	100,954	168	706	394	19	13	12	16
I-710 : n/o 9th Street Onramp (Northbound)	1100	1.96	46	736,681	2,898	12,657	11,474	574	319	293	51
Onramp: 9th St - I-710 (Northbound)	1309	0.16	25	422,233	294	1,163	552	26	22	20	9
Onramp: 9th St - I-710 (Northbound BRIDGE)	1318	0.24	25	422,233	455	1,803	855	41	34	31	14
Offramp: I-710 at 9th Street (Southbound)	1294	0.10	25	402,162	187	739	350	17	14	13	6
Offramp: I-710 at 9th Street (Southbound BRIDGE)	1300	0.15	25	402,162	277	1,097	520	25	21	19	9
Pier D Entry Road (off Pico)	1636	0.17	15	585,590	1,472	3,170	1,177	40	65	60	5
Pier D In Gate	1	0.15	5	585,590	3,318	4,394	1,835	35	105	96	5
Pier D Exit Road (off Pier D St)	40	0.09	15	343,470	432	930	345	12	19	18	2
Pier D Out Gate	4	0.15	5	343,470	1,946	2,577	1,076	20	61	56	3
Pier F Entry Road (off Pier F Ave)	9	0.07	15	310,862	321	691	257	9	14	13	3
Pier F Exit Road (off Pier F Ave)	9	0.17	15	444,208	1,117	2,405	893	31	49	45	3
Pier F In + Out Gates	554	0.12	5	755,070	3,423	4,532	1,893	36	108	99	1

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Alameda St: Eubank - Anaheim St	1437	ALAMEDA 1	383938	3737677	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1438	ALAMEDA 2	383976	3737707	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1439	ALAMEDA 3	384013	3737736	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1440	ALAMEDA 4	384051	3737766	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1441	ALAMEDA 5	384089	3737795	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1442	ALAMEDA 6	384126	3737826	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1443	ALAMEDA 7	384163	3737857	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1444	ALAMEDA 8	384198	3737889	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1445	ALAMEDA 9	384234	3737922	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1446	ALAMEDA 10	384267	3737956	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1447	ALAMEDA 11	384300	3737991	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1448	ALAMEDA 12	384334	3738025	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1449	ALAMEDA 13	384365	3738062	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1450	ALAMEDA 14	384395	3738099	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1451	ALAMEDA 15	384426	3738136	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1452	ALAMEDA 16	384457	3738173	24	29.66	14.06	0.56	0.51
Alameda St: Eubank - Anaheim St	1453	ALAMEDA 17	384487	3738210	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St	1454	ALAMEDA 18	384515	3738249	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St	1455	ALAMEDA 19	384544	3738287	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St	1456	ALAMEDA 20	384572	3738326	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St	1457	ALAMEDA 21	384597	3738367	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St	1458	ALAMEDA 22	384622	3738408	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St	1459	ALAMEDA 23	384646	3738450	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St	1460	ALAMEDA 24	384669	3738492	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St	1461	ALAMEDA 25	384692	3738534	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St	1462	ALAMEDA 26	384707	3738562	24	29.7	14.1	0.6	0.5
Alameda St: Eubank - Anaheim St						771.1	365.6	14.4	13.3
Anaheim St: Alameda - SR-47	1463	ANAHEIM 1	384755	3738566	24	37.8	15.1	0.7	0.7
Anaheim St: Alameda - SR-47	1464	ANAHEIM 2	384803	3738569	24	37.8	15.1	0.7	0.7
Anaheim St: Alameda - SR-47	1465	ANAHEIM 3	384851	3738572	24	37.8	15.1	0.7	0.7
Anaheim St: Alameda - SR-47	1466	ANAHEIM 4	384898	3738576	24	37.8	15.1	0.7	0.7
Anaheim St: Alameda - SR-47	1467	ANAHEIM 5	384946	3738579	24	37.8	15.1	0.7	0.7
Anaheim St: Alameda - SR-47	1468	ANAHEIM 6	384994	3738582	24	37.8	15.1	0.7	0.7
Anaheim St: Alameda - SR-47	1469	ANAHEIM 7	385042	3738586	24	37.8	15.1	0.7	0.7
Anaheim St: Alameda - SR-47						264.8	105.5	5.0	4.6
Anaheim St: SR-47 - 9th St	1470	ANAHEIM 8	385090	3738589	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1471	ANAHEIM 9	385138	3738593	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1472	ANAHEIM 10	385186	3738596	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1473	ANAHEIM 11	385234	3738599	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1474	ANAHEIM 12	385282	3738603	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1475	ANAHEIM 13	385329	3738606	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1476	ANAHEIM 14	385377	3738610	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1477	ANAHEIM 15	385425	3738613	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1478	ANAHEIM 16	385473	3738617	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1479	ANAHEIM 17	385521	3738620	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1480	ANAHEIM 18	385569	3738623	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1481	ANAHEIM 19	385617	3738627	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1482	ANAHEIM 20	385665	3738630	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1483	ANAHEIM 21	385712	3738634	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1484	ANAHEIM 22	385760	3738637	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1485	ANAHEIM 23	385808	3738641	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1486	ANAHEIM 24	385856	3738644	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1487	ANAHEIM 25	385904	3738648	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1488	ANAHEIM 26	385952	3738651	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1489	ANAHEIM 27	386000	3738654	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1490	ANAHEIM 28	386048	3738658	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1491	ANAHEIM 29	386095	3738661	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1492	ANAHEIM 30	386143	3738665	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1493	ANAHEIM 31	386191	3738668	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1494	ANAHEIM 32	386239	3738672	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1495	ANAHEIM 33	386287	3738675	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1496	ANAHEIM 34	386335	3738678	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1497	ANAHEIM 35	386383	3738682	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1498	ANAHEIM 36	386431	3738685	24	34.1	16.1	0.6	0.6

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Anaheim St: SR-47 - 9th St	1499	ANAHEIM 37	386478	3738689	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1500	ANAHEIM 38	386526	3738692	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1501	ANAHEIM 39	386574	3738696	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1502	ANAHEIM 40	386622	3738699	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1503	ANAHEIM 41	386670	3738703	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1504	ANAHEIM 42	386718	3738706	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1505	ANAHEIM 43	386766	3738709	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1506	ANAHEIM 44	386814	3738713	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1507	ANAHEIM 45	386861	3738716	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1508	ANAHEIM 46	386909	3738720	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1509	ANAHEIM 47	386957	3738723	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St	1510	ANAHEIM 48	387005	3738727	24	34.1	16.1	0.6	0.6
Anaheim St: SR-47 - 9th St						1,396.4	662.1	26.2	24.1
9th Street: Anaheim St - Santa Fe	1190	Ninth St 1	387057	3738731	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1191	Ninth St 2	387090	3738702	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1192	Ninth St 3	387110	3738663	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1193	Ninth St 4	387131	3738625	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1194	Ninth St 5	387168	3738603	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1195	Ninth St 6	387210	3738589	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1196	Ninth St 7	387252	3738576	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1197	Ninth St 8	387294	3738562	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1198	Ninth St 9	387335	3738547	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1199	Ninth St 10	387377	3738533	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe	1200	Ninth St 11	387418	3738518	22	43.6	24.3	0.8	0.7
9th Street: Anaheim St - Santa Fe						479.1	267.7	8.6	8.0
9th Street: Santa Fe to 10th	1201	Ninth St 12	387460	3738504	22	92.2	43.7	1.7	1.6
9th Street: Santa Fe to 10th	1202	Ninth St 13	387502	3738489	22	92.2	43.7	1.7	1.6
9th Street: Santa Fe to 10th	1203	Ninth St 14	387543	3738475	22	92.2	43.7	1.7	1.6
9th Street: Santa Fe to 10th	1204	Ninth St 15	387584	3738460	22	92.2	43.7	1.7	1.6
9th Street: Santa Fe to 10th	1205	Ninth St 16	387626	3738446	22	92.2	43.7	1.7	1.6
9th Street: Santa Fe to 10th	1206	Ninth St 17	387668	3738433	22	92.2	43.7	1.7	1.6
9th Street: Santa Fe to 10th						553.5	262.4	10.4	9.5
9th Street: Caspian - Pico (SB only)	1207	Ninth St 18	387710	3738419	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1208	Ninth St 19	387751	3738404	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1209	Ninth St 20	387793	3738389	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1210	Ninth St 21	387834	3738374	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1211	Ninth St 22	387875	3738359	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1212	Ninth St 23	387917	3738344	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1213	Ninth St 24	387958	3738329	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1214	Ninth St 25	387999	3738314	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1215	Ninth St 26	388041	3738299	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1216	Ninth St 27	388082	3738284	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1217	Ninth St 28	388124	3738269	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1601	Ninth Street 29	388163	3738248	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1602	Ninth Street 30	388181	3738207	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1603	Ninth Street 31	388183	3738163	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1604	Ninth Street 32	388164	3738124	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)	1605	Ninth Street 33	388138	3738091	22	35.8	23.6	0.7	0.7
9th Street: Caspian - Pico (SB only)						572.3	378.1	11.4	10.5
10th Street: Pico - 9th (NB only)	1271	Tenth St 1	387717	3738420	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1272	Tenth St 2	387744	3738413	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1273	Tenth St 3	387771	3738407	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1274	Tenth St 4	387799	3738405	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1275	Tenth St 5	387827	3738408	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1276	Tenth St 6	387855	3738412	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1277	Tenth St 7	387882	3738414	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1278	Tenth St 8	387910	3738416	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1279	Tenth St 9	387938	3738420	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1280	Tenth St 10	387966	3738425	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1281	Tenth St 11	387993	3738430	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1282	Tenth St 12	388021	3738435	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1283	Tenth St 13	388048	3738440	14	21.6	12.1	0.4	0.4

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
10th Street: Pico - 9th (NB only)	1284	Tenth St 14	388076	3738444	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1285	Tenth St 15	388104	3738441	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1286	Tenth St 16	388128	3738429	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1287	Tenth St 17	388145	3738407	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1288	Tenth St 18	388154	3738380	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1289	Tenth St 19	388160	3738353	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1290	Tenth St 20	388167	3738326	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1291	Tenth St 21	388173	3738298	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1292	Tenth St 22	388179	3738271	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1293	Tenth St 23	388185	3738244	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1607	Tenth St 24	388188	3738216	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1608	Tenth St 25	388189	3738189	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1609	Tenth St 26	388187	3738162	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1610	Tenth St 27	388175	3738137	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1611	Tenth St 28	388163	3738113	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)	1612	Tenth St 29	388147	3738092	14	21.6	12.1	0.4	0.4
10th Street: Pico - 9th (NB only)						625.8	349.6	11.3	10.4
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1175	HARBOR SCENIC 30	388223	3737136	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1176	HARBOR SCENIC 31	388233	3737207	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1177	HARBOR SCENIC 32	388240	3737279	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1178	HARBOR SCENIC 33	388243	3737350	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1179	HARBOR SCENIC 34	388244	3737422	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1180	HARBOR SCENIC 35	388243	3737494	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1181	HARBOR SCENIC 36	388241	3737566	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1182	HARBOR SCENIC 37	388241	3737638	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1183	HARBOR SCENIC 38	388242	3737710	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1184	HARBOR SCENIC 39	388243	3737782	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1185	HARBOR SCENIC 40	388244	3737854	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1186	HARBOR SCENIC 41	388245	3737926	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)	1187	HARBOR SCENIC 42	388245	3737998	36	141.1	110.0	3.0	2.8
I-710 : Pier B St On Ramp - Connector to Ocean WB (SB)						1,834.6	1,430.2	39.6	36.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1142	I-710 43	388185	3738527	31	279.0	217.5	6.0	5.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1143	I-710 44	388189	3738465	31	279.0	217.5	6.0	5.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1144	I-710 45	388190	3738403	31	279.0	217.5	6.0	5.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1145	I-710 46	388208	3738342	31	279.0	217.5	6.0	5.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1613	I-710 47	388220	3738282	31	279.0	217.5	6.0	5.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1614	I-710 48	388230	3738221	31	279.0	217.5	6.0	5.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1615	I-710 49	388240	3738160	31	279.0	217.5	6.0	5.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1616	I-710 50	388245	3738099	31	279.0	217.5	6.0	5.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)	1617	I-710 51	388245	3738038	31	279.0	217.5	6.0	5.5
I-710 : Anaheim SB On Ramp - Pico SB Ramps (SB)						2,510.9	1,957.4	54.2	49.9
I-710 : n/o Anaheim SB On Ramp (SB)	1100	I-710 1	388241	3741119	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1101	I-710 2	388241	3741057	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1102	I-710 3	388244	3740995	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1103	I-710 4	388250	3740934	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1104	I-710 5	388256	3740872	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1105	I-710 6	388265	3740810	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1106	I-710 7	388274	3740749	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1107	I-710 8	388280	3740687	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1108	I-710 9	388281	3740625	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1109	I-710 10	388280	3740563	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1110	I-710 11	388279	3740501	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1111	I-710 12	388278	3740440	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1112	I-710 13	388277	3740378	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1113	I-710 14	388276	3740316	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1114	I-710 15	388276	3740254	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1115	I-710 16	388275	3740192	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1116	I-710 17	388273	3740130	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1117	I-710 18	388267	3740068	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1118	I-710 19	388258	3740007	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1119	I-710 20	388245	3739946	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1120	I-710 21	388231	3739886	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1121	I-710 22	388217	3739825	31	266.5	207.7	5.8	5.3

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
I-710 : n/o Anaheim SB On Ramp (SB)	1122	I-710 23	388205	3739764	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1123	I-710 24	388196	3739703	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1124	I-710 25	388188	3739642	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1125	I-710 26	388183	3739580	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1126	I-710 27	388180	3739518	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1127	I-710 28	388180	3739456	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1128	I-710 29	388184	3739394	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1129	I-710 30	388189	3739332	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1130	I-710 31	388194	3739271	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1131	I-710 32	388199	3739209	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1132	I-710 33	388199	3739147	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1133	I-710 34	388200	3739085	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1134	I-710 35	388201	3739023	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1135	I-710 36	388200	3738961	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1136	I-710 37	388198	3738899	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1137	I-710 38	388196	3738837	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1138	I-710 39	388194	3738775	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1139	I-710 40	388192	3738713	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1140	I-710 41	388190	3738651	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)	1141	I-710 42	388187	3738589	31	266.5	207.7	5.8	5.3
I-710 : n/o Anaheim SB On Ramp (SB)						11,191.3	8,724.4	241.7	222.4
Pico Ave: Pier B St - Pier D St	1034	PICO 34	388126	3737305	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1035	PICO 35	388152	3737352	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1036	PICO 36	388168	3737404	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1037	PICO 37	388174	3737458	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1038	PICO 38	388175	3737512	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1039	PICO 39	388176	3737566	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1040	PICO 40	388176	3737620	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1041	PICO 41	388174	3737674	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1042	PICO 42	388173	3737728	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1043	PICO 43	388172	3737782	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1044	PICO 44	388172	3737836	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1045	PICO 45	388172	3737890	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1620	Pico 48	388169	3737918	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1619	Pico 47	388164	3737972	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1618	Pico 46	388150	3738027	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St	1606	Ninth Street 34	388122	3738073	27	491.2	274.4	8.9	8.2
Pico Ave: Pier B St - Pier D St						7,859.6	4,391.0	141.8	130.5
Pico Ave: Pier D St - Terminal Entrance	1027	PICO 27	387996	3736962	27	299.1	167.1	5.4	5.0
Pico Ave: Pier D St - Terminal Entrance	1028	PICO 28	387993	3737016	27	299.1	167.1	5.4	5.0
Pico Ave: Pier D St - Terminal Entrance	1029	PICO 29	387998	3737070	27	299.1	167.1	5.4	5.0
Pico Ave: Pier D St - Terminal Entrance	1030	PICO 30	388013	3737121	27	299.1	167.1	5.4	5.0
Pico Ave: Pier D St - Terminal Entrance	1031	PICO 31	388038	3737169	27	299.1	167.1	5.4	5.0
Pico Ave: Pier D St - Terminal Entrance	1032	PICO 32	388066	3737215	27	299.1	167.1	5.4	5.0
Pico Ave: Pier D St - Terminal Entrance	1033	PICO 33	388096	3737260	27	299.1	167.1	5.4	5.0
Pico Ave: Pier D St - Terminal Entrance						2,093.8	1,169.7	37.8	34.8
Pico Ave: Terminal Entrance - Pier E St	1024	PICO 24	388011	3736801	27	89.1	49.8	1.6	1.5
Pico Ave: Terminal Entrance - Pier E St	1025	PICO 25	388006	3736855	27	89.1	49.8	1.6	1.5
Pico Ave: Terminal Entrance - Pier E St	1026	PICO 26	388001	3736908	27	89.1	49.8	1.6	1.5
Pico Ave: Terminal Entrance - Pier E St						267.3	149.3	4.8	4.4
Pico Ave: Pier E St - Harbor Scenic Connector	1016	PICO 16	388261	3736501	27	79.7	44.5	1.4	1.3
Pico Ave: Pier E St - Harbor Scenic Connector	1017	PICO 17	388229	3736544	27	79.7	44.5	1.4	1.3
Pico Ave: Pier E St - Harbor Scenic Connector	1018	PICO 18	388184	3736574	27	79.7	44.5	1.4	1.3
Pico Ave: Pier E St - Harbor Scenic Connector	1019	PICO 19	388134	3736593	27	79.7	44.5	1.4	1.3
Pico Ave: Pier E St - Harbor Scenic Connector	1020	PICO 20	388083	3736610	27	79.7	44.5	1.4	1.3
Pico Ave: Pier E St - Harbor Scenic Connector	1021	PICO 21	388043	3736645	27	79.7	44.5	1.4	1.3
Pico Ave: Pier E St - Harbor Scenic Connector	1022	PICO 22	388019	3736694	27	79.7	44.5	1.4	1.3
Pico Ave: Pier E St - Harbor Scenic Connector	1023	PICO 23	388015	3736747	27	79.7	44.5	1.4	1.3
Pico Ave: Pier E St - Harbor Scenic Connector						637.4	356.1	11.5	10.6
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1002	PICO 2	388479	3735798	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1003	PICO 3	388476	3735852	27	229.4	128.2	4.1	3.8

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1004	PICO 4	388476	3735906	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1005	PICO 5	388477	3735960	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1006	PICO 6	388478	3736014	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1007	PICO 7	388476	3736068	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1008	PICO 8	388461	3736119	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1009	PICO 9	388434	3736166	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1010	PICO 10	388403	3736210	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1011	PICO 11	388375	3736256	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1012	PICO 12	388350	3736304	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1013	PICO 13	388328	3736354	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1014	PICO 14	388307	3736403	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza	1015	PICO 15	388286	3736453	27	229.4	128.2	4.1	3.8
Pico Ave: Harbor Scenic Connector - Harbor Plaza						3,212.3	1,794.6	58.0	53.3
Pier F Ave: Middle Harbor - Harbor Plaza	1360	PIER F 1	387539	3734879	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1361	PIER F 2	387550	3734926	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1362	PIER F 3	387568	3734970	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1363	PIER F 4	387599	3735006	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1364	PIER F 5	387640	3735031	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1365	PIER F 6	387681	3735056	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1366	PIER F 7	387722	3735081	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1367	PIER F 8	387763	3735106	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1368	PIER F 9	387804	3735131	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1369	PIER F 10	387845	3735156	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1370	PIER F 11	387886	3735181	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1371	PIER F 12	387927	3735206	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1372	PIER F 13	387968	3735231	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1373	PIER F 14	388009	3735256	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1374	PIER F 15	388050	3735281	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1375	PIER F 16	388091	3735306	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1376	PIER F 17	388135	3735325	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1377	PIER F 18	388182	3735331	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1378	PIER F 19	388230	3735331	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1379	PIER F 20	388276	3735339	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1380	PIER F 21	388288	3735383	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1381	PIER F 22	388289	3735431	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1382	PIER F 23	388289	3735479	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1383	PIER F 24	388290	3735527	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1384	PIER F 25	388290	3735575	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1385	PIER F 26	388290	3735623	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1386	PIER F 27	388289	3735671	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza	1387	PIER F 28	388296	3735718	24	337.1	188.3	6.1	5.6
Pier F Ave: Middle Harbor - Harbor Plaza						9,438.2	5,272.9	170.3	156.7
Harbor Plaza: Pier F Ave - Pier G Ave	1388	PIER F 29	388336	3735740	24	424.8	201.4	8.0	7.3
Harbor Plaza: Pier F Ave - Pier G Ave	1389	PIER F 30	388384	3735741	24	424.8	201.4	8.0	7.3
Harbor Plaza: Pier F Ave - Pier G Ave	1390	PIER F 31	388432	3735740	24	424.8	201.4	8.0	7.3
Harbor Plaza: Pier F Ave - Pier G Ave	1391	PIER F 32	388486	3735740	24	424.8	201.4	8.0	7.3
Harbor Plaza: Pier F Ave - Pier G Ave						1,699.1	805.6	31.8	29.3
Harbor Plaza: Pier G Ave - Queens Way Bridge	1392	HARBOR PLAZA 1	388534	3735739	24	145.0	81.0	2.6	2.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1393	HARBOR PLAZA 2	388582	3735738	24	145.0	81.0	2.6	2.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1394	HARBOR PLAZA 3	388630	3735737	24	145.0	81.0	2.6	2.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1395	HARBOR PLAZA 4	388678	3735737	24	145.0	81.0	2.6	2.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1396	HARBOR PLAZA 5	388726	3735736	24	145.0	81.0	2.6	2.4
Harbor Plaza: Pier G Ave - Queens Way Bridge	1397	HARBOR PLAZA 6	388771	3735723	24	145.0	81.0	2.6	2.4
Harbor Plaza: Pier G Ave - Queens Way Bridge						870.2	486.2	15.7	14.4
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1170	HARBOR SCENIC 25	388213	3736780	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1171	HARBOR SCENIC 26	388196	3736850	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1172	HARBOR SCENIC 27	388191	3736922	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1173	HARBOR SCENIC 28	388200	3736993	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1174	HARBOR SCENIC 29	388212	3737064	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1175	HARBOR SCENIC 30	388223	3737136	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1176	HARBOR SCENIC 31	388233	3737207	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1177	HARBOR SCENIC 32	388240	3737279	36	150.8	136.7	3.8	3.5

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1178	HARBOR SCENIC 33	388243	3737350	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1179	HARBOR SCENIC 34	388244	3737422	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1180	HARBOR SCENIC 35	388243	3737494	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1181	HARBOR SCENIC 36	388241	3737566	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1182	HARBOR SCENIC 37	388241	3737638	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1183	HARBOR SCENIC 38	388242	3737710	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1184	HARBOR SCENIC 39	388243	3737782	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1185	HARBOR SCENIC 40	388244	3737854	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1186	HARBOR SCENIC 41	388245	3737926	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)	1187	HARBOR SCENIC 42	388245	3737998	36	150.8	136.7	3.8	3.5
Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (NB)						2,714.6	2,461.0	68.4	62.9
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1170	HARBOR SCENIC 25	388213	3736780	36	120.9	109.6	3.0	2.8
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1171	HARBOR SCENIC 26	388196	3736850	36	120.9	109.6	3.0	2.8
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1172	HARBOR SCENIC 27	388191	3736922	36	120.9	109.6	3.0	2.8
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1173	HARBOR SCENIC 28	388200	3736993	36	120.9	109.6	3.0	2.8
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)	1174	HARBOR SCENIC 29	388212	3737064	36	120.9	109.6	3.0	2.8
Harbor Scenic Dr: Ocean Connector - Pico Connector (SB)						604.7	548.2	15.2	14.0
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1153	HARBOR SCENIC 8	388800	3735766	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1154	HARBOR SCENIC 9	388775	3735828	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1155	HARBOR SCENIC 10	388755	3735890	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1156	HARBOR SCENIC 11	388717	3735941	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1157	HARBOR SCENIC 12	388665	3735988	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1158	HARBOR SCENIC 13	388611	3736036	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1159	HARBOR SCENIC 14	388564	3736090	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1160	HARBOR SCENIC 15	388516	3736144	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1161	HARBOR SCENIC 16	388476	3736204	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1162	HARBOR SCENIC 17	388442	3736267	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1163	HARBOR SCENIC 18	388416	3736334	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1164	HARBOR SCENIC 19	388395	3736403	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1165	HARBOR SCENIC 20	388367	3736469	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1166	HARBOR SCENIC 21	388328	3736530	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1167	HARBOR SCENIC 22	388287	3736588	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1168	HARBOR SCENIC 23	388245	3736647	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1169	HARBOR SCENIC 24	388213	3736711	36	239.2	216.8	6.0	5.5
Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp						4,066.1	3,686.3	102.4	94.2
Pier D St: w/o Pico Ave - w/o Pico Ave	1234	PIER D 17	387144	3736877	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1235	PIER D 18	387168	3736890	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1236	PIER D 19	387193	3736903	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1237	PIER D 20	387218	3736916	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1238	PIER D 21	387243	3736928	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1239	PIER D 22	387268	3736941	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1240	PIER D 23	387293	3736954	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1241	PIER D 24	387318	3736967	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1242	PIER D 25	387343	3736979	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1243	PIER D 26	387368	3736992	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1244	PIER D 27	387394	3737002	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1245	PIER D 28	387420	3737013	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1246	PIER D 29	387445	3737026	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1247	PIER D 30	387470	3737038	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1248	PIER D 31	387495	3737051	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1249	PIER D 32	387520	3737064	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1250	PIER D 33	387545	3737077	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1251	PIER D 34	387570	3737089	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1252	PIER D 35	387594	3737102	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1253	PIER D 36	387619	3737115	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1254	PIER D 37	387644	3737128	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1255	PIER D 38	387669	3737140	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1256	PIER D 39	387694	3737153	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1257	PIER D 40	387719	3737166	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1258	PIER D 41	387744	3737178	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1259	PIER D 42	387769	3737191	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1260	PIER D 43	387794	3737203	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1261	PIER D 44	387819	3737216	14	181.2	85.9	3.4	3.1

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Pier D St: w/o Pico Ave - w/o Pico Ave	1262	PIER D 45	387845	3737227	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1263	PIER D 46	387872	3737235	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1264	PIER D 47	387899	3737243	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1265	PIER D 48	387926	3737250	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1266	PIER D 49	387953	3737257	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1267	PIER D 50	387980	3737264	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1268	PIER D 51	388007	3737272	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1269	PIER D 52	388034	3737279	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave	1270	PIER D 53	388061	3737286	14	181.2	85.9	3.4	3.1
Pier D St: w/o Pico Ave - w/o Pico Ave						6,703.8	3,178.4	125.5	115.5
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1046	OCEAN 1	385307	3736071	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1047	OCEAN 2	385361	3736088	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1048	OCEAN 3	385414	3736105	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1049	OCEAN 4	385468	3736122	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1050	OCEAN 5	385521	3736139	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1051	OCEAN 6	385574	3736155	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1052	OCEAN 7	385627	3736173	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1053	OCEAN 8	385680	3736193	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1054	OCEAN 9	385732	3736213	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1055	OCEAN 10	385784	3736233	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1056	OCEAN 11	385837	3736253	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1057	OCEAN 12	385889	3736274	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1058	OCEAN 13	385941	3736294	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1059	OCEAN 14	385993	3736314	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1060	OCEAN 15	386046	3736334	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1061	OCEAN 16	386098	3736355	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1062	OCEAN 17	386150	3736375	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge	1063	OCEAN 18	386202	3736396	28	129.4	72.3	2.3	2.1
Ocean Blvd: Seaside Blvd OnRamp - Bridge						2,329.2	1,301.3	42.0	38.7
Ocean Blvd: Bridge	1064	OCEAN 19	386254	3736417	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1065	OCEAN 20	386306	3736438	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1066	OCEAN 21	386357	3736460	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1067	OCEAN 22	386408	3736484	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1068	OCEAN 23	386459	3736507	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1069	OCEAN 24	386510	3736530	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1070	OCEAN 25	386561	3736553	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1071	OCEAN 26	386612	3736576	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1072	OCEAN 27	386663	3736599	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1073	OCEAN 28	386714	3736622	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1074	OCEAN 29	386765	3736645	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1075	OCEAN 30	386816	3736668	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1076	OCEAN 31	386867	3736692	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1077	OCEAN 32	386918	3736715	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1078	OCEAN 33	386970	3736735	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1079	OCEAN 34	387023	3736754	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1080	OCEAN 35	387074	3736777	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1081	OCEAN 36	387125	3736800	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1082	OCEAN 37	387176	3736822	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1083	OCEAN 38	387228	3736844	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1084	OCEAN 39	387280	3736865	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1085	OCEAN 40	387333	3736884	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1086	OCEAN 41	387386	3736901	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1087	OCEAN 42	387441	3736913	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge	1088	OCEAN 43	387496	3736922	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge						3,234.8	1,807.2	58.4	53.7
Ocean Blvd: Bridge - I-710 Offramp	1089	OCEAN 44	387551	3736930	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge - I-710 Offramp	1090	OCEAN 45	387607	3736937	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge - I-710 Offramp	1091	OCEAN 46	387662	3736943	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge - I-710 Offramp	1092	OCEAN 47	387718	3736949	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge - I-710 Offramp	1093	OCEAN 48	387774	3736955	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge - I-710 Offramp	1094	OCEAN 49	387829	3736961	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge - I-710 Offramp	1095	OCEAN 50	387885	3736966	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge - I-710 Offramp	1096	OCEAN 51	387941	3736972	28	129.4	72.3	2.3	2.1

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Ocean Blvd: Bridge - I-710 Offramp	1097	OCEAN 52	387997	3736977	28	129.4	72.3	2.3	2.1
Ocean Blvd: Bridge - I-710 Offramp						1,164.6	650.6	21.0	19.3
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1621	Ocean Offramp 1	388027	3736971	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1622	Ocean Offramp 2	388053	3736959	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1623	Ocean Offramp 3	388079	3736946	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1624	Ocean Offramp 4	388094	3736921	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1625	Ocean Offramp 5	388102	3736893	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1626	Ocean Offramp 6	388102	3736865	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1627	Ocean Offramp 7	388102	3736836	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1628	Ocean Offramp 8	388101	3736808	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1629	Ocean Offramp 9	388085	3736784	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1630	Ocean Offramp 10	388058	3736777	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd	1631	Ocean Offramp 11	388029	3736775	14	36.4	20.3	0.7	0.6
Pier E St Off Ramp : Pico Ave - Ocean Blvd						400.0	223.5	7.2	6.6
Santa Fe: 9th St - Anaheim St	1417	SANTA FE 2	387462	3738556	24	37.4	20.9	0.7	0.6
Santa Fe: 9th St - Anaheim St	1418	SANTA FE 3	387463	3738604	24	37.4	20.9	0.7	0.6
Santa Fe: 9th St - Anaheim St	1419	SANTA FE 4	387464	3738652	24	37.4	20.9	0.7	0.6
Santa Fe: 9th St - Anaheim St	1420	SANTA FE 5	387465	3738700	24	37.4	20.9	0.7	0.6
Santa Fe: 9th St - Anaheim St						149.5	83.5	2.7	2.5
Santa Fe: n/o Anaheim St - s/o Willow St	1421	SANTA FE 6	387465	3738748	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1422	SANTA FE 7	387466	3738796	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1423	SANTA FE 8	387467	3738844	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1424	SANTA FE 9	387468	3738892	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1425	SANTA FE 10	387468	3738940	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1426	SANTA FE 11	387469	3738988	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1427	SANTA FE 12	387470	3739036	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1428	SANTA FE 13	387471	3739084	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1429	SANTA FE 14	387471	3739132	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1430	SANTA FE 15	387472	3739180	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1431	SANTA FE 16	387473	3739228	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1432	SANTA FE 17	387474	3739276	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1433	SANTA FE 18	387475	3739324	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1434	SANTA FE 19	387475	3739372	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1435	SANTA FE 20	387476	3739420	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St	1436	SANTA FE 21	387477	3739468	24	44.1	24.7	0.8	0.7
Santa Fe: n/o Anaheim St - s/o Willow St						706.0	394.4	12.7	11.7
I-710 : n/o 9th Street Onramp (NB)	1100	I-710 1	388241	3741119	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1101	I-710 2	388241	3741057	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1102	I-710 3	388244	3740995	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1103	I-710 4	388250	3740934	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1104	I-710 5	388256	3740872	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1105	I-710 6	388265	3740810	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1106	I-710 7	388274	3740749	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1107	I-710 8	388280	3740687	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1108	I-710 9	388281	3740625	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1109	I-710 10	388280	3740563	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1110	I-710 11	388279	3740501	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1111	I-710 12	388278	3740440	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1112	I-710 13	388277	3740378	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1113	I-710 14	388276	3740316	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1114	I-710 15	388276	3740254	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1115	I-710 16	388275	3740192	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1116	I-710 17	388273	3740130	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1117	I-710 18	388267	3740068	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1118	I-710 19	388258	3740007	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1119	I-710 20	388245	3739946	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1120	I-710 21	388231	3739886	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1121	I-710 22	388217	3739825	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1122	I-710 23	388205	3739764	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1123	I-710 24	388196	3739703	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1124	I-710 25	388188	3739642	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1125	I-710 26	388183	3739580	31	248.2	225.0	6.3	5.8

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
I-710 : n/o 9th Street Onramp (NB)	1126	I-710 27	388180	3739518	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1127	I-710 28	388180	3739456	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1128	I-710 29	388184	3739394	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1129	I-710 30	388189	3739332	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1130	I-710 31	388194	3739271	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1131	I-710 32	388199	3739209	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1132	I-710 33	388199	3739147	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1133	I-710 34	388200	3739085	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1134	I-710 35	388201	3739023	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1135	I-710 36	388200	3738961	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1136	I-710 37	388198	3738899	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1137	I-710 38	388196	3738837	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1138	I-710 39	388194	3738775	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1139	I-710 40	388192	3738713	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1140	I-710 41	388190	3738651	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1141	I-710 42	388187	3738589	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1142	I-710 43	388185	3738527	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1143	I-710 44	388189	3738465	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1144	I-710 45	388190	3738403	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1145	I-710 46	388208	3738342	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1613	I-710 47	388220	3738282	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1614	I-710 48	388230	3738221	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1615	I-710 49	388240	3738160	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1616	I-710 50	388245	3738099	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)	1617	I-710 51	388245	3738038	31	248.2	225.0	6.3	5.8
I-710 : n/o 9th Street Onramp (NB)						12,656.7	11,474.3	318.8	293.3
Onramp: 9th St - I-710 (NB)	1309	CONNECTOR 16	388106	3738066	14	129.3	61.3	2.4	2.2
Onramp: 9th St - I-710 (NB)	1310	CONNECTOR 17	388089	3738044	14	129.3	61.3	2.4	2.2
Onramp: 9th St - I-710 (NB)	1311	CONNECTOR 18	388072	3738022	14	129.3	61.3	2.4	2.2
Onramp: 9th St - I-710 (NB)	1312	CONNECTOR 19	388058	3737997	14	129.3	61.3	2.4	2.2
Onramp: 9th St - I-710 (NB)	1313	CONNECTOR 20	388047	3737972	14	129.3	61.3	2.4	2.2
Onramp: 9th St - I-710 (NB)	1314	CONNECTOR 21	388044	3737944	14	129.3	61.3	2.4	2.2
Onramp: 9th St - I-710 (NB)	1315	CONNECTOR 22	388042	3737916	14	129.3	61.3	2.4	2.2
Onramp: 9th St - I-710 (NB)	1316	CONNECTOR 23	388051	3737890	14	129.3	61.3	2.4	2.2
Onramp: 9th St - I-710 (NB)	1317	CONNECTOR 24	388064	3737865	14	129.3	61.3	2.4	2.2
Onramp: 9th St - I-710 (NB)						1,163.4	551.6	21.8	20.0
Onramp: 9th St - I-710 (NB BRIDGE)	1318	CONNECTOR 25	388076	3737840	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1319	CONNECTOR 26	388091	3737817	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1320	CONNECTOR 27	388111	3737797	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1321	CONNECTOR 28	388137	3737787	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1322	CONNECTOR 29	388164	3737782	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1323	CONNECTOR 30	388192	3737785	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1324	CONNECTOR 31	388217	3737796	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1325	CONNECTOR 32	388239	3737814	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1326	CONNECTOR 33	388253	3737837	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1327	CONNECTOR 34	388263	3737863	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1328	CONNECTOR 35	388264	3737891	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1329	CONNECTOR 36	388265	3737919	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1330	CONNECTOR 37	388265	3737947	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)	1331	CONNECTOR 38	388266	3737975	14	128.8	61.1	2.4	2.2
Onramp: 9th St - I-710 (NB BRIDGE)						1,803.3	855.0	33.8	31.1
Offramp: I-710 at 9th Street (SB)	1294	CONNECTOR 1	388112	3738046	14	123.1	58.4	2.3	2.1
Offramp: I-710 at 9th Street (SB)	1295	CONNECTOR 2	388096	3738023	14	123.1	58.4	2.3	2.1
Offramp: I-710 at 9th Street (SB)	1296	CONNECTOR 3	388080	3738000	14	123.1	58.4	2.3	2.1
Offramp: I-710 at 9th Street (SB)	1297	CONNECTOR 4	388065	3737977	14	123.1	58.4	2.3	2.1
Offramp: I-710 at 9th Street (SB)	1298	CONNECTOR 5	388058	3737949	14	123.1	58.4	2.3	2.1
Offramp: I-710 at 9th Street (SB)	1299	CONNECTOR 6	388058	3737922	14	123.1	58.4	2.3	2.1
Offramp: I-710 at 9th Street (SB)						738.7	350.3	13.8	12.7
Offramp: I-710 at 9th Street (SB BRIDGE)	1300	CONNECTOR 7	388072	3737898	14	121.8	57.8	2.3	2.1
Offramp: I-710 at 9th Street (SB BRIDGE)	1301	CONNECTOR 8	388091	3737879	14	121.8	57.8	2.3	2.1
Offramp: I-710 at 9th Street (SB BRIDGE)	1302	CONNECTOR 9	388116	3737867	14	121.8	57.8	2.3	2.1
Offramp: I-710 at 9th Street (SB BRIDGE)	1303	CONNECTOR 10	388144	3737866	14	121.8	57.8	2.3	2.1

Table A.2.1-Alt2A-8. Hourly Roadway Link Emissions - POLB MHTP Mitigated Alternative 2.

						Emissions (Pounds/Year)			
Roadway Link	BEEST ID	BEEST Name	UTM X	UTM Y	Width (m)	CO	NO2	PM10	PM2.5
Offramp: I-710 at 9th Street (SB BRIDGE)	1304	CONNECTOR 11	388170	3737874	14	121.8	57.8	2.3	2.1
Offramp: I-710 at 9th Street (SB BRIDGE)	1305	CONNECTOR 12	388193	3737890	14	121.8	57.8	2.3	2.1
Offramp: I-710 at 9th Street (SB BRIDGE)	1306	CONNECTOR 13	388210	3737912	14	121.8	57.8	2.3	2.1
Offramp: I-710 at 9th Street (SB BRIDGE)	1307	CONNECTOR 14	388213	3737939	14	121.8	57.8	2.3	2.1
Offramp: I-710 at 9th Street (SB BRIDGE)	1308	CONNECTOR 15	388214	3737967	14	121.8	57.8	2.3	2.1
Offramp: I-710 at 9th Street (SB BRIDGE)						1,096.6	519.9	20.5	18.9

Table A.2.1-Alt2D-1. Operational Hourly/Daily Scenario Modeling Emissions - POLB MHTP - Unmitigated Alternative 2

	Pounds per Hour				
Source Activity	*TOG*	CO	*NO 2*	PM10	PM2.5
OGV - Harbor Transit - 1 4-5k TEU	21.3	23.4	78.1	6.0	5.6
OGV - Docking - 1 4-5k TEU	9.9	9.0	30.3	2.5	2.3
OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)	2.9	5.5	17.8	1.4	1.3
OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)	0.2	1.6	1.1	0.5	0.5
OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)	2.6	4.9	16.0	1.2	1.2
OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)	0.2	1.6	1.1	0.5	0.5
Tugs - Harbor Transit - 2@ 0.72 hrs of ops	2.1	11.0	26.4	1.9	1.8
Tugs - Docking - 2@ 0.25 hrs of ops	0.7	3.8	9.2	0.7	0.6
Haul Line Locomotive - 10 mph - Port to Ocean Blvd	0.3	0.5	0.7	0.1	0.1
Haul Line Locomotive - 20 mph - Ocean Blvd to PCH	0.7	1.2	1.7	0.2	0.2
Locomotives - Rail Yard	1.4	2.8	3.4	0.3	0.3
Rail Yard Equipment	0.2	1.0	0.9	0.11	0.10
Terminal Equipment	14.3	77.9	87.4	10.3	9.5
Trucks - On-Terminal	9.9	14.7	11.3	0.5	0.4
Pier D Entry Road	0.49	1.06	0.51	0.02	0.02
Pier D In Gate	1.11	1.47	0.80	0.04	0.03
Pier D Exit Road	0.14	0.31	0.15	0.01	0.01
Pier D Out Gate	0.65	0.86	0.47	0.02	0.02
Pier F Entry Road	0.11	0.23	0.11	0.01	0.00
Pier F Exit Road	0.37	0.81	0.38	0.02	0.02
Pier F In + Out Gates	1.15	1.52	0.82	0.04	0.03
Total	71	165	289	26	25