Appendix D

AQMD/CDFG Coordination Letters

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

FAXED: JULY 25, 2006

July 25, 2006

Robert Kanter, Ph.D.
Port of Long Beach
Planning Division
925 Harbor Plaza
Long Beach, CA 90801

Dear Dr. Kanter:

Reissued Notice of Preparation for the Gerald Desmond Bridge Replacement Project and Air Quality Analysis Protocol for the Gerald Desmond Bridge Replacement Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned documents. The SCAQMD staff apologizes for not submitting comments earlier and appreciates the additional time that the Port of Long Beach has allowed. The Gerald Desmond Bridge Replacement Project is an important part of the Ports future expansion plans as this bridge is the primary route between the Port of Long Beach and the Port of Los Angeles and the 710 Freeway. In addition, the Gerald Desmond Bridge Replacement Project will be expanded from four to six lanes accommodating future car and truck traffic volume, and will provide vertical clearance for larger marine vessels.

The SCAQMD staff strongly recommends that the lead agency use the 10 in a million cancer risk threshold to determine project and cumulative significance. Using a percent increase in toxic emissions to determine if a Health Risk Assessment is needed or if the project is cumulatively significant is not an appropriate methodology. The Port of Long Beach's proposed approach is based on a Basin-wide average risk and does not account for many of the key variables that will determine the maximum individual cancer risk such as meteorological conditions, distance to the receptor, exposure duration, and potency of the toxic air contaminant. The SCAQMD staff is concerned that the project may pose a health risk that exceeds the 10 in a million significance threshold, however, the emissions are below the Port of Long Beach's recommended average screening emissions.

In calculating the health risk, the lead agency should account for all new impacts associated with implementation of the proposed project. If the Desmond Gerald Bridge

will be placed in a different location that will affect existing traffic routes, the SCAQMD staff would view these as new localized impacts and the health risk should be appropriately quantified from all mobile sources on the bridge, bridge approaches, and from traffic routes associated with the bridge. In addition, localized impacts from the larger ships that would be able to pass under the taller proposed bridge should also be considered as this is an anticipated activity associated with the proposed project. The SCAQMD staff recognizes that the methodology for estimating regional and localized impacts may be different. The methodology for estimating regional emissions should assess the incremental increase in emissions on a regional basis that are associated with the proposed project.

In February 2006, the SCAQMD staff provided comments to the Port of Long Beach on the their *Draft Air Quality and Risk Assessment Protocol for Proposed Projects at the Port of Long Beach Dated October 17, 2005.* SCAQMD staff comments on the Air Quality and Risk Assessment Protocol are incorporated by reference. Please find additional, more detailed comments on the Gerald Desmond Bridge Project-Specific Air Protocol in Attachment I.

The SCAQMD staff appreciates the opportunity to work with the Port of Long Beach to ensure that project-related emissions are accurately identified, categorized and evaluated. Please call me at 909 396-3105 if you have any questions regarding this letter.

Sincerely,

Susan Nakamura
Planning & Rules Manager

Attachment I

General Comments

1. The Protocol should reference recent South Coast Air Quality Management District (AQMD) Guidance – The following two guidance documents developed recently by AQMD staff should be referenced and followed in the protocol:
   a. *Supplemental Guidelines for Preparing Risk Assessments to Comply with the Air Toxics "Hot Spots" Information and Assessment Act (AB2588).* The document is available at: http://www.aqmd.gov/prdas/AB2588/pdf/AB2588_Guidelines.pdf. This document is a supplement to OEHHA's document entitled, "Air Toxics Hot Spots Program Risk Assessment Guidelines" (referred to as the OEHHA Guidelines). Facilities required to submit risk assessments to the AQMD must follow the OEHHA Guidelines. While the information provided in the OEHHA Guidelines is complete, there are several areas in which the user is referred to their local air districts for specific or additional requirements. This supplemental guidance addresses those and other issues that have arisen during the implementation of the AB2588 Program and various AQMD toxic rules.
   b. *Health Risk Assessment Guidance for Railyards and Intermodal Facilities.* The document is contained in the October Board package for Rule 3503 (agenda item #27). The document provides dispersion modeling and health risk assessment guidance for railyard and intermodal facilities. (Includes methodology for analyzing mobile sources)
   c. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") which can be found at the following SCAQMD website: www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html.
2. The SCAQMD staff has developed a methodology to quantify localized emissions impacts from PM10, CO, and NOx emissions. Please refer to the SCAQMD's website for the methodology and localized significance thresholds for PM10, CO, and NOx.
3. $PM_{2.5}$ Impacts – The criteria pollutant, $PM_{2.5}$, is not considered in the protocol. The protocol must address $PM_{2.5}$ emissions and impacts. As you are aware, the SCAQMD staff is in the process of developing $PM_{2.5}$ CEQA significance thresholds for both regional and localized impact analyses. Staff intends to bring the recommendation to the Governing Board in October 2006.
4. Mitigation Measures - If air quality or health risk impacts are found to be significant, the Port must require implementation of mitigation measures by all applicable sources unless substantial evidence supports a finding that implementation of a measure is not feasible. (Cal. Pub. Res. Code §§21081, 21081.5). The following documents contain feasible mitigation measures that the Port must consider for projects with significant

air quality impacts. In addition, the AQMD staff will identify additional mitigation measures during the review of a specific proposed project.

SCAQMD's "Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis". March 28, 2003. http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html
Riverside Air Quality Task Force "Good Neighbor Guidelines", September 12, 2005. http://www.wrcog.cog.ca.us/publications/Good+Neighbor+Policies+Final-091205.pdf
California Environmental Protection Agency, "Draft Emission Reduction Plan for Ports and International Goods Movement in California", December 1, 2005. http://www.arb.ca.gov/planning/gmerp/dec1plan/cover_toc.doc

- Chapter 11 of the SCAQMD CEQA Air Quality Handbook has sample air quality mitigation measures.
  SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be accessed at the following internet address: www.aqmd.gov/prdas/aqguide/aqguide.html.

In addition, pursuant to CEQA Guidelines Section 15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be addressed.

5. Project Emissions - Quantification of project emissions for the air quality analysis for CEQA documents should include project related emissions for both indirect and direct sources that affect California. For example, if the proposed project will create an increase in truck trips where deliveries would be outside of the SCAB, the emissions from the increase in truck trips from the project site to the edge of California should be included in the air quality analysis. Emission estimates for the HRA would be limited to those emissions that occur within the proposed project boundaries.

6. Peak Daily Emissions – The protocol states on page 7, that "to calculate the worst-case interim emission, the air emissions associated with each of these phases will be calculated separately." It would seem that there is the potential for overlapping phases, for example the demolition of the existing bridge and operation of the new bridge. The emissions from each phase and overlapping of phases should be calculated to estimate the peak daily construction and demolition emissions.

7. Future Mobile Source Regulations - For rules adopted or amended after the EMFAC2002 model was developed, the effect of future requirements can be accounted for in the future emission estimates provided the methodology and assumptions used is reviewed and approved by the local and state air quality agencies. This is to ensure that there is not a discrepancy regarding how future emission reductions are accounted and that there is potential double counting of emission reductions. In addition, it should be clear the SCAQMD CEQA guidance allows project to take credit for future year emission reductions from adopted rules and regulations only. Adjustments for proposed rules and regulations are not allowed.

8. Off-road Emissions - Emission factors from ARB's OFFROAD model for the years of interest represent model year emission factors, not fleet averages for the specified year. It appears that the authors are aware that the OFFROAD model is for model year engines and not fleet averages, but it should be made clearer in the discussion. CARB can provide emission factors that are representative of the overall fleet-mix for a specific equipment type and size category, or the Port use OFFROAD emission factors representative of their specific fleet for a specific equipment type and size category and model year. The second approach will allow the Port to tailor the fleet of equipment used in a specific project based on the useful life of each piece of equipment used at the Port.

9. Ocean-going vessels (OGVs) – OGVs can be treated as a series of point, area, or volume sources. The subject protocol is considering either a point or volume source treatment. Either treatment is acceptable. However, ARB's concurrence should be sought since ARB uses an area source treatment for OGVs in their report titled, *Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach.* In addition, if OGVs are treated as a series of point sources, then the approach must address potential building downwash effects.

10. Modeling Domain – Typically, SCAQMD staff requires impacts to be evaluated beginning from the fenceline. It is not clear from the protocol where project impacts would begin to be evaluated. This issue should be discussed in the protocol.

11. Time Domain for the Quantitative HRA – It is not clear from the protocol what the time domain for the quantitative HRA is. Would the HRA include emissions from the interim years or would the build-out emissions be assumed for the HRA?

12. Wilmington meteorological site is preferable for a Port of Long Beach impact assessment. It was used by ARB in their Port HRA and is proposed for use by the Port of Los Angeles for their expansion projects. In addition it is more current and proximate to the proposed project than SCAQMD's North Long Beach site.

13. Exposure assumption – The SCAQMD staff recommends that the exposure duration for schools and day care facilities assume 70 years, if the SCAQMD's significance threshold is used..

14. OEHHA Reference – The date for the OEHHA reference should be August 2003.

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at 909 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's website: www.aqmd.gov.

The Port of Long Beach

P. O. BOX 570 · LONG BEACH, CA 90801-0570 · TELEPHONE (562) 437-0041 · FAX (562) 901-1725

July 5, 2006

Ms. Susan Nakamura
South Coast Air Quality Management District
Planning and Rules Manager
21865 Copely Drive
Diamond Bar, CA 91765

Subject: Gerald Desmond Bridge Project Specific Air Protocol

Dear Ms. Nakamura:

On December 3, 2005, we sent you a revised Notice of Preparation and a Project-Specific Air Protocol (PSAP) for the Gerald Desmond Bridge Replacement Project. Since that time, Ms. Stacey Crouch of my staff has attempted to contact you both by telephone and by e-mail to determine if the South Coast Air Quality Management District (SCAQMD) had any comments or questions regarding the PSAP, and if so, if you would like to meet to discuss them. To date, we have had no response from the SCAQMD.

The California Environmental Quality Act (CEQA) anticipates that the EIR preparation and certification process should be accomplished within a year's time frame, per CEQA Guideline 15108. This is a high priority project to the Port of Long Beach. Accordingly, if we do not hear from you by July 17, 2006, we will assume that the SCAQMD does not have comments or questions on the PSAP. You will have an opportunity to comment on the revised draft Environmental Impact Report/Environmental Assessment when it is released later this year.

If you have any questions or comments or would like to schedule a meeting to discuss the PSAP please contact Ms. Crouch at (562) 590-4160.

Sincerely,

Robert Kanter

Robert Kanter, Ph.D.
Director of Planning
and Environmental Affairs

SEC:s

cc: E. Chang, SCAQMD
M. Bogner, Engineering
K. Haboian, Parsons

The Port of Long Beach

P. O. BOX 570 · LONG BEACH, CA 90801-0570 · TELEPHONE (562) 437-0041 · FAX (562) 901-1725

December 3, 2005

Ms. Susan Nakamura
South Coast Air Quality Management District
Planning and Rules Manager
21865 Copley Drive
Diamond Bar, CA 91765

Subject: Gerald Desmond Bridge Project-Specific Air Protocol

Dear Ms. Nakamura:

The Port of Long Beach (Port) is proposing to replace the aging Gerald Desmond Bridge joining Terminal Island to downtown Long Beach. The existing bridge is a tied-arch truss bridge which was constructed in 1968 and seismically upgraded in 1997, and it currently provides two through traffic lanes and one climbing lane in each direction.

The purpose of the proposed project is to replace the existing Gerald Desmond Bridge with a bridge that would:

- Provide sufficient roadway capacity to accommodate current car and truck traffic volumes and meet future needs;
- Reduce approach grades;
- Be structurally sound and seismically resistant; and
- Provide vertical clearance that would allow for safer passage of some existing container ships and new-generation vessels currently being constructed.

The Port in cooperation with Caltrans/Federal Highways Administration is preparing an Environmental Impact Report/Environmental Assessment (EIR/EA). The Lead Agencies originally issued an NOP on October 24, 2002. Following issuance of the original NOP, a draft EIR/EA was released on June 14, 2004, for public review. Subsequent to the public comment period for the draft EIR/EA, the Port elected to add a Toll-Operation Alternative and to expand the limits of the proposed project study area. The proposed project may result in potentially significant impacts on air quality associated with construction and operations activities. The EIR/EA will include air quality analyses prepared using the methodology described in the *Draft Air Quality and Risk Assessment Analysis Protocol for Proposed Projects at the Port of Long Beach* dated October 17, 2005 and incorporated by reference herein, and project specific protocol – *Air Quality*

Analysis Protocol for the Gerald Desmond Bridge Replacement Project dated November 2005 (attached).

Also attached is a Reissued Notice of Preparation for the revised draft Environmental Impact Report/Environmental Assessment (EIR/EA). The Ports anticipates the revised draft EIR/EA will be available for public review and comment in the summer of 2006. Per California Environmental Quality Act requirements, your agency will be provided a copy of the revised draft EIR/EA for review at that time.

If you have any questions regarding the proposed project or the air quality protocol we are proposing, please contact Stacey Crouch, of my staff, at (562) 590-4160.

Sincerely,

Robert Kanter

Robert Kanter, Ph.D.
Director of Planning and
Environmental Affairs

Attachments

cc: M. Bogner, Engineering
K. Haboian, Parsons

AIR QUALITY ANALYSIS PROTOCOL FOR THE GERALD DESMOND BRIDGE REPLACEMENT PROJECT

December 2005

The methodology in this protocol describes the general procedures to be followed in the Environmental Impact Report (EIR)/Environmental Assessment (EA) process, including describing existing conditions, environmental consequences, and mitigation. The following sections describe the methodologies to be followed in documenting ambient air quality, source characterization, emissions development, significance thresholds, modeling analyses, cumulative analyses, and mitigation.

SECTION 2: BASELINE AIR QUALITY

2.1 Criteria Air Pollutants

Ambient air quality data from the following representative air monitoring sites, operated and validated by SCAQMD or the California Air Resources Board (CARB), will be used:

- Wilmington (Mahar Avenue) [ARB Site No. 70996] – approximately 2.2 miles northwest of the Gerald Desmond Bridge
- Long Beach (East Pacific Coast Highway) [ARB Site No. 70110] – approximately 3.6 miles northeast of the Gerald Desmond Bridge
- North Long Beach Station [ARB Site No. 70072] – approximately 4.4 miles north of the Gerald Desmond Bridge
- South Coastal Los Angeles County 2 [SCAQMD Station No. 077] – approximately 4.4 miles north of the Gerald Desmond Bridge.

The most recent 3 years of monitoring data are required for documenting background ambient air quality. The North Long Beach Station will be the primary data source for documenting background ambient air quality for the Gerald Desmond Bridge project since it has complete data for the most recent 3 years from 2002 to 2004. The Wilmington monitoring station at Mahar Avenue has only sulfur dioxide (SO_2) data from 2002. The air monitoring station at East Pacific Coast Highway monitors particulate matter ($PM_{2.5}$ and PM_{10}) only and began operation in 2003. The South Coastal Los Angeles County 2 station monitors particulate matter and lead (Pb) only, and it began operation in 2004. Monitoring data from the East Pacific Coast Highway and South Coastal Los Angeles County 2 stations will be used in conjunction with the North Long Beach Station's monitoring data to determine the highest background levels of particulate matter and Pb in the area.

The established criteria air pollutants – those air pollutants with the National Ambient Air Quality Standards (NAAQS) or the California Ambient Air Quality Standards (CAAQS) will be analyzed. Criteria air pollutants consist of carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), SO_2, particulate matter less than 10 micrometers in aerodynamic diameter (PM_{10}), particulate matter less than 2.5 micrometers in aerodynamic diameter ($PM_{2.5}$), and Pb (CARB, 2005).

SECTION 3: SOURCE DEFINITION

Sources to be evaluated are defined as equipment or operations having the ability to emit one or more pollutants into the atmosphere potentially causing air quality degradation. These sources can be either directly related to a proposed project or indirectly affected by a proposed project.

Direct emission sources are those located within the project boundary that are essential to the operation of the proposed project. In the context of the Gerald Desmond Bridge, direct emissions are those associated with vehicular traffic using the bridge. Direct emissions are also associated with the construction and demolition activities necessary to develop the overall project. These can include construction and demolition equipment and other mobile sources, such as haul/debris trucks and personal cars used by construction workers.

Indirect sources are defined in the SCAQMD *CEQA Air Quality Handbook* as facilities, buildings, structures, installations, real properties, roads, or highways that attract, or may attract, mobile sources of pollution (SCAQMD, 1993). The indirect source would be those roads and highways that would receive additional traffic (mobile sources) that is diverted from using the new bridge, possibly due to implementation of a Toll-Operation Alternative.

3.1 Construction

Typically, construction emissions occur from combustion sources and from fugitive sources. Combustion sources, whether they are direct or indirect sources, emit NO_x, CO, PM_{10}, SO_x, VOCs, and various air toxics. Sources include construction and demolition equipment, haul/debris trucks, and worker traffic. Fugitive construction emissions (generally PM_{10}) are primarily due to traveling over unpaved roads and site preparation.

3.2 Operation

Direct sources related to the operation of the Gerald Desmond Bridge typically would consist of mobile sources composed of personal passenger cars, light trucks, heavy-duty gas and diesel trucks, buses, and motorcycles. Air emissions of VOCs, CO, NO_x, SO_x, and PM_{10} will be the primary air pollutants released from the vehicles that will be calculated. Air toxics are anticipated to be released mostly from heavy-duty diesel truck engines and will be calculated if there would be a 0.8 percent or more increase of TAC as a direct result of the operation of the new bridge (see previous discussion).

SECTION 4: Project Emission Quantification

Project emissions will be estimated for both direct and indirect sources that affect the SCAB. Operational emissions from mobile sources using the Gerald Desmond Bridge will be calculated based on the length of the bridge and the emission factors of the specific vehicle mix using the bridge. An estimate of No Build emissions of mobile sources will also be calculated using the same methodology. The net increase of the Build and No Build emissions will be

When the demolition of the bridge takes place, SCAQMD's Rule 1403 would be followed. The purpose of the rule is to specify work practice requirements to limit asbestos emissions from demolition activities, including the removal and associated disturbance of asbestos-containing materials (ACM).

4.3 TAC Emissions

If an HRA is needed, TAC will be identified, as defined in the latest SCAQMD-adopted iteration of Rule 1401. PM_{10} emissions will be used as a surrogate for DPM from all diesel internal combustion engines to estimate potential cancer and chronic health effects. The latest version of the EMFAC2002 model will be used to estimate diesel truck traffic PM_{10} emissions as DPM.

SECTION 5.0: Significance Thresholds and Analysis

Table 5-1 presents the thresholds of significance for air quality in terms of mass daily thresholds for criteria air pollutants.

5.1 Criteria Air Pollutants

The mass daily thresholds presented in Table 5-1 are emissions-based thresholds representing the first tier of a potential two-tier process for assessing the potential significance of criteria air pollutants on the regional level. There are two categories of mass daily thresholds: "construction" and "operational." The construction thresholds are set at higher levels for NO_x and VOCs, in recognition of the short-term nature of construction versus operational emissions. The operational emissions thresholds are tied to thresholds contained in SCAQMD Rule 1304 for permitting proposed new emission sources within SCAQMD's jurisdiction. The maximum daily emissions of criteria air pollutants from the project's emission sources will be estimated for the period between the CEQA baseline and the horizon year of 2030. The CEQA baseline is the existing environmental setting or baseline physical conditions before a project commences.

The project will be implemented in three phases. The construction phase includes construction of the new bridge, partial demolition of the existing bridge, and the continual operation of the existing bridge. This scenario would end with completion of construction and opening of the new bridge. The operational phase includes the operation of the new bridge, along with simultaneous demolition of the old bridge. Demolition activities would end with the complete removal of the old bridge. Finally, the operational phase will continue to reach the maximum capacity over time until 2030. To calculate the worst-case interim emission, the air emissions associated with each of these phases will be calculated separately. The emissions analyzed will be for the identified worst-case interim year (as defined in Section 4), the project build year of approximately 2011 or 2012, and the project build-out year of 2030.

SECTION 6.0: Local Scale Air Quality and TAC Hot Spot Analysis

Due to the nature of this project, only CO and PM_{10} hot spot analysis is required under the transportation conformity rules. The CO hot spot analysis will be conducted quantitatively, and the PM_{10} local scale analysis will be conducted qualitatively. TAC hot spot analysis may also need to be performed if the TAC emissions would increase by 0.8 percent or more as a result of the proposed project.

6.1 CO Hot Spot Quantitative Analysis

The CO hot spots will be selected in the vicinity of the bridge and will include the new bridge itself. The worst-case intersections will be selected based on the traffic analysis. Three impacted intersections with the worst level of service (LOS) and three impacted intersections with the highest traffic volumes will be selected for the CO hot spot analysis. These selected intersections may be the same (i.e., worst LOS and highest volumes). The analysis will follow the guidelines from the *Transportation Project Level Carbon Monoxide Protocol,* which was prepared by the University of California at Davis for Caltrans. Both screening and detailed analysis may be done for the selected intersections.

6.2 PM_{10} Qualitative Analysis

A qualitative analysis of PM_{10} will be conducted following FHWA guidance. This analysis deals primarily with project operational emissions. It is typically necessary to address construction-stage PM_{10} emissions from projects for CEQA purposes, since practically all of California is nonattainment for PM_{10} under State standards. However, construction activities lasting 5 years or less are considered temporary impacts under the Transportation Conformity Rule, and PM_{10} hot-spot analysis during the construction period is generally not required.

6.3 TAC Analysis

If required (see Section 7.2), the Hotspots Analysis and Reporting Program (HARP) is a tool that assists with the requirements of the CARB Air Toxics "Hot Spots" Program. HARP is a computer software package that combines the tool of emission inventory database, facility prioritization calculation, air dispersion modeling, and risk assessment analysis. All of these components are tied to a single database, allowing information to be shared and utilized. The results obtained from HARP would be compared with the criteria of the TAC listed in Table 5-1.

SECTION 7: MODEL METHODLOGIES

The following section describes the basis for the modeling analysis, including the model selection, emission source parameters, meteorological data, receptor locations, and calculation of impacts for CO and TAC hot spot modeling.

which recommends the use of the midpoint between the mean (65th percentile for the inhalation pathway) and high-end (95th percentile) values (i.e., the 80th percentile) as the minimum exposure level for risk management decisions where a single cancer risk value must be used for a residential receptor (CARB, 2004).

In the HRA, the estimated excess cancer risks would be considered to be additive, without taking into account any difference in cancer target, or any antagonistic or synergistic effects. Likewise, for conservative purposes, the Hazard Quotient (HQ) for all non-cancer substances are assumed to be additive to calculate an overall Hazard Index (HI), regardless of target organ systems for individual substances. If the calculated HI would be above 1.0, the risks based on target organ systems would be segregated.

7.2.1 Emission Source Characteristics

Emission sources would be identified by specific locations using a referenced Cartesian grid system. Typically, the Universal Transverse Mercater (UTM) system is utilized. Although it is not essential, this system allows easier reference to outside maps, electronic terrain systems, and comparison with other regulatory systems within the SCAB. The emission source is the heavy-duty diesel trucks traveling on the bridge, and it will be characterized as volume sources for both ISCST3 and HARP. The size of the volume source will be determined by the width of the roadway, and the height of the volume source will be 4 meters.

7.2.2 Meteorological Data

SCAQMD conducted an extensive 1-year meteorological monitoring and validation program throughout the SCAB to develop hourly meteorological data sets for use in regulatory modeling within the region. The North Long Beach Monitoring Station data will be used to characterize conditions in the Gerald Desmond Bridge area; SCAQMD has approved this station for use in numerous previous Port projects. This dataset will be used to calculate TAC exposure concentrations.

7.2.3 Receptor Locations

Modeling receptor locations are essential in the evaluation of potential impacts. In most applications, a system of regularly spaced intervals sufficient to capture the maximum concentration location is required. Typically, 100-meter receptor spacing will be used out to a distance of 1,000 meters, followed by 250-meter spacing out to 2,500 meters, and then 500-meter spacing to a distance of 5,000 meters. If the maximum is predicted beyond the 100-meter grid system, secondary modeling will be conducted with a 100-meter spacing around the identified maximum location to better define the prediction. Because of the limitations of the HARP software, only one grid can be modeled at a time. The approach to defining receptor locations in the risk assessment will be to use a coarse grid to identify the general area in which impacts are highest, and then to use refined grids to locate the MEI.

Rules 1401 and 212 will be used in this assessment to evaluate the significance of non-cancer impacts and the population cancer burden calculated for nearby populations. The risk thresholds are presented in Table 5-1.

In accordance with OEHHA guidelines, the HRA would present the potential acute non-cancer, chronic non-cancer, and incremental cancer health impacts at the point of maximum offsite impact, at the maximum exposed individual resident, at the maximum exposed individual worker, and at specified sensitive receptor locations. The HRA would also present an estimate of population exposure for potential incremental cancer burden.

The HARP model allows the calculation of risk for several exposure scenarios. The OEHHA 70-year exposure scenario assumes that a residential receptor will be present at one location for 24 hours per day, 365 days per year, for 70 years. This scenario represents an upper-bound exposure to TAC emissions. In addition, the HARP model allows the calculation of a 30-year residential scenario (the Environmental Protection Agency's [EPA] recommended upper-bound residential scenario), a 9-year adult residential scenario (EPA's recommended average residence time for adults), a 9-year child residential scenario, and a worker exposure scenario. The HARP program also allows calculation of an upper-bound, 80th percentile (for inhalation pathway only, as discussed in Section 7.2), and average risk for each of these exposure scenarios. This allows the Gerald Desmond Bridge project to place the 70-year exposure scenario into perspective and provides a comparative analysis of potential upper-bound versus average risks.

Uncertainty Analysis

If an HRA is required for the proposed project, the risk characterization would also include a discussion of uncertainties in the risk assessment process. These uncertainties arise from the assumptions made in the risk assessment process, including assumptions regarding emission estimates, mitigation measures to be employed, source characterization, exposure scenarios, and toxicity factors. In general, the process, as dictated by OEHHA guidelines and SCAQMD requirements does not allow for decisions to be made regarding the exposure scenarios or toxicity factors. However, there are uncertainties involving emission factors and emission estimation techniques, mitigation measures, and source characterization that may require additional consideration. The following discussion addresses some of these individual issues further:

Emission Estimation Techniques

Emissions are estimated using the best available emission factors for the various emission sources. Emission factors are periodically updated or may be augmented with actual test data from testing of equipment, vehicles, marine vessels, and other project-related sources. Furthermore, there may be new developments in emission estimation software (such as the CARB OFFROAD emission factor software and the EMFAC model) that must be taken into account

MATES II study is currently being updated by SCAQMD and will be released as MATES III. The Gerald Desmond Bridge HRA would take into account the results of the updated study when they become available.

MITIGATION MEASURES

Criteria Air Pollutants

When the significance threshold emission criterion of a criteria pollutant is exceeded by emissions associated with the project or any alternatives, mitigation measures would be identified. The mitigation measures developed for the Gerald Desmond Bridge project would be consistent with CEQA requirements and the latest version of the SCAQMD *CEQA Air Quality Handbook*. To the extent possible, quantification of the emission reductions from each mitigation measure (or set of mitigation measures) would be estimated. The environmental document preparer would document each mitigation measure, the effectiveness of the control, and the basis for emission quantification. The evaluation for significant impacts (after mitigation) would be conducted in the identical manner as described for the unmitigated emissions, and any significant impacts would be identified.

TAC

In similar fashion, mitigation measures would be identified if there would be an exceedance of TAC significance thresholds for the project or any of the alternatives. The latest version of the SCAQMD *Air Toxics Control Plan* (ATCP) provides a summary of proposed air toxics control measures and also provides an evaluation of the potential risk reductions in the SCAB due to implementation of control measures. For each mitigation measure, effective emission reductions would be estimated consistent with the ATCP. As with criteria pollutants, an evaluation of the resultant risks from the project (or alternative) emissions, after mitigation, would be assessed for significant impacts. The environmental document preparer would identify all significant impacts remaining after mitigation is applied.

REISSUED NOTICE OF PREPARATION

Date December 5, 2005 SCH #2002101141

To: Responsible and Trustee Agencies and Interested Parties

From: Robert Kanter, Director of Planning and Environmental Affairs

Subject: Gerald Desmond Bridge Replacement Project

The Port of Long Beach (Port) in cooperation with the California Department of Transportation and Federal Highways Administration (Caltrans/FHWA) will act as the lead agencies for the subject in accordance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act, respectively. The Port and Caltrans/FHWA will prepare a combined Environmental Impact Report (EIR) and Environmental Assessment (EA) for the project described below.

The Port and Caltrans/FHWA originally issued a Notice of Preparation (NOP) on October 24, 2002. Following issuance of the original NOP/Notice of Intent, a draft EIR/EA was released for public review on June 14, 2004, for a 60-day review period. Subsequent to the public comment period for the draft EIR/EA, the Port elected to add a Toll-Operation Alternative and to expand the limits of the proposed project study area. The project study area was expanded to assess the impacts associated with adding a toll district. The revised draft EIR/EA will incorporate quantitative analysis to assess the project's potential to cause growth-inducement within the Port and in surrounding communities.

As a result of the added Toll-Operation Alternative and the expanded project study area, the Port has reissued this NOP to afford responsible and trustee agencies the opportunity to provide comments and input on the revisions to the proposed project.

This reissued NOP is also to inform you that the following additional environmental factors are being considered to have potentially significant impacts and will be reanalyzed accordingly: light and glare, air quality, noise, traffic, and growth inducement.

If you submitted comments in response to the October 2002 NOP, we have addressed those comment in the June 2004 draft EIR/EA and will also address them in the revised draft EIR/EA. Accordingly, we ask that you provide any additional comments, you may have on this NOP, at this time. We need to know the applicable permit and environmental review requirements of your agency and the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. This is important if your agency will need to use the EIR/EA when considering permits or approval for the project by your agency.

Along with a No-Build Alternative, a North-side Alignment Alternative and a Toll-Operation Alternative will be analyzed in the revised draft document as follows: 1) North-side Alignment Alternative (same as the North-side Alignment Alternative described in the June 2004 draft EIR/EA; and 2) Toll-Operation Alternative [either as part of a toll district scenario involving the

Gerald Desmond, Vincent Thomas, and Schuyler Heim bridges, or tolling only at the Gerald Desmond Bridge (same footprint as the North-side Alignment Alternative)].

The North-side Alignment Alternative assumes that the proposed new Bridge would operate similar to a freeway. The new bridge would be relinquished to Caltrans and would become part of Route 710.

The Toll-operation Alternative is assumed to have automatic License Plate Recognition (LPR) technology, and would operate without toll booths. Except for the toll element, the bridge design features would be the same as that of the previously analyzed alternatives.

The proposed project limits (i.e., bridge alignment alternatives and project improvements footprint) remain the same as that presented in the previously released draft EIR/EA. However, the project study area has been revised and expanded as follows: Willow/Sepulveda to the north, I-110 to the west, and the Los Angeles River to the east. The south end of the project study area has not changed, being located south of Ocean Boulevard. The Gerald Desmond Bridge/Ocean Boulevard portion of the project is located in the Middle Harbor and Terminal Island planning districts of the Port, and the I-710 portion is located in the Northeast Harbor Planning District. The Gerald Desmond Bridge is one of three bridges connecting surface highways to Terminal Island (see attached figure). The EIR/EA will consider whether the Toll-Operation alternative would cause traffic diversion in the study area.

Project Title: Gerald Desmond Bridge Replacement Project

Project Location: Back Channel, Port of Long Beach, Los Angeles County, California

Project Description: The proposed project consists of replacement of the aging four-lane Gerald Desmond Bridge with a six-lane bridge that would be a landmark in the Port and City of Long Beach. For further information about the project, see the attached "Additional Project Information."

Your input on the proposed project at this stage in the CEQA process is one of the mechanisms to ensure that the concerns of your agency are brought forth to the Port early in the process. Please send your response as early as possible but ***no later than January 5, 2006***.

In addition, please send your response and the name of a contact person in your agency, as well as any comments or questions regarding the proposed project to Robert Kanter, Ph.D., Port of Long Beach, Planning Division, 925 Harbor Plaza, Long Beach, CA 90802

Robert Kanter

Robert Kanter, Ph.D.
Director of Planning and
Environmental Affairs

SEC:s

Attachments

Additional Project Information

Purpose and Need of Project

The purpose of the proposed project is to replace the aging 156-foot vertical clearance, four-lane Gerald Desmond Bridge, constructed in 1968 with a higher six-lane bridge that would be an engineering landmark within the Port and the City of Long Beach. The new cable-stayed bridge would have two additional lanes and a 200-foot vertical clearance over the Back Channel. It has a planned 100-year design life. In addition, it would enable the Port to remove the existing, physically deteriorated structure from service, accommodate projected increases in vehicular traffic on the bridge, and allow for the increased size in container ships in the future. The new bridge with a higher vertical clearance would meet maritime demand by accommodating larger ships.

The Gerald Desmond Bridge is one of only three bridges that provide access to Terminal Island. The current structure has a steel superstructure (truss and girder) that supports a reinforced concrete deck, all supported by reinforced concrete substructures. In 1997, the structure underwent seismic retrofit and fatigue retrofit; it continues to deteriorate.

Alternatives Evaluated

There are two build alternatives being considered for the project: 1) a new bridge on the north side of the current structure with a 200-foot vertical clearance over the Back Channel, called the North-side Alignment Alternative and 2) a Toll-Operation Alternative (same footprint as the North-side Alignment Alternative) with two scenarios. One scenario is part of a study for a tolling district for all three bridges on Terminal Island; Gerald Desmond, Vincent Thomas, and Schuyler Heim. The other is a stand alone toll facility on the Gerald Desmond Bridge. An alternative to locate the new bridge on the south side of the existing bridge was evaluated in the June 2004 draft EIR/EA and found to be non-viable primarily due to unacceptable impacts on the Port's new Pier T container terminal south of Ocean Boulevard. An option to upgrade rather than replace the existing structure was also considered; this was not a viable alternative, as the bridge would be closed for an extended period of time causing major diversion of traffic to local arterials and severely impacting those facilities. The viability of constructing a tunnel to replace the bridge was considered, but it was found to be infeasible due to the high costs and the challenges associated with its constructability. Finally, different types of bridge design options were analyzed, which included Single Mast Tower, H-Tower with Vertical Legs, H-Tower with Slanted Legs, and Delta Tower.

Environmental Setting

The Gerald Desmond Bridge is located in an industrialized area in the Port. The area is highly disturbed and includes land uses such as lumber terminals, a liquid bulk terminal, a scrap metal terminal, a container terminal, and oil production facilities.

Methodology

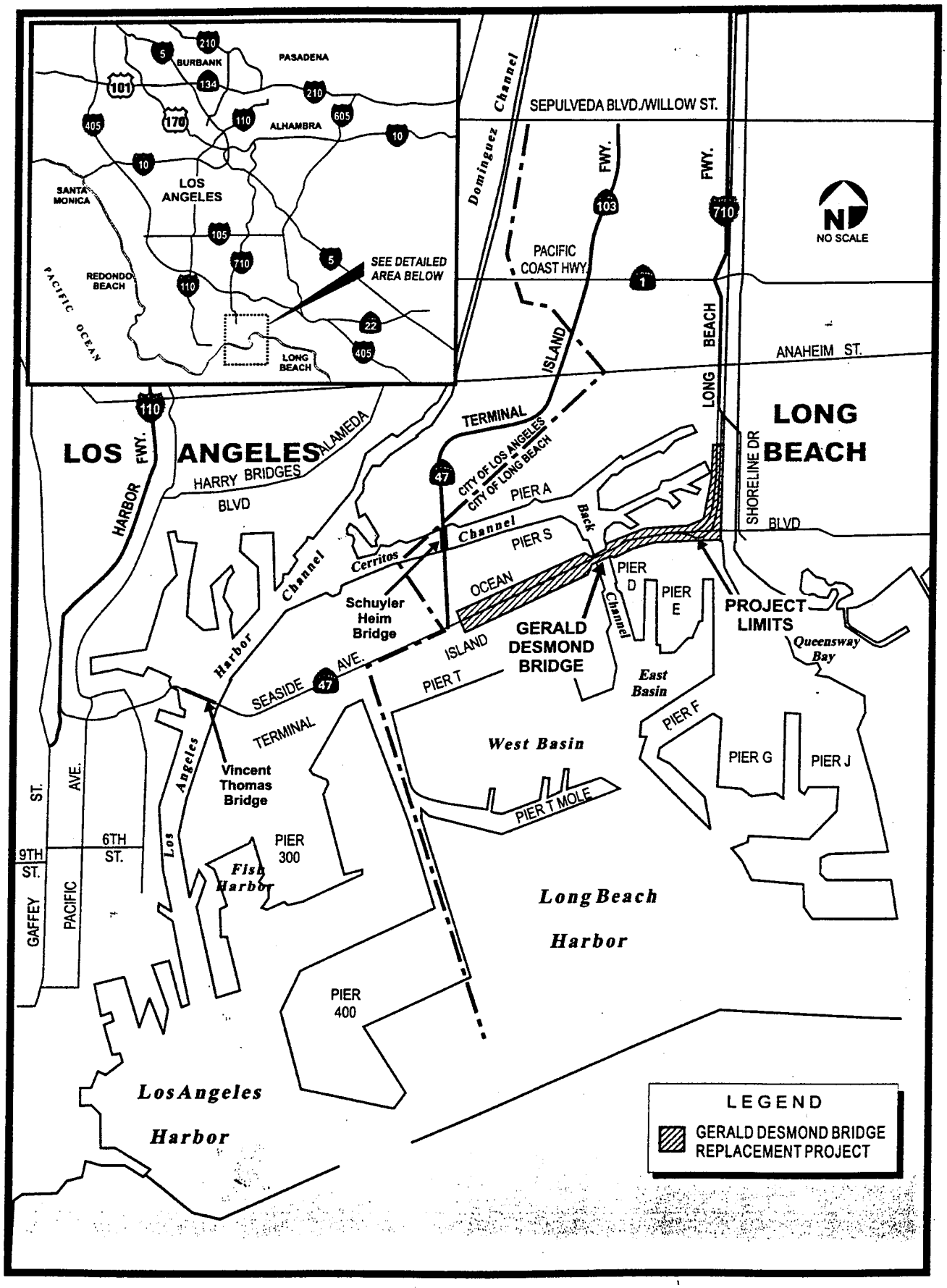
The technical studies to support the revised draft EIR/EA are being prepared in accordance with various Port Protocols and other applicable laws and procedures, and they are outlined in the following table

METHODOLOGIES

Technical Study	Port Guidance Procedural Guide	Applicable Laws, Procedures, and Agencies
Air Quality Technical Study	Environmental Protocol Environmental Impact Report Standards and Practices, 2005.	UC Davis Transportation Project-Level Carbon Monoxide Protocol, Revised December 1997 FHWA Guidance for Qualitative Project Level "Hot Spot" Analysis in PM-10 Nonattainment and Maintenance Areas, September 2001
Energy Technical Study	Environmental Protocol Environmental Impact Report Standards and Practices, 2005.	California Energy Commission On-road & Rail Transportation Energy Demand Forecasts for California, April 1999
Geologic Resources Technical Study	Environmental Protocol Environmental Impact Report Standards and Practices, 2005.	State Mining and Geology Board Guidelines for Evaluating and Mitigating Seismic Hazards in California Special Publication 117, 1997
Historic Properties Survey Report	Environmental Protocol Environmental Impact Report Standards and Practices, 2005. City of Long Beach Green Building Policy for Municipal Buildings, 2003. City of Long Beach Municipal Code Public Facilities and Historical Landmarks (Chapter 16.04), 1982.	US Department of the Interior National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation, 1995. Caltrans Environmental Handbook Volume 2: Cultural Resources, January 2004.
Initial Site Assessment	N/A	California Department of Toxic Substance Control (DTSC), 2005. National Council for Science and the Environment (NCSE), 2005. Summaries of Environmental Laws Administered by the EPA, 2005. ASTM E1527-00, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, 2005.
Land Use Technical Study	Environmental Protocol Environmental Impact Report Standards and Practices, 2005. Port of Long Beach Master Plan, 1999.	Caltrans Environmental Handbook Volume 4: Community Impact Assessment, June 1997.
Natural Environment Study	Environmental Protocol Environmental Impact Report Standards and Practices, 2005. Ports of Long Beach and Los Angeles Year 2000 Biological Study of San Pedro Bay, 2002.	Caltrans Environmental Handbook Volume 3: Biological Resources, January 2000.
Noise Technical Study	Environmental Protocol Environmental Impact Report Standards and Practices, 2005. City of Long Beach Municipal Code Noise (Chapter 8.80), 1982	Caltrans Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, October 1998.
Socioeconomic Study	Environmental Protocol Environmental Impact Report Standards and Practices, 2005. A White Paper on Environmental Justice: Opportunities in Port of	Caltrans Environmental Handbook Volume 4: Community Impact Assessment, June 1997. Environmental Justice Executive Order 12898, 1994.

Technical Study	Port Guidance Procedural Guide	Applicable Laws, Procedures, and Agencies
	Long Beach Projects, 2005.	
Traffic Analysis Report	Environmental Protocol Environmental Impact Report Standards and Practices, 2005. Port Terminal Throughput Final White Paper, 2005.	Highway Capacity Manual (HCM 2000) prepared by the Transportation Research Board (TRB) Committee.
Utilities Study	Environmental Protocol Environmental Impact Report Standards and Practices, 2005. Utility and Service Systems, 2005.	N/A
Water Resources	Environmental Protocol Environmental Impact Report Standards and Practices, 2005. City of Long Beach Municipal Code NPDES & SUSMP Regulations (Chapter 18.95), 1982.	Caltrans Storm Water Quality Handbook, Construction Site Best Management Practices (BMPs) Manual, September 2002. Caltrans Statewide Storm Water Management Plan, May 2003.
Visual Impact Assessment	Environmental Protocol Environmental Impact Report Standards and Practices, 2005.	FHWA Visual Assessment for Highway Projects, March 1981.

Figure - Vicinity and Study Area Map



State of California - The Resources Agency
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
Marine Region
20 Lower Ragsdale Drive, Suite 100
Monterey, CA 93940

February 2, 2006

Dr. Robert Kanter
Director of Planning and Environmental Affairs
Port of Long Beach
P.O. Box 570
Long Beach, CA 90801-0570

Dear Dr. Kanter:

The Department of Fish and Game (Department) has reviewed the Port of Long Beach's (POLB) Draft Gerald Desmond Bridge Replacement Project Bat Monitoring and Mitigation Plan, received January 17, 2006. The POLB is proposing to demolish and reconstruct the aging Gerald Desmond Bridge, a site currently utilized by bats. The monitoring and mitigation plan is intended to reduce impacts to bats during demolition and construction activities.

The Department has the following comments on the bat monitoring and mitigation plan.

Section 1: Project Introduction

Existing Conditions: last sentence:
We also need to know "When" the bats are roosting.

Section 2: Project Impacts and Potential Mitigation

Construction Impacts:
Does this mean that the new bat roosts will be available on the new bridge prior to the demolition of the old bridge?

Mitigation Measures:
Item 3. Create roosting opportunities on the new bridge should be in place prior to Item 2., *Preclude access to the existing bridge prior to its demolition.*

Measure 1. Species Identification:
- Surveys should be conducted evening/night...usually up until midnight/1 AM depending on activity.
- It will take more than one day to survey the entire existing bridge—you may want to say "survey period"
- Surveys should be scheduled to get a June survey date.

- Surveys need to be conducted during appropriate weather and lunar conditions.
- If possible, the biologist should start collecting guano to "rub" into the new bridges roosting areas.
- In the established roost areas, a temperature probe should be used to ascertain roost temperature during use. So temperature can be monitored in the new roost site. Bats utilize areas based on Temperature.

Measure 2. Precluding Bat Access:

- A biological monitor will need to monitor the mesh to ensure bats don't get tangled in the mesh and expire.

Measure 3. Creation of Roosting Opportunities:

- Another opportunity for roosting habitat is to remove the foam/felt in the hinges of the new deck that are used when pouring the concrete.

As always, Department personnel are available to discuss our comments, concerns, and recommendations in greater detail. To arrange for a discussion please contact Ms. Marilyn Fluharty, Environmental Scientist, California Department of Fish and Game, 4949 Viewridge Avenue, San Diego, CA 92123, telephone (858) 467-4231.

Sincerely,

Thomas Napoli
Staff Environmental Scientist
Marine Region

cc: Betty Courtney
Department of Fish and Game
Region 5, San Diego

Marilyn Fluharty
Department of Fish and Game
4949 Viewridge Avenue
San Diego, CA 92123