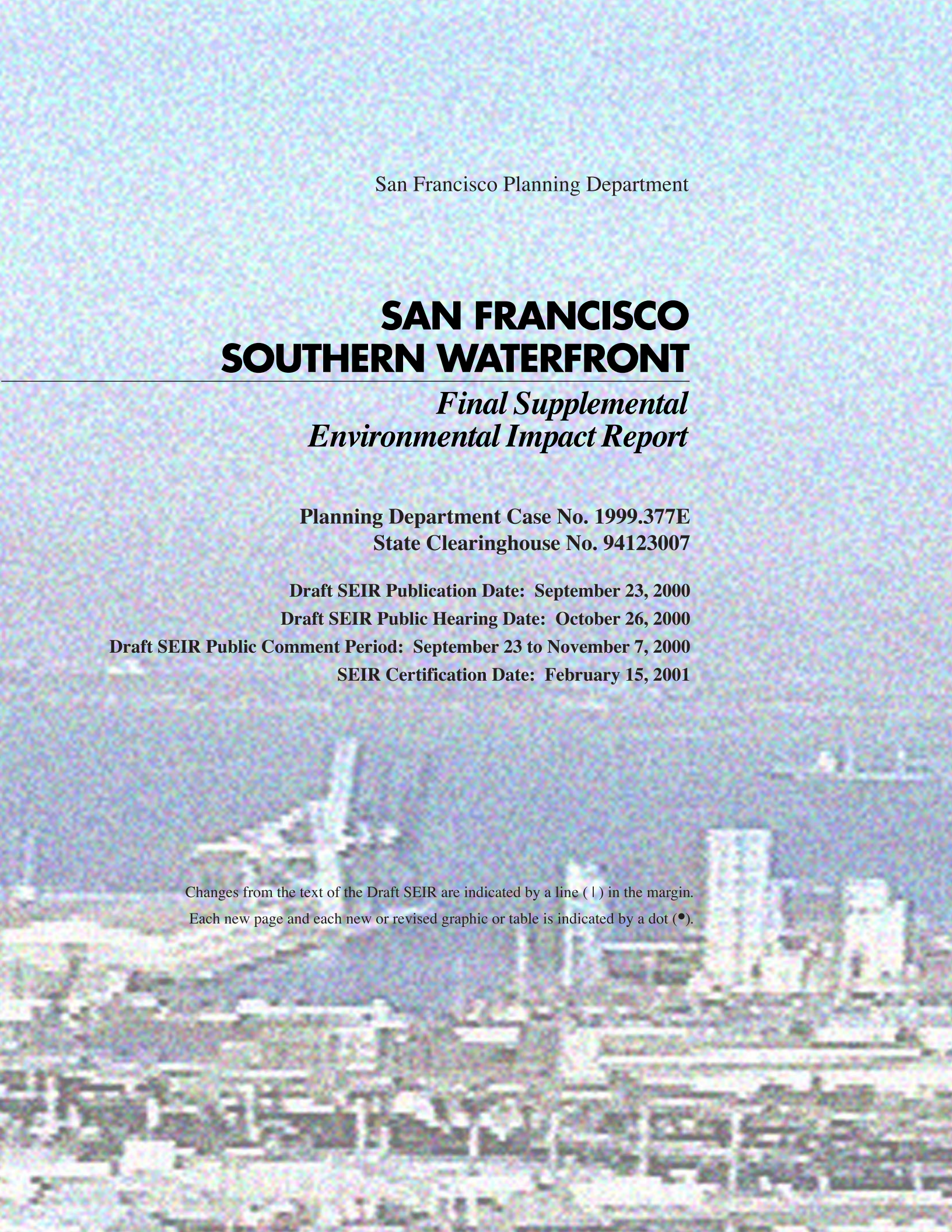
San Francisco Planning Department

SAN FRANCISCO SOUTHERN WATERFRONT

Final Supplemental Environmental Impact Report

Planning Department Case No. 1999.377E
State Clearinghouse No. 94123007

Draft SEIR Publication Date: September 23, 2000
Draft SEIR Public Hearing Date: October 26, 2000
Draft SEIR Public Comment Period: September 23 to November 7, 2000
SEIR Certification Date: February 15, 2001



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SAN FRANCISCO

PLANNING COMMISSION

MOTION NO. 16093

ADOPTING FINDINGS RELATED TO THE CERTIFICATION OF A FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED SAN FRANCISCO SOUTHERN WATERFRONT PROJECT LOCATED GENERALLY IN SAN FRANCISCO PORT JURISDICTION FROM PIER 70 SOUTH TO INDIA BASIN.

MOVED, That the San Francisco Planning Commission (hereinafter "Commission") hereby CERTIFIES the Final Supplemental Environmental Impact Report identified as Case File No. 1999.377E, (hereinafter "Project") based upon the following findings:

1) The City and County of San Francisco, acting through the Planning Department (hereinafter "Department") fulfilled all procedural requirements of the California Environmental Quality Act (Cal. Pub. Res. Code Section 21000 et seq., hereinafter "CEQA"), the State CEQA Guidelines (Cal. Admin. Code Title 14, Section 15000 et. seq., (hereinafter "CEQA Guidelines") and Chapter 31 of the San Francisco Administrative Code (hereinafter "Chapter 31").

a. The Department determined that a Supplement to the Waterfront Land Use Plan EIR, Case No. 94.155E, was required and provided public notice of that determination by publication in a newspaper of general circulation on June 12, 2000.

b. On September 23, 2000, the Department published the Draft Supplemental Environmental Impact Report (hereinafter "DSEIR") and provided public notice in a newspaper of general circulation of the availability of the DSEIR for public review and comment and of the date and time of the Commission public hearing on the DSEIR on Thursday, October 26, 2000. This notice was mailed to the Department's list of persons requesting such notice.

c. Notices of availability of the DSEIR and of the date and time of the public hearings were posted near the Project site by Department staff on or about September 22, 2000.

d. On September 22, 2000, copies of the DSEIR were mailed or otherwise delivered to a list of persons requesting it, to those noted on the distribution list in the DSEIR, to adjacent property owners, and to government agencies.

2) The Commission held a duly advertised public hearing on said DSEIR on October 26, 2000, at which opportunity for public comment was given, and public comment was received on the DSEIR. The period for acceptance of written comments ended on November 7, 2000.

3) The Department prepared responses to comments on environmental issues received at the public hearings and in writing during the 45-day public review period for the DSEIR, prepared revisions to the text of the DSEIR in response to comments received or based on additional information that became available during the public review period, and corrected errors in the DSEIR. This material was presented in a "Draft Summary of Comments and Responses," published on January 29, 2001, which was distributed to the Commission and to all parties who commented on the DSEIR, and was available to others upon request at Department offices.

4) A Final Supplemental Environmental Impact Report (hereinafter "FSEIR") has been prepared by the Department, consisting of the DSEIR, any comments received during the review process, any additional information that became available, and the Summary of Comments and Responses, all as required by law.

5) Project Environmental Impact Report files have been made available for review by the Commission and the public. These files are available for public review by appointment at the Planning Department offices, and are part of the record before the Commission.

6) On February 15, 2001, the Commission reviewed and considered the FSEIR and found that the contents of said report and the procedures through which the FSEIR was prepared, publicized, and reviewed comply with the provisions of CEQA, the CEQA Guidelines, and Chapter 31 of the San Francisco Administrative Code.

7) The Commission hereby does find that the FSEIR concerning Case File No. 99.377E reflects the independent judgment of the City and County of San Francisco; is adequate, accurate and objective; and that the Summary of Comments and Responses contains no significant revisions to the DSEIR; and hereby does CERTIFY THE COMPLETION of said FSEIR in compliance with CEQA and the CEQA Guidelines.

8) The Commission, in certifying the completion of said FSEIR, hereby does find that the Project described in the Environmental Impact Report will result in significant, unmitigable traffic congestion at selected local intersections, and will result in total projected emissions of criteria pollutants on a region-wide basis that would exceed BAAQMD project-specific significance standards. Also, while project-specific impacts on local air quality would be less than significant they would contribute to potentially significant cumulative air emissions from existing and possible future sources in the greater site vicinity.

9) The Commission, in certifying the completion of said FSEIR, acknowledges the health issues experienced by the Bayview - Hunter Point residents, and finds that the FSEIR considers this issue and requests that the decision makers, in this case the Port Commission and Board of Supervisors, give careful consideration to this issue in evaluating the project and in the implementation and monitoring of effective mitigation measures. The following sections of the FSEIR warrant particular attention:

- existing health concerns on pp. 77-78
- air quality and dust control mitigation measures on pp. 146-149
- stormwater runoff mitigation measures on pp. 149-150
- diesel emission mitigation measures on p. 147

I hereby certify that the foregoing Motion was ADOPTED by the City Planning Commission at its regular meeting of February 15, 2001.

Linda Avery
Commission Secretary

AYES: Commissioners Theoharis, Baltimore, Fay, Joe and Salinas

NOES: None

ABSENT: Chinchilla

ADOPTED: February 15, 2001

San Francisco Planning Department

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INTRODUCTION

On January 9, 1997, the San Francisco Planning Commission certified a Final EIR, *Port of San Francisco Waterfront Land Use Plan EIR* (Case No. 94.155E; State Clearinghouse No. 94123007), for the adoption by the Port of San Francisco of a plan governing future uses and development within the Port's approximately 7.5 miles of jurisdiction, covering the San Francisco waterfront generally from the Hyde Street Pier to India Basin. That FEIR is referred to herein as the "Waterfront Plan FEIR."

Subsequent to completion of the Waterfront Plan FEIR, the San Francisco Port Commission in June 1997 adopted the Waterfront Land Use Plan ("the Waterfront Plan"), which specifies acceptable and unacceptable land uses for all properties under Port jurisdiction, and is intended to guide future development of Port properties and to satisfy requirements of Proposition H, passed in November 1990. The Waterfront Plan allows for new development on Port property, with a mixture of maritime and commercial uses anticipated generally north of China Basin and predominantly maritime expansion from Pier 70 south, in the subarea known as the Southern Waterfront. Short-term, "interim" uses are also allowed that do not preclude the ultimate reuse of land on the Southern Waterfront for maritime purposes. The Waterfront Plan identified a number of "mixed-use opportunity areas" that were anticipated to be the location of future developments including maritime uses, open space, public access, and certain commercial and recreational uses, potentially in close proximity to other nearby uses on non-Port property. Three of these opportunity areas are located within the Southern Waterfront – at Pier 70; at the former Western Pacific rail yard between 25th and César Chávez (Army) Streets, east of Illinois Street; and northeast of Cargo Way in the "backlands" west (inland) of the South Container Terminal at Piers 94-96.

Since publication of the Waterfront Plan EIR, the Port has received inquiries from a number of potential maritime-industrial and general industrial users seeking to lease land within Port jurisdiction in the Southern Waterfront. Upon preliminary review of the lease applications, Port staff, in consultation with Planning Department staff, determined that, while the proposed uses would be consistent with the Waterfront Plan direction for the Southern Waterfront, the Waterfront Plan FEIR did not analyze such uses. Beyond these projects, collectively described in this SEIR as the Industry Group project components, the Port itself has proposed construction of a rail and truck bridge over Islais Creek at Illinois Street to provide access to and between the North and South Container Terminals at Pier 80 and Piers 94-96, respectively. Additionally, the Port anticipates future growth in cargo shipping activity at Pier 80 and Piers 94-96, as well as potential future development of maritime and non-maritime activities on the three opportunity areas noted above.

In addition, since certification of the Waterfront Plan EIR, there have been changes in the regulatory environment with respect to air quality, in that the San Francisco Bay Area Air Basin first achieved, and then lost, "attainment" status for the national ozone standard, and achieved attainment status for the state and national carbon monoxide standards; the Bay Area remains in "non-attainment" status for the state ozone and PM-10 standards, meaning that the Bay Area violates these state standards with some regularity. In addition, in 1998, the California Air Resources Board designated particulate emissions from diesel-fueled engines as a toxic air contaminant, resulting in increased concern regarding diesel emissions.

In light of the above, this Supplemental EIR (SEIR) has been prepared to analyze potential transportation and air quality effects related to the Industry Group project components, the proposed Illinois Street Intermodal Bridge, and potential future increases in cargo shipping and development in the mixed-use opportunity areas. Note, however, that no changes are proposed in the Waterfront Plan to accommodate the Industry Group components or the Illinois Street bridge.

In addition to transportation and air quality, this SEIR includes a discussion of land use, plans, and policies, and analyzes effects related to runoff and water quality that could result from development of the Industry Group and opportunity area sites, and effects on biological resources that could result from construction of the Islais Creek bridge. Finally, this SEIR reviews and updates the Waterfront Plan FEIR's analysis of potential effects related to hazardous materials and site contamination. Effects for topics other than those iterated above would not be expected to differ substantively from those analyzed in the Waterfront Plan FEIR, and no new analysis is required.

CHAPTER I
SUMMARY

A. PROJECT DESCRIPTION (p. 1)

This SEIR analyzes a series of development proposals – the "Industry Group" project components – in the portion of the Port of San Francisco jurisdiction known as the Southern Waterfront (generally, Pier 70 south to India Basin and east of Illinois Street). This SEIR also analyzes a Port-sponsored proposal to construct a rail and truck bridge across Islais Creek to improve access between the Port's major maritime terminals. Finally, this SEIR evaluates, at a lesser level of detail, potential future development on other Port lands in the Southern Waterfront to provide a conservative SEIR analysis, although there are no such proposed projects at this time.

INDUSTRY GROUP COMPONENTS

Six private entities (one combining two separate companies, or seven operators in total) have proposed leasing portions of the Port of San Francisco's Southern Waterfront area and implementing development proposals, primarily related to the construction industry. Each of these Industry Group project components would involve a project sponsor leasing property from the Port and making improvements on the leased site. In most cases, the lease would involve unimproved land that the sponsor would develop. In some cases, the individual sponsors would occupy one or more existing buildings on Port property with lease provisions for tenant-financed improvements to such buildings. Each Industry Group component is briefly described here. All of the Industry Group components are expected to be constructed and operational in 2001.

Bode Gravel / Mission Valley Rock. This component of the project would consist of two adjacent facilities to be developed at Pier 92. Bode Gravel Company would develop a ready-mix concrete plant and Mission Valley Rock Company would develop a marine terminal to import aggregate materials (gravel and crushed rock) for use in production of concrete. In addition, Mission Valley Rock is pursuing discussions with the Port to develop an asphalt plant, which would also use imported aggregate materials. Although the Port has not indicated any affirmative interest in development of an asphalt plant, the potential impacts of such an operation are included in this EIR analysis. The two companies would be joint tenants of the Port, occupying a total area of 8.2 acres, although ownership and operations of the two facilities would be separate.

Bode currently operates a ready-mix concrete plant at Third and Sixteenth Streets, within the Mission Bay area now under development, and would dismantle this plant and construct a new facility at Pier 92.

The new Bode ready-mix plant would have the same capacity as the existing plant. It would be at the east end of Amador Street, approximately one-third mile east of Third Street, between an existing Mission Valley Rock sand processing plant to the north and a rendering plant to the south. The ready-mix plant would include receiving and storage facilities for sand and aggregate material; storage silos for Portland cement and "fly ash,"[1] both of which are used in the production of concrete; a series of conveyer belts and pneumatic pumps for movement of the materials throughout the plant; and two combined mixers and storage silos, each known as a "batching plant," that would be approximately 65 feet tall. The plant would employ a "baghouse filter" and spray bars for dust control. In addition to the production facilities, the operation would have a truck maintenance shop, truck washout station with water reclamation, an office trailer, and parking for cement mixers and employee vehicles.

The Mission Valley Rock aggregate import terminal would be located immediately west of the Bode concrete plant, also on Amador Street, approximately one-quarter mile east of Third Street. As indicated previously, Mission Valley Rock is also pursuing discussions with the Port to develop an asphalt plant. There are currently no privately owned commercial asphalt plants in San Francisco (the closest is in Brisbane). The City operates a plant on Jerrold Avenue for street repairs within San Francisco. Mission Valley Rock currently has a sand dredging and processing operation at Pier 92, east of the proposed Bode concrete plant, where operations would continue. The proposed asphalt plant would include receiving and storage facilities for sand, aggregate, and asphalt cement; an asphalt oil heater and an asphalt drum dryer/mixer, both gas-fired; storage bins for the finished asphalt product, which would be dispensed from the bins into trucks for delivery to the job site; and conveyors for movement of the materials throughout the plant. The dryer/mixer would be equipped with a baghouse filter for dust control. In addition to the production facilities, the plant would have an office/control room, a small tool trailer, and employee vehicle parking.

The aggregate terminal would include conveyor systems for transferring aggregate from ships to indoor and outdoor storage piles and for transferring aggregate from storage to the proposed asphalt plant and to the Bode ready-mix concrete plant, as well as both indoor (in an existing warehouse along the Islais Creek waterfront) and outdoor storage facilities. Mission Valley Rock would use spray bars to sprinkle aggregates with water during ship unloading, both at the ship conveyor and at the outdoor stockpile where the material would arrive. The entire Mission Valley Rock site would be paved with asphalt or concrete.

British Pacific Aggregates (BPA) would develop a storage facility for the waterborne importation of construction aggregates (sand, gravel, and crushed stone) to be used in the production of concrete and

[1] Fly ash is a powdery material, composed largely of silica, that is captured from the exhaust gas of coal-fired power plants. It reacts chemically with the calcium hydroxide in Portland cement and itself becomes cementitious (that is, helps bind the sand and aggregate in the concrete). Fly ash is advocated as improving the strength and durability of concrete – although it slows the initial curing – while at the same time reducing the relative volume of cement needed and thereby reducing the energy use and combustion byproducts of cement production. Fly ash is mandated in concrete by both Caltrans, for its projects, and by the U.S. EPA, for federal projects. One of the Industry Group components would include a fly ash import operation (see ISG Resources, p. 14).

asphalt. BPA proposes to use Pier 94 as the dock for ships that would bring aggregate from out-of-state to supplement and/or replace existing local supplies. The aggregate would be delivered by self-unloading ships directly to Pier 94, where it would be unloaded using on-board equipment and stored in stockpiles in up to about six acres on the pier apron (out of a total lease site of about 10 acres), approximately 350 feet shoreward of the wharf. To minimize dust, BPA would use spray bars to moisten aggregate both during unloading and while in storage. Improvements to be constructed would include conveyors to move material from ships to stockpiles and from one location to another and/or for loading into trucks for transport to end users. Front-end loader(s) may also be used for loading trucks. No new paving would be needed, because the BPA storage facilities would be located on an already-paved portion of the Pier 94 apron.

In addition to the shipping and storage facilities, BPA has indicated that it may develop a ready-mix concrete plant and/or an asphalt plant inland from the stockpile area. Both of these uses are under discussion with the Port and have been included in this SEIR for purposes of a conservative analysis. These facilities, if constructed, would use aggregate material taken directly from the stockpiles (without the need to employ diesel haul trucks). Production of ready-mix concrete and/or asphalt by BPA would be contingent on the company capturing a share of the local market for one or both products. This SEIR does not assume that BPA would engage in production of either product. However, if it does, the net result would not be an increase in the total volume of concrete or asphalt manufactured within the Southern Waterfront area, but an incremental shift in the location of such production. Should such production be undertaken, the concrete and/or asphalt plant(s) would be portable facilities that would be erected on a semi-permanent basis at Pier 94 for the duration of BPA's lease. Regardless of whether concrete or asphalt were produced, no permanent structures would be erected. Other facilities, such as an office and tool/repair shop, would be within portable trailers. On-site parking also would be provided.

ISG Resources Inc. proposes to re-use two existing banks of now-vacant former grain silos at Pier 90 for the storage of "fly ash," a byproduct of coal-fired power plants that is used as a partial replacement for Portland cement in the production of concrete. The silos formerly stored grain that was brought in by rail and then loaded from the silos onto ships for export. These operations were discontinued following the 1989 Loma Prieta earthquake. Fly ash would be brought in by rail car, transferred to the silos, and then made available to concrete producers, including those currently proposing to operate in the immediate vicinity – Bode, RMC Pacific, and smaller local producers (and potentially British Pacific). In the future, fly ash could be brought by barge from other locations and offloaded into the silos. Outbound shipments to concrete batching plants would be in trucks with pneumatic pumping systems.

Physical improvements to be undertaken on the 2.3-acre site would consist of rehabilitation of the silos; enclosure of the conveyor system and installation of state-of-the-art dust control systems on the silos and conveyor system; replacement of the electrical and propulsion components for the conveyor system; construction of a truck loading facility; and rehabilitation of at least one of the existing rail spurs to allow for shipment of fly ash to the ISG site by rail car. Employee parking would be provided on-site.

RMC Pacific Materials. RMC Pacific proposes to construct a ready-mix concrete plant on a 3.1-acre parcel at the west end of Pier 80, at the southeast corner of Illinois and Marin Streets, to replace its existing ready-mix plant at Third and Mariposa Streets, within the Mission Bay project currently under development. RMC's existing plant would be dismantled, and the new plant would be developed with new equipment. The RMC Pacific site is currently paved and in use as a storage yard by Marine Terminals Corporation, which operates the Port's North Container Terminal at Pier 80. RMC proposes to receive much of its raw materials – primarily aggregate – by rail and ship. The proposed new ready-mix plant would include receiving and unloading facilities to accommodate both rail cars and ships; storage bins for aggregate and sand; a 65-foot-tall batching plant with cement and fly ash storage silos, mixer, office, and dust containment system; and a series of conveyors for movement of the materials throughout the plant. In addition to the production facilities, the ready-mix plant would have a truck maintenance shop (involving remodeling of an existing open-bay structure), truck washout station with water reclamation, and parking for concrete-mixer trucks and employee vehicles. No on-site truck fueling would be provided. RMC mixers would use off-site commercial fueling stations.

Waste Resources Technologies (WRT), a subsidiary of Waste Management Inc., proposes to operate a Construction/Demolition Material Recovery Facility (MRF) in an existing building at Pier 70, in the northern portion of the project site. The MRF, which would reclaim usable materials, such as metal and wood, contained in construction and demolition debris for recycling, would replace a former WRT facility near 3Com Park, which was closed in 1999.

WRT proposes to lease an existing building at Pier 70, located near 20th and Illinois Streets, in the former Union Iron Works complex. The structure, identified as Building 6, contains approximately 35,000 square feet of interior space. There would be no structural modifications to the exterior of the building, which was constructed in 1941. However, WRT would renovate portions of the building's interior to accommodate the MRF. WRT would install a sort line with associated screens, conveyors, and other equipment for processing of construction and demolition material inside Building 6. In contrast to WRT's former outdoor facility at Candlestick Point, all sorting and storage of material would be accomplished within Building 6. Parking would be provided on-site for employee vehicles and for staging of semi-trailer transfer trucks.

Site access would be via 20th and Third Streets. Inbound trucks would come from various construction sites. Outbound trucks would be destined for local processors in the case of recyclable materials and local landfills, such as Redwood Landfill in Marin County and Altamont Landfill in Alameda County, in the case of materials that cannot be reused. Although no waterborne transport of materials is currently planned, there is a potential that recyclable materials, such as paper and metals, could be shipped to processors through the Port in the future.

Coach USA proposes to lease approximately 8 acres at Pier 96 for bus storage, maintenance and repair, and ancillary office space. Coach USA, through its subsidiary Grosvenor Bus Lines Inc., currently operates Gray Line tour buses, as well as charter bus service, and transit and paratransit service for

transit agencies including Golden Gate Transit and San Mateo County Transit (SamTrans). Grosvenor Bus Lines currently operates from a facility at Eighth and Harrison Streets. The company would relocate to Pier 96 and vacate its existing Eighth Street operations, where its lease is not being renewed.

This project component would include use of an existing paved storage yard of approximately 6.9 acres (about 300,000 square feet), and use of existing buildings for bus maintenance and repair building (about 26,000 square feet), office space (about 11,500 square feet), and additional miscellaneous building space (about 4,000 square feet). Coach USA plans to construct a fuel island and diesel fuel storage tank and a bus washer. The company also proposes to make some improvements to the buildings that would be used for maintenance/repair and office space. On-site parking for employees and buses would be provided. Buses would enter and leave Pier 96 via Cargo Way.

ILLINOIS STREET INTERMODAL BRIDGE

The Port of San Francisco proposes to construct a bridge across the Islais Creek channel one block east of the existing Levon Hagoop Nishkian drawbridge on Third Street. The new bridge would extend across the channel along the line of Illinois Street, connecting the Port's North Container Terminal at Pier 80, on the north side of Islais Creek, with the numerous Port facilities on the south side of Islais Creek. These facilities include the Port's South Container Terminal at Piers 94-96; the adjacent Intermodal Container Transfer Facility, where cargo containers are transferred directly from ship to rail and vice versa; Piers 90 and 92 along the south side of Islais Creek channel; and the Piers 90-94 backlands area.

The Illinois Street bridge would provide a more direct route for rail cargo to and from Pier 80. Rail traffic destined to Pier 80 must currently travel north on a route that generally follows Interstate 280, more than one mile past the project site and through the Mission Bay area, beyond 16th Street, before returning south along Illinois Street to Pier 80. As part of the approved Mission Bay project, a portion of the existing rails through the Mission Bay area will be removed and are proposed for replacement with new rails within 16th Street, and a new switchback within a planned waterfront open space on the Terry Francois Boulevard right-of-way unless or until the Illinois Street Bridge is constructed. The bridge would reduce the existing approximately four-mile rail trip between Pier 80 and Piers 94-96, over the existing rail route, to a direct route of approximately 0.2 miles. When the bridge is completed, the rails that run near 16th Street would be removed, and there would be no need to install new rails in 16th Street or in the new waterfront open space.

The Illinois Street bridge would be approximately 28 feet wide and would have a single rail line in the center and two traffic lanes, one in each direction, that would overlap the rails. Thus, the bridge would provide a direct truck connection between the two container facilities, with trucks having access to the bridge only when no trains were crossing. Bicycle access would be allowed in the traffic lanes when no trains are crossing, but no sidewalks are proposed.

The Port proposes that the Illinois Street bridge be a "Lift-Segment Movable Bridge," meaning that the center span, which would be 60 feet long, would be constructed as three individual segments that could not be mechanically raised in place like a drawbridge. Instead, each of these segments could be lifted by a crane and stored on concrete piers that would be built next to the bridge. Unlike a drawbridge, a lift-segment bridge is designed to be opened only infrequently, primarily for passage of maintenance vessels and barges. Therefore, the new bridge would probably be opened no more than once yearly.

The proposed lift-segment bridge would have the same clearance above water as the Third Street drawbridge over Islais Creek, which is a minimum of 4 feet of clearance at mean higher high water level. This would permit navigation beneath the Illinois Street bridge by small pleasure craft such as canoes, kayaks, and other small vessels like rowboats. The Port believes the navigational needs of the west end of Islais Creek are and will continue to be for small vessels. A hand-launch dock has been constructed on the south shore of Islais Creek, just west of the existing Third Street drawbridge. A sand ramp has also recently been constructed to facilitate the hand-launching of small vessels. The Port does not propose to open the new Illinois Street bridge to permit the passage of larger pleasure craft or sailboats.

The design and construction of the Illinois Street bridge would be subject to approval of a bridge permit by the U.S. Coast Guard, which must determine the future navigational needs of Islais Creek before it issues a permit. The Coast Guard would determine whether a lift-segment span is appropriate. The bridge would also require approval by the Bay Conservation and Development Commission (BCDC) because it would be constructed over the Bay and within the 100-foot band along the San Francisco Bay shoreline over which BCDC has jurisdiction. The BCDC would also be required to find the bridge consistent with the federal Coastal Zone Management Act. Approval could also be required from the U.S. Army Corps of Engineers under Section 404 of the federal Clean Water Act (including consultation with the U.S. Fish and Wildlife Service) and Section 10 of the federal Rivers and Harbors Act. In addition, the bridge would require water quality certification from the Regional Water Quality Control Board, under Section 401 of the Clean Water Act. Because of the federal action and funding, environmental review of the bridge must also include completion of a document prepared pursuant to the National Environmental Policy Act. In addition, the California Public Utilities Commission would have to approve the change in rail route and abandonment of track within the Mission Bay project area. Funding authorization would be required from the San Francisco Board of Supervisors and the Port Commission must also approve the bridge project. A building permit would also be required.

FUTURE PORT DEVELOPMENT

The project analyzed in this SEIR also includes growth in cargo shipping at Piers 80 and 94-96 – the Port's two container terminals – and expansion of the Port's dredge material handling program, as well as potential future development of several other Port sites, or "opportunity areas," in the "backlands" (upshore from) Piers 90-94, and at and near Pier 70. Although the Port has not identified specific development proposals for these opportunity areas at this time, the Port's Waterfront Land Use Plan does allow future development proposals, and these potential future uses are therefore part of the "project" as

defined for CEQA purposes, anticipated for the most part to be implemented by the SEIR horizon year of 2015. The actual range of potential development is broad, with widely varying environmental impacts. For analytical purposes, this SEIR assumes relatively intensive uses to produce a conservative assessment of environmental impacts. Any actual development program or project(s) for the below areas (other than cargo shipping at Piers 80 and 94-96 and Port dredge material handling at Pier 94) proposed in the future may be reviewed by a community advisory group process set forth in the Waterfront Plan, and would be subject to additional project-specific environmental review.

Cargo Shipping. The Port's two container terminals, at Pier 80 and Pier 94-96, would potentially accommodate increased cargo shipping activity consisting of handling of both containerized and non-containerized cargo. The project therefore would include movement of approximately 200,000 TEU[2] of new cargo (beyond existing volumes of approximately 50,000 TEU) in addition to the cargo activity associated with the Industry Group leases. Of the 200,000 new TEU, 30,000 TEU is assumed to be accommodated by 2001, another 20,000 TEU by 2003, and 150,000 additional TEU by 2015. Cargoes may be containerized or bulk, depending on demand from shippers.

Dredge Material Handling Site. The Port has recently begun storing material dredged from the Bay during routine maintenance dredging from Piers 35, 80, and 96. (The Port also uses storage sites in the East Bay.) Currently, dredge material is placed by crane onto the pier deck within a temporary three-acre enclosure at Pier 96 and allowed to drain and partially dry (to about 20 percent moisture content) before being hauled by truck to landfills, where it is used as daily cover for solid waste landfilling operations. The (drained) decant water is discharged to the Bay. The Port plans to expand this operation and move it to Pier 94, where it would occupy up to about five acres of unpaved land north of the paved pier apron. At the new site, about 20,000 cubic yards of dredge material per year would be pumped from a barge into the drying area. It is anticipated that the off-hauling by truck of partially dried dredge materials would occur over a period of about two weeks during the year. Trucks would travel on Amador Street.

Piers 90-94 Backlands. This approximately 50-acre area would potentially be developed with a mix of about 650,000 square feet of light industrial uses and approximately 1 million square feet of commercial office and/or research and development uses. Office and/or research and development uses would be anticipated to occur in two- to three-story buildings that would be expected to include landscaped open spaces as part of an overall site plan.

Pier 70. The project analyzed in this SEIR includes development of approximately 200,000 square feet of new Maritime Industrial uses and an additional 200,000 square feet of General Industrial uses within the 55-acre Pier 70 Maritime Reserve Area. The Waterfront Plan includes Maritime Industry among the uses related to waterborne commerce and navigation. Maritime Industry could also include Maritime Support uses such as equipment storage and warehousing uses. The Plan defines General Industry as "facilities for enclosed and open air industrial activities, including but not limited to: recycling

[2] See footnote 7, p. 3, for an explanation of TEU (twenty-foot equivalent unit).

operations, automobile repair and related services, bio-remediation, sand and gravel operations, transmission facilities, and manufacturing operations."

Pier 70 Mixed-Use Opportunity Area. The project analyzed in this SEIR includes development of this 16-acre area, between 18th and 21st Streets and extending one to three blocks east of Illinois Street. It is anticipated that uses in this area would include a mix of uses, including approximately 610,000 square feet of commercial office and/or research and development space; 100,000 square feet of retail and other commercial space; and 240,000 square feet of public access and recreational maritime uses. The Port plans to issue a Request for Proposals to potential developers of the Pier 70 Mixed-Use Opportunity Area in late 2000. (An alternative considered in this SEIR would include housing on a portion of the Pier 70 Mixed-Use Opportunity Area.)

Western Pacific Property. This site, a former rail yard east of Illinois Street between 25th and César Chávez (Army) Streets, will be partially occupied by a Muni Metro maintenance and storage facility that will be constructed as part of the soon-to-be undertaken Third Street Light Rail Extension project. The Muni Metro facility was analyzed in the EIR/EIS for the Light Rail Project, and will occupy about three-fourths of the approximately 25-acre Western Pacific Property. No specific development projects are forecast for the remainder of the Western Pacific Property. However, as part of the project analyzed in this SEIR it is assumed that part of the remainder of this site would be occupied by General Industrial uses, potentially including construction-related uses such as materials storage, on an interim basis.

B. MAIN ENVIRONMENTAL EFFECTS

LAND USE (p. 25)

In Phase I, six private entities would lease sites or facilities in the project area. All but one of these operations would be related to the construction industry, and that one entity proposes to lease a site for bus storage, maintenance and repair. These facilities are interim uses assumed to have leases with the Port at least to 2015. Most of the proposed lessees are currently located at existing sites at other locations in San Francisco, and would relocate to the project area. The relocation and location of the Industry Group operations would be a continuation, rehabilitation or expansion of industrial uses in the Southern Waterfront. Therefore, the Industry Group component of the project would not disrupt or divide the physical arrangement or impact existing character of other industrial uses in the project area or nearby residential communities. The majority of the Industry Group components would include a maritime component in their operations, and therefore would be considered maritime tenants of the Port.

In Phase II of the project, Pier 80 and Piers 94-96 would support increased future maritime activity for both containerized and non-containerized cargo, consistent with the Waterfront Land Use Plan. Some of the additional cargo shipping would be associated with cargo activity proposed by Industry Group members, while other activity would be general cargo shipping. These uses would not disrupt or divide the physical arrangement of the adjacent Port uses or nearby residential and commercial communities, as

they would represent a continuation of existing Port activity. The Port uses would therefore have a less-than-significant land use impact.

With regard to non-cargo activity on Port lands, these uses would also be a continuation and expansion of existing maritime and industrial operations on Port property in the Southern Waterfront. These uses would not disrupt or divide the physical arrangement of project area uses or nearby residential communities, as development would occur entirely on Port property near similar maritime and industrial uses, and therefore the impact would be less than significant. New uses, such as office, research and development, and retail uses, would not conflict with nearby maritime-related and industrial uses. Mixed use development on the Pier 70 backlands would not disrupt or divide the physical arrangement of the project area uses or nearby residential communities and, although these uses would change the existing character in this section of the Southern Waterfront area, the impact would be less than significant impact because neither adjacent Port uses nor surrounding residential communities would be adversely affected. Rather, the mixed-use area would serve as a buffer between maritime and industrial uses nearest the water and residential uses in the Bayview Hunters Point neighborhood, on Potrero Hill, and in Dogpatch.

The Industry Group project components address several Waterfront Plan objectives for the Southern Waterfront subarea. The Industry Group project components would help maximize the utilization of existing cargo terminal facilities and would also maximize the productivity of Port assets through interim use of property reserved for maritime expansion. Most of the Industry Group components would include a maritime component in their operations, either import or use of construction-related aggregate materials, or both. Therefore, the Industry Group components would not interfere with the port priority area designations of their sites in the Bay Area Seaport Plan. In light of the above, the Industry Group components of the project would not obviously or substantially conflict with applicable plans and policies.

The proposed Illinois Street Intermodal Bridge would not substantially or obviously conflict with applicable objectives of the San Francisco General Plan or the Waterfront Land Use Plan objectives for the Southern Waterfront. The bridge would help maximize the utilization of existing cargo terminal facilities at Piers 80 and 94-96 by creating more direct and efficient rail and truck access to the Port container facilities on the north and south sides of Islais Creek. The bridge would be an acceptable maritime use as it supports marine cargo and handling facilities. No substantial conflicts with BCDC policies or other regulatory requirements have been identified that would prevent a finding of consistency under the Coastal Zone Management Act or other regulatory approvals.

Development of currently unprogrammed Port lands would not substantially conflict with adopted plans and policies. Maritime related development on Piers 70, 80 and 94-96 would help maximize the utilization of existing cargo terminal facilities. Mixed use commercial, office and retail development on Pier 70 and Pier 94 backlands would promote non-maritime land uses that could be beneficial to the Port and compatible with maritime activities in areas which are surplus to long-term maritime needs, although

introduction of office or research and development uses outside the Cargo Way, Western Pacific, or Pier 70 Opportunity Areas would require amendment of the Waterfront Plan to permit such uses. Development of the Mixed Use Opportunity Area at Pier 70 east of Illinois Street would promote non-maritime activities around the historic Union Iron Works buildings, and facilitate the revitalization of an area that survives as an example of San Francisco's earliest maritime industry.

The creation of new public access, recreational maritime uses, and landscaped open space in the mixed use opportunity areas would be consistent with the Southern Waterfront objectives to improve areas which will provide opportunities for passive and active recreational uses, and would enhance the public's appreciation of the waterfront by providing greater opportunities for access in a manner which does not compromise the efficiency of maritime operations. The most recent update of the Bay Area Seaport Plan removed the Western Pacific site from port priority area designation and most of the Pier 90-94 backlands has also been removed from port priority area status. Therefore, anticipated future Port development would not interfere with the port priority area designations of their sites in the Bay Area Seaport Plan.

TRANSPORTATION (p. 46)

Travel Demand. Most of the traffic generated by Phase I of the project (primarily the Industry Group components) would be truck traffic in connection with the production of construction aggregates and shipping activity at the Port. The Industry Group project components would generate about 2,200 vehicle trips (a trip is one way; two trips make up a round trip) per day, of which about 1,850 would be truck trips. In the morning (a.m.) peak hour, the Industry Group components would generate about 480 vehicle trips, while they would generate about 325 vehicle trips in the afternoon (p.m.) peak hour. An estimated 210 additional daily vehicle trips, including about 180 truck trips, would be made to and from the project area by the time the Industry Group components are operational, including about 50 a.m. peak-hour vehicle trips and about 20 p.m. peak-hour vehicle trips. These trips would be generated by other anticipated uses on Port land, including additional cargo shipping at Pier 96 beyond that currently existing and future industrial activity on the Western Pacific site. By 2003, when the Illinois Street bridge would be in place and the Muni Third Street light rail line would begin service, nearly 1,700 additional vehicle trips, including almost 1,300 truck trips, would be made to and from the project area each day on Port land, including about 125 a.m. peak-hour vehicle trips and about 110 p.m. peak-hour vehicle trips.

By 2015, overall daily vehicle trip generation would nearly quintuple, largely as a result of future development that would occur on port property, including more than 1.6 million square feet of office and research and development space at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands, and 100,000 square feet of retail space at the Pier 70 Mixed-Use Opportunity Area. Also included is more than 1 million square feet of light, general, and maritime industrial uses at Pier 70 and Piers 90-94. This future port development would generate more than 14,000 daily vehicle trips, nearly 1,800 vehicle trips in the a.m. peak hour and more than 1,700 vehicle trips in the p.m. peak hour. In

addition, anticipated growth in cargo shipping would increase daily vehicle trip generation from Port activity by nearly 50 percent (to approximately 2,450) and p.m. peak-hour vehicle trip generation by 55 percent (to about 170), compared to 2003 levels; a.m. peak-hour trip generation would more than double, compared to 2003, to approximately 265 vehicle trips. Industry Group truck traffic would also increase because, while the percentage of raw materials brought in by ship would increase, the increased production volume assumed by 2015 would result in more local truck trips by cement mixers and asphalt trucks making deliveries.

Traffic Traffic generated in the near term, mostly by the Industry Group components, would adversely affect two intersections: morning (a.m.) peak-hour operations at the signalized intersection of **Third Street and Cargo Way** would deteriorate from Level of Service (LOS) B under existing conditions to LOS F, and at the signalized intersection of **25th and Third Streets**, afternoon (p.m.) peak-hour conditions would deteriorate, also to LOS F from an existing LOS B. These changes would occur in the near term, by about 2001. By 2003, with additional traffic from development on Port land and from background growth, p.m. peak-hour conditions at Third and Cargo would also deteriorate to LOS F without the Illinois Street Bridge, from LOS C at present and LOS D with Existing-plus-Industry Group (near term) conditions. Also by 2003, a third intersection would be adversely affected: the unsignalized intersection of **Amador Street and Cargo Way** would deteriorate to LOS F in the p.m. peak hour with Phase I traffic *and* completion of the Illinois Street bridge. However, conditions at Third and Cargo would improve with completion of the bridge and the resulting redistribution of truck traffic, so that this intersection would operate at LOS C in the a.m. peak hour and LOS D in the p.m. peak hour. With the bridge, conditions at this intersection would remain acceptable through 2015. Conditions in the p.m. peak hour at 25th and Third would improve to LOS C following implementation of the Third Street Light Rail Project, which will add a separate left-turn signal phase at that intersection. The impact at Amador and Cargo could be mitigated through installation of a traffic signal; with a signal, conditions would remain acceptable through 2015.

At the unsignalized intersection of **Mariposa Street and the Interstate 280 southbound on-ramp**, which currently operates at LOS F during both peak hours, Phase I of the project would result in increased delays during both the a.m. and p.m. peak hours. By 2015, this intersection is scheduled to be signalized, and the signalized intersection would operate at an acceptable LOS under 2015 No-Project conditions (i.e., without the Industry Group project components or future Port development).[3] However, the addition of Phase I and Phase II project traffic by 2015 would result in unacceptable conditions at this intersection, even signalized: LOS F in the a.m. peak hour and LOS E in the p.m. peak-hour. This would be a significant effect, and would not be mitigable, as the intersection capacity would be exceeded. The other 11 study intersections would operate at acceptable levels of service (LOS D or better) in all scenarios prior to 2015.

[3] Mitigation for intersection levels of service identified in the Mission Bay Subsequent EIR (Case No. 96.771E; Final SEIR certified September 17, 1998) is keyed to generation of specific volumes of traffic, and thus, based on development assumptions, is assumed to be in place by 2015 at the Mariposa Street / I-280 southbound on-ramp intersection, although it could occur earlier.

The Illinois Street bridge would allow for removal of railroad tracks that currently run through the Mission Bay project area and would represent a benefit to traffic patterns in the Mission Bay area: the approved Mission Bay plan currently calls for the tracks that connect the Union Pacific main line to those on Illinois Street to be replaced with tracks in the 16th Street right-of-way. With completion of the Illinois Street bridge, there would be no need for tracks in 16th Street, thereby eliminating a potential conflict between trains and vehicle traffic.

By 2015, all intersections except Third and César Chávez Streets would operate at acceptable levels of service under No Project conditions, accounting for background growth including traffic from the Hunters Point Shipyard redevelopment project, the Mission Bay project, and the Bayview-Hunters Point redevelopment area. The poor LOS at Third / César Chávez Streets would result from changes in lane configuration due to the Third Street Light Rail Project and increased background (non-project) traffic. Additional traffic from future Port development (Phase II of the project), along with Phase I traffic, would result in unacceptable conditions (LOS E or LOS F) at eight of 17 study intersections in the a.m. peak hour and at 10 of 17 study intersections in the p.m. peak hour. Therefore, the project would result in a significant effect at each of these intersections. Mitigation has been identified to reduce impacts to a less-than-significant level at Third / 25th Streets; Illinois / 25th Streets; Pennsylvania Street / I-280 southbound on-ramp; Pennsylvania / César Chávez Streets; and Illinois César Chávez Streets, as well as at Amador Street / Cargo Way, as described above (see Chapter IV, Mitigation Measures, p. 144). Impacts at five intersections would not be mitigable. These include Mariposa Street / I-280 southbound on-ramp, described above; Mariposa Street / I-280 northbound off-ramp; Third / Mariposa Streets; Evans Avenue / César Chávez Street; and Third / César Chávez Streets.[4]

Transit. Approximately 9 percent of employee trips to work for Phase I of the project (primarily the Industry Group components) are anticipated to be made using transit, which is half the percentage typically assumed for southeastern San Francisco. This is because transit access to the Industry Group sites is currently limited, and many workers would be expected to begin and end their work days prior to more typical work hours. As a result, Phase I would generate fewer than 25 transit trips in the a.m. and p.m. peak hours. These new transit riders would represent a very small increase over existing ridership in the area, and would not result in a significant effect.

Phase II of the project includes additional growth in cargo shipping and related activities at Pier 70 (the maritime reserve area), Pier 80, and Piers 94-96, as well as development of non-maritime and non-industrial uses at the Pier 70 Mixed-Use Opportunity Area and the Piers 90-94 backlands. The Mixed-Use Opportunity Area and the backlands together would include 1.6 million square feet of office and/or research and development space and 100,000 square feet of retail space, which would have trip generation characteristics such that transit use among commuters and visitors would likely be greater than that assumed for the maritime and industrial uses elsewhere in the project area. Of the estimated

[4] The Department of Parking and Traffic is considering the addition of a second northbound left-turn lane at the Third / César Chávez Streets intersection. However, this would require the acquisition of additional right-of-way on Third Street at the southeast corner of the intersection, where there is an existing building. The feasibility of this measure is not known.

approximately 680 a.m. peak-hour and 625 p.m. peak-hour transit trips, about 80 percent would be made in the peak direction (to the work place in the morning and from the work place in the afternoon).

The increase in transit ridership by 2015, along with growth in ridership due to other development in the project area and elsewhere, could be accommodated by Muni routes serving the project area. On the Third Street Light Rail line, the percent of p.m. peak-hour, peak-direction transit vehicle capacity used ("capacity utilization") would be 83 percent in the p.m. peak hour. The project would add about 450 new riders, and increasing capacity utilization from 45 percent (with cumulative growth but without the project) to 83 percent with the project. Because adequate capacity would remain, the effect would not be significant. Peak-direction capacity utilization on the three principal bus lines that serve the project area (19-Polk, 22-Fillmore, and 48-24th Street/Quintara Avenue) would be between 90 percent and 100 percent. Only the 22-Fillmore would operate at capacity; however, project ridership would amount to only 6 trips, and would not result in a significant effect. Project ridership on the other lines would be 40 trips or less; adequate capacity would remain on these lines and the project impact would not be significant.

Project ridership by 2015 on regional transit carriers would total about 190 p.m. peak-hour trips, mostly on BART and Caltrain. Both BART (to the East Bay) and AC Transit would operate in excess of capacity, although BART trains would remain within the system's standard of 115 percent for the three-hour peak period. Project-generated ridership would increase BART capacity utilization by less than 0.5 percent, and AC Transit capacity utilization by less than 0.3 percent, and therefore would not result in a significant impact, because the contribution to cumulative overcrowding would be negligible.

Parking. Parking effects of Phase I development would be limited, because parking demand generated by the Industry Group components would be limited almost entirely to employee vehicles, and each of the Industry Group sponsors has indicated plans to provide for on-site employee parking. Future Port development in Phase II of the project would include more conventional land uses. The development of more than 1.6 million square feet of office and research and development space at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands would result in an estimated demand for nearly 3,300 parking spaces, or about two-thirds of the parking demand for Phase II of the project. Actual parking demand and requirements could vary by use and by site, depending on the actual uses that are proposed in the future on Port property. It is assumed that the relative lack of site constraints (i.e., the availability of large development sites) would facilitate the provision of both adequate parking and off-street loading space for individual projects, meaning that no significant effects would be expected. It is also assumed that large projects that may be proposed would be subject to detailed transportation analyses.

Bicycles and Pedestrians. Phase I project components (primarily those of the Industry Group) would generate little in the way of pedestrian or bicycle traffic, so the potential effects of the project would be largely those of increased truck traffic on existing pedestrians and bicycles, mainly bicycles on Third Street, where increased traffic from the project and other sources could increase the potential for

conflicts. The Department of Parking and Traffic is also considering a new bicycle route on Illinois Street. Pedestrian activity would be accommodated on existing sidewalks. It should be noted that much of the project area east of Illinois Street is, and will continue to be, a heavy industrial area, and that the provision of pedestrian access for casual walkers is not necessarily the public benefit it would be in areas of the waterfront north of Pier 70.

By 2015, with implementation of Phase II of the project (future Port development, including increased cargo shipping), traffic volumes would increase further, and pedestrian and bicycle use in the project area would also be anticipated to increase, particularly if mixed-use development occurs as planned at Pier 70 and at the Pier 90-94 backlands. Development of these mixed-use projects would be reviewed by the Port to ensure that adequate pedestrian access is provided, potentially including construction of sidewalks where none exist on the perimeter of the development sites, and would also be required to include bicycle parking in accordance with the requirements in the Planning Code. Thus, pedestrian and bicycle conditions would be improved from conditions at present.

The project would not adversely affect pedestrian access to the Bay Trail, which is designated on Illinois Street north of 24th Street and on Third Street south of 24th Street. Existing sidewalks on these streets would remain in place and would continue to function as part of the Bay Trail.

Construction. Construction activity could occur simultaneously at several of the Industry Group project sites, beginning in early 2001. However, as interim facilities without permanent structures, mostly developed on already paved land, these components would not generate substantial or lengthy construction impacts. Effects on local traffic would be considerably less extensive than those described for the Phase I project itself, because the volume of construction-related traffic would be much less than the traffic volumes once all Industry Group components were operational. Phase II, including future Port development of the Pier 70 Mixed-Use Opportunity Area and the Piers 90-94 Backlands, could result in temporary construction-period impacts much like those of typical urban development, but would not be considered significant.

AIR QUALITY (p. 78)

Construction-period impacts were evaluated qualitatively and with reference to the dust control measures that can be implemented to reduce the temporary air quality effects associated with construction. Operational impacts were evaluated quantitatively through estimates of pollutant emissions and concentrations. Operational impacts were examined for two years: 2003, when the Industry Group project components would be in operation, the Illinois Street intermodal bridge would be in place, and the Muni Third Street light rail line is anticipated to begin operations; and 2015, by which time the Future Port Development described in the Project Description would occur. With implementation of the Industry Group components, there is anticipated to be a shift, over time, in the transport of aggregate raw materials used in the production of ready-mix concrete, from truck to ship. These shifts in mode of transport are reflected in this analysis, as they are in the transportation analysis.

Two separate operational analyses were conducted for both analysis years. One aspect of the analysis quantifies the net change in emissions due to project-related sources from a regional perspective (emissions occurring within the multi-county air basin), including emissions from stationary sources (e.g., industrial plants and the like) and from mobile sources (i.e., motor vehicles, ships, trains, etc.). New emissions are calculated regardless of where they occur in the Bay Area. The other aspect of the analysis identifies what portion of the regional emissions would be experienced locally. The SEIR quantifies local project emissions and effects, in particular, due to project-related stationary sources and related truck traffic, on the Bayview-Hunters Point neighborhood. These calculations are provided in recognition of the concentration of industrial uses proposed, and the anticipated corresponding concentration of truck traffic, and because a substantial volume of the Phase I vehicle trips related to the Industry Group project components are currently being made, under existing conditions, to and from other parts of San Francisco. Therefore, the change in location of, for example, existing concrete plants, would result in very little change in emissions viewed from a regional perspective, although there would be the potential for a proportionately larger increase in the concentrations of certain key emissions in the immediate vicinity of the new plants (with a corresponding decrease in emissions concentrations at the existing locations). These localized calculations report results for carbon monoxide concentrations at local intersections, as well as concentrations of respirable particulate matter (PM-10) and diesel particulate matter.

Construction Impacts. Grading and other ground-disturbing construction activities would temporarily affect local air quality intermittently during construction activities for each project component, causing a temporary increase in particulate dust and other pollutants. Heavy equipment would generate fugitive dust and would emit combustion products, including ozone precursors (ROG and NO_x), carbon monoxide, sulfur dioxide, and PM-10, but the most significant emissions would be fugitive dust. BAAQMD has identified a set of feasible PM-10 control measures for construction activities, and mitigation was included in the Waterfront Plan EIR to reduce construction-related air quality impacts to a less-than-significant level; a revised version of this mitigation measure is included in this SEIR (see p. 146). With implementation of this measure, construction-related air quality effects would be reduced to a less-than-significant level.

Operational Impacts – Regional. Maximum daily emissions of reactive organic gases (ROG), nitrogen dioxide (NO_x), and respirable particulates (PM-10) from all project components combined would exceed the significance threshold of 80 pounds per day in both 2003 and 2015. The significance threshold for annual emissions of 15 tons per year would also be exceeded for ROG and NO_x in each year. Therefore, the project would result in a significant effect with regard to emissions of criteria pollutants. This significant impact would occur regionally within the multi-county air basin and are not directly reflective of local conditions. This impact cannot be reduced to a less-than-significant level because of the magnitude of the project. The source of the greatest amount of emissions would be ship and rail traffic.

Emissions of all three pollutants generated by trucks from the Industry Group components in 2003 would decrease, compared to existing conditions, because of the shift in means of transport from trucks to ships

and rail for much of the raw material used in the production of ready-mix concrete. By 2015, emissions would increase based on the increase in concrete and asphalt production and the corresponding increase in truck traffic, as well as the increase in cargo shipping at the Port. Some of the increase in vehicle emissions would be offset by improved emissions control technology that would be implemented over time.

Operational Impacts – Local. Project-related traffic could result in localized "hot spots" or areas with high concentrations of carbon monoxide concentrations around stagnation points such as major intersections and heavily traveled and congested highways and roadways. To evaluate "hot spot" potential, a microscale impact analysis was conducted adjacent to four representative intersections within the project area where the project would result in relatively higher volumes of traffic: Third Street / César Chávez Street, Third Street / Mariposa Street, Illinois Street / César Chávez Street, and Third Street / Evans Avenue. It was assumed that if the relatively higher volumes of project-generated traffic at these intersections did not result in adverse impacts, impacts at other nearby intersections would experience similar or less substantial effects. No exceedances of the state one-hour or eight-hour standard were identified, and the impact relative to localized carbon monoxide would be less than significant.

To examine the potential health effects of localized emissions of particulate matter, including PM-10 and diesel particulate, dispersion modeling was conducted to determine whether the local concentration of such particulates would be markedly increased in the Bayview-Hunters Point neighborhood as a result of emissions due to the project. Particulates were selected for dispersion modeling because of their potential adverse effects on respiratory health. The sensitive receptors selected include several schools and parks nearest the project area, in Bayview/Hunters Point and on Potrero Hill. These sites were chosen because children tend to be more susceptible than healthy adults to certain effects of air pollution. Also, the school sites are representative of the exposure locations of the surrounding residential neighborhood.

Each of the Industry Group project components, which would represent "stationary sources" of particulate emissions, is proposed to include "best available control technology" (BACT) to control emissions, consistent with current regulations. For aggregate-handling operations (Bode Gravel, Mission Valley Rock, RMC Pacific, British Pacific Aggregates), this includes maintaining a moisture content in the aggregate that is high enough to eliminate PM-10 "fugitive" emissions (wind-blown dust that could otherwise escape into the surrounding air). A water spray system would be installed at each aggregate-handling facility, including Bode Gravel, Mission Valley Rock, RMC Pacific, and British Pacific Aggregates. Fine aggregate material (sand) would be maintained with a moisture content of approximately 5 percent, because such material with a moisture content of 4.5 percent or more produces virtually no fugitive emissions. Coarse aggregate (gravel) would be kept damp on the surface, which would also virtually eliminate fugitive dust. Aggregate would be stored in bunkers at ready-mix and asphalt plants, rather than open piles, with water spray (including the use of surfactants, as necessary, to bind the water and dust to the aggregate) applied to maintain adequate moisture content to control emissions at both production and shipping/storage operations. ISG Resources, which would handle

powdery fly ash, would install BACT dust collection equipment to accommodate truck and rail transport and would use pneumatic equipment for transfer of fly ash.

The asphalt plant proposed by Mission Valley Rock (and by British Pacific) would include controls on the drum mixer where the asphalt cement and aggregate are mixed. Drum mixer(s) would be fired with natural gas, consistent with BACT recommendations, and particulate emissions from the aggregate drying and mixing process would be controlled with a fabric filter, also consistent with BACT. Such filters can achieve control efficiency of greater than 99 percent. Emissions of toxic substances from the asphalt plant would include mostly benzene and formaldehyde which would volatilize when the asphalt cement is heated. Most of these emissions would occur at the drum mixer/dryer. Using emission factors recently reported by U.S. EPA for hot mix asphalt plants (U.S. Environmental Protection Agency, 2000) in the dispersion modeling analysis, the maximum carcinogenic risk at sensitive receptors was estimated to be 0.3 in a million.

The PM-10 modeling for the years 2003 and 2015 revealed that the maximum incremental contribution to 24-hour PM-10 concentrations at any given receptor would be 1.2 micrograms per cubic meter in 2003 and 1.6 micrograms per cubic meter in 2015. In both cases, these maximums would be well below the significance standard of 5.0 micrograms per cubic meter, and would be registered at Youngblood Coleman Playground, on Hudson Avenue at Mendell Street, which is the closest sensitive receptor downwind from the concentration of proposed Industry Group components along Islais Creek. This playground is located adjacent to the residential area on the hill overlooking Hunters Point shipyard. The PM-10 concentrations at all other receptors modeled would be lower than these values.

Based on meteorological conditions, the maximum 24-hour concentration at Youngblood Coleman Playground would occur on fewer than 25 days per year. Winds in the area are usually from the southwest through northwest, occurring about 65 percent of the time. For the westerly wind directions, pollutant emissions from the project would be transported out over the Bay.

Modeling was also conducted to determine the maximum annual average PM-10 concentrations, in addition to maximum daily concentrations. The maximum annual concentration in 2003 would be 0.09 micrograms per cubic meter, while in 2015, the maximum concentration would be 0.12 micrograms per cubic meter. As with the 24-hour concentrations, these highest annual averages would be well below the significance standard of 1.0 microgram per cubic meter, and would also be at Youngblood Coleman Playground.

To determine the potential implications of increased emissions of diesel particulates, a newly designated toxic air contaminant, the relative risk of long-term exposure was calculated and compared to the BAAQMD's standard of 10 in 1 million (10 additional cancer cases per million persons beyond the pre-existing risk), based on the BAAQMD permitting procedure for stationary sources. In 2003, the maximum incremental risk of cancer from diesel particulate emissions resulting from the project is estimated to be 7.5 in 1 million (7.5 additional cancer cases per million persons, beyond the risk from other sources), based on 24-hours per day exposure over a period of 70 years. In 2015, the project's

cancer risk from diesel particulate would be 9.0 in 1 million. Both results are below the 10 in 1 million standard and therefore are not considered significant. To put the 10 in 1 million standard in perspective, the BAAQMD estimates that the incremental cancer risk from exposure to current ambient levels of toxic air contaminants – excluding diesel particulate matter – is 199 in a million, and the California Air Resources Board estimates the statewide cancer risk due to essentially all toxic air contaminants at 758 in 1 million, of which 540 in 1 million, or about 70 percent, is estimated to be due to diesel particulate.

As noted in the Setting, the analyses in this report do not assume implementation of any of the proposed rules or regulations regarding diesel emissions. Implementation of some or all of these proposals would reduce the cancer risk from diesel particulate to less than described here.

Odorous Emissions. The *BAAQMD CEQA Guidelines* provides buffer distances that can be used to identify areas where significant impacts from proposed odor sources, such as an asphalt batch plant, could occur. Generally, odor impacts at sensitive receptor locations beyond the identified buffer distances can be presumed to be less than significant without further analysis. For sensitive receptor locations located within the buffer distances, a more detailed odor impact analysis is generally warranted. For an asphalt batch plant, the BAAQMD-recommended buffer distance is 1 mile.

The asphalt plant that could be constructed and operated between the Port and Mission Valley Rock would be a potential source of odors and odor complaints. Emissions of volatile organic substances, including toxic and odorous substances, can occur from heated asphalt cement that is used in production of asphalt concrete. Such emissions usually emanate from the drum mixer, where the asphalt cement is mixed with aggregate to create asphalt concrete. Mission Valley Rock proposes to use a counter-flow type drum mixer, which prevents direct contact between the material being mixed and the hot exhaust gases in the dryer. Consequently, the temperature of the asphalt mix would be reduced, compared to other mixers, and vapor emissions, some of which are odorous, would be minimized.

Residential areas are located within one mile of the potential asphalt plant site, generally to the south and to the northwest. The closest residences are located approximately one-half mile south of the potential asphalt plant site in the residential area that is south of Fairfax Avenue in the Bayview-Hunters Point neighborhood. Other, more distant, residences are located to the southwest and southeast. Odors may be perceived at these residences when the plant would be operating during periods when stagnant atmospheric conditions (i.e., little vertical air movement and low wind speeds) would coincide with winds blowing in their general direction. However, the confluence of these three factors (plant operation, stagnant atmosphere, and worst-case winds) would be rare since the plant would not normally operate during nighttime hours when stagnant conditions more frequently occur; high (near-ground-level) atmospheric stability rarely occurs during daytime hours when the plant would normally be in operation; and winds blowing in the direction of these residences occur only about 18 percent of the time, or approximately 65 days per year. Thus, although the buffer distance between the proposed plant

site and the nearest residential areas would not be ideal, the distance would be substantial, and operational and meteorological factors would tend to diminish the potential impact.

The buffer between the proposed plant site and the nearest residential areas to the northwest would be about three-quarters of a mile. Winds in the direction of these residences occur about 9 percent of the time. Thus, like the residences to the south, although the buffer distance between the proposed plant site and the nearest residential areas would not be ideal, operational and meteorological factors would tend to diminish the potential impact.

In summary, the proposed asphalt plant could raise the potential for odor impacts and complaints, but the related impact would not be significant because the plant would be designed to minimize volatile emissions (including odorous emissions) and because favorable operational and meteorological factors would serve to diminish the possibility for annoying odors when most residents are home. In addition, as discussed in the setting section, the BAAQMD's *Rules and Regulations* provide a regulatory mechanism to remedy odor complaints in the unlikely event that they would become frequent.

Cumulative Impacts. According to the *BAAQMD CEQA Guidelines*, because the project would exceed the regional significance criteria of 80 pounds per day and 15 tons per year for both ROG and NO_x (and for PM-10 on a daily basis), it would also result in a significant cumulative effect. It should be noted, however, that the project-specific significant and cumulative effects are largely a construct of the BAAQMD's analysis methodology, which are geared more to a single development project, rather than a series of project components analyzed together, as in this SEIR. This finding of significant effect with respect to air quality does not necessarily mean that emissions, when modeled at the local level, will exceed state or federal standards.

For carbon monoxide, the dispersion modeling results characterize cumulative conditions because a background concentration is inherent in the analysis and because background traffic volumes were included in the transportation analysis on which the carbon monoxide analysis was based. Neither project-specific nor cumulative carbon monoxide concentrations experienced locally would be significant.

For PM-10 and diesel particulate, it is more difficult to quantify a cumulative concentration because of the large number of sources and their different locations. Locally, emissions from project sources, including both stationary and mobile sources, would be combined with emissions from other sources, primarily including area traffic (local streets and freeways), as well as large stationary sources such as the Potrero and Hunters Point power plants. These cumulative concentrations cannot be easily quantified, given the array of sources in the existing environment, and are therefore considered significant. Local concentrations of pollutants would continue to be affected by activity levels in the area, by climate conditions, and by improvements in technology and fuel formulae.

A major cumulative project that may occur in the area is a proposal to expand the electrical power output of Southern Energy's Potrero power plant. A modeling analysis reported in the Application for

Certification submitted to the California Energy Commission indicates that the maximum 24-hour average PM-10 increment would be about 1.0 microgram per cubic meter. This maximum increment, combined with the PM-10 increment from the project, would be below the significance threshold of 5.0 micrograms per cubic meter. Furthermore, if the Potrero plant expansion is approved, it is expected that the existing Hunters Point power plant, on Evans Avenue at Hunters Point Expressway, would be closed, under an agreement between PG&E, the operator of the Hunters Point plant, and the City. Closure of the Hunters Point power plant would result in a decrease in emissions of both criteria pollutants and toxic air contaminants in the immediate vicinity of the residential area overlooking Hunters Point Shipyard.

Cumulative air quality effects are typically discussed in terms of a project's consistency with the most recent Clean Air Plan (i.e., the *'97 Clean Air Plan*). Consistency with the plan is evaluated with reference to the population and employment assumptions used for the plan and with reference to Transportation Control Measures (TCMs). (The project would have little growth-inducing effect, and thus, the project would be consistent with the population and employment assumptions in the plan.) The *'97 Clean Air Plan* identifies a list of Transportation Control Measures (TCMs) that are to be implemented by local governments. These TCMs include support for voluntary employer-based trip reduction programs; improvement of bicycle access and facilities; improvement of arterial traffic management; development of local clean air plans, policies, and programs; implementation of demonstration projects; and promotion of pedestrian travel and traffic calming measures (Bay Area Air Quality Management District, 1999a). The City and County of San Francisco administers programs that implement all of these TCMs, and, while Phase I of the project, by its nature, does not further any of the TCMs in particular, none of the project components would interfere with their implementation, and thus the project would not be inconsistent with the *'97 Clean Air Plan.* TCMs could be implemented as part of Phase II of the project, which would include development of more typical urban land uses.

In summary, the project would result in a cumulative significant regional impact on air quality, in that daily volumes of the three criteria air pollutants of most concern – reactive organic gases (ROG), nitrogen dioxide (NO_x), and respirable particulates (PM-10) – would exceed Bay Area Air Quality Management District (and SEIR) significance thresholds, and annual emissions of ROG and NO_x would also exceed annual thresholds. Locally, cumulative carbon monoxide concentrations would be less than significant. Cumulative concentrations of PM-10 and diesel particulate experienced locally, while unknown because of the wide array of sources in the existing environment, could exceed significance thresholds. Even though the project would not exceed new source criteria for PM-10 or the 10 in 1 million risk level for particulates from diesel emissions, the project would add some increment to existing local PM-10 and diesel emissions. Monitoring date from the nearest monitoring stations indicates some exceedances of the state PM-10 standard. Therefore, to be conservative, these emissions are deemed cumulatively significant, although the project itself would not have a significant effect with regard to local concentrations of PM-10 or diesel particulate.

HYDROLOGY AND WATER QUALITY (p. 104)

The proposed development in the Southern Waterfront area would result in changes in the volume of surface water runoff from stormwater due to changes in the extent of impervious surfaces and would change the volume of wastewater (sewage) and stormwater discharged to the Bay from the City's combined sewer system. In general, replacement of unpaved areas with structures, pavement or other impervious surfaces would reduce the infiltration of rainwater and would increase the volume of stormwater runoff flowing directly from the project site to the Bay. Development of commercial and industrial uses would also result in increased wastewater flows to the combined sewer system. Increases in volume of wastewater flows and any increases in the volume of stormwater runoff that is piped to the City's combined sewer system could in turn affect the volume of treated effluent and combined sewer overflows discharged to the Bay. Increases in direct discharge of stormwater runoff, treated effluent, and combined sewer overflows to the Bay could affect water quality.

This EIR assumes that for the Industry Group Projects neither the Port nor the tenants would construct on-site infrastructure related to stormwater collection, and there would be no new connections to the combined sewer system to capture stormwater runoff, because the Industry Group components would be considered interim uses (with leases limited in length such that major capital investment in storm drainage infrastructure would not be economically feasible). Therefore site conditions with respect to drainage infrastructure are anticipated to remain the same as existing conditions. Site locations currently draining to the Bay would continue to do so, and locations currently draining to the City's combined sewer system would continue as well.

Under the Industry Group projects, the total site areas for all projects would be about 32 acres. Of this 32 acres, about 25.5 acres is currently considered to be impervious surfaces, with pavement or structures built on it; the remaining 6.5 acres, consisting of most of the Mission Valley Rock-Bode Gravel site at Pier 92, is unpaved. This site would be paved, resulting in an increase in runoff from the Industry Group sites by about 12 percent, compared to existing conditions; the overall increase from all project component sites would be 3 percent. The increase in direct stormwater flow to the Bay would be approximately 1.4 million gallons per year. Any stormwater runoff from the project site would be required to comply with RWQCB regulations under the NPDES program. Therefore, the minor increase in runoff associated with the Industry Group sites would be considered less than significant with mitigation.

Future Port development would generate an estimated 300,000 gallons per day of wastewater, or less than 0.4 percent of the current Citywide total of 84 million gallons per day (and less than 0.5 percent of the 67 million gallons per day currently treated at the Southeast Water Pollution Control Plant). The project impact on dry-weather flow and the incremental impact of wastewater flow on the volume of combined sewer overflows would be considered less than significant.

The approximately 100 acres where future Port development would occur is currently about one-fourth paved or otherwise covered with impervious surfaces. Under worst-case assumptions, the full build out of these projects would result in an increase of about 60 acres of impervious surfaces. This would

represent an estimated 35 percent increase in surface water runoff from stormwater in the area occupied by the future Port development sites, based on rainfall, runoff and land use assumptions developed for the City Public Utility Commission's Bayside Cumulative Impact Analysis in 1998. The estimated increase in runoff volumes would be about 12.5 million gallons per year, a 26-percent increase over existing runoff from all project component sites. Together with Phase I components, the increase would be 29 percent.

The Waterfront Plan EIR assumed that storm drainage from up to 100 acres of Port land uses could be piped to the City's combined sewer system. This could result in a measurable increase in bayside flows, made up of treated effluent and combined sewer overflows. This runoff would contribute to a cumulative increase of approximately 44 million gallons per year in combined sewer overflows at Islais Creek. Even though this increase would be permitted, recent EIRs have conservatively found the cumulative increase in combined sewer overflows to be a significant impact. Mitigation Measure D.3, p. 150, would reduce this impact to a less-than-significant level by directing stormwater flow to the Bay with appropriate treatment to meet regulatory requirements, without increasing the volume of combined sewer system overflows.

Stormwater runoff from urban areas is a known source of pollutants to receiving waters. Typical sources of pollutants could include fluid leaks from vehicles, brake pad wear, tire abrasion, pavement wear, sediments, pesticides from landscaped areas, and atmospheric deposition. Both oil and grease and sediments can act as a carrier for other pollutants as well as representing a type of pollutant. The types of pollutants may include metals, hydrocarbons, and organic pollutants as well as sediments. During rainstorms, these pollutants may be mobilized and transported in the stormwater runoff to receiving waters. Sometimes the first flush of each storm contains the highest concentration of pollutants, but release of pollutants to stormwater depends on rainfall patterns, intensity and site-specific conditions. All industrial users that would discharge stormwater runoff either directly to the Bay by sheet flow or through isolated storm drain systems would be required to comply with NPDES permit regulations. These regulations would likely be met through the Industrial Activities Stormwater General Permit adopted by the State Water Resources Control Board, but could alternatively be met through an industry specific permit or an individual permit.

The construction aggregate-related Industry Group project components, for which sediment in stormwater runoff would be a primary water quality concern, would include facilities such as settling ponds and sediment basins to ensure that neither stormwater as sheet flow nor process water (for example, water used to wash out cement mixers) is transported directly to the Bay without removal of sediment and other solids. Much of the process water would be reused in Industry Group operations.

Compliance with NPDES permit conditions, including preparation and implementation of a Stormwater Pollution Prevention Plan, would minimize potential water quality degradation associated with stormwater runoff. In addition, implementation of Mitigation Measure D.2 (implementation of source control Best Management Practices consistent with those identified in the Industrial / Commercial Storm Water Best Management Practices Handbook) and of measures identified in the Waterfront Land Use Plan EIR (and also presented in Section IV of this report) for tenants to participate in the Port's

stormwater monitoring program would further reduce the potential for Bay water quality degradation. Therefore, long term water quality impacts associated with stormwater runoff from Industry Group project components would be considered less than significant with mitigation.

The Port's planned location of an expanded dredge material handling facility at Pier 94 would result in runoff back to the Bay of decant water from dredge material placed at Pier 94. The Regional Water Quality Control Board (RWQCB) would require routine testing of the decant water to ensure that sediment levels are below accepted criteria, and that the water does not contain chemicals (e.g., heavy metals) or other constituents at levels in excess of regulatory requirements. If contaminant levels were in excess of applicable requirements, the RWQCB would require that the Port treat the decant water prior to discharging it to the Bay. Treatment could involve removal of settled solids, activated charcoal treatment, and other methods. Operation of the dredge material storage facility in compliance with the required discharge permit from the RWQCB would ensure that water quality effects on the Bay would be less than significant.

The future Port development that would occur by 2015 could have similar effects to those described for the Industry Group project components. Potential industrial and commercial activity on currently unprogrammed Port lands at Pier 70 and at the 90-94 backlands would likely entail placement of large areas of impervious surfaces (buildings and pavement), which during dry weather accumulate pollutants associated primarily with industrial or urban use. Under the potential future Port development projects, about 200,000 square feet of maritime industry uses are proposed for the Pier 70 Maritime Reserve. As discussed in the Waterfront Plan, maritime industry uses may include waterborne commerce and navigation and maritime support uses such as equipment storage and warehousing uses. As with the Industry Group components, compliance with NPDES permit conditions by developers on unprogrammed Port lands would minimize potential water quality degradation associated with stormwater runoff.

Program-level water quality impacts associated with maritime uses are described in detail in the Waterfront Land Use Plan EIR and are summarized briefly here. Any shipping or boating activity would involve handling and storage of chemicals that could be discharged to surface waters. Potential pollutant sources include fuels, bilge water, boat cleaning and maintenance materials, sewage from boats and miscellaneous debris. Maritime uses could also increase the potential for fuels spills to the Bay. However, as described in the Waterfront Plan EIR, there are numerous regulations in place to protect water quality impacts associated with maritime uses. These include: federal Oil Pollution Act and California Oil Spill Response Act, RWQCB and U.S. Coast Guard permits for discharges from ships or boats, and NPDES permits for runoff from ship and boat repair facilities. Compliance with these regulations would minimize the potential for water quality degradation associated with maritime uses. Therefore, long term water quality impacts associated with maritime uses would be considered less than significant with mitigation.

Construction of the various project components could affect water quality due to grading and earthmoving activities, use of fuels and other chemicals for construction equipment, and demolition and construction in proximity to the Bay. Grading and earthmoving activities would result in exposure of soil during construction and could result in erosion and excess sediments carried in stormwater runoff to surface waters. In addition, construction activities would also likely require temporary on-site use and storage of vehicles, fuels, wastes and other pollutant sources; if improperly handled, these pollutants could also be transported in stormwater runoff to surface waters. For projects with construction sites greater than five acres, the project sponsor would be required to obtain coverage under the statewide General Permit for Stormwater Discharges Associated with Construction Activity described above in the Setting section. These requirements would potentially apply to future Port development at Pier 70 and the Piers 90-94 backlands, as well as to Industry Group project components including Mission Valley Rock, British Pacific Aggregates, and Coach USA, all of which would occupy more than five acres, although the areas to be disturbed through grading or excavation could be considerably smaller and none of these components would require a substantial volume of earthmoving. Depending on the construction schedule for the various projects, the remaining project components under five acres in size may also be required to comply with similar regulations, since it is anticipated that Phase II construction stormwater requirements will be in place by August 2001.

Compliance with these regulations and NPDES permit conditions, including development and implementation of a site-specific Stormwater Pollution Prevention Plan, would minimize the potential for water quality degradation. The SWPPP would typically be required to indicate all pollutant sources within the construction area and to identify best management practices to prevent discharge of pollutants into stormwater. However, due to the uncertain timing of construction schedules and the Phase II construction stormwater requirements, a mitigation measure would require all proposed construction sites, regardless of size, would prepare and implement a SWPPP, in order to minimize construction water quality impacts. Therefore, with compliance of NPDES General Permit requirements for sites over five acres and with implementation of proposed mitigation measures for sites under five acres, water quality impacts associated with construction activities would be considered less than significant.

Water quality impacts associated with demolition and construction in proximity to the Bay are discussed in the Waterfront Land Use Plan EIR. Construction activities located on or adjacent to the Bay would result in increased potential for spills and for construction materials or debris to enter the Bay and affect water quality, particularly if construction activities occur on windy days. Implementation of improvement measures identified in the Waterfront Land Use Plan EIR would minimize the potential for these impacts and are presented in Chapter IV of this report. Thus, implementation of these measures in conjunction with the SWPPP under the NPDES permit requirements discussed above would reduce potential water quality impacts to less than significant.

HAZARDOUS MATERIALS (p. 128)

Potential hazardous materials-related effects include accidental release of hazardous materials or petroleum products, such as through a leak from an on-site fuel tank; exposure of workers or the public to subsurface soil or groundwater contamination; and exposure of workers or the public to hazardous building materials, including asbestos, lead-based paint, polychlorinated biphenyls (PCBs), and fluorescent lights containing mercury vapors.

A fuel leak could affect soil, groundwater, or Bay water quality. However, businesses that store petroleum products above ground would be required to comply with the requirements of the City's Hazardous Materials Ordinance which includes the requirements for secondary containment and preparation of a Spill Prevention Control and Countermeasure Plan to specify emergency procedures to be followed in the event of a spill. Regulations governing underground storage tanks (USTs) require a separate permit to operate a UST and include an inspection and monitoring requirement by the Department of Public Health (DPH). Further, all establishments that store fuel on-site, whether in above-ground or underground tanks, must register with DPH. In the unlikely event that a leak or tank rupture did occur, the spill would likely be contained within the secondary containment system for the tank. Secondary containment and implementation of emergency response procedures would minimize potential exposure of site personnel and the public to petroleum vapors as well as protect the site from potential environmental contamination. Compliance with existing regulations regarding storage and spill protection would therefore render this impact less than significant.

Most project components that would involve excavation would be subject to Article 22A of the San Francisco Public Health Code, "Analyzing the Soil for Hazardous Wastes" (the "Maher Ordinance"), which requires a site-specific investigation, potentially including soil and/or groundwater testing and development of health and safety protection measures if applicable, for sites along the historic bay margin, including most Port property, where excavation of more than 50 cubic yards of soil is proposed. A Maher study has been completed for Pier 92, and could be required for other sites prior to construction. Compliance with existing Article 22A regulations would render potential impacts of subsurface contamination less than significant.

Hazardous building materials may be encountered during renovation or demolition of existing buildings. If friable or nonfriable asbestos is present, there is a potential for release of airborne asbestos fibers when the asbestos-containing materials are disturbed, unless proper asbestos abatement precautions are taken. Such a release could expose the public and construction workers to airborne asbestos fibers. Compliance with the California Health and Safety Code and Bay Area Air Quality Management District regulations concerning asbestos, and proper inspection and, if necessary, removal of asbestos would avoid any potential significant effects.

If lead-based paint is present and has delaminated or chipped from the surfaces of the building materials, there is a potential for the release of airborne lead particles during construction, renovation, or other activities that would disturb loose or peeling paint, unless proper lead abatement procedures are

followed. Construction and renovation activities must comply with Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint. Where there is any work that may disturb or remove lead paint on the exterior of any building built prior to December 31, 1978, Chapter 36 requires specific notification and work standards, and identifies prohibited work methods and penalties. These regulations and procedures required as part of the San Francisco Building Code would ensure that potential impacts due to lead-based paint would be reduced to a level of insignificance.

If PCBs are present in the building to be demolished, leakage could expose workers to unacceptable levels of PCBs (greater than 5 parts per million, based on Title 22, *California Code of Regulations*). Removal of fluorescent light tubes could result in exposure to mercury vapors if the lights are broken. Project sponsors would ensure that survey(s) for hazardous building materials is completed prior to renovations of an existing building, and that removal and disposal of transformers and light tubes, if required, is completed. This would reduce impacts related to hazardous building materials to a less-than-significant level.

BIOLOGICAL RESOURCES (p. 139)

Construction of the proposed Illinois Street Bridge across Islais Creek would cause both short-term construction impacts and longer-term changes in habitat that would have minor, and less-than-significant, effects in the immediate vicinity of the proposed bridge. Construction impacts would include primarily water quality effects from disruption of bottom sediments when material is dredged for placement of bridge abutments or other in-water structures. Sediment suspension would cause some increases in turbidity and resettling of fine sediments that can smother and interfere with feeding or respiration of less mobile organisms in the project area. If construction occurred during the Pacific herring spawning season (i.e., from December to February), any eggs attached to the wharf/pilings adjacent to the proposed construction site, or any newly hatched larvae, may be subject to smothering or other negative effects of the sediments released from dredging activities. Effects on herring could be mitigated by avoiding activities during the December-February spawning season, if feasible. If activities are proposed for December through February, a qualified biological monitor should survey the area to determine if spawning herring are present and, if so, the contractor would temporarily cease work (see Mitigation Measure F.1a, p. 154).

In addition to the potential for physical effects from construction activities, resuspension of bottom sediments can release contaminants into the water column that are harmful to aquatic life. Of concern would be highly organic materials that would increase the oxygen demand and possibly reduce oxygen levels in the adjacent waters sufficiently to harm some less mobile organisms. If dredging were required, the U.S. Army Corps of Engineers would require sediment analysis to determine the potential for contamination from any dredged sediments and specify disposal and dredging methods to accommodate the sediment character. Effects would be less than significant because of the relatively small area that would be affected.

Longer term effects from bridge construction would include any displacement of existing soft bottom or other natural habitat by bridge abutments and/or other structures placed in, or along the water edge. This would remove habitat for some burrowing invertebrates such as clams and tubeworms, which are, in turn, forage for resident fishes such as the white croaker. This habitat would be replaced with concrete and thus offer "hard surface" habitat for attached organisms such as mussels and Pacific herring eggs. Whether the habitat is improved or reduced in value, the change would be very minor because of the generally degraded quality of the existing habitat and the small quantity of change in relation to the overall habitat of this kind in the area.

There are wetlands located in the Southern Waterfront but outside the vicinity of the proposed Illinois Street bridge. The Waterfront Plan EIR notes that wetlands at Pier 98 (now known as Heron's Head Park) and at Pier 94 (Seawall Lot 352) could be adversely affected by contaminated runoff and by public access. Concerning the former, Section III.D, Hydrology, of this SEIR concludes that effects would be less than significant. Concerning the latter, Heron's Head Park has been constructed with numerous signs warning visitors to stay out of wildlife habitat areas, while the Pier 94 wetlands would continue to be located in areas surrounded by industrial uses and therefore would not be subject to public access. Furthermore, the Waterfront Plan calls for "reserv[ing] or improv[ing] areas which will provide opportunities for the protection of wildlife habitat and for passive and active recreational areas." Project components would not encroach into the existing wetlands, and thus no significant effect would occur.

C. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Perhaps the greatest area of controversy involves community concern about potential impacts, particularly related to air quality, of increased industrial activity near the Bayview – Hunters Point neighborhood. In particular, community groups and residents have expressed concern over existing and future cardio-respiratory health effects related to emissions from project components and other development in the neighborhood. Other concerns expressed in responses to the Notice of Preparation for the SEIR included questions about the mix of land uses, in particular related to whether housing should be included on one or more sites in or near the project area, and whether one or more project components could conflict with potential future housing and/or commercial development.

D. MITIGATION MEASURES (p. 143)

This section includes mitigation measures for topics analyzed in this SEIR. Additional mitigation measures from the 1997 Waterfront Plan EIR are included in Chapter IV, p. 143.

TRANSPORTATION

MEASURES IDENTIFIED IN THIS SEIR

B.1 To mitigate 2015 conditions, monitor traffic level of service (LOS) conditions at the intersections listed below in Table S-1. At such time as warranted by traffic conditions (i.e., a degradation of

the p.m. peak-hour service level to an unacceptable LOS E or F), institute the identified improvements or implement another measure determined at that time to be adequate to mitigate the degradation in level of service.

TABLE S-1
MITIGATION MEASURES FOR INTERSECTION LEVELS OF SERVICE

Intersection	Mitigation Measure	2015 Level of Service A.M. Peak Hr. Project LOS	A.M. Peak Hr. LOS w/ Mitig.	P.M. Peak Hr. Project LOS	P.M. Peak Hr. LOS w/ Mitig.
Third / 25th Streets †	• Restripe the east- and westbound approaches to provide left-turn lanes. • Revise signal timing to provide protected east- and westbound left-turn phases.	D	C	F	D
Illinois / 25th Streets †‡	• Install traffic signal.	B (C)	B	F	A
Pennsylvania / I-280 SB On-Ramp †‡	• Install traffic signal.	B (C)	B	F	B
Pennsylvania / César Chávez Streets	• Reconstruct the roadway to provide an exclusive northbound right-turn lane ("free" right-turn).	F	D	F	D
Third / César Chávez Streets	• Add a second northbound left-turn lane and an additional lane in each direction to the western approach on César Chávez Street. (This would require the acquisition of additional right-of-way on Third Street at the southeast corner of the intersection, where there is an existing building.)	F	D	F	D
Illinois / César Chávez Streets	• Install traffic signal. • Restripe the northbound and southbound approaches to provide left-turn lanes and shared right-through lanes. • Restripe the eastbound and westbound approaches to provide a shared left-through lane and a shared through-right lane.	F	D	F	B
Amador Street / Cargo Way	• Install traffic signal. • Restripe the southbound Amador Way approach to provide a left-turn lane, a shared left-through lane, and a right-turn lane.	F	C	F	B

† - Mitigation required only in p.m. peak hour.
‡ - LOS and delay reported for overall intersection; LOS in parentheses is for critical movement, when worse than overall LOS.

SOURCE: Wilbur Smith Associates

B.2 At such time as specific mixed-use or other non-industrial projects generating more than 100 daily vehicle trips are approved and occupied at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands, the Port shall develop a Transportation Systems Management (TSM) Plan, and potentially a Transportation Management Agency (TMA) that would consist of Port staff, Port tenants, property owners, and project occupants. The goals of the TSM Plan and the TMA shall be

to reduce, to the maximum feasible extent, the use of single-occupancy automobile traffic and encourage other forms of travel to and from work, including transit, carpooling and ridesharing, bicycle, walking, and other means.

B.3 The Illinois Street bridge that is proposed by the Port would improve operating conditions at Third Street and Cargo Way to an acceptable level of service (LOS C in the a.m. peak hour and LOS D in the p.m. peak hour), compared to conditions without the proposed bridge.

MEASURES FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

B.4 The Port shall comply with requests from the Major Environmental Analysis section of the Planning Department to analyze intersection levels of service for existing and future conditions at intersections that may reasonably be expected to be affected by each future development project, and shall identify and implement appropriate mitigation measures.

Any such transportation analysis would need to be coordinated with monitoring of the Congestion Management Program network, conducted biennially by the San Francisco County Transportation Authority as the designated Congestion Management Agency for San Francisco County. Within the WLUP Project Area, The Embarcadero, King, Third and Fourth Streets are all included on the Congestion Management Program network. A number of intersecting streets (North Point, Bay, Broadway, Washington, Clay, César Chávez, and Evans west of Third) are also included on the CMP network. The Authority would conduct monitoring activities along these facilities, but only in the context of determining changes in Level of Service for arterial segments (not for individual intersections). Degradation of the Level of Service for one or more individual intersections within an arterial segment, to Level of Service "F" or to below some other designation deemed to be acceptable, could also degrade the segment Level of Service. The degree of impact to the segment may not be sufficient for the Transportation Authority to identify a "deficiency" under the CMP process (Level of Service "F" for the entire segment), even though the Port or City could impose mitigation requirements for developers of projects that would have a significant impact on individual intersections. Based on the transportation analysis for this EIR, cumulative development along the Waterfront might cause degradation of a particular segment of the CMP network to fall to "F," thereby triggering a finding of deficiency requiring formulation of a Deficiency Plan, and implementation of that Plan under the CMP processes identified by the Transportation Authority. The Authority could, in this circumstance, identify the Port as the lead agency for development of the Deficiency Plan and for implementation of any corrective measures, and the Port could require sponsors of specific development projects that contribute to cumulative congestion to participate in improvement and mitigation measures. *(1997 FEIR Measure D.4)*

B.5 To help induce shifts from vehicles to transit and thereby partially mitigate local intersection impacts and regional highway impacts, the Port could require and/or institute Transportation Demand Management Programs among developers of major trip generators, as a condition of lease approval. This would apply in particular to future Port development at Pier 70 and the Pier 90-94 backlands.

Such programs typically target primarily commute trips, with various educational, assistance and incentives measures to encourage carpooling and vanpooling, and transit use. These measures may be accompanied by such "disincentives" to low-occupant private vehicle use as restricting the

amounts and/or location of parking made available to employees, and charging higher fees for all-day parking. Also typical are measures designed to shift time of commute travel to the "shoulders" of the peak, and/or to encourage less trip making through alternative work schedules and telecommuting. The effectiveness of these programs is variable, but they are most appropriate and effective when there are substantial constraints to vehicular travel, circulation and storage coupled with suitable options such as excellent transit accessibility. San Francisco in general, and its downtown and portions of the waterfront in particular, exhibit this combination of factors.

The Port could also design and implement similar programs which would target non-commute travel. An example of the type of measure which might be included is the issuance of discount admission to some uses, or reductions in the price of services and/or merchandise, upon presentation of a valid transit transfer or other proof of transit use payment. Additionally, a free shuttle along The Embarcadero could be a part of this type of program, and would help to alleviate local auto congestion. *(1997 FEIR Measure D-7)*

AIR QUALITY

Measure B.3, above, would reduce but not eliminate the project's contribution to potentially significant air quality impacts. The mitigation measures in this section would further reduce but not eliminate the project's contribution to potentially significant air quality impacts.

MEASURES INCLUDED IN THE PROJECT

C.1 Each of the Industry Group construction aggregate industry project components, which would represent "stationary sources" of particulate emissions, shall include "best available control technology" (BACT) to control emissions, consistent with current regulations. For aggregate-handling operations (Bode Gravel, Mission Valley Rock, RMC Pacific, British Pacific Aggregates), this includes maintaining a moisture content in the aggregate that is high enough to eliminate PM-10 "fugitive" emissions (wind-blown dust that could otherwise escape into the surrounding air). A water spray system shall be installed at each aggregate-handling facility, including Bode Gravel, Mission Valley Rock, RMC Pacific, and British Pacific Aggregates. Fine aggregate material (sand) shall be maintained with a moisture content of approximately 5 percent, because such material with a moisture content of 4.5 percent or more produces virtually no fugitive emissions. Coarse aggregate (gravel) shall be kept damp on the surface, which would also effectively eliminate fugitive dust. Aggregate shall be stored in bunkers at ready-mix and asphalt plants, rather than open piles, with water spray (including the use of surfactants, as necessary, to bind the water and dust to the aggregate) applied to maintain adequate moisture content to control emissions at both production and shipping/storage operations. ISG Resources, which would handle fly ash, a finer, more powdery material than aggregate, shall install BACT dust collection equipment to accommodate truck and rail transport and shall use pneumatic equipment to control dust emissions during the transfer of fly ash.

C.2 The asphalt plant proposed by Mission Valley Rock (and potentially the British Pacific asphalt plant) shall include controls on the drum mixer where the asphalt cement and aggregate are mixed. Drum mixer(s) shall be fired with natural gas, consistent with Best Available Control Technology (BACT) recommendations, and particulate emissions from the aggregate drying and mixing process shall be controlled with a fabric filter, also consistent with BACT. Such filters can achieve control efficiency of greater than 99 percent.

C.3 Consistent with the City's Clean Air Program (established by Ordinance 258-99, adopted October 15, 1999), it is City policy to "foster, promote, and encourage the use of low emission [alternative fuel vehicles] and [zero emission vehicles] by developing infrastructures to support the use of these vehicles." Under the ordinance, the City is to (1) assess the need for a network of natural gas fueling stations accessible to the public; (2) site and develop at least five such facilities, by public and/or private entities; (3) install 50 publicly accessible electric vehicle charging stations in City garages, lots, or other sites; (4) develop a plan for additional charging stations and related infrastructure; (5) buy and lease ultra-low and zero emission vehicles for City department use; (6) identify and convert diesel bus lines to electric service; (7) develop a plan to phase out older diesel buses; (8) develop a plan and incentives to encourage larger private vehicle fleets to convert their fleets to very low or zero emission vehicles; and (9) develop a car sharing program in high density neighborhoods.

Consistent with the City's Clean Air Program, the Port shall require that all tenants make a good faith effort to engage in operational practices sensitive to the environment and the neighboring community. In furtherance of this, the Port shall require that tenants operating a fleet of vehicles investigate the potential for use of low- or zero emission vehicles and implement measures to reduce vehicle emissions to the maximum feasible extent. Options may include, but not necessarily be limited to, the use of low-emission diesel fuel (including low-sulfur diesel); the use of catalytic particulate traps for diesel-powered engines that are currently under study by the California Air Resources Board; the use of other emerging technologies to reduce diesel particulate emissions; and use of electric vehicles. The Port shall also require that tenants operating diesel-powered stationary equipment investigate similar options. Tenants shall investigate retrofitting existing engines and purchase of new engines. The Port shall further require that tenants who work with independent trucking contractors encourage those contractors to make similar efforts, including, if reasonably feasible, providing such truckers with economic incentives to retrofit equipment or take other measures as may be necessary to use low-emission fuels. As an economic incentive to minimize diesel emissions from Port property, the Port shall contribute towards the incremental costs incurred by its tenants for Port-approved equipment and improvements in furtherance of this measure. Finally, the Port shall establish a schedule by which tenants described above shall report to the Port on progress in investigating reduced-emission engines.

C.4 At such time as specific mixed-use or other non-industrial projects generating more than 100 daily vehicle trips are approved and occupied at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands, the Port shall develop a Transportation Systems Management (TSM) Plan, and potentially a Transportation Management Agency (TMA) that would consist of Port staff, Port tenants, property owners, and project occupants. The goals of the TSM Plan and the TMA shall be to reduce, to the maximum feasible extent, the use of single-occupancy automobile traffic and encourage other forms of travel to and from work, including transit, carpooling and ridesharing, bicycle, walking, and other means.

C.4A To regulate the production of concrete or asphalt material consistent with the volumes analyzed in the Southern Waterfront SEIR, any lease for concrete or asphalt batching operations on Port property shall include a provision setting forth the maximum production volume allowed under the lease, such that the cumulative total of production volumes of such batching operation leases shall not exceed the volumes assumed and analyzed in the SEIR.

To monitor production volumes that may occur on Port property, the Port shall require as a condition of each lease that each tenant provide annually an audited account of the concrete and/or asphalt production volumes provided by each concrete or asphalt production business. The Port shall incorporate this information in an annual report to the Port Commission.

Should any existing tenants propose to increase production above the amounts stipulated in the lease, such change would require an amendment to the lease, and would be subject to further environmental review by the San Francisco Planning Department's Major Environmental Assessment (MEA) division. In determining whether further environmental impact analysis will be required, MEA will consider the production levels cited in the Port's report and any emission-reducing improvements that may have been incorporated into the on-site operations (stationary sources), and trucks and other vehicles associated with the operations (mobile sources).

REVISED MEASURE FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

C.5 The Port shall require that project sponsors direct construction contractors to implement a dust abatement program to reduce the contribution of project construction to local PM-10 concentrations. Elements of this program, which is currently applied to all Port tenants, include the following:

- Water internal roadways and unpaved construction areas just prior to the morning and evening peak traffic periods (to limit the potential for major roadway traffic to entrain dust), limit speeds to 10 mph, and sweep paved internal roads after the evening peak period.

- In addition, water active sites (e.g., where demolition, excavation or other earth work is underway) at least twice per day. Increase the frequency of watering when wind speeds exceed 15 miles per hour. Suspend all excavating and grading operation when instantaneous gusts exceed 25 miles per hour.

- Replace ground cover in disturbed areas as quickly as possible.

- Enclose, cover, water twice daily, or apply soil binders to exposed stockpiles of sand, gravel, and dirt.

- Install gravel at construction equipment entrances to unpaved areas to prevent tracking of dirt and mud onto streets.

- Sweep paved access roads, parking areas, and construction staging areas, at the end of day (with water sweepers), and sweep adjacent City streets if any visible soil material is carried over to these streets.

- Cover all trucks hauling dirt, sand, soil, or other loose materials. Maintain at least six inches of freeboard between the top of the load and the top of the trailer.

- Sweep up dirt or debris spilled onto paved surfaces immediately to reduce resuspension of particulate matter through vehicle movement over these surfaces.

- Designate a person or persons to oversee the implementation of a comprehensive dust control program and to increase watering, as necessary.

- Maintain and operate construction equipment so as to minimize particulates from exhaust emissions. During construction, require contractors to operate trucks and equipment only when necessary. Equipment should be kept in good condition and well-tuned, to minimize exhaust emissions.

Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor shall require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose.

This mitigation measure also would reduce demolition-related impacts regarding lead paint chips/lead dust. The project sponsor shall also be required to comply with Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint, enforced by the San Francisco Department of Building Inspection.

MEASURE IDENTIFIED IN THIS SEIR

C.6 Consistent with the construction-period dust abatement program described in Mitigation Measure C.5, the Port shall require that Industry Group components and other aggregate-related tenants employ dust abatement procedures including, but not necessarily limited to, the following:

- installation and operation of truck wheel-washing systems at plant exits for facilities that operate on unpaved surfaces;
- daily street sweeping on streets surrounding aggregate-related facilities; and
- clearly posting on the exterior wall or fence of such facilities a company telephone number for citizens to call with dust, noise, or other operational complaints, and designation of a Port staff contact for same.

No other feasible mitigation measures have been identified that would reduce the project's total regional emissions to a level below Bay Area Air Quality Management District thresholds, or eliminate the

project's contribution to potentially significant cumulative impacts from all existing (unquantified) and future (unknown) emissions sources.

HYDROLOGY

MEASURES INCLUDED AS PART OF THE PROJECT

D.1 For construction sites of less than five acres of disturbed area, the contractors shall be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) similar to that required under the statewide General Permit for Storm Water Discharges Associated with Construction Activity. The SWPPP would include site-specific information to identify and evaluate sources of pollutants associated with industrial activities and to identify and implement site-specific best management practices to reduce or prevent pollutants associated with industrial activities in stormwater discharges. Best management practices may be non-structural (e.g., activity schedules, maintenance procedures, prohibitions of practices) or structural (e.g., treatment measures, runoff controls, overhead coverage). Elements of the SWPPP shall include the following:

- measures for erosion and sediment controls
- methods for construction waste handling and disposal, and
- post-construction erosion and sediment control requirements.

D.2 To minimize the potential for water quality degradation from stormwater runoff, the Port shall require that all tenants and developers, including interim lessees such as the Industry Group members, implement source control Best Management Practices consistent with those identified in the Industrial / Commercial Storm Water Best Management Practices Handbook (Stormwater Quality Task Force, 1993). Measures shall include, but are not limited to, the following (some of which are proposed as part of one or more Industry Group components):

- prohibiting discharge of process water to storm drains or otherwise directly to the Bay or Islais Creek;
- separating stormwater from process water, such as concrete truck washout water and truck wash water, through the use of berms and other features, and ensuring that treated stormwater to be discharged to the Bay meets applicable permit and regulatory standards, including pH (acidity or akalinity);
- for Industry Group components that would use water in dust control, creation of settling basins or similar features that would allow sediment to be removed from water prior to reuse and/or discharge;
- daily street sweeping of surrounding streets and, for facilities that operate on unpaved surfaces, installation and operation of truck wheel-washing systems at aggregate-related plants;
- employing appropriate containment measures for fuel, asphalt cement, and other hazardous materials stored on-site, to capture potential spills (including at on-site fueling areas);
- installing and maintaining grease and sediment traps at vehicle maintenance and washing areas to prevent contaminated runoff from entering the storm drains or Bay;
- installation of sediment containment systems around outdoor aggregate storage facilities to limit sediment entering stormwater runoff, and covering such storage areas if feasible to limit stormwater infiltration;
- creation of a designated wash-out area for concrete trucks to prevent concrete slurry from reaching the Bay; and
- cover any open conveyors in use over the Bay (i.e., between piers and ships and barges) to minimize the potential for direct sediment spill to the Bay.

REVISED MEASURES FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

D.3 As part of permit and lease requirements for future Port development projects, runoff from stormwater at new or re-developed facilities located outside of the City's combined sewer system shall be, at a minimum, subject to appropriate treatment such as on-site oil/water separators and/or sediment traps, depending on the nature of the pollutants that may be in the runoff, so that stormwater runoff is treated prior to discharge and that there is no direct, untreated discharge to the Bay or Islais Creek. Stormwater runoff from future Port development sites shall not be directed to the City's combined system, as originally contemplated in the Waterfront Plan EIR, and the volume of stormwater flows from the project area to the City's combined sewer system shall remain the same as at present, unless the increased flow to the combined system would result in no additional volume of combined sewer overflows.

D.4 Sponsors of individual project components, including members of the Industry Group, shall be required to implement appropriate Best Management Practices for stormwater pollution prevention throughout the life of each lease and shall be required to monitor stormwater quality in accordance with the requirement of the statewide General Permit for Discharge of Industrial Stormwater.

D.5 Sponsors of individual project components, including members of the Industry Group, shall conduct water quality monitoring during construction of facilities on or adjacent to the Bay to minimize effects of construction activities on water quality. In order to minimize potential for spills, construction materials or debris to enter the Bay and affect water quality, site specific construction methods and precautions, such as limiting activities on days of strong winds, could be included in the contractor's construction specifications to minimize effects on water quality. Demolition of structures with lead-based paint should include physical precautions to ensure that paint dust and chips do not enter the Bay.

HAZARDS

MEASURES INCLUDED AS PART OF THE PROJECT

E.1 Accidental Release of Hazardous Materials or Petroleum Products

In accordance with the Hazardous Materials Ordinance, the sponsor of each Industry Group or Port project component shall ensure that a Hazardous Materials Business Plan is prepared for each of the project components involving the use of petroleum products or hazardous materials. The plan would specify methods for handling and storage of these including containment, site layouts, and emergency response and notification procedures for a spill or release.

The project sponsor(s) shall ensure that a Spill Control and Countermeasure Plan is prepared for any project involving the aboveground storage of petroleum products. The plan would include requirements for appropriate spill containment or equipment to divert spills from sensitive areas, a discussion of facility-specific requirements for the storage system, inspections and a record keeping system, security for the system, and personnel training. The project sponsor(s) would also comply with the state requirement that above-ground storage tanks subject to federal regulations are registered with the Regional Water Quality Control Board.

E.2 Hazardous Materials in Soil

E.2a Because the Bode Gravel and Mission Valley Rock projects would be constructed bayward of the historic high tide line and would involve the excavation of at least 50 cubic yards of soil, the sponsors of those components shall ensure that the contractors comply with the requirements of Article 22A, "Analyzing the Soil for Hazardous Wastes." In accordance with the approved site mitigation report for this project component, the site would be capped with an asphalt or concrete slab and structures. Upon completion of capping, a certification report would be prepared to document construction activities and a maintenance report would be prepared specifying procedures to be followed to control exposure to the subsurface soil following construction of the proposed project. These reports would be submitted to the San Francisco Department of Public Health for review and approval to ensure regulatory compliance.

For any other Industry Group or Port-sponsored project components for which Article 22A would apply (including the Illinois Street bridge, if applicable), a site history report, soil investigation, and soil analysis report would be completed to identify potential hazardous materials at this site.

If indicated by the results of the soil investigation, the project sponsor would ensure that the contractors for each project prepare a Site Mitigation Report in compliance with Article 22A if warranted by the levels of hazardous materials identified in the soil. The plan would include measures for the handling of soil produced during excavation, to control dust and runoff during construction, and to characterize soil for off-site disposal purposes. Upon completion of construction, the project sponsor would ensure that the construction contractors prepare a certification report certifying that either (1) no hazardous wastes present in the soil present an unacceptable risk and that no mitigations are required; or (2) all mitigation measures specified in the site mitigation report have been completed and that completion of the mitigation measures has been verified through follow up sampling and analysis, if required. All reports would be submitted to the San Francisco Department of Public Health (DPH) for review and approval to ensure regulatory compliance.

The project sponsor shall prepare and submit to DPH a site-specific Safety and Health Plan (SHP) that would address worker safety concerns resulting from potential contaminants on the site. The SHP would include provisions for responding to unknown hazardous materials site conditions that could be encountered during construction.

If the soil investigation demonstrates that hazardous wastes present in the soil could be at levels that pose an unacceptable health risk, the project sponsor would ensure that appropriate site investigations and risk evaluations are performed to evaluate potential human health risks related to any hazardous substances left in the soil or groundwater after completion of construction. The investigations, risk evaluations, and any required remedial actions would be implemented under the oversight of the appropriate regulatory agency(ies) to ensure compliance with applicable laws and that the public health and safety are protected.

E.2b For all projects where subsurface contamination is identified, the project sponsor would ensure that from the time that ground surfaces are exposed until the time that all remedial activities have been completed, a fence is erected around the area where chemicals have been identified in the soil and site access is restricted to necessary personnel. Warning signs prohibiting access by the general public onto the project site would be posted at all construction access points. Access would be limited to authorized personnel only.

Dust-control measures applicable for air quality impacts would also minimize the potential public health impact associated with dust emissions and air quality pollutants. (See also Air Quality Mitigation Measures.)

MEASURE PROPOSED BY THE PORT AS PART OF THE PROJECT

E.3 Soil Disposal

The Port shall contract for or require that Port tenant(s) contract for disposal of any portion of the soil pile on the Bode and Mission Valley Rock sites at Pier 92 that cannot be reused for construction projects in accordance with applicable waste disposal regulations. Such reuse would also require approval of the San Francisco Department of Public Health.

REVISED MEASURE FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

E.4 Hazardous Building Materials

The project sponsor for each Industry Group component and each future Port development component involving demolition or renovation of existing facilities shall ensure that hazardous building material survey(s) for asbestos, PCB-containing equipment (including transformers, elevator equipment, and other applicable equipment), hydraulic oils, fluorescent lights, and lead-based paint is conducted prior to the start of demolition or renovation, for each such project component. The survey(s) would be completed by a Registered Environmental Assessor or a registered engineer prior to construction or demolition activities. If any friable asbestos-containing materials or lead-containing materials are identified, adequate abatement practices, such as containment and/or removal, would be implemented prior to demolition or renovation. Detailed requirements for the assessment, abatement, and disposal of hazardous building materials are presented in Appendix F. Any PCB-containing equipment or fluorescent lights containing mercury vapors would also be removed and disposed of properly.

Any hazardous materials discovered through building survey(s) would be abated according to federal, state, and local laws and regulations. In particular, the project sponsors will be required to comply BAAQMD requirements for the removal of friable and non-friable asbestos containing materials as well as other requirements of Cal/OSHA, BAAQMD and the Contractors Licensing Board for abatement of asbestos prior to demolition.

BIOLOGICAL RESOURCES

REVISED MEASURES FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

F.1a The Port could limit dredging operations and other construction activity in connection with the Illinois Street Bridge to between March 1 and November 30 to eliminate any potentially significant impacts of dredging or pier repair/replacement on the Pacific herring fishery. The Port would specify in construction contracts that, in exceptional cases where dredging operations or bridge construction must conflict with the herring season, the following conditions must be fulfilled:

- A professional fisheries biologist or other individual sufficiently competent to identify herring spawning activity would monitor the project site daily at any time when dredging or other in-water construction activity were taking place.

- In the event that the on-site monitor detects herring spawning at, or within 200 meters of dredging or other in-water construction activity, the monitor would immediately notify the Environmental Review Officer and the project construction manager, who would halt the dredging or other construction activity for a minimum of 14 days, or until the monitor determines that the hatch has been completed and larval herring have left the site. The dredging or other construction activity may resume thereafter.

F.1b Project sponsors of Industry Group project components would similarly limit dredging operations and pier repair/replacement to between March 1 and November 30 to eliminate any potentially significant impacts of dredging or pier repair/replacement on the Pacific herring fishery. In exceptional cases where dredging operations or major pier repair/replacement operations (beyond routine maintenance) must conflict with the herring season, the project sponsor(s) would consult with the permitting agencies, including but not necessarily limited to the U.S. Army Corps of Engineers, Bay Conservation and Development Commission, State Department of Fish and Game, and Regional Water Quality Control Board. The sponsor(s) would comply with specific monitoring requirements established by these and other agencies to avoid impacts on the herring fishery.

F.2 Prior to demolition or renovation of any abandoned building between August 15 and October 15, or between February 1 and May 1, project sponsor(s) would ensure that survey(s) are conducted during the same period by a qualified bat biologist. If no Townsend's western big-eared bats are found during the survey(s), no additional mitigation is required.

If Townsend's western big-eared bat, a California Species of Special Concern, is found during an August - October survey, appropriate exclusion devices approved by CDFG & USFWS should be installed by a qualified bat biologist. Once the bats have been excluded, demolition may occur.

If Townsend's western big-eared bats are found during a February - May survey, demolition should not take place until the end of the nursery season in August. Exclusion devices should be placed by a qualified bat biologist in accordance with CDFG and USFWS.

E. ALTERNATIVES TO THE PROPOSED PROJECT (p. 168)

The Waterfront Plan EIR analyzed two alternative development outcomes that could occur under the Waterfront Land Use Plan. Those alternatives are hereby incorporated by reference. This SEIR does not evaluate an off-site alternative that would place the proposed Industry Group uses elsewhere in San Francisco, because Port jurisdiction is limited to a band along the City's bayfront. However, the alternatives analyzed below do include both differing combinations of Industry Group uses and variations on the assumptions concerning future Port development to provide for a range of potential outcomes for the Southern Waterfront subarea, consistent with the adopted Waterfront Land Use Plan.

ALTERNATIVE A: NO PROJECT

This alternative would entail no change to the project area, which would remain in its existing condition. None of the Industry Group project components would be implemented, and the Illinois Street Multimodal Bridge would not be built. Because several of the Industry Group components are proposed bin response to the need for Industry Group members to relocate from existing locations, this alternative would necessarily involve displacement of those uses elsewhere in San Francisco, including the existing Bode Gravel and RMC Pacific concrete plants and the Coach USA bus operation. Those uses could relocate elsewhere in the City, although particularly in the case of the concrete plants, the potential locations are limited by the heavy industrial nature of the uses. It would be speculative, however, to project potential relocation sites for these uses, which could be forced to move out of San Francisco under this alternative.

Also under this alternative, the future development envisioned for the Pier 70 Mixed-Use Opportunity Area, the Pier 70 Maritime Reserve area, the Pier 90-94 backlands, and the Western Pacific site (except for the already approved Muni Light Rail storage and maintenance facility) would not necessarily occur as described in this SEIR. There might still be some development on these sites in the future, consistent with the Waterfront Land Use Plan, and subsequent environmental review could be required if projects were to differ substantially from those described in this document. Increased cargo shipping could also occur in the Southern Waterfront, consistent with the Waterfront Plan.

This alternative would result in little or no short-term (Phase I) increase in automobile or truck travel, as would occur with implementation of the proposed project. Long-term (2015) effects on local intersections would be less substantial than would occur with the project, but could still be significant, depending on the volume of future development on Port lands and increased cargo shipping. Therefore, this alternative would result in significant traffic impacts in 2015, although to a lesser degree than would the project. Emissions of criteria air pollutants would be less substantial than with the project, particularly in the short-term. By 2015, depending on the increase in cargo shipping at the Port, emissions of NO_x could be significant, as with the project, although the volume of emissions would be less. This alternative would also result in a significant cumulative effect related to air quality. Like the project, however, this alternative would result in less-than-significant effect with regard to local concentrations of carbon monoxide, PM-10, and diesel particulate. Effects related to hydrology would be less substantial than those of the project, and would be less than significant with the mitigation measures revised from the Waterfront Plan EIR to control stormwater runoff. It is likely that future development on Port lands would result in increase in impervious surface that could result in an increase in stormwater runoff to the Bay, although less than with the project. Similarly, the No Project Alternative would result in less potential for exposure to and accidental release of hazardous materials than would the project, although any potential impacts would continue to be mitigated, as with the project, by reliance on existing regulations, including Article 22A of the City Public Health Code. As with the project, impacts would be less than significant with mitigation.

The No Project Alternative would be environmentally superior to the project because it would avoid much of the environmental impact of the project. The No Project Alternative would not meet the project objectives.

ALTERNATIVE B: REDUCED-SCALE ALTERNATIVE

This alternative would include all Industry Group facilities with the exception of the proposed Mission Valley Rock asphalt plant and the Coach USA bus storage facility, as well as those shipping-related components that are proposed to provide for an anticipated shift in the supply of construction aggregate from local sources to out-of-area sources. Included would be two concrete plants (Bode Gravel at Pier 92 and RMC Pacific at Pier 80); Mission Valley Rock's aggregate import terminal at Pier 92 (but not Mission Valley's proposed asphalt plant; British Pacific Aggregates aggregate shipping and storage operation at Pier 94 (but not BPA's potential future concrete and asphalt plants); ISG Resources fly ash storage facility (in the former grain silos at Pier 90); and Waste Resource Technologies' construction materials recycling operation at Pier 70. Not included in this alternative would be the Mission Valley Rock asphalt plant, the potential future BPA concrete and asphalt plants, or Coach USA's bus storage and maintenance facility at Pier 96. Under this alternative, concrete production would remain at the 2003 level through 2015.

This alternative would also include construction of the Illinois Street Intermodal Bridge, proposed by the Port. However, less future development would occur on other Port lands than with the proposed project. Alternative B would include less of an increase in cargo shipping at Pier 80 and Piers 94-96, compared to the project, and would not include development of the Piers 90-94 backlands. Alternative B would include expansion of the Port's dredge material handling site at Pier 94; development of the Pier 70 mixed-use opportunity area and the Pier 70 maritime reserve area; and development of the Western Pacific property.

This alternative would result in less traffic generation, particularly with Phase II (2015) development, than would the project. With this alternative, Phase I daily vehicle trip generation would be about 20 percent less than with the project (Industry Group vehicle trip generation would be about 30 percent less). In 2015, Phase II daily vehicle trip generation would be almost 35 percent less than with the project, and peak-hour trip generation, compared to that with the project, would be about 50 percent less in the a.m. peak hour and about 85 percent less in the p.m. peak hour. With this alternative's decreased traffic volumes, compared to the project, intersection levels of service in 2015 would be improved, compared to conditions with Phase II project development. In the a.m. peak hour, only two intersections would operate at LOS F – Mariposa Street at the southbound I-280 on-ramp and at the northbound I-280 off-ramp. These intersections would also be at LOS F with the project. Three other intersections would operate at LOS E. Impacts could be mitigated at one of these five intersections. Three other intersections that would operate at LOS F with the project would instead operate at LOS D or better with Alternative B. In the p.m. peak hour, only three intersections would operate at LOS E or F under Alternative B, compared to 11 intersections with the project. Impacts at these three intersections could

be mitigated to LOS D or better. Thus, like the proposed project, Alternative B would result in significant unavoidable traffic impacts, although the impacts would be less substantial than those with the project.

Near-term air quality impacts (2003) would be similar to, but slightly less than, those identified for the project, because the overall level of activity in Phase I would be similar under this alternative to that with the project. By 2015, the overall emissions of criteria pollutants generated by this alternative would be reduced, compared to the project. In particular, annual emissions of NO_x from future cargo shipping activity at the Port would be about half of those with the project, because the annual volume of cargo handled would be about half that with the project. However, criteria pollutant emissions would not be reduced to a less-than-significant level, and would be significant, as with the project. Local air quality impacts (concentrations of carbon monoxide, respirable particulate matter, and diesel particulate) would be less-than-significant, as with the project, and would be would be incrementally less substantial. Cumulative air quality effects would remain significant, although this alternative's contribution would be less than that of the project.

Effects related to hydrology and to hazardous materials would be similar to impacts of the project because, while Alternative B would have a reduced level of concrete production and reduced cargo shipping, compared to the project, this alternative would include development on virtually all of the same sites as would the project, with the only exception being the Pier 90-94 backlands. With regard to hydrology, therefore, this alternative would result in a reduction of about 38 percent in new stormwater runoff, compared to the project (and an increase of 18 percent compared to existing conditions), and the impact would be less-than-significant with mitigation, as with the project. Concerning hazardous materials, because Alternative B would not include development on the Pier 90-94 backlands, there would be no effects related to development on the former landfill at Pier 94. Other effects of Alternative B with regard to hazardous materials would be less than significant with mitigation, as they would with the project. Effects on biological resources would be essentially the same as those of the project, and would be less than significant, because this alternative, like the project, would include the Illinois Street bridge and associated mitigation.

Because it would result in less substantial traffic impacts than would the project, and would have slightly less impact on air quality than would the project, the Reduced Density Alternative would be considered the Environmentally Superior Alternative.

ALTERNATIVE C: RESIDENTIAL USE FUTURE SCENARIO

With regard to Phase I, this alternative would be the same as the proposed project, in that the Industry Group project components would be implemented, and the Illinois Street Intermodal Bridge would be constructed. However, in Phase II, Alternative C would include residential uses at the Pier 70 Mixed-Use Opportunity Area, and would also include less office / research and development space there, compared to the proposed project. At the Pier 70 Mixed-Use Opportunity Area, this alternative would

include 500 residential units and approximately 200,000 square feet of office / research and development use would be included, compared to 610,000 square feet of such uses under the project. Retail space, at 100,000 square feet, and public access / recreational uses, would be unchanged from the project. Other future Port development would be the same as with the project.

Effects of Alternative C would be generally similar to those of the proposed project. Overall daily vehicle trip generation for Phase I and Phase II combined would be about 2.5 percent less than with the project, while peak-hour vehicle trips would increase slightly, by about 2.5 percent in the a.m. peak hour and almost 6 percent in the p.m. peak-hour. However, the changes, which would total fewer than 50 additional vehicles in the a.m. peak hour and just over 100 additional vehicles in the p.m. peak hour, would not be substantial enough to result in changes in the 2015 level of service at most intersections. For those intersections were level of service would be different, most would improve, compared to the project, except at Third Street and Cargo Way, where this alternative would result in LOS E in the p.m. peak hour, compared to LOS D with the project.

Air quality impacts would be incrementally less substantial than those with the project, owing to the slight decrease in daily vehicle trip generation. However, regional effects would be significant, as with the project, both on a project-specific and cumulative basis. Like the project, this alternative would not result in a project-specific significant effect on local air quality impacts (concentrations of carbon monoxide, respirable particulate matter, and diesel particulate). Also like the project, cumulative local air quality effects would be unknown, but would be considered significant with this alternative, and the contribution would be similar to that of the project.

Effects related to hydrology and hazardous materials would be virtually unchanged from those of the project, because the areas to be developed and the amount of new impervious surface would be the same. Because Alternative C would include residential units at the Pier 70 Mixed-Use Opportunity Area, remediation of sites where past use of hazardous materials has resulted in contamination would be required by law to achieve a higher standard of cleanup.

Effects on biological resources would be essentially the same as those of the project, and would be less than significant, because this alternative, like the project, would include construction of the Illinois Street bridge. Depending on the specific configuration of the development at the Pier 70 Mixed-Use Opportunity Area, site specific noise analysis, and potentially analysis of nighttime lighting, would be required to determine whether 24-hour operations at the Pier 70 shipyard could prove annoying to residents at the Mixed-Use Opportunity Area.

CHAPTER II
PROJECT DESCRIPTION

This SEIR analyzes a series of development proposals – the Industry Group project components – in the portion of the Port of San Francisco jurisdiction known as the Southern Waterfront (generally, Pier 70 south to India Basin). This SEIR also analyzes a Port-sponsored proposal to construct a rail and truck bridge across Islais Creek to improve access between the Port's major maritime terminals. Finally, this SEIR evaluates, at a lesser level of detail, potential future development on other Port lands in the Southern Waterfront to provide a conservative SEIR analysis although there are no such proposed projects at this time. Specific locations of the project components analyzed in this SEIR are described below in Section C, Project Characteristics and Approvals Required.

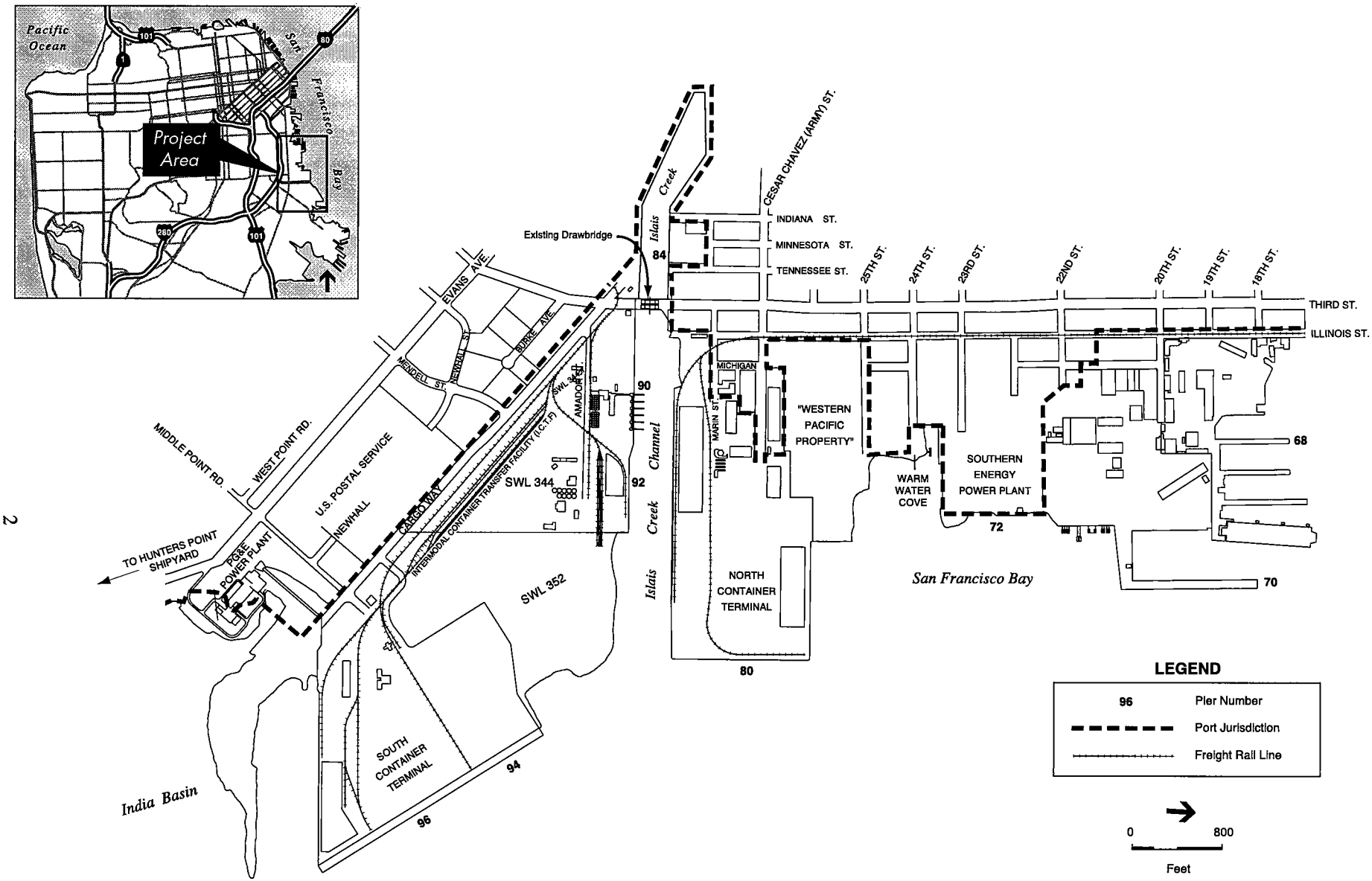
This SEIR will undergo a public comment period as noted on the cover, including a public hearing before the Planning Commission on the Draft SEIR. Following the public comment period, responses to written and oral comments will be prepared and published in a Draft Summary of Comments and Responses document. The Draft SEIR will be revised as appropriate and, with the Draft Summary of Comments and Responses, presented to the Planning Commission for certification as to accuracy, objectivity, and completeness. No approvals or permits may be issued before the Final SEIR is certified.

A. SITE LOCATION

The Southern Waterfront consists of most of the land and pier area east of Illinois Street between Eighteenth Street and Cargo Way, land and pier area north of Cargo Way and east of Third Street, land north of Islais Creek and west to Indiana Street and south of Islais Creek and west to approximately Quint Street, and land north and south of India Basin, excluding areas outside of Port jurisdiction between 21st and 25th Streets and between César Chávez (Army) and Marin Streets (see Figure 1). The Southern Waterfront is one of five subareas identified in the Port's Waterfront Land Use Plan, which was adopted by the Port Commission in 1997.

B. PROJECT SPONSORS' OBJECTIVES

The project sponsors are the Port of San Francisco and several maritime and industrial companies (collectively referred to as the "Industry Group").



SOURCE: Waterfront Land Use Plan EIR

1999.377E: Southern Waterfront SEIR (ESA 990267) ■

Figure 1
Project Area

PORT OBJECTIVES

The Port of San Francisco is trustee for former State-owned lands between Fisherman's Wharf and India Basin, including the project area analyzed in this SEIR.[5] Pursuant to the Burton Act, the Port's public trust responsibilities are to further fisheries, navigation, maritime commerce, natural resource protection and recreational facilities for public use. Following an extensive public planning process, in 1997 the Port adopted the Waterfront Land Use Plan, defining how the Port will carry out its land use responsibilities under the public trust. The Southern Waterfront, one of five waterfront subareas identified in the Waterfront Plan, is designated for existing or future expansion of commercial shipping and other maritime businesses. The Waterfront Plan also identifies open space areas in the Southern Waterfront, and three development opportunity areas where mixed-use commercial and maritime development could occur. In addition, the Waterfront Plan allows non-maritime interim uses for land designated for future maritime expansion areas.

In light of the above, the Port's primary objective is to maintain and expand cargo shipping and maritime businesses at its existing terminals at Piers 80, 90-92, and 94-96 on the north and south sides of Islais Creek east of the existing Third Street Bridge, and the existing ship repair yard at Pier 70. This includes increases in shipment of container, breakbulk, dry bulk, liquid bulk, and neo-bulk,[6] cargoes, up to an equivalent of approximately 250,000 TEU.[7] The Port proposes construction of a rail and truck access bridge between the two terminals, extending south of Illinois Street, over Islais Creek to increase operational efficiencies and marketability of its north and south terminals, to provide direct rail access to the terminals, and reduce truck trips that otherwise would occur on city streets. The proposed Illinois Street bridge is described further on p. 19.

Secondary objectives of the Port are to:

- diversify its marketing efforts to increase utilization of its cargo terminals;
- maximize the productivity of Port assets through interim use of property reserved for maritime expansion; and
- allow development of non-maritime land uses that would be beneficial to the Port and compatible with maritime activities in areas that are surplus to long-term maritime needs.

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5 Certain sections of this SEIR, such as Transportation and Air Quality, incorporate an area of analysis that extends beyond Port land in order to fully capture potential environmental effects.

6 Container cargo is shipped in metal containers, which are sealed, reusable metal boxes, generally 20 to 40 feet in length and able to hold about 20,000 to 40,000 pounds. Breakbulk (or bulk) cargo refers to loose cargo that is loaded into or unloaded from a ship's hold on pallets or in a cargo net. Dry bulk cargo refers to materials loaded via conveyors, spouts, or sccops, such as construction aggregates and grains. Liquid bulk refers to cargo carried in tanks, such as petroleum or other oils. Neobulk cargo refers to large, non-containerized items such as automobiles, rolls of newsprint, rolls of steel, and the like.

7 Twenty-foot-equivalent-units. A TEU is equivalent to the volume of a 20-foot-long cargo container, assumed to be 24,000 pounds of cargo.

INDUSTRY GROUP OBJECTIVES

Members of the Industry Group propose to build facilities primarily for the production, shipping, distribution, and recycling of materials used in the construction industry, including concrete, asphalt, fly ash, sand, and gravel. Also included is a materials recovery facility[8] and a charter bus storage yard and service and repair facility.

One of the primary objectives of the Industry Group is to meet the continuing demand for construction materials, including materials required for a series of major projects to be undertaken in and around San Francisco over the next several years, such as the reconstruction of the Bay Bridge approach between the Bridge and Fifth Street and the buildout of the Mission Bay Redevelopment Areas.

Other objectives of one or more Industry Group members are to:

- retain existing operations within San Francisco to allow continuing provision of ready-mix concrete in close proximity to sources of demand and avoid potential increased transportation costs if these existing operations were unable to remain in the City;
- similarly, produce asphalt for the San Francisco market, which is now served from outside the City;
- retain other existing operations in San Francisco that are being displaced by termination of leases;[9]
- facilitate ship-borne import of construction aggregates;
- co-locate in proximity to one another to achieve maximum efficiency in import, distribution, and handling of construction aggregates;
- retain existing employment and add new employment in San Francisco, and specifically in the southeastern part of the City; and
- operate a construction/demolition material recovery facility in support of the City's goal of meeting state requirements to reduce solid waste generation and disposal.

C. PROJECT CHARACTERISTICS AND APPROVALS REQUIRED

The "project" analyzed in this SEIR consists of a number of developments in three categories. The first consists of a number of proposed uses on Port property that would be implemented via leases with private industries (members of the Industry Group); the second category consists of a specific capital improvement project proposed by the Port; and the third represents potential long-term future development on currently unprogrammed areas of Port property on the Southern Waterfront.

The development proposed by members of the Industry Group includes a number of construction-industry-related and other facilities on Port property, many of which would use cargo shipping as a means of transporting materials to and from those facilities. The capital improvement program proposed by the Port is construction of a rail and truck bridge across Islais Creek. The future development would

[8] A materials recovery facility (MRF) separates and processes recyclables from mixed waste and/or separates commingled recyclables.

[9] Of the seven Industry Group members, four must relocate due to impending lease terminations.

potentially affect the Piers 90-94 backlands, Pier 70, and the Pier 70 Mixed Use Opportunity Area, as well as a portion of the former Western Pacific rail yard. Continuation of and growth in commercial shipping at the Port's Marine Terminals at Piers 80 and 94-96 is also considered part of the project. Each of these project components is discussed below. Because each component would be subject to its own approval action(s), a discussion of permits and required approval actions is provided following the description of each component. Discretionary approvals that relate to all project components, including the EIR certification process, are discussed following the description of the individual components.

INDUSTRY GROUP PROJECTS

Six private entities have proposed leasing portions of the Port of San Francisco's Southern Waterfront area and implementing development proposals, primarily related to the construction industry, and these project components make up the first category within the project description.[10] Each of these project components would involve a project sponsor leasing property from the Port and making improvements on the leased site. In most cases, the lease would involve unimproved land that the sponsor would develop. In some cases, the individual sponsors would occupy one or more existing buildings on Port property with lease provisions for tenant-financed improvements to such buildings.

Characteristics of the Industry Group project components are summarized in Table 1, p. 6. The locations of these individual components are shown in Figure 2, p. 8.

All of the Industry Group project components would be developed on Port property. Because of conditions imposed upon the Port by the State of California when the state granted the Port title to its lands, land uses on Port property must generally be consistent with what is known as the "public trust doctrine." This requirement normally limits use of Port lands to commerce, navigation and fisheries, although short-term leases are permitted to lessees engaged in non-trust uses. While two of the Industry Group members would have no maritime activity, and while the lease terms of the proposed uses would vary, for purposes of a conservative analysis of future conditions, this EIR assumes that all uses analyzed herein will continue to at least the cumulative horizon year of 2015, a time frame that is consistent with other recently prepared environmental review documents in San Francisco.

As noted, several of the Industry Group project components are designed to respond to anticipated demand for construction materials. Estimates of such demand, developed by the project sponsors, provide the basis for the magnitude of facilities and operations that would result from these project components. These market projections are discussed in Appendix A.

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[10] Although the Port is negotiating with six potential Industry Group tenants, and this SEIR describes the Industry Group as having six components, one of the components would involve a joint lease with two operators, Bode Gravel and Mission Valley Rock (see Table 1, p. 6). Therefore, there are seven operators involved in the Industry Group.

TABLE 1 (Revised)
PROJECT CHARACTERISTICS

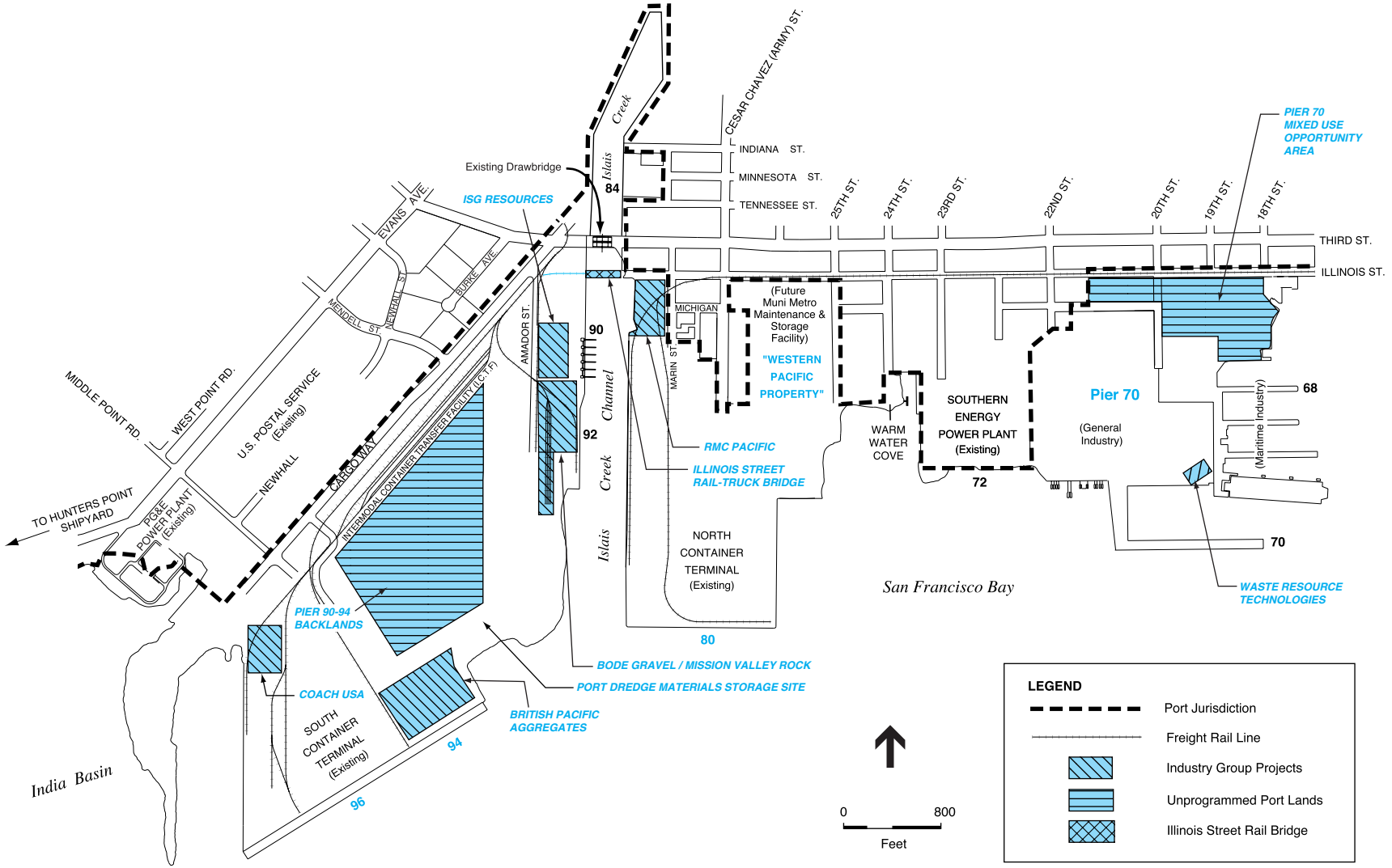
Component	Proposed Use	Location	Size of Site	New/Relocation
PHASE IA: INDUSTRY GROUP PROJECT COMPONENTS				
Bode Gravel / Mission Valley Rock	Ready-Mix Concrete Plant; Waterborne import of aggregates; Asphalt Plant	Pier 92	Bode: 130,000 sq. ft. (3 acres) MVR: 225,000 sq. ft. (5.2 acres) Total: 355,000 sq. ft. (8.2 acres)	Existing Bode concrete plant at Third and 16th Streets (within Mission Bay area) to be closed due to end of lease; Mission Valley asphalt plant would be new to City. (Mission Valley has existing sand facility at Pier 92, which would remain.)
British Pacific Aggregates	Waterborne aggregates import; (Potential future Asphalt & Ready-Mix Concrete Plants)	Pier 94	435,000 sq. ft. (10 acres)	New to City
ISG Resources	Fly Ash Storage	Pier 90	100,000 sq. ft. (2.3 acres)	New on-site storage of fly ash, transported from Port's freight rail yard..
RMC Pacific	Ready-Mix Concrete Plant	Pier 80	133,750 sq. ft. (3.1 acres)	Existing similar plant at Third and Mariposa Streets (within Mission Bay area) to be closed due to end of lease.
Waste Resource Technologies (Waste Management)	Construction and Demolition Debris Recycling	Pier 70 (Bldg. 6)	35,000 sq. ft.	Former similar facility at Candlestick Point closed due to lease termination.
Coach USA	Bus Storage	Pier 96	350,000 sq. ft. (8 acres)	Existing similar facility at 8th and Harrison Streets to be closed due to termination of lease.
PHASE IB: ILLINOIS STREET MULTI-MODAL BRIDGE				
Illinois Street Bridge	Rail and Truck Bridge	Illinois St. at Islais Creek	Not applicable	New

TABLE 1 (cont'd.)
PROJECT CHARACTERISTICS

PHASE II: FUTURE PORT DEVELOPMENT (Assumed by 2015) Component	Location	Proposed Use	Size of Site / Use
Cargo Shipping	Piers 80 Pier 94-96	Containerized and other cargo shipping contracts	200,000 TEU assumed to be handled annually.
Dredge Material Handling	Pier 94	Temporary storage and drying of material removed from Bay in maintenance dredging	~ 220,000 sq. ft. (~ 5 acres)
Pier 90-94 Backlands	Northeast of Cargo Way.	Uses: Light Industry Office / R&D	Site Total 37.9 acres ~ 650,000 sq. ft. ~ 1 million sq. ft.
Pier 70 Mixed Use Opportunity Area	16 acres east of Illinois Street, betw. 18th & 21st	Uses: Office / R&D Retail/Commercial Pub. Acc./Recreation	Site Total: 16 acres 610,000 sq. ft. 100,000 sq. ft. 240,000 sq. ft.
Pier 70 Maritime Reserve	Pier 70	Uses: Maritime Industry General Industry	Site Total: 9.2 acres 200,000 sq. ft. 200,000 sq. ft.
Western Pacific Property	Illinois @ César Chávez	Uses: Potential future General Industry[11]	Site Total: ~ 25 acres ~ 1.1 million sq. ft.

SOURCE: Industry Group members; Port of San Francisco; Environmental Science Associates

[11] The Western Pacific site will also be the location of the Muni Metro Light Rail Storage and Maintenance Facility, which is already approved and not part of the project.



SOURCE: Waterfront Land Use Plan EIR

● Figure 2 (Revised)
Project Components

BODE GRAVEL / MISSION VALLEY ROCK

This component of the project would consist of two adjacent facilities to be developed at Pier 92. Bode Gravel Company would develop a ready-mix concrete plant and Mission Valley Rock Company would develop a marine terminal to import aggregate materials (gravel and crushed rock) for use in production of concrete. In addition, Mission Valley Rock is pursuing discussions with the Port to develop an asphalt plant, which would also use imported aggregate materials. Although the Port has not indicated any affirmative interest in development of an asphalt plant, the potential impacts of such an operation are included in this EIR analysis. The two operators are discussed together because the current proposal calls for Bode Gravel and Mission Valley Rock to be joint tenants of the Port. However, ownership and operations of the two facilities would be separate.

Bode Ready-Mix Concrete Plant

Bode currently operates a ready-mix concrete[12] plant at Third and Sixteenth Streets, within the Mission Bay area now under development. Under the project, Bode would construct an all-new facility at Pier 92, and the existing plant would be dismantled. The capacity of the new plant would be comparable to that of the existing plant, and Bode has applied to the Bay Area Air Quality Management District for a permit that would allow the same maximum annual production as is currently permitted (production volume of 500,000 cubic yards (1,000,000 tons) per year, which is greater than the existing plant's highest-volume year, 317,400 cubic yards in 1998). The Bode plant is assumed to produce about 325,000 cubic yards of concrete in the immediate future, increasing to about 425,000 cubic yards by 2015 (see assumptions in Appendix A).

The new Bode ready-mix plant would be at the east end of Amador Street, approximately one-third mile east of Third Street. It would be situated between an existing Mission Valley Rock sand processing plant to the north (on the Pier 92 wharf) and a rendering plant operated by Darling International to the south. The ready-mix plant would occupy approximately 3 acres (about 130,000 square feet) of land that is currently undeveloped, with the exception of several railroad spurs. All but one of the tracks would be removed, and the entire site would be paved with asphalt or concrete. The remaining track would be rehabilitated to provide rail access to the concrete plant.

The ready-mix plant would include receiving facilities for aggregate material (gravel) delivered by bottom-hopper dump trucks and facilities for receiving ship-borne aggregate by conveyor from the adjacent Mission Valley import facility; storage bins for aggregate and sand; storage silos for Portland

[12] Concrete consists of sand, aggregate (gravel), water, Portland cement and fly ash (a byproduct of coal combustion), and a limited volume of additives that control setting time and flow rate, and sometimes add color.

cement and "fly ash,"[13] both of which are used in the production of concrete; two mixers; and a series of conveyance systems for movement of the materials throughout the plant – conveyor belts for the solid aggregate material and an enclosed pneumatic pumping system for the Portland cement and fly ash, with so-called "baghouse filters" for dust control. Bode would also use water spray bars to reduce dust from aggregates in outdoor storage piles. Each of the two combined mixers and storage silos, known as a "batching plant," would be approximately 65 feet tall. In addition to the production facilities, the operation would have a truck maintenance shop, truck washout station with water reclamation, an office trailer, and parking for concrete-mixer trucks and employee vehicles.

Most of the sand for concrete production would come from Mission Valley Rock's sand processing plant that currently operates at Pier 92, and which processes and cleans sand dredged from San Francisco Bay. Additional sand would be delivered by truck from the East Bay or delivered by cargo ship or barge. Aggregate could be delivered by truck from the East Bay or received by ship – potentially through Mission Valley Rock's marine terminal – while cement would come by rail and truck from the South Bay.

Waste concrete left from unused production and undelivered loads would be processed to remove aggregate for reuse in production of additional concrete, to the extent feasible. Other waste would be delivered to a construction debris recycler for processing.

The ready-mix plant would employ about 20 persons on-site. Bode projects that the plant would generally operate from 6:00 a.m. to 5:00 p.m., Monday through Saturday, with occasional Sunday and nighttime operations to serve major jobs.[14] These hours would be the same as at Bode's existing Third Street plant.

Aggregate, sand, and cement would be delivered to the plant in semi-trailer trucks and by conveyor from Mission Valley Rock, and ready-mix trucks ("cement mixers") would make deliveries of concrete to customers and construction locations primarily within San Francisco. Trucks would travel on Amador Street to Third Street, and those trucks traveling outside San Francisco would generally use César Chávez (Army) Street to reach the U.S. 101 or Interstate 280 freeways.

Bode anticipates that the new ready-mix plant would be operational in 2001.

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[13] Fly ash is a powdery material, composed largely of silica, that is captured from the exhaust gas of coal-fired power plants. It reacts chemically with the calcium hydroxide in Portland cement and itself becomes cementitious (that is, helps bind the sand and aggregate in the concrete). Fly ash is advocated as improving the strength and durability of concrete – although it slows the initial curing – while at the same time reducing the relative volume of cement needed and thereby reducing the energy use and combustion byproducts of cement production. Fly ash is mandated in concrete by both Caltrans, for its projects, and by the U.S. EPA, for federal projects. One of the Industry Group components would include a fly ash import operation (see ISG Resources, p. 14).

[14] Certain concrete foundations for large buildings not supported on piles or piers must be poured continuously for 24 consecutive hours or more to allow the concrete to cure properly.

Mission Valley Rock Aggregate Import Terminal and Asphalt Plant

The Mission Valley Rock aggregate import terminal would be located immediately west of the Bode concrete plant, also on Amador Street, approximately one-quarter mile east of Third Street. As indicated previously, Mission Valley Rock is also pursuing discussions with the Port to develop an asphalt[15] plant. Together, the facilities would occupy about 5.2 acres (about 225,000 square feet). There are currently no privately owned commercial asphalt plants in San Francisco (the closest is in Brisbane). The City operates a plant on Jerrold Avenue for street repairs within San Francisco. Mission Valley Rock currently has a sand dredging and processing operation at Pier 92, east of the proposed Bode concrete plant, where operations would continue as at present.[16]

To provide a conservative analysis, this SEIR assumes that the asphalt plant would be developed. The proposed asphalt plant would include receiving facilities for aggregate material (gravel); storage bins for aggregate and sand; storage tanks for asphalt cement; an asphalt oil heater and an asphalt drum dryer/mixer, both gas-fired; storage bins for the finished asphalt product, which would be dispensed from the bins into trucks for delivery to the job site; and conveyors for movement of the materials throughout the plant. The dryer/mixer would be equipped with a baghouse filter for dust control. In addition to the production facilities, the plant would have an office/control room, a small tool trailer, and employee vehicle parking.

The aggregate terminal would include conveyor systems for transferring aggregate from ships to indoor and outdoor storage piles and for transferring aggregate from storage to the proposed asphalt plant and to the Bode ready-mix concrete plant, as well as both indoor (in an existing warehouse along the Islais Creek waterfront) and outdoor storage facilities. Mission Valley Rock would use spray bars to sprinkle aggregates with water during ship unloading, both at the ship conveyor and at the outdoor stockpile where the material would arrive. The entire Mission Valley Rock site would be paved with asphalt or concrete.

Most of the sand for asphalt production would come from Mission Valley Rock's existing sand processing plant at Pier 92. Aggregate would be delivered by ship and barge at the adjacent import terminal on Islais Creek, while asphalt cement would come by truck from refineries in Contra Costa or Solano counties.

The asphalt plant and aggregate terminal would employ about 10 persons on-site. The facilities would generally operate from 6:00 a.m. to 4:00 p.m., Monday through Saturday, with occasional Sunday and nighttime operations to serve major paving jobs. Plant capacity would be 400 tons per hour, with limits of 6,000 tons per day for 60 days per year and 4,000 tons per day otherwise. Total asphalt production would be 400,000 tons per year in the near term, increasing to about 550,000 tons by 2015 (see

[15] Asphalt consists of primarily of aggregate (crushed rock) and asphalt cement, a petroleum product, with a small amount of sand.

[16] The sand plant cleans and dries sand that is dredged from San Francisco Bay for use in concrete production. At present, this sand is trucked to existing Bode and RMC Pacific ready-mix plants on Third Street in the Mission Bay area.

assumptions in Appendix A). While barge and ship calls would be periodic, the marine terminal would be used daily for aggregate storage and shipment to the asphalt plant and to other facilities, including the Bode ready-mix plant. Ship and barge calls would occur perhaps once a month in the first year of operation, and as often as twice per month by 2015 as the volume of aggregate received by ship increases over time. The import terminal could handle up to 1.2 million tons of aggregate per year.

Assuming operation of the asphalt plant, finished asphalt would be delivered to customers and construction locations both within and outside San Francisco, with out-of-city deliveries generally limited to the northern Peninsula. Trucks would travel on Amador Street to Third Street, and those trucks traveling outside San Francisco would generally use César Chávez (Army) Street to reach the U.S. 101 or Interstate 280 freeways.

Mission Valley Rock Company anticipates that the asphalt plant and aggregate terminal would be operational in 2001.

Zoning and Approvals Required

The Bode and Mission Valley Rock sites are in a M-2 (Heavy Industrial) Use District and a 40-X Height and Bulk District. These projects would be consistent with the M-2 Use District and the 40-X Height and Bulk District.[17] These project components could not proceed unless the Port Commission approves a lease agreement authorizing the proposed uses. Any non-maritime lease agreement would also require approval by the Board of Supervisors if it would exceed $1 million in revenue to the Port or would be for a term of 10 years or longer; however, the Bode-Mission Valley facility would include a maritime component. Each project component would require an Authority to Construct and a Permit to Operate from the Bay Area Air Quality Management District. Bode has an existing Permit for its Third Street facility that would be amended for the new Pier 92 ready-mix plant. Both facilities would require a General Storm Water Permit from the Regional Water Quality Control Board, and each would be required to prepare a Storm Water Pollution Prevention Plan to address collection, monitoring, and discharge of runoff. Each plant would also require a Hazardous Material Storage Permit from San Francisco Fire Department for an on-site fuel tank for the front-end loaders that would move materials within the plants, and might also require an industrial sewer discharge permit from the City Public Utilities Commission if any process water is to be discharged into the City sewer system. The project would also require building permit(s) from the Port. Neither facility would be constructed within the 100-foot shoreline band. However, the Mission Valley Rock facility could require BCDC approval for a change in use in the existing warehouse, which is currently used for storage.

[17] Pursuant to Planning Code Section 260(b)(2)(M), "structures and equipment necessary for the operation of industrial plants," such as the 65-foot-tall concrete batching plant, are exempt from the applicable height limit as long as they do not contain separate floors.

BRITISH PACIFIC AGGREGATES

British Pacific Aggregates (BPA) would develop a storage facility for the waterborne importation of construction aggregates (sand, gravel, and crushed stone) to be used in the production of concrete and asphalt. BPA proposes to use Pier 94 as the dock for ships that would bring aggregate from out-of-state to supplement and/or replace existing local supplies. The aggregate would be delivered by self-unloading ships directly to Pier 94, where it would be unloaded using on-board equipment and stored in stockpiles in up to about six acres on the pier apron, approximately 350 feet shoreward of the wharf. To minimize dust, BPA would use spray bars to moisten aggregate both during unloading and while in storage. BPA proposes to supply local producers of ready-mix concrete and asphalt, potentially including Bode Gravel Company's ready-mix plant and Mission Valley Rock Company's proposed asphalt plant (see above), and RMC Pacific's ready-mix plant concrete (see below, p. 15), as well as other existing, smaller concrete producers in the project area[18] and possibly elsewhere.

Improvements to be constructed would include conveyors to move material from ships to stockpiles and from one location to another and/or for loading into trucks for transport to end users. Front-end loader(s) may also be used for loading trucks. As noted above, spray bars would be employed to keep the material moistened while in storage, to minimize dust. No new paving would be needed, because the BPA storage facilities would be located on an already-paved portion of the Pier 94 apron.

In addition to the shipping and storage facilities, BPA has indicated that it may develop a ready-mix concrete plant and/or an asphalt plant inland from the stockpile area. Both of these uses are under discussion with the Port and have been included in this SEIR for purposes of a conservative analysis. These facilities, if constructed, would use aggregate material taken directly from the stockpiles (without the need to employ diesel haul trucks). Production of ready-mix concrete and/or asphalt by BPA would be contingent on the company capturing a share of the local market for one or both products. As described in Appendix A, this SEIR does not assume that BPA would engage in production of either product. However, as also stated in Appendix A, the net result of BPA producing either or both of these materials would not be an increase in the total volume of concrete or asphalt manufactured within the Southern Waterfront area, but an incremental shift in the location of such production. Should such production be undertaken, the concrete and/or asphalt plant(s) would be portable facilities that would be erected on a semi-permanent basis at Pier 94 for the duration of BPA's lease. Regardless of whether concrete or asphalt were produced, no permanent structures would be erected. Other facilities, such as an office and tool/repair shop, would be within portable trailers. On-site parking for up to about 15 employees would be provided. The total site area would be about 10 acres, of which six acres would be used for aggregate stockpiling.

[18] Existing ready-mix concrete producers are located on Amador Street (Pier 90) and at the former Western Pacific rail yard adjacent to Pier 80.

Road access would be via Cargo Way and Third Street, with César Chávez (Army) Street and U.S. Highway 101 and Interstate 280 the anticipated routes to and from most non-local destinations.

The BPA facility would be operational late in 2001.

Zoning and Approvals Required

The BPA site is in a M-2 (Heavy Industrial) Use District and a 40-X Height and Bulk District, and would be consistent with these regulations; the batching plant would be exempt from the 40-foot height limit pursuant to Planning Code Section 260(b)(2)(M). The BPA project component could not proceed unless the Port Commission approves a lease agreement authorizing the proposed uses. Any non-maritime lease agreement would also require approval by the Board of Supervisors if it would exceed $1 million in revenue to the Port or would be for a term of 10 years or longer; however, the BPA operation would be a maritime facility. Because the BPA project component would not include storage of aggregate within 100 feet of the shoreline, no BCDC approval would be required. (On-ship conveyors would preclude the need for construction of any facilities within the 100 feet of the shoreline.) The BPA facility would require an Authority to Construct and a Permit to Operate from the Bay Area Air Quality Management District; a General Storm Water Permit from the Regional Water Quality Control Board, with the required Storm Water Pollution Prevention Plan; and, potentially, a Hazardous Material Storage Permit from San Francisco Fire Department if an on-site fuel tank is required. This component would require an industrial sewer discharge permit from the City Public Utilities Commission and building permit(s) from the Port.

ISG RESOURCES

ISG Resources Inc. proposes to re-use two existing banks of now-vacant former grain silos at Pier 90 for the storage of "fly ash," a byproduct of coal-fired power plants that is used as a partial replacement for Portland cement in the production of concrete. The silos formerly stored grain that was brought in by rail and then loaded from the silos onto ships for export. These operations were discontinued following the 1989 Loma Prieta earthquake.[19] Fly ash would be brought in by rail car, transferred to the silos, and then made available to concrete producers, including those currently proposing to operate in the immediate vicinity – Bode, RMC Pacific, and smaller local producers (and potentially British Pacific). In the future, fly ash could be brought by barge from other locations and offloaded into the silos. Outbound shipments to concrete batching plants would be in trucks with pneumatic pumping systems.

Physical improvements to be undertaken would consist of rehabilitation of the silos; enclosure of the conveyor system and installation of state-of-the-art dust control systems on the silos and conveyor system; replacement of the electrical and propulsion components for the conveyor system; construction

[19] ISG recently rehabilitated older silos for fly ash storage and distribution in Pomona, California, and also has fly ash operations in Redwood City, Sacramento, San Bernardino, and Oxnard.

of a truck loading facility; and rehabilitation of at least one of the existing rail spurs to allow for shipment of fly ash to the ISG site by rail car.

ISG proposes to undertake this project component in two phases, each corresponding with one of the two banks of silos. Phase I would renovate the newer bank of silos, and would involve approximately 70,000 square feet of site area. Phase II would involve renovation of the older silos, which are anticipated to require greater time and effort, and would occupy about 30,000 square feet. The combined site area would be about 2.3 acres on the north side of Amador Street, west the proposed Mission Valley Rock site and approximately 800 feet east of Third Street.

ISG estimates employment at the fly ash facility at between eight and 30 persons, depending on demand for the fly ash. Employee parking would be provided on-site. Non-local trucks would travel on Amador Street to Third Street.

The company anticipates scaling up to an ultimate volume, by 2015, of 100,000 tons of fly ash handled per year, about half of which could be used by other Industry Group firms (Bode and RMC Pacific). ISG estimates that the rehabilitation of the former grain silos and other equipment would take about five months. The fly ash facility could be operational in 2001.

Zoning and Approvals Required

The ISG Resources site is in a M-2 (Heavy Industrial) Use District and a 40-X Height and Bulk District. The operation would use the existing former grain silos. Although the silos are taller than 40 feet, only minor changes would be required to the exterior (primarily associated with dust control equipment), and this project component therefore would be consistent with the use and height and bulk controls for the site. The ISG project component could not proceed unless the Port Commission approves a lease agreement authorizing the proposed uses. Any non-maritime lease agreement would also require approval by the Board of Supervisors if it would exceed $1 million in revenue to the Port or would be for a term of 10 years or longer. The project would not require BCDC approval, as it would not be within 100 feet of the shoreline. The ISG component would require an Authority to Construct and a Permit to Operate from the Bay Area Air Quality Management District; a General Storm Water Permit from the Regional Water Quality Control Board, with the required Storm Water Pollution Prevention Plan; and, potentially, a Hazardous Material Storage Permit from San Francisco Fire Department if an on-site fuel tank is required. This component would also require an industrial sewer discharge permit from the City Public Utilities Commission and building permit(s) from the Port.

RMC PACIFIC MATERIALS

RMC Pacific proposes to construct a ready-mix concrete plant on a 3.1-acre parcel at the west end of Pier 80, at the southeast corner of Illinois and Marin Streets, to replace its existing ready-mix plant at Third and Mariposa Streets, within the Mission Bay project currently under development. RMC's existing plant would be dismantled, and the new plant would be developed with new equipment.

The RMC Pacific site is currently paved and in use as a storage yard by Marine Terminals Corporation, which operates the Port's North Container Terminal at Pier 80. Because of the site location, RMC proposes ultimately to receive approximately 60 percent (by weight) of its raw materials – primarily aggregate – by rail and ship.[20] The firm currently receives all supplies by truck. The proposed new ready-mix plant would include receiving and unloading facilities to accommodate both rail cars and ships; storage bins for aggregate and sand; a 65-foot-tall batching plant with cement and fly ash storage silos, mixer, office, and dust containment system; and a series of conveyors for movement of the materials throughout the plant. In addition to the production facilities, the ready-mix plant would have a truck maintenance shop (involving remodeling of an existing open-bay structure), truck washout station with water reclamation, and parking for concrete-mixer trucks and employee vehicles.

Waste concrete left from unused production and undelivered loads would be processed to remove aggregate and clarified water for reuse in production of additional concrete, as possible. Other waste would be delivered to a construction debris processor for recycling.

The RMC facility would generally operate from 7:00 a.m. to 3:00 p.m., Monday through Friday, with occasional nighttime operations to serve major jobs; these hours would be the same as at RMC Pacific's existing Third Street plant. Approximately 30 persons would be employed on a full-time basis, the same number as at the existing facility. The RMC plant is assumed to produce about 325,000 cubic yards of concrete in the immediate future, increasing to about 425,000 cubic yards by 2015 (see assumptions in Appendix A).

Concrete deliveries would use Third Street to reach points north and Third Street or Bayshore Boulevard to points south, in San Francisco. Truck traffic to or from points outside the City would use U.S. Highway 101 and Interstate 280 to the César Chávez (Army) Street exit. No on-site truck fueling would be provided. RMC mixers would use off-site commercial fueling stations.

The RMC Pacific plant would be operational in 2001. The existing Third Street plant would remain operational as a satellite facility, at about half of its capacity, for approximately two years as the new plant scales up production.

Zoning and Approvals Required

The RMC Pacific site is in a M-2 (Heavy Industrial) Use District and a 40-X Height and Bulk District, and would be consistent with these regulations; the batching plant would be exempt from the 40-foot height limit pursuant to Planning Code Section 260(b)(2)(M). The RMC Pacific project component could not proceed unless the Port Commission approves a lease agreement authorizing the proposed uses. Any non-maritime lease agreement would also require approval by the Board of Supervisors if it would exceed $1 million in revenue to the Port or would be for a term of 10 years or longer; however, the RMC facility would include a maritime component. As this project component would be developed partially

[20] The transportation analysis for this SEIR assumes approximately 40 percent of RMC's raw materials would come by ship and rail in the near term, increasing to about 60 percent by 2015.

within 100 feet of the shoreline, it would require approval from BCDC. The RMC Pacific component also would require an Authority to Construct and a Permit to Operate from the Bay Area Air Quality Management District and a General Storm Water Permit from the Regional Water Quality Control Board, with the required Storm Water Pollution Prevention Plan. The City would also have to issue an industrial sewer discharge permit from the City Public Utilities Commission and building permit(s) from the Port.

WASTE MANAGEMENT

Waste Resources Technologies (WRT), a subsidiary of Waste Management Inc., proposes to operate a Construction/Demolition Material Recovery Facility (MRF) in an existing building at Pier 70, in the northern portion of the project site. The MRF, which would reclaim usable materials, such as metal and wood, contained in construction and demolition debris for recycling, would replace a former WRT facility near 3Com Park, which was closed in 1999.

WRT proposes to lease an existing building at Pier 70, located near 20th and Illinois Streets, in the former Union Iron Works complex. The structure, identified as Building 6, contains approximately 35,000 square feet of interior space. There would be no structural modifications to the exterior of the building, which was constructed in 1941. However, WRT would renovate portions of the building's interior to accommodate the MRF. WRT would install a sort line with associated screens, conveyors, and other equipment for processing of construction and demolition material inside Building 6. In contrast to WRT's former outdoor facility at Candlestick Point, all sorting and storage of material would be accomplished within Building 6. Parking would be provided on-site for employee vehicles and for staging of semi-trailer transfer trucks.

WRT anticipates 30 on-site employees working two shifts (day and swing), with the facility to operate 16 hours per day, six days per week. An estimated 350 tons per day of construction and demolition waste would be processed. Inbound material would be delivered primarily in debris-box-sized loads, while outbound trips would be made using semi-trailer trucks.

Site access would be via 20th and Third Streets. Inbound trucks would come from various construction sites. Outbound trucks would be destined for local processors in the case of recyclable materials and local landfills, such as Redwood Landfill in Marin County and Altamont Landfill in Alameda County, in the case of materials that cannot be reused. Although no waterborne transport of materials is currently planned, there is a potential that recyclable materials, such as paper and metals, could be shipped to processors through the Port in the future.

It is expected that the WRT facility would be in operation by 2001.

Zoning and Approvals Required

The Waste Management site is in a M-2 (Heavy Industrial) Use District and a 40-X Height and Bulk District. Although the existing Building 6 is taller than 40 feet, the project proposes no changes to the structure's height or massing and it would therefore be consistent with the height and bulk limits for the site. The Waste Management project component could not proceed unless the Port Commission approves a lease agreement authorizing the proposed uses. Any non-maritime lease agreement would also require approval by the Board of Supervisors if it would exceed $1 million in revenue to the Port or would be for a term of 10 years or longer. As a solid waste facility, this project component would require conditional use authorization from the San Francisco Planning Commission. In addition, the WRT component would require issuance of a Solid Waste Facility Permit, which must be approved by the California Integrated Waste Management Board and the San Francisco Department of Public Health, as the Local Enforcement Agency. This project component would require a modification of the County Integrated Waste Management Plan. The project would also require an Authority to Construct and a Permit to Operate the on-site processing equipment from the Bay Area Air Quality Management District. The project would also require building permit(s) from the Port. The project would require BCDC approval, as it would be within 100 feet of the shoreline.

COACH USA

Coach USA proposes to lease approximately 8 acres at Pier 96 for bus storage, maintenance and repair, and ancillary office space. Coach USA, through its subsidiary Grosvenor Bus Lines Inc., currently operates Gray Line tour buses, as well as charter bus service, and transit and paratransit service for transit agencies including Golden Gate Transit and San Mateo County Transit (SamTrans). Grosvenor Bus Lines currently operates from a facility at Eighth and Harrison Streets. The company would relocate to Pier 96 and vacate its existing Eighth Street operations, where its lease is not being renewed.

This project component would include use of an existing paved storage yard of approximately 6.9 acres (about 300,000 square feet), and use of existing buildings for bus maintenance and repair building (about 26,000 square feet), office space (about 11,500 square feet), and additional miscellaneous building space (about 4,000 square feet). Coach USA plans to construct a fuel island and diesel fuel storage tank and a bus washer. The company also proposes to make some improvements to the buildings that would be used for maintenance/repair and office space. Anticipated on-site employment would be approximately 200.

On-site parking for employees and buses would be provided. Buses would enter and leave Pier 96 via Cargo Way.

Zoning and Approvals Required

The Coach USA site is in a M-2 (Heavy Industrial) Use District and a 40-X Height and Bulk District. The project would comply with the zoning and height and bulk requirements for the site. This project component could not proceed unless the Port Commission approves a lease agreement authorizing the

proposed uses. Any non-maritime lease agreement would also require approval by the Board of Supervisors if it would exceed $1 million in revenue to the Port or would be for a term of 10 years or longer. The Coach USA project would require a Hazardous Material Storage Permit from the San Francisco Fire Department for operation of a fuel storage tank and an industrial sewer discharge permit from the City Public Utilities Commission, and would have to file a Business Plan for storage of any hazardous materials. Because of the outdoor storage yard, this component could also require a General Storm Water Permit from the Regional Water Quality Control Board, with the required Storm Water Pollution Prevention Plan. The project would also require building permit(s) from the Port. The project would not require BCDC approval, as it would not be within 100 feet of the shoreline.

ILLINOIS STREET INTERMODAL BRIDGE

As the second category of components in the SEIR project description, the Port of San Francisco proposes to construct a bridge across the Islais Creek channel one block east of the existing Levon Hagoop Nishkian drawbridge on Third Street. The new bridge would extend across the channel along the line of Illinois Street, connecting the Port's North Container Terminal at Pier 80, on the north side of Islais Creek, with the numerous Port facilities on the south side of Islais Creek. These facilities include the Port's South Container Terminal at Piers 94-96; the adjacent Intermodal Container Transfer Facility (the "ICTF," where cargo containers are transferred directly from ship to rail and vice versa); Piers 90 and 92 along the south side of Islais Creek channel; and the Piers 90-94 backlands area. The proposed bridge location is shown on Figure 2, p. 8.

The Illinois Street bridge would provide a more direct route for rail cargo to and from Pier 80. Rail traffic destined to Pier 80 must currently travel north on a route that generally follows Interstate 280, more than one mile past the project site and through the Mission Bay area, beyond 16th Street, before returning south along Illinois Street to Pier 80. As part of the approved Mission Bay project, a portion of the existing rails through the Mission Bay area will be removed and are proposed for replacement with new rails within 16th Street, and a new switchback within a planned waterfront open space on the Terry Francois Boulevard right-of-way unless or until the Illinois Street Bridge is constructed.

The new bridge would provide a direct rail link between the Port's two container terminals, eliminating the need for the existing and future routes through Mission Bay. At present, rail cars that are moved between Pier 80 and Piers 94-96 must travel the same route described above, north to 16th Street before returning south to Piers 94-96 via a rail link that diverges from the main line near Jerrold Avenue and Rankin Street. This so-called Quint Street Rail Link currently permits direct access from the main Union Pacific line (to and from points south of San Francisco) to Piers 94-96 and the ICTF, and would connect to Pier 80 via the Illinois Street bridge. Although rail traffic to Pier 80 and between the two terminals is limited at present, it is expected to increase in the future. The bridge would reduce the existing approximately four-mile rail trip between Pier 80 and Piers 94-96, over the existing rail route, to a direct route of approximately 0.2 miles. When the bridge is completed, the rails that run near 16th Street would

be removed, and there would be no need to install new rails in 16th Street or in the new waterfront open space.[21] The existing and proposed rail routes are shown on Figure 3.

The Illinois Street bridge would be approximately 28 feet wide and would have a single rail line in the center and two traffic lanes, one in each direction, that would overlap the rails. Thus, the bridge would provide a direct truck connection between the two container facilities, with trucks having access to the bridge only when no trains were crossing. (No sidewalks are proposed. However, bicycle access would be allowed in the traffic lanes when no trains are crossing.)

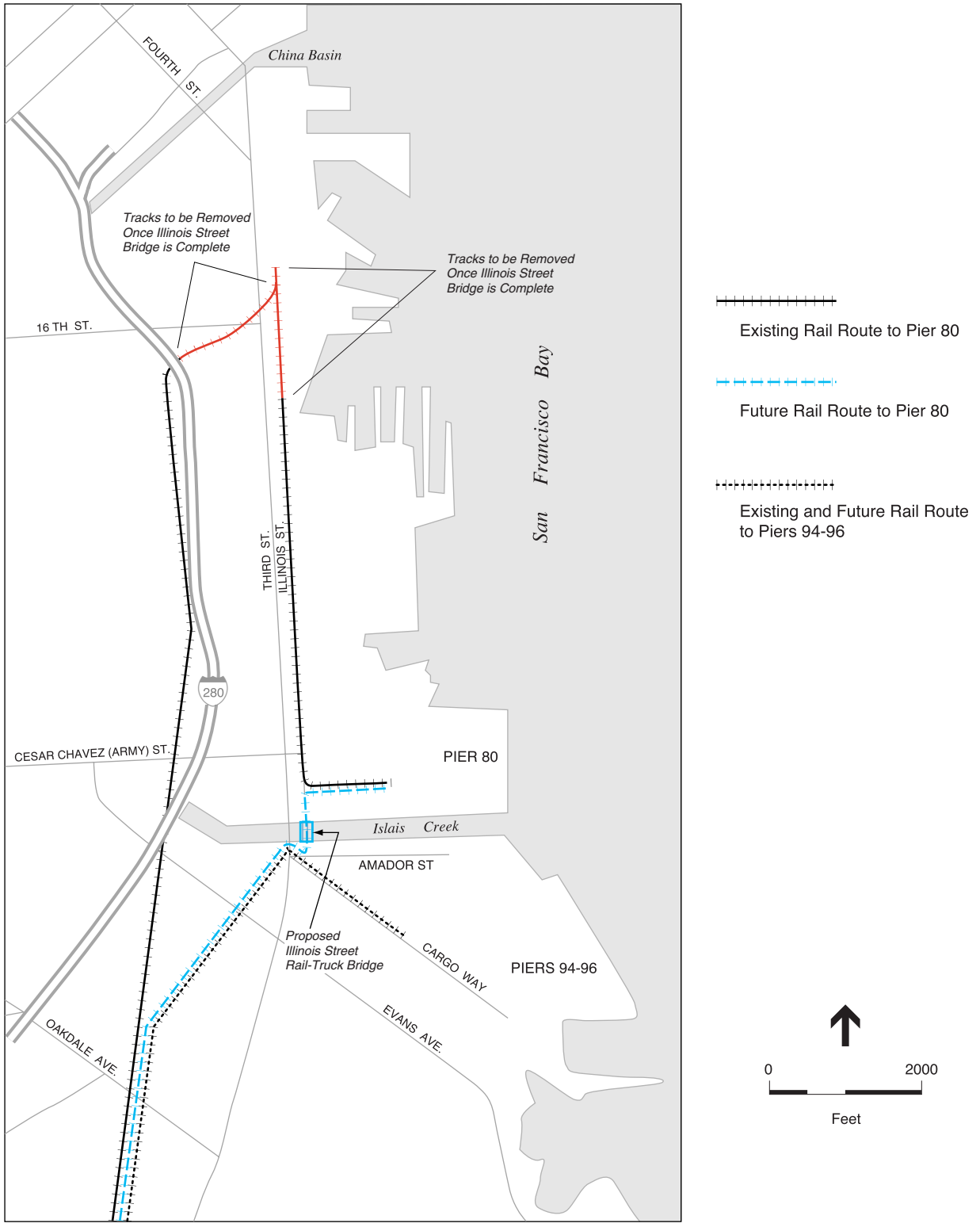
As proposed, the bridge project does not include a roadway that links the east end of Amador Street with Piers 94-96. Therefore, the truck route between Pier 80 and Piers 94-96 would be: south on Illinois Street and across the bridge to Amador Street, west on Amador to Cargo Way, and southeast on Cargo Way to Piers 94-96.

The Port currently estimates the cost of the Illinois Street bridge at approximately $10 million. The Port was awarded a $4 million State Transportation Improvement Program (STIP) grant and has applied for an additional $500,000 in STIP funds. Catellus Corporation, the developer of Mission Bay, would also provide some of the funding, as would the Port. Construction of the bridge is anticipated in 2003. As part of the bridge component of the project, the Port would install a system of stand pipes along Islais Creek for fire protection purposes. This system would allow fire engines to draw water directly from Islais Creek via hydrants placed at the water's edge, just as under existing conditions along the Embarcadero. In addition, the Port would provide pumping equipment, and the Fire Department is considering upgrading its high-pressure Auxiliary Water Supply System in the vicinity of Islais Creek west of Third Street.

The Port proposes that the Illinois Street bridge be a "Lift-Segment Movable Bridge," meaning that the center span, which would be 60 feet long, would be constructed as three individual segments that could not be mechanically raised in place like a drawbridge. Instead, each of these segments could be lifted by a crane and stored on concrete piers that would be built next to the bridge. Unlike a drawbridge, a lift-segment bridge is designed to be opened only infrequently, primarily for passage of maintenance vessels and barges. Therefore, the new bridge would probably be opened no more than once yearly.

The proposed lift-segment bridge would have the same clearance above water as the Third Street drawbridge over Islais Creek, which is a minimum of 4 feet of clearance at mean higher high water

[21] Rails in Illinois Street south of the Mission Bay project area are not currently planned for removal.



1999.377E: Southern Waterfront SEIR (ESA 990267) ■

SOURCE: Environmental Science Associates.

Figure 3
Existing and Proposed
Freight Rail Routes

level.[22] This would permit navigation beneath the Illinois Street bridge by small pleasure craft such as canoes, kayaks, and other small vessels like rowboats. The Port believes the navigational needs of the west end of Islais Creek are and will continue to be for small vessels. A hand-launch dock has been constructed on the south shore of Islais Creek, just west of the existing Third Street drawbridge. A sand ramp has also recently been constructed to facilitate the hand-launching of small vessels. The Port does not propose to open the new Illinois Street bridge to permit the passage of larger pleasure craft or sailboats.

APPROVALS REQUIRED

The design and construction of the Illinois Street bridge would be subject to approval of a bridge permit by the U.S. Coast Guard, which must determine the future navigational needs of Islais Creek before it issues a permit. The Coast Guard would determine whether a lift-segment span is appropriate. The bridge would also require approval by the Bay Conservation and Development Commission (BCDC) because it would be constructed over the Bay and within the 100-foot band along the San Francisco Bay shoreline over which BCDC has jurisdiction. The BCDC would also be required to find that the proposed bridge, as a federal action (i.e., approval by the U.S. Coast Guard) is consistent with the federal Coastal Zone Management Act. Approval could also be required from the U.S. Army Corps of Engineers under Section 404 of the federal Clean Water Act (including consultation with the U.S. Fish and Wildlife Service) and Section 10 of the federal Rivers and Harbors Act. In addition, the bridge would require water quality certification from the Regional Water Quality Control Board, under Section 401 of the Clean Water Act, and might require a Stream Alteration Permit from the California Department of Fish and Game. Because of the federal action and funding, environmental review of the bridge must also include completion of a document prepared pursuant to the National Environmental Policy Act (NEPA). In addition, the California Public Utilities Commission would have to approve the change in rail route and abandonment of track within the Mission Bay project area. Funding authorization would be required from the San Francisco Board of Supervisors and the Port Commission must also approve the bridge project. A building permit would also be required.

FUTURE PORT DEVELOPMENT

The third major category of components within the project description consists of growth in cargo shipping at Piers 80 and 94-96 – the Port's two container terminals – and expansion of the Port's dredge material handling program, as well as potential future development of several other Port sites, or "opportunity areas," in the "backlands" (upshore from) Piers 90-94, and at and near Pier 70. Although the Port has not identified specific development proposals for these opportunity areas at this time, the Port's Waterfront Land Use Plan does allow future development proposals, and these potential future uses are therefore part of the "project" as defined for CEQA purposes, anticipated for the most part to be

[22] Higher high water is the higher of the two daily high tides. (There are two high and two low tides each day; of the high tides, one is higher, and of the low tides, one is lower.) The mean higher high water is the average of the higher high water levels over time.

implemented by the SEIR horizon year of 2015. The actual range of potential development is broad, with widely varying environmental impacts. For analytical purposes, this SEIR assumes relatively intensive uses to produce a conservative assessment of environmental impacts. Any actual development program or project(s) for the below areas (other than cargo shipping at Piers 80 and 94-96 and Port dredge material handling at Pier 94) proposed in the future may be reviewed by a community advisory group process set forth in the Waterfront Plan, and would be subject to additional project-specific environmental review.

Following are the development assumptions, with land uses as specified in the Waterfront Land Use Plan, that are used in this SEIR to analyze projected activity at these sites, which are shown in Figure 2, p. 8.

CARGO SHIPPING

As part of the project analyzed in this SEIR, the Port's two container terminals, at Pier 80 and Pier 94-96, would potentially accommodate increased cargo shipping activity consisting of handling of both containerized and non-containerized cargo. The project therefore would include movement of approximately 200,000 TEU[23] of new cargo (beyond existing volumes of approximately 50,000 TEU) in addition to the cargo activity associated with the Industry Group leases. Of the 200,000 new TEU, 30,000 TEU is assumed to be accommodated by 2001, another 20,000 TEU by 2003, and 150,000 additional TEU by 2015. Cargoes may be containerized or bulk, depending on demand from shippers (see note 6, p. 3, for an explanation of different types of cargo).

DREDGE MATERIAL HANDLING SITE

The Port has recently begun storing material dredged from the Bay during routine maintenance dredging from Piers 35, 80, and 96. (The Port also uses storage sites in the East Bay.) Currently, dredge material is placed by crane onto the pier deck within a temporary three-acre enclosure at Pier 96 and allowed to drain and partially dry (to about 20 percent moisture content) before being hauled by truck to landfills, where it is used as daily cover for solid waste landfilling operations. The (drained) decant water is discharged to the Bay. The Port plans to expand this operation and move it to Pier 94, where it would occupy up to about five acres of unpaved land north of the paved pier apron. At the new site, about 20,000 cubic yards of dredge material per year would be pumped from a barge into the drying area. It is anticipated that the off-hauling by truck of partially dried dredge materials would occur over a period of about two weeks during the year. Trucks would travel on Amador Street.

PIERS 90-94 BACKLANDS

This approximately 50-acre area would potentially be developed with a mix of about 650,000 square feet of light industrial uses and approximately 1 million square feet of commercial office and/or research and

[23] See footnote 7, p. 3, for an explanation of TEU (twenty-foot equivalent unit).

development uses. Office and/or research and development uses would be anticipated to occur in two- to three-story buildings that would be expected to include landscaped open spaces as part of an overall site plan.

PIER 70

The project analyzed in this SEIR includes development of approximately 200,000 square feet of new Maritime Industrial uses and an additional 200,000 square feet of General Industrial uses within the 55-acre Pier 70 Maritime Reserve Area. The Waterfront Plan includes Maritime Industry among the uses related to waterborne commerce and navigation. Maritime Industry could also include Maritime Support uses such as equipment storage and warehousing uses. The Plan defines General Industry as "facilities for enclosed and open air industrial activities, including but not limited to: recycling operations, automobile repair and related services, bio-remediation, sand and gravel operations, transmission facilities, and manufacturing operations."

PIER 70 MIXED-USE OPPORTUNITY AREA

The project analyzed in this SEIR includes development of this 16-acre area, between 18th and 21st Streets and extending one to three blocks east of Illinois Street. It is anticipated that uses in this area would include a mix of uses, including approximately 610,000 square feet of commercial office and/or research and development space; 100,000 square feet of retail and other commercial space; and 240,000 square feet of public access and recreational maritime uses. The Port plans to issue a Request for Proposals to potential developers of the Pier 70 Mixed-Use Opportunity Area in late 2000. (An alternative considered in this SEIR would include housing on a portion of the Pier 70 Mixed-Use Opportunity Area.)

WESTERN PACIFIC PROPERTY

The so-called "Western Pacific Property," a former rail yard east of Illinois Street between 25th and César Chávez (Army) Streets, will be partially occupied by a Muni Metro maintenance and storage facility that will be constructed as part of the soon-to-be undertaken Third Street Light Rail Extension project. The Muni Metro facility was analyzed in the EIR/EIS for the Light Rail Project, and will occupy about three-fourths of the approximately 25-acre Western Pacific Property. No specific development projects are forecast for the remainder of the Western Pacific Property. However, as part of the project analyzed in this SEIR it is assumed that part of the remainder of this site would be occupied by General Industrial uses, potentially including construction-related uses such as materials storage, on an interim basis.

REFERENCES – Project Description

NRMCA (National Ready Mixed Concrete Association) website (www.nrmca.org). Viewed December 8, 1999.

CHAPTER III
ENVIRONMENTAL SETTING AND IMPACTS

A. LAND USE, PLANS, AND POLICIES

SETTING

STUDY AREA

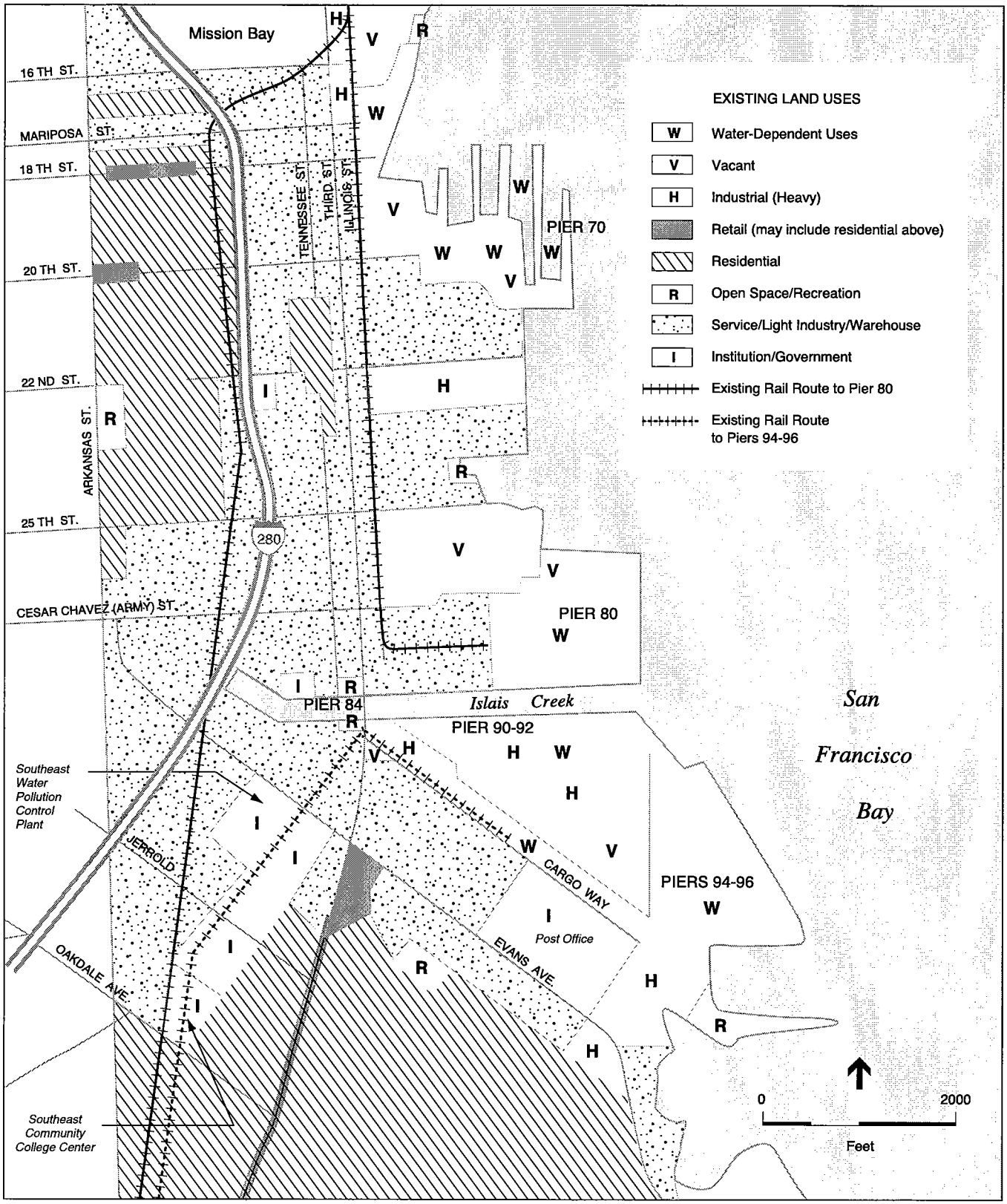
The project site is located within the Southern Waterfront area, which extends from Mariposa Street to India Basin, and encompasses the area from the shipyards at Piers 68-70 to the north to Pier 98 to the south. The Southern Waterfront area is the heart of the Port's industrial maritime operations. The area has the only facilities for containerized cargo on the San Francisco waterfront, and the remaining concentration of water-dependent and support activities such as cargo shipping, storage and trucking services. The Port's Southern Waterfront Terminals also are equipped to handle breakbulk, neo-bulk, and project cargoes. Much of the area is undeveloped or under-developed, such as the large area at Pier 70 and the "backlands" inland from the southern container terminal at Piers 94-96.

The project area is generally bounded by 16th Street to the north, Islais Creek and Cargo Way to the south, Third Street to the west and the San Francisco Bay to the east. The project area includes Piers 68 through 96. For purposes of analysis, the land use impacts study area has been defined as Mission Bay to the north, Oakdale Avenue to the south, Arkansas Street to the west and the San Francisco Bay to the east.

EXISTING LAND USES

Project Area

The project area contains primarily cargo shipping, ship repair yard, industrial, and service, storage, and light industrial uses; open space at Warm Water Cove, along the north and south banks of Islais Creek, and at Pier 98, Heron's Head Park; and vacant land. The Port has a dredge materials handling operation at Piers 94-96. No residential uses are located within the project area (see Figure 4); the nearest residential areas are those in the Bayview-Hunters Point neighborhood, atop Potrero Hill, along Third Street, and in the small community known as Dogpatch, west of Third Street near 22nd Street (see Land Uses in the Vicinity, below). In the vicinity of the proposed Illinois Street Intermodal Bridge, there are existing vacant and industrial/manufacturing uses.



1999.377E: Southern Waterfront SEIR (ESA 990267) ■

SOURCE: Environmental Science Associates, Pittman & Hames Associates.

Figure 4
Generalized Map of Existing Land Use

The proposed sites of the Industry Group project components contain existing, vacant industrial buildings, vacant land, and industrial/manufacturing businesses. The Bode Ready-Mix Concrete Plant site is a three-acre site at Pier 92 that is currently vacant and undeveloped. The Mission Valley Rock Aggregate Terminal site and location of Mission Valley Rock's proposed asphalt plant, located immediately west of the Bode concrete site, is a 5.2 acre vacant site, which is adjacent to Mission Valley Rock's existing dredge sand processing facility. The British Pacific Aggregates facility would be located on a 10-acre site at the Pier 94 cargo terminal, which is also now vacant. ISG Resources proposes to re-use two existing now-unused former grain silos at Pier 90. The RMC Pacific Materials site is a 3.1 acre parcel located at the west end of Pier 80, and the southeast corner of Illinois and Marin Streets. The existing site is currently paved and used as a storage yard by Marine Terminals Corporation, which operates the Port's North Container Terminal at Pier 80. The Waste Resources Technologies site is a vacant existing building at Pier 70, located near 20th and Illinois Streets in the former Union Iron Works complex. The Coach USA site consists of approximately 8 acres at Pier 96 which is an existing paved storage yard (6.9 acres) and an existing building. Cargo shipping activity is accommodated at the Port's Pier 80 and Piers 94-96 terminals, which currently do not operate at capacity, while the Port's dredge material handling facility occupies about three acres in a temporary location at Pier 96.

The unprogrammed Port lands on which the project analyzed in this EIR includes future commercial development are located in the Port backlands area. Pier 70 contains 55 acres of industrial uses and vacant land. The 16-acre Pier 70 Mixed Use Opportunity Area is also occupied by existing industrial uses and by vacant land. Three historic Union Irons Works buildings and the Bethlehem Steel headquarters building are located at Pier 70 at 20th and Illinois Streets. The "Western Pacific Property," now vacant, is a former rail yard east of Illinois Street between 25th and César Chávez (Army) Streets consisting of 25 acres. The Piers 90-94 backlands area is approximately 40 acres of vacant, unimproved lands that contains temporary or "interim" industrial uses such as metal recycling, concrete crushing, and a soils bio-remediation facilities operated by the Department of Public Works. The Warm Water Cove open space recreational area is also within the project area, located at the east end of 24th Street.

Land Uses in the Vicinity

Land uses in the vicinity of the project site include industrial, manufacturing, residential, recreational and institutional uses, as well as two electric power-generating plants, one of which, the Potrero Power Plant owned by Southern Energy, while technically outside the study area on non-Port-owned land at the foot of 23rd Street, is surrounded by Port lands within the Southern Waterfront. Pacific Gas and Electric also owns the Hunters Point Power Plant on Hunters Point Expressway at Evans Avenue, at the southern boundary of the project area.

The approved Mission Bay development is located in the northern portion of the land use study area. Mission Bay is planned for commercial, research / development, and bio-tech uses (including a new University of California-San Francisco research campus) totaling 8.2 million square feet, and up to 6,000 residential units.

The nearest residential community is located approximately one-fourth mile west of Third Street, in a small mixed-use residential and manufacturing enclave commonly known as "Dogpatch." This area is located roughly between 20th and 23rd Street between Third Street and Minnesota Street, and contains mostly duplexes interspersed with single-family homes and some manufacturing and light industrial uses.

Newer residential loft and live-work units are located on the west side of Third Street near 22nd Street and Mariposa Street. The Potrero Hill neighborhood is located west of Third Street between I-280 and U.S. 101, about one and three-fourth miles from the project area. Potrero Hill is a mixed-use neighborhood. The lower portion of Potrero Hill contains light industrial and manufacturing uses, with some new live/work development. West of Arkansas Street are mostly single-family homes, duplexes, public housing, and some multi-family units. The Potrero Hill Recreation Center is located between Arkansas and Connecticut Street, near 22nd Street. Esprit Park, a publicly accessible park, is located at Indiana and 19th Streets.

Portions of the Bayview-Hunters Point neighborhood are located approximately one-half mile from the project area, south of Evans Avenue and west of Third Street. Bayview-Hunters Point is a well-established residential and industrial neighborhood. This portion of Bayview-Hunters Point in the land use study area is primarily single family housing and multi-family housing located in Hunters Point, including San Francisco Housing Authority properties, with a mixture of commercial, manufacturing and retail uses along Third Street. Light industrial, public and manufacturing are located in the India Basin Industrial Park, east of Cargo Way, and on Evans Avenue.

Nearby recreational uses in Bayview-Hunters Point are the Youngblood Coleman Playground located at Mendell and Galvez Streets, east of Evans Avenue, and the Hunters Point Community Youth Park on Middlefield Road adjacent to the Malcolm X Academy, a private elementary school.

Several major public facilities and a utility use are located in Bayview-Hunters Point. The Pacific Gas and Electric power plant and the U.S. Postal Service distribution center are located in the India Basin Industrial Park, between Cargo Way and Evans Avenue. The Southeast Water Pollution Control Plant is located on Phelps Street and Evans Avenue, and the Southeast Community College Center is on Oakdale Avenue and Phelps Street.

Planned Land Use Changes

Several large-scale projects are planned in the greater project area vicinity. As noted in the Project Description, the San Francisco Municipal Railway will construct a maintenance and rail car storage facility for the Third Street Light Rail Extension project on the Western Pacific site. Operation of the Third Street light rail line, to extend from the Caltrain station at Fourth and Townsend Streets to Visitacion Valley, will also include a turnaround track loop at 18th, Third, and Illinois Streets.

The Planning Department has undertaken the "Better Neighborhoods 2002" program and is preparing the first three neighborhood plans under this effort, including one in the Central Waterfront, which includes the area between Mariposa Street and Islais Creek east of Interstate 280, adjacent to and including the northern part of the project area analyzed in this SEIR.

The San Francisco Redevelopment Agency is currently developing a redevelopment plan for the Bayview-Hunters Point area, bounded by César Chávez Street to the north, San Francisco Bay to the east, the San Francisco city limits to the south and U.S. Highway 101 to the west. This redevelopment survey area includes portions of the project area for this SEIR, including Piers 94-96 and Pier 80, as well as Islais Creek. In addition, the Agency is beginning implementation of a redevelopment and reuse plan for the former Hunters Point Shipyard site, southeast of the SEIR project area.

Southern Energy California, the operator of the Potrero Power Plant at 22nd and Illinois Streets, has filed an application with the California Energy Commission to construct a new natural gas-fired generating unit at the plant. This new unit, which would increase the plant's output from 360 megawatts to 900 megawatts, is anticipated to be operational by 2003 (California Energy Commission, 2000). If approved, the expansion of the Potrero Plant is expected to allow for closure of the Hunters Point Power Plant, on Evans Avenue just southeast of the SEIR project area. Under an agreement reached in 1998 between PG&E, the operator of the Hunters Point plant, and the City, the 429-megawatt Hunters Point plant is to be closed when a replacement source of energy is found. PG&E will be responsible for removal of the plant and restoration of the site. The City plans to convert the Hunters Point plant site to open space.

PLANS AND POLICIES

San Francisco General Plan

The San Francisco General Plan, Zoning Map, and Planning Code provisions govern all of San Francisco. The General Plan contains 10 elements (Commerce and Industry, Recreation and Open Space, Residence, Community Facilities, Urban Design, Environmental Protection, Transportation, Air Quality, Community Safety and Arts), which contain goals, policies, and objectives for the physical development of the City. In addition, the General Plan includes area plans containing objectives and policies for specific geographic areas. The project site is located largely within the Central Waterfront planning area that extends from Pier 48 to Islais Creek. The Planning Commission and Board of Supervisors approved amendments to General Plan language and to the Zoning Map and Planning Code to reflect the policies of the Waterfront Land Use Plan for the Southern Waterfront.

Central Waterfront Plan

The Central Waterfront Plan, an area plan within the San Francisco General Plan, guides growth and development along San Francisco's central waterfront, an irregularly shaped area that includes several subareas: Islais Creek, Central Basin, Lower Potrero, North Potrero, Mission Bay, and Showplace

Square. The project area is within the Central Waterfront Plan's Central Basin and Islais Creek planning areas.

The Central Waterfront Plan "calls for development that will meet the City's pressing economic and employment needs without sacrificing environmental quality," with an emphasis on industrial development to aid in the diversification of the City's economy. The Central Waterfront Plan was amended in 1990 to divide the plan into two parts: Part I, which covers all subareas except Mission Bay, and Part II, which covers Mission Bay. The overall goal of the Plan for subareas other than Mission Bay "is to create a physical and economic environment conducive to the retention and expansion of San Francisco's industrial and maritime activities . . . in order to reverse the pattern of economic decline in the area and to establish a land base for the industrial and maritime components of the San Francisco economy." The Central Waterfront Plan was amended in 1997 to accommodate adoption of the Port's Waterfront Land Use Plan, and Part II was amended again in 1998 upon adoption of the Mission Bay North and South Redevelopment Plans; the second of these amendments did not affect the Central Basin or Islais Creek subareas. Objectives and policies of the Central Waterfront Plan (as revised and amended in 1990, per Planning Commission Resolution No. 12040, and in 1997, per Planning Commission Resolution No. 14467) that are pertinent to the proposed project include the following:

Land Use

Objective 1: Strengthen and expand land uses essential to realizing the economic potential of the [Islais Creek, Central Basin, Lower Potrero, North Potrero, and Showplace Square] Subareas [i.e., those excluding Mission Bay].

Objective 1, Policy 1: Encourage the intensification and expansion of industrial and maritime uses.

Objective 1, Policy 2: Preserve and protect the subareas as a land base for San Francisco industry. Prevent the conversion of land needed for industrial or maritime activity to non-industrial use. Permit only those non-industrial uses which do not interfere with industrial and maritime operations.

Objective 1, Policy 3: Promote new development which has minimal adverse environmental consequences. Assure that adverse environmental impacts of new development are mitigated to the maximum feasible extent..

Objective 2: Maintain and develop additional uses on land determined to be surplus to industrial and maritime needs.

Objective 2, Policy 1: Preserve existing residential uses and develop limited new housing.

Objective 2, Policy 2: Preserve existing commercial uses and expand as needed to serve increases in the working and residential populations.

Objective 2, Policy 3: Improve, expand, and develop recreational areas at established public access points along the waterfront enabling public use and enjoyment of the shoreline.

Industry

Objective 3: Retain, expand and protect industrial activity.

Objective 3, Policy 1: Promote industrial expansion through maximizing and intensifying the use of existing facilities and properties, rehabilitating older industrial structures and developing vacant land with industrial uses.

Objective 3, Policy 2: Encourage the consolidation of rail operations and unnecessary tracks and facilities to increase land available for industry. Maintain and, as needed, upgrade rail service to San Francisco.

Objective 3, Policy 6: Encourage the growth of firms which strengthen the maritime or complement the maritime operation of the Port, either by directly engaging in maritime activities or by providing ancillary services which serve or support maritime activities.

Objective 3, Policy 10: Assist firms displaced from other parts of San Francisco, especially those displaced by downtown office expansion, in locating to the subareas.

Objective 3, Policy 11: Attract new industries that create employment opportunities for City residents, add tax revenues in excess of public service costs and strengthen and diversify San Francisco's economic tax base.

Maritime

Objective 4: Retain and expand maritime uses along the Central Waterfront shoreline.

Objective 4, Policy 1: Retain and improve and, if warranted, expand all existing maritime general cargo facilities along the Central Waterfront (Piers 48, 50, 70 and 80).

Objective 4, Policy 2: Retain all existing ship repair operations along the Central Waterfront.

Objective 4, Policy 4: Reserve land adjacent to the waterfront as required for maritime support use.

Transportation

Objective 7: Improve the transportation accessibility of the subareas.

Objective 7, Policy 2: Provide adequate rail and truck access to all maritime piers.

Objective 7, Policy 3: Establish an official truck route system along the designated major and secondary thoroughfares to facilitate truck movements within and to port facilities and other area businesses and to minimize the adverse impacts of truck movement on adjacent residential, commercial and recreational land uses.

Objective 8, Policy 5: Require off-street parking facilities for freight loading and service vehicles in all major new developments and incorporate these in older buildings where feasible. Provide short-term loading spaces on the street for routine deliveries and essential services, with strict enforcement of time limits.

Recreation and Open Space

Objective 9: Provide public access and recreational opportunities along the shoreline.

Objective 9, Policy 3: Provide public overlooks, viewing areas, and open spaces with convenient pedestrian access in areas of maritime activity, where feasible and where it will not inhibit the maritime operations.

Central Basin Subarea

Objective 15: Maintain and expand maritime activity in the Central Basin subarea.

Objective 15, Policy 3: Preserve and rehabilitate the three Union Iron Works Buildings (located in part of the former Bethlehem Steel area on the north side of 20th Street, east of Illinois Street which, as historic and architectural resources, represent the importance of the ship building industry in San Francisco's development. In order to make adaptive reuse feasible, permit revenue-generating commercial and industrial uses which are compatible with ongoing ship repair and potential future maritime and industrial operations on adjacent bayward Port property, as indicated in the Port of San Francisco's Waterfront Land use Plan. Design such adaptive reuse projects consistent with the Waterfront Design & Access urban design and preservation policies and criteria for this area, contained in the Waterfront Land use Plan.

Objective 16: Retain and expand industrial uses.

Objective 16, Policy 1: Encourage more intensive use of existing industrial land and facilities in locations or for durations which will not foreclose or inhibit development of future container facilities.

Objective 18, Policy 1: Minimize blockage of private and public views and maintain, to the extent feasible, sightlines from Potrero Hill and Mission Bay to the waterfront and downtown.

Islais Creek Subarea

Objective 19: Expand maritime activity and ancillary services.

Objective 19, Policy 1: Maintain Pier 80 as a container terminal facility and allow other types of cargo shipping or interim uses of this facility when it is not fully utilized for container cargo operations. Allow compatible maritime, industrial or commercial uses on the adjacent former Western Pacific rail yard, once this site has been acquired by the Port.

Objective 20: Develop waterfront recreational uses on Islais Creek Channel.

Objective 20, Policy 1: Develop the Islais Creek Turning Basin west of the Third Street Bridge for recreational use, which could include a small craft dock or launching facility, if an when it is not longer needed for Port maritime activity.

Objective 21: Retain and expand industrial uses in the Islais Creek subarea.

South Bayshore Plan

The South Bayshore Plan, an area plan within the San Francisco General Plan, governs land use policies and objectives for the Bayview-Hunters Point neighborhood, including land south of Islais Creek within the project area. The project area, therefore, encompasses portions of the India Basin Industrial Area Sub-District, and is adjacent to the Hunters Point and Northern Industrial Area Sub-Districts, of the South Bayshore Plan. These areas are also included in the proposed Bayview-Hunters Point Redevelopment Project Area, currently under study by the San Francisco Redevelopment Agency for future designation as a Redevelopment Area. Policies of the South Bayshore Plan that are pertinent to the proposed project include the following:

Land Use

Policy 1.2: Restrict toxic chemical industries and other industrial activities with significant environmental hazards from locating adjacent to or nearby existing residential areas.

Transportation

Policy 3.1: Improve and establish truck routes between industrial areas and freeway interchanges.

Policy 4.5: Create a comprehensive system for pedestrian and bicycle circulation.

Industry

Objective 8: Strengthen the role of South Bayshore industrial areas in the overall economy of the district, the City, and the overall region.

Policy 8.1: Maintain industrial zones in the Northern Industrial and India Basin sub-districts.

Policy 9.1: Increase employment in local industries.

Recreation and Open Space

Policy 13.1: Assure that new development adjacent to the shoreline capitalizes on the unique waterfront location by improving visual and physical access to the water in conformance with urban design policies.

Policy 13.4: Provide new public open spaces along the shoreline – at Islais Creek, Pier 98, India Basin.

Waterfront Land Use Plan

Approved in June 1997, the Waterfront Land Use Plan (or, "Waterfront Plan")is a land use policy document governing property under the jurisdiction of the Port of San Francisco, generally from Fisherman's Wharf to India Basin. The Land Use Plan is intended to: 1) actively promote the continuation and expansion of industrial, commercial and recreational maritime actives; 2) support new and existing open space and public access; 3) recognize the structure of the Port for revenue-generating land uses to fund maritime activities, open space, and public activities along the waterfront; 4) adapt to fluctuating economic, social and political structures by identifying the range of acceptable uses for Port properties; 5) encourage efficient use of currently underutilized Port properties by allowing a range of interim uses; and 6) establish a framework for streamlining the entitlement process for new development. The Plan also called for identification of City plans and policies in need of reassessment and modification to implement the plan; as noted above, the General Plan, Planning Code, and Zoning Map have been modified to ensure consistency with the Waterfront Plan.

The Waterfront Plan has seven goals: 1) to encourage the Port to function as a working Port for cargo, shipping, fishing, passenger cruise ships, ship repair, ferry and excursion boats, recreational boating and other water-dependent activities; 2) to stimulate new investment that will revitalize the waterfront, create jobs, revenues, public amenities, and other benefits; 3) to promote diversity of activities and people including maritime, commercial, entertainment, civic, open space, recreational and other waterfront activities for all to enjoy; 4) to provide access along the waterfront through a network of parks, plazas, walkways, open spaces, and integrated transportation improvements that would enhance enjoyment of the Bay environment; 5) to enhance the waterfront's historic character, while creating new opportunities for San Franciscans to integrate the waterfront into their everyday lives; 6) to ensure appropriate quality of urban design along the waterfront; and 7) to provide economic access to all people in San Francisco.

In addition, the Waterfront Plan includes land use objectives for five sub-areas, including the Southern Waterfront, that specifically address the overall goals and objectives of the land use plan.

Southern Waterfront Sub-Area

The Waterfront Land Use Plan contains the following objectives for the Southern Waterfront.

- Maximize the utilization of existing cargo terminal facilities.
- Pursue financing mechanisms to develop competitively prices maritime support facilities in the Southern Waterfront.
- Maximize the productivity of Port assets through interim use of property reserved for maritime expansion.
- Development of non-maritime land uses that would be beneficial to the Port and compatible with maritime activities should be considered in areas which are surplus to long-term maritime needs.
- Promote non-maritime activities in and around three historic Union Iron Works buildings to facilitate the revitalization of an area that survives as an example of San Francisco's earliest maritime industry.
- Reserve or improve areas which will provide opportunities for the protection of wildlife habitat and for passive and active recreational uses.
- Enhance the public's appreciation of the waterfront by providing greater opportunities for access in a manner which does not compromise the efficiency of maritime operations.

The Waterfront Plan specifies acceptable land uses by the location at which they may be developed in the Southern Waterfront, including new uses, those that may be continued as an interim use, or those that may be permitted as an accessory use. Generally, a wide variety of Maritime Uses (e.g., cargo shipping, maritime office and support services, and ceremonial berthing), Open Space/Recreation, and Commercial, and Other Uses, including general institutional and power plant uses, are permitted on specified sites throughout the project area. On Pier 84, west of Third Street on Islais Creek, a range of uses is permitted, including maritime, residential, and commercial. . No hotels are permitted in the Southern Waterfront. Acceptable uses for the project area are summarized in Appendix B, Land Use.

Site-specific development standards are also provided in the Waterfront Plan to guide improvements to Opportunity Areas, which encourage a mixture of maritime, open space and public access activities which bring day and nighttime activities to the waterfront. The Plan contains Opportunity Areas in the Southern Waterfront at Pier 70, at the Western Pacific Site, and northeast of Cargo Way in the Piers 94-96 "backlands."

Sustainability Plan

The *Sustainability Plan for the City of San Francisco* was endorsed by the Board of Supervisors on July 21, 1997 (Resolution No. 692-97), as a non-binding guideline for policy and practice in the City and County. The City's Department of the Environment was formed to address sustainability issues, including implementing the Sustainability Plan. The basic goal of the Sustainability Plan is to enable the

City and its people to meet its present needs without sacrificing the ability of future generations to meet their own needs. Although there is no specific "land use" topic, a number of Sustainability Plan objectives have land use implications, particularly those related to building design, landscaping, transportation, and neighborhood design. The proposed project would not obviously or substantially conflict with the Sustainability Plan.

Bay Conservation and Development Commission

The San Francisco Bay Conservation and Development Commission (BCDC) is a state agency with permit authority over the Bay and its shoreline. BCDC, created by the McAteer-Petris Act in 1965, has authority to regulate filling, dredging, and changes in use in San Francisco Bay and to regulate new development within the 100 feet of the shoreline to ensure that maximum feasible public access to the

Bay is provided. The Commission is also charged with ensuring that the limited amount of shoreline property suitable for regional high priority water-oriented uses (ports, water-related industry, water oriented recreation, airports and wildlife areas) is reserved for these purposes. Proposed land uses and structural changes are governed by policies regarding public access. BCDC can require, as conditions of permits, shoreline public access improvements consistent with a proposed project, such as, but not limited to, pathways, observation points, bicycle racks, parking, benches, landscaping, and signs.

Of primary concern to BCDC is the placement of new "fill" (generally defined as any material in or over the water surface) in the Bay for the purposes of new development. The McAteer-Petris Act imposes very strict standards for the placement of fill. Placement of fill may be allowed only for uses that are: (1) necessary for public health, safety or welfare; (2) water-oriented uses, such as water-dependent industry, water-oriented recreation, public assembly, and the like; or (3) minor fill to improve shoreline appearance and public access. Fill must be the minimum necessary for the purpose and can be permitted only when no alternative upland location exists. With the exception of the proposed Illinois Street bridge, none of the project components would involve bay fill.

Planning Documents

Major BCDC planning documents applicable to the Southern Waterfront include the San Francisco Bay Plan, adopted in 1969 and since amended, which specifies goals, objectives and policies for existing and proposed waterfront land use and other BCDC jurisdictional areas; the Bay Area Seaport Plan, prepared in conjunction with the Metropolitan Transportation Commission, which is BCDC's overall policy for long-term growth and development of the Bay Area's six seaports, including the Port of San Francisco; and the San Francisco Waterfront Special Area Plan, which indicates acceptable land uses in much greater detail than does the regional Bay Plan. The Special Area Plan designates all of the proposed Industry Group sites as port priority areas that should be reserved for marine terminals and directly related activities. However, the most recent update of the Seaport Plan (adopted April 18, 1996, and amended September 18, 1997), has removed the Western Pacific site from port priority area designation. Additionally, most of the Pier 90-94 backlands, identified for future mixed-use development in this SEIR, has also been removed from port priority area status. Most of the proposed Industry Group project components are proposed to be located outside the 100-foot band of BCDC jurisdiction, and thus would not require BCDC approval. Exceptions may include a portion of the RMC Pacific component at Pier 80, a portion of the Mission Valley Rock component at Pier 92, and a portion of the British Pacific Aggregates component. In each case, however, the portion of the project component that would be within the shoreline band would be devoted to receiving of waterborne construction aggregate material, which would be considered a maritime use. The Illinois Street bridge over Islais Creek would fall within BCDC jurisdiction and would require a Coastal Zone consistency determination from BCDC under the federal Coastal Zone Management Act.

The Port and BCDC recently completed a joint agreement concerning the acceptability of certain land uses, provisions for open space and public access, and other issues. However, this agreement applies to waterfront areas north of China Basin Channel and thus does not concern the Southern Waterfront.

The Public Trust Doctrine

The City and County of San Francisco, through the Port Commission, holds title to Port lands in trust for the people of the State of California. This is because the State, upon admission to the United States in 1850, was granted title to all submerged lands and tidelands, and Port property sits atop former tidelands that have been filled. The area now known as the Port of San Francisco was governed by a State Harbor Commission until 1968. At that time, the State adopted the Burton Act, which enabled transfer of the area to the City and County of San Francisco to be held in trust for the people of California for the purposes of maritime commerce, navigation and fisheries (the "public trust"), and uses that enhance natural resources or attract people to use and enjoy the Bay. The Burton Act granted the Port broad powers relative to the transferred property. There are, however, three key constraints: (1) property cannot be sold or otherwise transferred into private ownership, unless the State Legislature finds that the property is valueless for trust purposes, is proposed for a beneficial public use, and is a small portion of the total land held in trust by the Port; (2) the properties cannot be leased for a period exceeding 66 years; and (3) the revenues derived from the operation of the leased property must be maintained in a separate account and used only for trust purposes. The Port Commission may determine that Port property is surplus to trust purposes and may exchange that land for other property and/or use it for other purposes determined by the Port Commission and the State Lands Commission to be in the public interest. It is also acceptable for the Port to establish short-term leases (generally 10 years or less) for non-trust purposes if the property is not required for trust purposes. The proposed Industry Group project components would be considered interim or maritime uses.

IMPACTS

SIGNIFICANCE CRITERIA

The City has not formally adopted significance standards for land use impacts, but it generally considers that the implementation of the proposed project would have a significant land use impact if it were to:

- substantially disrupt or divide the physical arrangement of an established community;
- substantially conflict with established recreational, educational, religious, or scientific uses; or
- have a substantial impact on the existing character of the community.

The project could also have a significant effect if it would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect, resulting in an adverse physical impact on the environment. Conflict with a General Plan policy does not, in itself, indicate a significant effect on the environment within the meaning of CEQA. As stated in the State CEQA Guidelines, "Effects analyzed under CEQA must be related to a physical change" (Sec. 15358(b)). To the extent that physical impacts may result from such conflicts, such physical impacts are analyzed in this SEIR. The General Plan

contains many policies, which may address different goals. Upon reviewing projects requiring its approval, the Planning Commission must decide whether, on balance, the project is consistent with the General Plan. In general, potential conflicts with the General Plan are considered by decision-makers (in this case, the Port Commission will be the primary decision-maker concerning the proposed Industry Group leases and potential future on other Port lands), independently of the environmental review process, as part of the decision to approve, modify or disapprove a proposed project. Any potential conflict not identified here could be considered in that context, and would not alter the physical environmental effects of the proposed project.

IMPACT ANALYSIS

This section describes potential effects of the proposed project on land use, and local plans and policies. Potential effects are described separately for each of the project components as defined in Chapter II, Project Description.

Industry Group Projects

Land Use

Six private entities would lease sites or facilities in the project area. All but one of these operations would be related to the construction industry, and that one entity proposes to lease a site for bus storage, maintenance and repair. These facilities are interim uses assumed to have leases with the Port at least to 2015. Most of the proposed lessees are currently located at existing sites at other locations in San Francisco, and would relocate to the project area. Two of the existing sites (Bode and RMC Pacific) are within the land use study area at Third and 16th Streets and Third and Mariposa Streets, respectively, while ISG Resources currently imports a small amount of fly ash to the project area. Coach USA is at 8th and Harrison in the South of Market Area, and Waste Resource Technologies formerly operated a construction materials recycling facility at Candlestick Point in Bayview-Hunters Point. In addition, Mission Valley Rock currently operates a dredge sand processing facility at Pier 92, adjacent to its proposed marine aggregate terminal and asphalt plant. The relocation and location of the Industry Group operations would be a continuation, rehabilitation or expansion of industrial uses in the Southern Waterfront. Therefore, the Industry Group component of the project would not disrupt or divide the physical arrangement or impact existing character of other industrial uses in the project area or nearby residential communities. The closest residential communities are Dogpatch, located one fourth mile west of Third Street, and portions of Bayview-Hunters Point, located one-half mile south of Evans Avenue.

The majority of the Industry Group components would include a maritime component in their operations, and therefore would be considered maritime tenants of the Port. RMC Pacific, British Pacific Aggregates, and Mission Valley Rock would import raw materials for concrete and asphalt production by ship and barge, and ISG Resources is likely to use waterborne transportation in the future. Bode Gravel and Mission Valley Rock (and potentially British Pacific Aggregates), would produce construction materials using these waterborne raw materials.

None of the existing Industry Group projects would conflict with established recreation and open space uses in the area. Four of the projects would be located at least partially in existing warehouse or industrial buildings (Mission Valley Rock, ISG Resources, Waste Resources Technologies, and Coach USA). The remaining facilities would be located at project area sites that do not encroach on existing recreation uses at Warm Water Cove and Islais Creek, and wetlands located near Pier 94: Pier 80 (RMC Pacific), Pier 92 (Bode Gravel), and Pier 94 (British Pacific Aggregates). In light of the above, the Industry Group uses would have a less-than-significant land use impact.

Plans and Policies

The Industry Group project components address several Waterfront Plan objectives for the Southern Waterfront subarea. The Industry Group project components would help maximize the utilization of existing cargo terminal facilities. Five of the Industry Group members are relocating to the project site to maximize access to shipping facilities, either for immediate or potential future cargo shipping use. The Industry Group projects would also maximize the productivity of Port assets through interim use of property reserved for maritime expansion. Given the heavy industrial operations of the proposed facilities, none of the projects would provide on-site public open space access. Development of the Waste Resources Technologies site would promote non-maritime activities around the historic Union Iron Works buildings as stated in the Southern Waterfront land use objectives.

The Industry Group project would not obviously conflict with applicable policies of the Central Waterfront Plan or the South Bayshore Plan. Development of the projects would be consistent with Central Waterfront Plan Objective 1 and its policies, Objectives 15, 16, 19, and 21, and with South Bayshore Plan Policy 8.1, to maintain and expand industrial activities in the Central Basin and Islais Creek subareas of the Central Waterfront and the Northern Industrial and India Basin sub-districts of the South Bayshore. The projects would not create substantial new employment as most of the facilities would transfer existing employees from existing San Francisco or Bay Area locations. However there could be a marginal increase in employment by these local industries as called for by Policy 9.1 of the South Bayshore Plan. Relocation of existing concrete plants from the Mission Bay area would be consistent with Central Waterfront Plan Objective 3, Policy 10, to assist firms displaced from other parts of San Francisco.

The Industry Group Projects would include the construction of six facilities primarily for the production, shipping, distribution, and storage of materials used in the construction industry, including concrete, asphalt, fly ash, sand and gravel. In addition, a construction materials recovery (recycling) facility and a charter bus storage yard and service/repair facility would be developed. Each of these facilities are acceptable uses under the Maritime and Other Uses Land Use categories of the Waterfront Land Use Plan Southern Waterfront sub-area (refer to Appendix B, for a detailed listing of acceptable uses for the project area).

As described in Chapter II, Project Description, all of the Industry Group components are in a M-2 (Heavy Industrial) Use District and a 40-X Height and Bulk District, and all would be consistent with the

M-2 Use District and the 40-X Height and Bulk District.[24] Each of the Industry Group components must obtain Port Commission approval of a lease authorizing the proposed uses, and any non-maritime lease exceeding $1 million in Port revenue or with a term of 10 years or more would also require approval by the Board of Supervisors. BCDC approval would be required for all components within 100 feet of the shoreline. Other approvals required would include a General Storm Water Permit from the Regional Water Quality Control Board (with a requirement to prepare a Storm Water Pollution Prevention Plan), and industrial facilities such as the proposed concrete and asphalt plants would require an Authority to Construct and a Permit to Operate from the Bay Area Air Quality Management District. City permits would include an industrial sewer discharge permit from the Public Utilities Commission and, where applicable, a Hazardous Material Storage Permit from Fire Department, as well as building permit(s) from the Port.

As noted in the Land Use discussion above, most of the Industry Group components would include a maritime component in their operations, either import or use of construction-related aggregate materials, or both. The only two components without maritime activities, Coach USA's bus storage and maintenance facility and Waste Resource Technologies' materials recovery facility, would be interim uses and would not displace any maritime activity. Therefore, the Industry Group components would not interfere with the port priority area designations of their sites in the Bay Area Seaport Plan.

In light of the above, the Industry Group components of the project would not obviously or substantially conflict with applicable plans and policies.

Illinois Street Intermodal Bridge

Land Use

The proposed Illinois Street bridge would be constructed across the Islais Creek channel, one block east of the existing Levon Hagoop Nishkian drawbridge on Third Street. The existing drawbridge would remain operational, but would no longer be operated except for testing and maintenance, as the proposed new bridge would be a "lift-segment" bridge designed to be opened only infrequently, primarily for passage of maintenance vessels and barges. The proposed new bridge would provide the following three functions: 1) a direct rail connection between the Port's North Container Terminal facilities on the north side of Islais Creek at Pier 80 and the South and Intermodal Container Terminal facilities on the south side of Islais Creek; 2) a more direct route for rail cargo to and from Pier 80, to avoid a circuitous route that currently extends north through the Mission Bay development site ; and 3) a direct truck connection between the two container facilities, avoiding the need for trucks to travel on Third Street. In addition, the bridge would provide for bicycle access in the traffic lanes when no trains are crossing the bridge.

[24] Although some Industry Group components would exceed 40 feet in height, these features would either consist of existing buildings that would not be substantially modified or, in the case of concrete batching plants, would be exempt from the height limit (Planning Code Section 260(b)(2)(M)).

The new bridge would improve the connection between the two container facilities at the Port. The Illinois Street bridge would not disrupt or divide the physical arrangement of an established community, nor would it affect the existing character of the community. The bridge could enhance recreational uses by improving bicycle access to the Islais Creek Channel and Warm Water Cove. The bridge would also be a future link to the San Francisco Bay Trail. Currently, portions of Illinois Street and Cargo Way are designated Bay Trail Bicycle Routes, and the bridge would connect these roadways.

The new lift-segment bridge would not be opened to permit the passage of large pleasure craft or sailboats, which can currently be accommodated by the existing Third Street drawbridge. However, Department of Public Works bridge logs shows that the Third Street bridge is raised only about six times per month, including once weekly for testing the mechanism (which would continue) and twice a month for passage of a vessel used in conducting water quality sampling by the Clean Water Program (the City's wastewater treatment agency). If the need remains to continue water sampling following construction of the new bridge, this activity could be accomplished using a smaller skiff, which could pass beneath the new bridge and the existing bridge, even if closed. The only other existing activity that requires opening the existing Third Street bridge is periodic passage – about twice a year – by one of the Fire Department's fire boats so the crew can take depth soundings in the western portion of Islais Creek to ensure that the creek remains navigable for the fire boats. As noted in the Project Description, however, fire boat access will no longer be necessary with completion of the new bridge, which includes improvements in the water supply system west of Third Street for firefighting.

Small recreation craft such as canoes, kayaks, an other small vessels (e.g., rowboats) would be able to pass beneath the new lift-segment bridge while it is closed. These vessels could use the channel both east and west of Third and Illinois Streets, as well as gain access to a ramp and public launch for hand-launch craft along Islais Creek west of Third Street. The elimination of larger commercial vessels and larger pleasure craft from navigation of the channel at this location is not considered a substantial conflict with established recreational uses, as there has been no such activity for more than 10 years, nor does the Port believe there is currently substantial demand for the use of the channel west of Third Street by larger vessels. The Port has jurisdiction over the Islais Creek channel and has no plans to build or approve new facilities accommodating large pleasure craft or sailboats west of Third Street. Therefore, for all of these reasons, the Illinois Street lift-segment bridge component would have a less-than-significant impact on land use.

Plans and Policies

The Illinois Street Intermodal Bridge would not substantially or obviously conflict with applicable objectives of the San Francisco General Plan or the Waterfront Land Use Plan objectives for the Southern Waterfront. The bridge would help maximize the utilization of existing cargo terminal facilities at Piers 80 and 94-96 by creating more direct and efficient rail and truck access to the Port container facilities on the north and south sides of Islais Creek. As proposed, the bridge would not include sidewalks, because land uses north and south of the bridge are and will continue to be largely devoted to industrial activity, and because there are sidewalks on the existing Third Street bridge, one

block west. Therefore, the bridge would improve waterfront and shoreline access only by providing for bicycle access across Islais Creek.[25] The bridge would be an acceptable maritime use as it supports marine cargo and handling facilities (refer to Appendix B, for a detailed listing of acceptable uses for the project area).

Construction of the Illinois Street bridge would also not conflict with applicable Transportation policies of the Central Waterfront Plan or South Bayshore Plan, as it would improve rail access to and between the Port's container terminals and improve truck access between industrial areas and freeway interchanges, thereby enhancing circulation in the area. As noted, the Illinois Street bridge would preclude active use of the Islais Creek Turning Basin – west of Third Street – for boating activities, except for very small craft.

As noted in Chapter II, Project Description, design and construction of the Illinois Street bridge would be subject to approval of a bridge permit by the U.S. Coast Guard, which must determine the future navigational needs of Islais Creek before it issues a permit. The Coast Guard would determine whether a lift-segment span is appropriate. The bridge would also require approval by BCDC because it would be constructed over the Bay and within the 100-foot band along the San Francisco Bay shoreline over which BCDC has jurisdiction. BCDC would also be required to find that the bridge is consistent with the federal Coastal Zone Management Act. Approval would also be required from the U.S. Army Corps of Engineers under Section 404 of the federal Clean Water Act (including consultation with the U.S. Fish and Wildlife Service) and Section 10 of the federal Rivers and Harbors Act. In addition, the bridge would require water quality certification from the Regional Water Quality Control Board, under Section 401 of the Clean Water Act, and would probably require a Stream Alteration Permit from the California Department of Fish and Game. Because of the federal action and funding, environmental review of the bridge must also include completion of a document prepared pursuant to the National Environmental Policy Act (NEPA).

No substantial conflicts with BCDC policies or other regulatory requirements have been identified that would prevent a finding of consistency under the Coastal Zone Management Act or other regulatory approvals. Further consultation with agencies with jurisdiction may lead to minor modifications of the Illinois Street bridge proposal or imposition of specific conditions of approval. Considerations by other agencies would also necessitate additional public notice and afford additional opportunities for public input.

Potential Future Port Development

Land Use

Consistent with the Waterfront Land Use Plan, Pier 80 and Piers 94-96 would support increased future maritime activity for both containerized and non-containerized cargo. Some of the additional cargo

[25] An existing open space feature along the north side of Islais Creek permits pedestrians to travel between Third and Illinois Streets.

shipping would be associated with cargo activity proposed by several Industry Group members, including the British Pacific Aggregates lease at Pier 94, and could result from future cargo shipping activity associated with proposed Port leases by Bode, Mission Valley Rock, ISG Resources and RMC Pacific. These uses would not disrupt or divide the physical arrangement of the adjacent Port uses or nearby residential and commercial communities, as they would represent a continuation of existing Port activity. The Port uses would therefore have a less-than-significant land use impact.

With regard to non-cargo activity on Port lands, Pier 70 would be developed into approximately 200,000 square feet of new Maritime Industrial uses and an additional 200,000 square feet of General Industrial uses within the Pier 70 Maritime Reserve Area. As defined by the Waterfront Land Use Plan, Maritime Industrial uses could include equipment storage and warehousing uses, whereas General Industry could include recycling operations, automobile repair, bio-remediation, sand and gravel operations, transmission facilities and manufacturing operations. These uses would be a continuation and expansion of existing maritime and industrial operations on Port property in the Southern Waterfront. These uses would not disrupt or divide the physical arrangement of project area uses or nearby residential communities, as development would occur entirely on Port property near similar maritime and industrial uses.

The Pier 70 Mixed Use Opportunity Area would be developed into a mixed-use area including approximately 610,000 square feet of commercial office and/or research and development uses; 100,000 square feet of retail and other commercial space; and 240,000 square feet of public access and recreational maritime uses. Development of the Pier 70 Mixed Use Opportunity Area would introduce new, non-maritime related uses in the Southern Waterfront. However such uses would not conflict with nearby maritime-related and industrial uses. Mixed use development on the Pier 70 backlands would not disrupt or divide the physical arrangement of the project area uses or nearby residential communities. The new uses introduced on the Pier 70 backlands would change the existing character in this section of the Southern Waterfront area, but would have a less-than-significant impact on the existing land use character of Southern Waterfront uses, and would have no adverse impact on the character of surrounding residential communities. Rather, the mixed-use area would serve as a buffer between maritime and industrial uses nearest the water and residential uses on Potrero Hill and in Dogpatch. The creation of 240,000 square feet of public access and recreational uses would create new recreational opportunities for nearby residents and the City as a whole. These uses would not conflict with established recreation uses at Warm Water Cove and Islais Creek.

The Piers 90-94 Backlands areas would be developed into a mix of about 650,000 square feet of light industrial uses. In addition, approximately 1 million square feet of commercial office and/or research and development uses would be developed in two- to three-story buildings, with landscaped open space. This type of office park development would not disrupt or divide the physical arrangement of existing Port uses, or nearby residential communities, but would affect the existing character of the area. This impact is not considered to be substantial, and would be consistent with development in the adjacent India Basin Industrial Park, located immediately southwest of the backlands site, across Cargo Way.

Potential impacts on the character of the area would be minimized by the configuration of the site plan and architectural design of the development consistent with the Design and Access Element of the Waterfront Plan. The provision of landscaped areas would create new open space opportunities, and would not be in conflict with established recreational areas in Warm Water Cove, Islais Creek, and Pier 98 (Heron's Head Park). As with the Pier 70 Mixed Use Opportunity Area, these office and research and development uses would serve as a buffer between maritime and industrial uses along the Bay and residential areas on the hill south of Evans Avenue. For the above reasons, this impact would be less than significant.

Plans and Policies

Development of currently unprogrammed Port lands would not substantially conflict with adopted plans and policies. Maritime related development on Piers 70, 80 and 94-96 would help maximize the utilization of existing cargo terminal facilities. Mixed use commercial, office and retail development on Pier 70 and Pier 94 backlands would promote non-maritime land uses that could be beneficial to the Port and compatible with maritime activities in areas which are surplus to long-term maritime needs, although introduction of office or research and development uses outside the Cargo Way, Western Pacific, or Pier 70 Opportunity Areas would require amendment of the Waterfront Plan to permit such uses. (Retail uses could also be permitted, as accessory uses, at Warm Water Cove, Pier 80, and Piers 94-96.) Development of the Mixed Use Opportunity Area at Pier 70 east of Illinois Street would promote non-maritime activities around the historic Union Iron Works buildings, and facilitate the revitalization of an area that survives as an example of San Francisco's earliest maritime industry.

The creation of new public access, recreational maritime uses, and landscaped open space in the mixed use opportunity areas would be consistent with the Southern Waterfront objectives to improve areas which will provide opportunities for passive and active recreational uses, and would enhance the public's appreciation of the waterfront by providing greater opportunities for access in a manner which does not compromise the efficiency of maritime operations.

Development of the unprogrammed Port lands would not generally conflict with the policies of the Central Waterfront Plan or South Bayshore Plan. Specifically, maritime development at Pier 70 would address Central Waterfront Plan objectives and policies to maintain and expand industrial activities in the Central Basin and Islais Creek subareas, and to maintain and develop additional uses on land determined to be surplus to industrial and maritime needs. Additional maritime activity at Piers 94-96 would be consistent with South Bayshore Plan Policy 8.1 to maintain industrial zones in the Northern Industrial and India Basin sub-areas. This component of the project would also have the opportunity to increase employment in local industries as called for in Policy 9.1 of the South Bayshore Plan. The creation of 240,000 square feet of new public access and recreational uses near Pier 70 would be consistent with Central Waterfront Plan Objective 9.

As noted in the setting, the most recent update of the Bay Area Seaport Plan removed the Western Pacific site from port priority area designation and most of the Pier 90-94 backlands has also been

removed from port priority area status. Therefore, anticipated future Port development would not interfere with the port priority area designations of their sites in the Bay Area Seaport Plan.

REFERENCES – Land Use, Plans And Policies

California Energy Commission, 2000, at www.energy.ca.gov/sitingcases/potrero/index.html

Port of San Francisco, Waterfront Land Use Plan, adopted June 1997. (Republished January 2000).

City and County of San Francisco, San Francisco General Plan, including Central Waterfront Plan (amended through January 1998), and South Bayshore Plan, July 1995.

B. TRANSPORTATION

SETTING

Within the project area, Third Street is designated in the Transportation Element of the San Francisco General Plan as a Major Arterial and a Transit Preferential ("Transit Important") Street. Major arterials are defined as "cross-town thoroughfares whose primary function is to link districts within the City and to distribute traffic from and to the freeways" (Transportation Element, Table 1). On Transit-Important Streets, "the emphasis should be on moving people and goods, rather than on moving vehicles" (Transportation Element, Table 4). Third Street is also designated a Major Arterial within the County Congestion Management Network, established consistent with state congestion management legislation, and is included in the City's Metropolitan Transportation (MTS) street network, which is part of a regional network that includes streets and highways that meet criteria established by the Metropolitan Transportation Commission. César Chávez (Army) Street and Evans Avenue (west of Third Street) are also Major Arterials in the General Plan and Congestion Management Network and are MTS streets. Other MTS streets include Cargo Way and Jennings Street between Evans and Cargo; Evans (east of Third), Cargo, and Jennings are Secondary Arterials in the General Plan. Illinois Street between Mariposa and 24th Streets, Third Street south of 24th Street, and Cargo Way are part of the Citywide Pedestrian Network by virtue of being on the route of the Bay Trail. Third Street is also a Neighborhood Pedestrian (Neighborhood Commercial) Street and a Bicycle Route (Route 5). César Chávez Street (Route 60), Evans Avenue (Route 68), Mariposa Street (Route 23), and Phelps and Indiana Streets (Route 7) are also bicycle routes.

Third Street has three travel lanes in each direction, with left turn pockets at César Chávez Street (northbound) and Cargo Way and Evans Avenue (southbound). Cargo Way has two travel lanes in each direction, divided by a median. Other streets in the area have a single lane in each direction. On-street parking is generally permitted, with certain exceptions, throughout the study area. On-street parking is available in most parts of the study area. Existing levels of service at study intersections in the project area are given in Table 4, p. 53.

San Francisco Municipal Railway (Muni) service in the project area is limited. The primary service is via the 15-Third line, which links Visitacion Valley with downtown, Chinatown, North Beach, and Fisherman's Wharf. Crosstown service is provided on the 19-Polk line, which operates on Evans Avenue; the 48-Quintara/24th Street, which operates on 22nd Street; and the 22-Fillmore, which runs on 18th Street. The Caltrain peninsula commute service has a station at 22nd and Pennsylvania Streets; not all trains stop at the 22nd Street Station.

Pedestrian traffic is relatively light in the study area. Third Street has 10-foot sidewalks on each side, and Illinois Street (north of 25th Street) also has sidewalks on each side. There are also sidewalks on the existing Third Street drawbridge over Islais Creek. Most of the numbered east-west streets have sidewalks on at least one side. South of Islais Creek, Cargo Way has sidewalks on each side, but Amador Street does not have sidewalks. Third Street has a fair amount of bicycle traffic, particularly commuters to and from downtown. Counts conducted in 1996 indicated approximately 50 bicycles per hour during both the morning and afternoon peak hours (FTA and San Francisco Planning Department, 1998, p. 3-25). As noted in the first paragraph under Setting, above, there are several designated bicycle routes in the project area. The only striped bicycle lane at present is on César Chávez Street, between Third Street and Evans Avenue.

PLANNED TRANSPORTATION IMPROVEMENTS

The Third Street Light Rail Extension project, scheduled for construction beginning in 2001, will extend Muni Metro light rail service from the Caltrain Station at Fourth and Townsend Streets along Third Street to Visitacion Valley. This segment is expected to be operational by 2004. In the project area, the light rail tracks will be in a dedicated center median of Third Street, and thus construction of the light rail line will remove one travel lane in each direction from Third Street, leaving two vehicle lanes in each direction, with a parking lane on either side, except between César Chávez Street and Cargo Way, where parking is not permitted. On-street parking will also be eliminated on both sides of Third Street where station platforms are constructed. In the project area, stations will be constructed at Mariposa Street, 20th Street, 23rd Street, César Chávez Street, and Evans Avenue. As part of the light rail project, all major intersections will be signalized and signal timings adjusted; lane configurations are also approved at several of the intersections analyzed in this SEIR. On-street parking will also be eliminated where left-turn lanes are created. These changes are described in Appendix C. The light rail project also will include a loop track at Third and Eighteenth Streets that will allow light rail vehicles to turn around and head back north on Third Street after passing through the Mission Bay area, and a light rail vehicle storage and maintenance facility at the Western Pacific site at 25th and Illinois Streets.

Another planned Municipal Railway project is the construction of a new bus storage yard at César Chávez and Indiana Streets, on the north side of Islais Creek west of Third Street. This yard will replace Muni's existing Kirkland bus yard at Powell and North Point Streets, near Fisherman's Wharf, and will be adjacent to an existing interim bus yard at Marin and Indiana Streets.

Traffic signals were previously identified as mitigation for the approved Mission Bay project at two other currently unsignalized intersections studied in this SEIR: Mariposa and Minnesota Streets (assumed in this analysis to be signalized by 2003) and Mariposa Street and the I-280 southbound on-ramp (assumed to be signalized by 2015). In addition, the Mission Bay project will allow traffic to cross Mariposa Street to the north at both the I-280 northbound off-ramp and at Minnesota Street, resulting in a fourth approach being added at each of these two intersections.

The Illinois Street Intermodal Bridge over Islais Creek, a component of the project analyzed in this SEIR, will include improvements to Illinois Street between Islais Creek and Marin Streets, where the pavement is narrow and in poor condition, to accommodate truck traffic crossing the proposed new bridge. Separately, Illinois Street will also be improved between César Chávez and 25th Streets – a block that is currently unpaved – as part of the Muni light rail vehicle yard described above. This SEIR assumes that the remaining block of Illinois Street that is not fully improved, between César Chávez and Marin Streets, where only one lane is currently paved, will be fully improved by the time the Illinois Street bridge is completed.

IMPACTS[26]

SIGNIFICANCE CRITERIA

City policy has been that a project is considered to have a significant effect on the environment if it would cause a signalized intersection to deteriorate to an unacceptable level of service (i.e., from Level of Service (LOS) D or better to LOS E or F, or from LOS E to LOS F),[27] interfere with existing transportation systems causing substantial alteration to circulation patterns or causing major traffic hazards, or contribute substantially ("considerably") to cumulative traffic increases that cause intersections that would otherwise operate at acceptable levels to deteriorate to unacceptable levels. The City has not formally adopted significance criteria for potential impacts related to transit, but City policy has been that a project would have a significant effect if it would cause a substantial increase in transit demand that cannot be accommodated by existing or proposed transit capacity, resulting in unacceptable levels of transit service, or cause a substantial increase in transit delay due to transit/auto conflicts. Regarding parking, San Francisco General Plan policies emphasize the importance of public transit use and discourage the provision of facilities that encourage automobile use. Therefore, the creation of, or increase in, parking demand resulting from a proposed project that cannot be met by existing or proposed parking facilities would not itself be considered a significant effect. The City has not adopted significance criteria for pedestrian or bicycle impacts. For this analysis, the project would have a

[26] This analysis is based on a Transportation Study prepared for the proposed project: Wilbur Smith Associates, *San Francisco Southern Waterfront Supplemental EIR Transportation Study,* September 22, 2000 This report is available for review at the San Francisco Planning Department, Major Environmental Analysis section, 30 Van Ness Avenue, Suite 4150, as part of Project File No. 1999.377E.

[27] The City has no significance criteria for unsignalized intersections. For this analysis, a significant effect would occur if an unsignalized intersection were to deteriorate such that more than one approach operates at LOS E or LOS F and the intersection would meet the Caltrans Minimum Vehicle Volume Warrant or Peak-Hour Warrant for signalization.

significant effect if it were to result in substantial pedestrian overcrowding, create particularly hazardous conditions for pedestrians or bicyclists, or otherwise substantially interfere with pedestrian and bicycle accessibility. Generally, construction-period transportation impacts would not be considered significant because they would be temporary.

IMPACT ANALYSIS

This analysis examines transportation conditions for three time frames: Existing-plus-Project, when the Industry Group project components would be in operation; 2003, when the Illinois Street intermodal bridge would be in place and the Muni Third Street light rail line is anticipated to begin operations;[28] and 2015, by which time the Future Port Development described in the Project Description would occur. The Existing-plus-Project and 2003 analyses also include some amount of future cargo shipping and other activity on Port lands (see "Cargo Shipping" on p. 23 of the Project Description) in order to capture effects of Phase I of the project, while the remainder of Future Port Development (2015) constitutes Phase II. For each future analysis period, additional background, or cumulative, development is also assumed. For 2003, partial development of the Mission Bay project, located north of the study area, is assumed, while full buildout of Mission Bay is assumed for 2015. Development to varying degrees is also assumed in connection with the redevelopment of Hunters Point shipyard and the larger Bayview-Hunters Point neighborhood, both of which are the subject of plans prepared by the San Francisco Redevelopment Agency: the Hunters Point plan is approved, while neighborhood-wide redevelopment plan is currently being drafted.

Trip generation for the Industry Group project components would be primarily a function of the volume of construction aggregate material (concrete and, potentially, asphalt concrete) produced. (This is contrasted with the traffic analysis of more "typical" land uses, such as office or retail uses, for which trip generation is normally determined on the basis of standard per-square-foot factors.) Therefore, the analysis is based to a large degree on production estimates provided by the Industry Group. It should be noted that a substantial volume of the Phase I vehicle trips related to the Industry Group project components are currently being made, under existing conditions, to and from other parts of San Francisco. For example, delivery of concrete is made from the existing Bode Gravel Company and RMC Pacific Materials plants located on Third Street at 16th Street and at Mariposa Street, respectively. Existing delivery of asphalt concrete is made to locations in San Francisco from plants in Berkeley and in Brisbane. For purposes of a conservative analysis, and because these trips originate at the fringe of or outside the study area, no attempt was made to subtract existing trips from the roadway network, with the sole exception being existing trips made between Pier 92 and the concrete plants for the purpose of hauling sand dredged from San Francisco Bay. Other than these dredge sand trips, which currently originate within the study area, all trips described in the Travel Demand Analysis, below, were assigned to the transportation network as new trips.

[28] The analysis was conducted consistent with the original schedule for the Third Street Light Rail Project, which anticipated a start of service in 2003. The current schedule calls for start of operations in 2004.

While the change in location of the production of construction aggregates would not necessarily result in any change in the demand for these products in San Francisco and the northern Peninsula, another factor was considered in the transportation analysis that would affect traffic volumes, particularly truck traffic: the method by which raw materials (sand, rock, cement, liquid asphalt cement) would be brought to the production plants. Currently, most aggregate is brought by truck from local quarries, primarily in the East Bay. However, one of the objectives of the Industry Group members is to relocate to sites with maritime access, and given that the supply of aggregate in local quarries is anticipated to decline over the analysis period covered in this SEIR, this analysis assumes a shift from truck to ship transportation would occur over time. Therefore, in the Phase I analysis, 50 percent of the aggregate material required for ready-mix concrete production (other than "dredge sand" that is already brought by barge from within San Francisco Bay) would arrive by ship at one or more of the Industry Group facilities as proposed in the near term by Industry Group members. (British Pacific Aggregates, Mission Valley Rock, and RMC Pacific Materials would all have the capability to import construction aggregates.) The remaining 50 percent of concrete aggregate would continue to be brought by truck from the East Bay. For production of asphalt concrete, which would be newly manufactured in San Francisco by Mission Valley Rock, all of the aggregate material would be conveyed by ship. By 2015, which is the horizon year for this analysis, 80 percent of the aggregate to be used in ready-mix concrete is assumed to be delivered by ship. Further explanation of the assumptions regarding the production of construction aggregate is provided in Appendix A.

Travel Demand Analysis

For Phase I of the project (primarily the Industry Group components), the vast majority of traffic generated would be truck traffic in connection with the production of construction aggregates and shipping activity at the Port.[29] Employee traffic would make up a relatively small percentage of this traffic. For this analysis, truck trip generation and the assignment of those trucks to the roadway network (i.e., the direction of their travel) were based on information from the Industry Group. Employee trips to and from work were based on forecast employment at the Industry Group facilities. The means of travel (auto, transit, etc.) and the direction of travel was based on the standard methodology contained in the Planning Department's *Interim Transportation Impact Analysis Guidelines for Environmental Review*, although the percentage of employees expected to use transit was reduced by half from the typical percentage for the southeastern part of San Francisco (and the percentage driving increased accordingly), because of the relatively remote location of the project area vis-à-vis transit service and the early start time for many construction industry-related land uses. The resulting formulae assumed that about 82 percent of employees would drive to work (either alone or in carpools), while about 9 percent would use transit, and the remaining 9 percent would use other means of travel, including walking and bicycling.

[29] The Illinois Street bridge would not generate any traffic, although it would result in redistribution of traffic with destinations accessible via the bridge. See the intersection level of service results in Table 4, p. 53.

Table 2 presents a summary of trip generation for Phase I of the project. As indicated in Table 2, the Industry Group project components would generate about 2,200 vehicle trips (a trip is one way; two trips make up a round trip) per day, of which about 1,850 would be truck trips. In the morning (a.m.) peak hour, the Industry Group components would generate about 480 vehicle trips, while they would generate about 325 vehicle trips in the afternoon (p.m.) peak hour.

An estimated 210 additional daily vehicle trips, including about 180 truck trips, would be made to and from the project area by the time the Industry Group components are operational, including about 50 a.m. peak-hour vehicle trips and about 20 p.m. peak-hour vehicle trips. These trips would be generated by other anticipated uses on Port land, including additional cargo shipping at Pier 96 beyond that currently existing and future industrial activity on the Western Pacific site. By 2003, when the Illinois Street bridge would be in place and the Muni Third Street light rail line would begin service, nearly 1,700 additional vehicle trips, including almost 1,300 truck trips, are anticipated to be made to and from the project area each day on Port land, including about 125 a.m. peak-hour vehicle trips and about 110 p.m. peak-hour vehicle trips.

By 2015, overall daily vehicle trip generation would nearly quintuple, largely as a result of future development that would occur on port property, including more than 1.6 million square feet of office and research and development space at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands, and 100,000 square feet of retail space at the Pier 70 Mixed-Use Opportunity Area. Also included is more than 1 million square feet of light, general, and maritime industrial uses at Pier 70 and Piers 90-94. (See the discussion of Future Port Development in Chapter II, Project Description, p. 22, for additional discussion of these assumptions.) This future port development would generate more than 14,000 daily vehicle trips, nearly 1,800 vehicle trips in the a.m. peak hour and more than 1,700 vehicle trips in the p.m. peak hour. In addition, anticipated growth in cargo shipping would increase daily vehicle trip generation from Port activity by nearly 50 percent (to approximately 2,450) and p.m. peak-hour vehicle trip generation by 55 percent (to about 170), compared to 2003 levels; a.m. peak-hour trip generation would more than double, compared to 2003, to approximately 265 vehicle trips. Industry Group truck traffic would also increase because, while the percentage of raw materials brought in by ship would increase, the increased production volume assumed by 2015 would result in more local truck trips by cement mixers and asphalt trucks making deliveries. Vehicle trip generation for 2015 is presented in Table 3.

Traffic Impacts

The traffic analysis focuses on local streets and intersections because, as noted in the discussion of Travel Demand, most of the traffic generated by Phase I of the project (primarily the Industry Group project components) would involve truck traffic between the project area and points within San Francisco and on the northern Peninsula. The analysis evaluated 17 intersections throughout the

TABLE 2
PHASE I PROJECT VEHICLE TRIP GENERATION (NEAR TERM AND 2003)

Trip Origin or Destination[a]	Daily Vehicle Trips Trucks[b]	Daily Vehicle Trips Employees	A.M. Peak Hour Trips Trucks[b]	A.M. Peak Hour Trips Employees	P.M. Peak Hour Trips Trucks[b]	P.M. Peak Hour Trips Employees
Industry Group						
Bode Gravel (Pier 92)	347	30	66	7	17	7
RMC Pacific (Pier 80)	347	34	66	8	17	8
Mission Valley Rock (Pier 92)	213	20	41	5	11	5
ISG Resources (Pier 92)	14	18	3	4	0	4
British Pacific (Pier 94)[c]	14	18	3	4	1	4
Dredge Sand (Pier 92)[d]	(42)	[e]	(10)	[e]	(2)	[e]
Pleasanton (inbound aggregate)	144	[e]	32	[e]	8	[e]
Richmond (inbound asphalt)	8	[e]	2	[e]	0	[e]
Redwood City (inbound cement)	42	[e]	9	[e]	2	[e]
Subtotal: Aggregate Production	1,087	120	212	28	54	28
Coach USA (Pier 96)	410	228	157	53	157	53
Waste Management (Pier 70)	350	18	27	4	27	4
Subtotal: Industry Group	**1,847**	**366**	**396**	**85**	**238**	**85**
Ind. Group: All Vehicle Trips	**2,213**		**481**		**323**	
Port Activity (near term)						
Cargo Shipping (Pier 96)	115	20	25	7	6	7
Gen. Industry (Western Pacific)	64	12	14	3	3	3
Subtotal: 2001 Port Activity	**179**	**32**	**39**	**10**	**9**	**10**
Near Term Port Vehicle Trips	**211**		**49**		**19**	
GRAND TOTAL – Near Term	**2,026**	**398**	**435**	**95**	**247**	**95**
ALL VEHICLE TRIPS	**2,424**		**530**		**342**	
Port Activity (2003)[f]						
Cargo Shipping (Pier 80)	64	12	8	6	4	5
Other Activity (Pier 96)	1,220	374	87	26	51	50
Subtotal: 2003 Port Activity	**1,284**	**386**	**95**	**32**	**55**	**55**
2003 Port Vehicle Trips	**1,670**		**127**		**110**	
GRAND TOTAL – 2003	**3,310**	**784**	**530**	**127**	**302**	**150**
ALL VEHICLE TRIPS	**4,094**		**657**		**452**	

[a] Numbers shown are one-way trips (one round trip equals two one-way trips). Truck trips are shown by origin. Therefore, some trips originate outside the study area (for example, inbound raw materials). Employee vehicle trips are shown by location of employment (destination).

[b] Includes buses for Coach USA.

[c] For air quality analysis only, additional internal truck trips assumed from Pier 94 to RMC Pacific at Pier 80.

[d] Dredge sand trips include elimination of 84 existing daily trips between Pier 92 and the Bode and RMC ready-mix concrete plants.

[e] These truck trips do not result in employee trips to and from the project area.

[f] Additional to Near Term

SOURCE: Wilbur Smith Associates; Environmental Science Associates.

TABLE 3
PHASE II PROJECT VEHICLE TRIP GENERATION (2015)

Trip Origin or Destination[a]	Daily Vehicle Trips Trucks[b]	Daily Vehicle Trips Employees	A.M. Peak Hour Trips Trucks[b]	A.M. Peak Hour Trips Employees	P.M. Peak Hour Trips Trucks[b]	P.M. Peak Hour Trips Employees
Industry Group						
Bode Gravel (Pier 92)	453	30	85	7	23	7
RMC Pacific (Pier 80)	453	34	85	8	23	8
Mission Valley Rock (Pier 92)	401	20	80	5	20	5
ISG Resources (Pier 92)	36	18	8	4	2	4
British Pacific (Pier 94)[c]	0	18	0	4	0	4
Dredge Sand (Pier 92)[d]	(42)	[e]	(10)	[e]	(2)	[e]
Pleasanton (inbound aggregate)	81	[e]	18	[e]	4	[e]
Richmond (inbound asphalt)	11	[e]	2	[e]	1	[e]
Redwood City (inbound cement)	55	[e]	12	[e]	3	[e]
Subtotal: Aggregate Production	1,448	120	280	28	74	28
Coach USA (Pier 96)	410	228	157	53	157	53
Waste Management (Pier 70)	350	18	27	4	27	4
Subtotal: Industry Group	**2,208**	**366**	**464**	**85**	**258**	**85**
Ind. Group: All Vehicle Trips	**2,574**		**549**		**343**	
Port Activity (2015)						
Cargo Shipping (Pier 80)	224	26	28	12	14	10
Cargo Shipping (Pier 96)	435	38	65	18	26	12
Gen. Industry (Western Pacific)	128	12	28	3	6	3
Other Activity (Pier 96)	1,220	374	87	26	51	50
Subtotal: 2015 Port Activity	**2,007**	**450**	**208**	**59**	**97**	**75**
2015 Port: All Vehicle Trips	**2,457**		**267**		**172**	
Future Port Development[f]						
Pier 70 Maritime Reserve	1,692		203		120	
Pier 70 Mixed Use Opp. Area	7,130		537		781	
Pier 90-94 Backlands	5,220		1,051		807	
Subtotal: Port Development	**14,042**		**1,791**		**1,708**	
GRAND TOTAL – 2015[g]	**4,215**	**14,858**	**672**	**1,935**	**355**	**1,868**
ALL VEHICLE TRIPS	**19,073**		**2,607**		**2,223**	

a Numbers shown are one-way trips (one round trip equals two one-way trips). Truck trips are shown by origin. Therefore, some trips originate outside the study area (for example, inbound raw materials). Employee vehicle trips are shown by location of employment (destination).

b Includes buses for Coach USA.

c For air quality analysis only, additional internal truck trips assumed from Pier 94 to RMC Pacific at Pier 80.

d Dredge sand trips include elimination of 84 existing daily trips between Pier 92 and the Bode and RMC ready-mix concrete plants.

e These truck trips do not result in employee trips to and from the project area.

f Truck traffic not separately calculated for these more "typical" urban land uses; trip generation column includes employee and visitor (non-employee) trips.

g 2015 employee trips include visitor trips for future port development.

SOURCE: Wilbur Smith Associates; Environmental Science Associates.

Southern Waterfront, with the focus on major routes to and from Port lands, including Third Street, César Chávez (Army) Street, Illinois Street, and Mariposa Street. In addition, several intersections were examined at the gateway to much of the Industry Group activity, in the vicinity of Third Street and Cargo Way. The results of the traffic analysis are presented in Table 4 and are portrayed graphically in Figure 5, p. 55. As indicated in the table and figure, traffic generated in the near term, mostly by the Industry Group components, would adversely affect two intersections: morning (a.m.) peak-hour operations at the signalized intersection of **Third Street and Cargo Way** would deteriorate from Level of Service (LOS) B under existing conditions to LOS F, and at the signalized intersection of **25th and Third Streets**, afternoon (p.m.) peak-hour conditions would deteriorate, also to LOS F from an existing LOS B. These changes would occur in the near term, by about 2001. By 2003, with all Phase I project traffic, including an additional increment of Port development, as well as traffic from other background growth in the vicinity, p.m. peak-hour conditions at Third and Cargo would also deteriorate to LOS F without the Illinois Street Bridge, from LOS C at present and LOS D with Existing-plus-Industry Group (near term) conditions. Also by 2003, a third intersection would be adversely affected: the unsignalized intersection of **Amador Street and Cargo Way** would deteriorate to LOS F in the p.m. peak hour with Phase I traffic *and* completion of the Illinois Street bridge.

The worsening in a.m. peak-hour LOS at **Third and Cargo** would be caused by the heavy volume of Industry Group traffic from Cargo Way onto northbound Third Street. Without the Illinois Street bridge, this condition would worsen in 2003 as the volume of traffic on Cargo Way increases. However, with completion of the Illinois Street bridge, a.m. peak-hour operations at Third and Cargo would be at LOS C, which is acceptable, and would continue at LOS C even with additional future Port development by 2015, including at the Pier 90-94 backlands. In the p.m. peak-hour, the deterioration in LOS would be due primarily to southbound traffic turning left from Third Street onto Cargo Way. As with a.m. conditions, p.m. peak-hour operations would improve with completion of the Illinois Street bridge, to LOS D, which is acceptable. Therefore, the Industry Group components would have an interim (short-term) significant effect at the intersection of Third Street and Cargo Way, which would be avoided by implementation of the Illinois Street bridge, which is also part of Phase I of the project.

At **25th and Third**, the deterioration in LOS would be a consequence of the increased volume of southbound through traffic, which would result in inadequate time for northbound left-turning vehicles to make that movement and consequently long delays for those left-turning vehicles. Other movements at this intersection would operate with acceptable delays, but the number of existing left-turning vehicles is such that, with additional delay caused by heavier southbound volume, the overall average delay for all vehicles at this intersection would be unacceptable. Two points should be noted concerning the intersection of 25th and Third Streets: first, the unacceptable LOS F operations would be a short-term phenomenon, because the traffic signal at this intersection is scheduled to receive a separate left-turn phase in 2003 as part of the Third Street Light Rail Project. Secondly, delays for left-turning vehicles might result in a self-correcting impact, in that motorists might select alternate routes with less delay. However, it would be speculative to conclude that the intersection would operate acceptably prior to

TABLE 4
TRAFFIC LEVEL OF SERVICE RESULTS

Intersection	(2000) Existing		Existing + Industry Group		2003 + Ind. Grp. without Bridge		2003 + Phase I (with Bridge)		2015 Baseline (No Project)		2015 + Project (Phase I & II)	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
A.M. Peak Hour												
I-280 SB on-ramp/ Mariposa Street	**F‡**	**>60**	**F‡**	**>60**	**F‡**	**>60**	**F‡**	**>60**	D √	35.5	F √	**>60**
I-280 NB off-ramp/ Mariposa Street	C	15.8	C	16.3	C	21.2	C	21.2	D	35.4	**F**	**>60**
Minnesota / Mariposa Streets	A (B)‡	0.6	A (C)‡	0.6	A √	2.2	A √	2.2	B √	14.8	B √	13.9
Third / Mariposa Streets	B	8.8	B	10.6	D	26.7	D	26.7	C	22.2	**E**	**59.1**
Illinois / Mariposa Streets	A	2.3	A	2.6	A	2.7	A	2.7	C	15.8	D	25.1
Third / 20th Streets	B	6.4	B	6.8	C	19.0	C	19.0	C	15.1	D	37.5
Illinois / 20th Streets	A	2.4	A	2.6	A	2.6	A	2.6	B	7.0	C	17.3
Third / 25th Streets	B	7.3	B	8.3	B	13.0	B	10.7	B	14.3	D	28.6
Illinois / 25th Streets ‡	A	2.0	A	2.7	A	2.8	A	4.7	A	2.2	B (C)	9.3
Pennsylvania / I-280 SB on-ramp ‡	A	1.3	A	1.5	A	1.5	A	1.7	A (B)	1.6	B (C)	5.3
Evans Av. / César Chávez St.	C	17.3	C	17.6	C	22.4	C	22.4	D	34.2	**F**	**>60**
Pennsylvania / César Chávez Streets	C	19.8	D	34.4	D	29.1	D	29.1	D	25.7	**F**	**>60**
Mitigated Level of Service (2015)											*D*	*26.7*
Third / César Chávez Streets	C	17.6	C	23.1	D	34.2	C	25.0	D	27.5	**F**	**>60**
Mitigated Level of Service (2015)											*D*	
Illinois / César Chávez Streets ‡	A	0.2	A (B)	0.8	A (B)	0.9	B (C)	9.2	A (B)	0.8	**F**	**>60**
Mitigated Level of Service (2015)											*D*	*32.6*
Third Street / Cargo Way	B	14.3	**F**	**>60**	**F**	**>60**	C	17.6	C	16.1	C	18.7
Amador Street / Cargo Way ‡	A	0.6	A (B)	1.5	A (B)	1.5	B (F)	12.5	A (B)	1.0	**F**	**>60**
Mitigated Level of Service (2015)											*C*	*15.7*
Third Street / Evans Avenue	C	17.3	C	20.0	C	17.9	C	17.9	D	25.2	D	37.3

KEY: LOS = Level of Service; Delay = Delay in average seconds per vehicle. Where delay is in excess of 60 seconds, the notation ">60" is used; beyond 60 seconds, measurement of average delay becomes unreliable.

‡ - Unsignalized intersection. LOS and delay reported for overall intersection; LOS in parentheses is for critical movement (normally, minor street left-turn), when worse than overall LOS. Where previously approved signalization is to occur in the future, "‡" symbol is used with LOS for individual scenarios; a check mark (√) denotes scenarios in which a signal is assumed. Where no signalization is approved, "‡" symbol follows name of intersection.

Bold-face text indicates Level of Service worse than City of San Francisco standard (i.e., LOS E or worse).

Box indicates change from acceptable LOS to unacceptable LOS.

"Mitigated Level of Service": LOS improvement with implementation of Mitigation Measures in Chapter IV, p. 144.

TABLE 4 (continued)
TRAFFIC LEVEL OF SERVICE RESULTS

Intersection	(2000) Existing LOS	(2000) Existing Delay	Existing + Industry Group LOS	Existing + Industry Group Delay	2003 + Ind. Grp. without Bridge LOS	2003 + Ind. Grp. without Bridge Delay	2003 + Phase I (with Bridge) LOS	2003 + Phase I (with Bridge) Delay	2015 Baseline (No Project) LOS	2015 Baseline (No Project) Delay	2015 + Project (Phase I & II) LOS	2015 + Project (Phase I & II) Delay
P.M. Peak Hour												
I-280 SB on-ramp/ Mariposa Street	**F‡**	**>60**	**F‡**	**>60**	**F‡**	**>60**	**F‡**	**>60**	D √	34.2	**E √**	**46.2**
I-280 NB off-ramp/ Mariposa Street	D	29.5	D	29.0	D	37.8	D	37.8	D	33.8	**E**	**42.1**
Minnesota / Mariposa Streets	A (C)‡	1.0	A (C)‡	1.1	A √	3.6	A √	3.6	C √	16.3	C √	15.9
Third / Mariposa Streets	B	10.7	D	25.2	D	31.2	D	31.2	C	22.4	**E**	**56.4**
Illinois / Mariposa Streets	A	2.8	A	3.1	A	3.2	A	3.2	B	9.0	D	21.5
Third / 20th Streets	B	11.4	B	11.7	C	16.9	C	16.9	C	19.6	D	37.2
Illinois / 20th Streets	A	2.3	A	2.5	A	2.5	A	2.5	A	4.4	C	11.0
Third / 25th Streets	B	8.1	**F**	**>60**	C	15.0	C	17.2	D	25.9	**F**	**>60**
Mitigated Level of Service (2015)											*D*	*34.1*
Illinois / 25th Streets ‡	A	2.0	A	2.1	A	2.2	B	4.4	A	1.9	**F**	**>60**
Mitigated Level of Service (2015)											*A*	*4.3*
Pennsylvania / I-280 SB on-ramp ‡	A	1.7	A	1.7	A	1.8	A	2.0	A (B)	2.4	**E (F)**	**40.9**
Mitigated Level of Service (2015)											*B*	*8.5*
Evans Av. / César Chávez St.	C	15.6	C	16.4	C	20.5	C	20.5	D	26.4	D	36.9
Pennsylvania / César Chávez Streets	D	36.2	D	37.9	D	37.9	D	37.9	D	40.0	**F**	**>60**
Mitigated Level of Service (2015)											*D*	*32.6*
Third / César Chávez Streets	C	20.8	D	28.4	D	36.1	D	29.3	**E**	**58.5**	**F**	**>60**
Mitigated Level of Service (2015)											*B*	*11.5*
Illinois / César Chávez Streets ‡	A (B)	0.5	A (B)	0.5	A (B)	0.6	B (C)	6.7	A (B)	1.0	**F**	**>60**
Mitigated Level of Service (2015)											*D*	
Third Street / Cargo Way	C	15.3	D	26.3	**F**	**>60**	D	26.5	D	33.9	D	38.9
Amador Street / Cargo Way ‡	A	0.7	A	0.8	B	0.8	**F**	**>60**	A (B)	0.7	**F**	**>60**
Mitigated Level of Service (2015)							C				*B*	*14.4*
Third Street / Evans Avenue	C	19.1	C	19.6	C	18.8	C	18.8	D	30.3	D	34.4

KEY: LOS = Level of Service; Delay = Delay in average seconds per vehicle. Where delay is in excess of 60 seconds, the notation ">60" is used; beyond 60 seconds, measurement of average delay becomes unreliable.

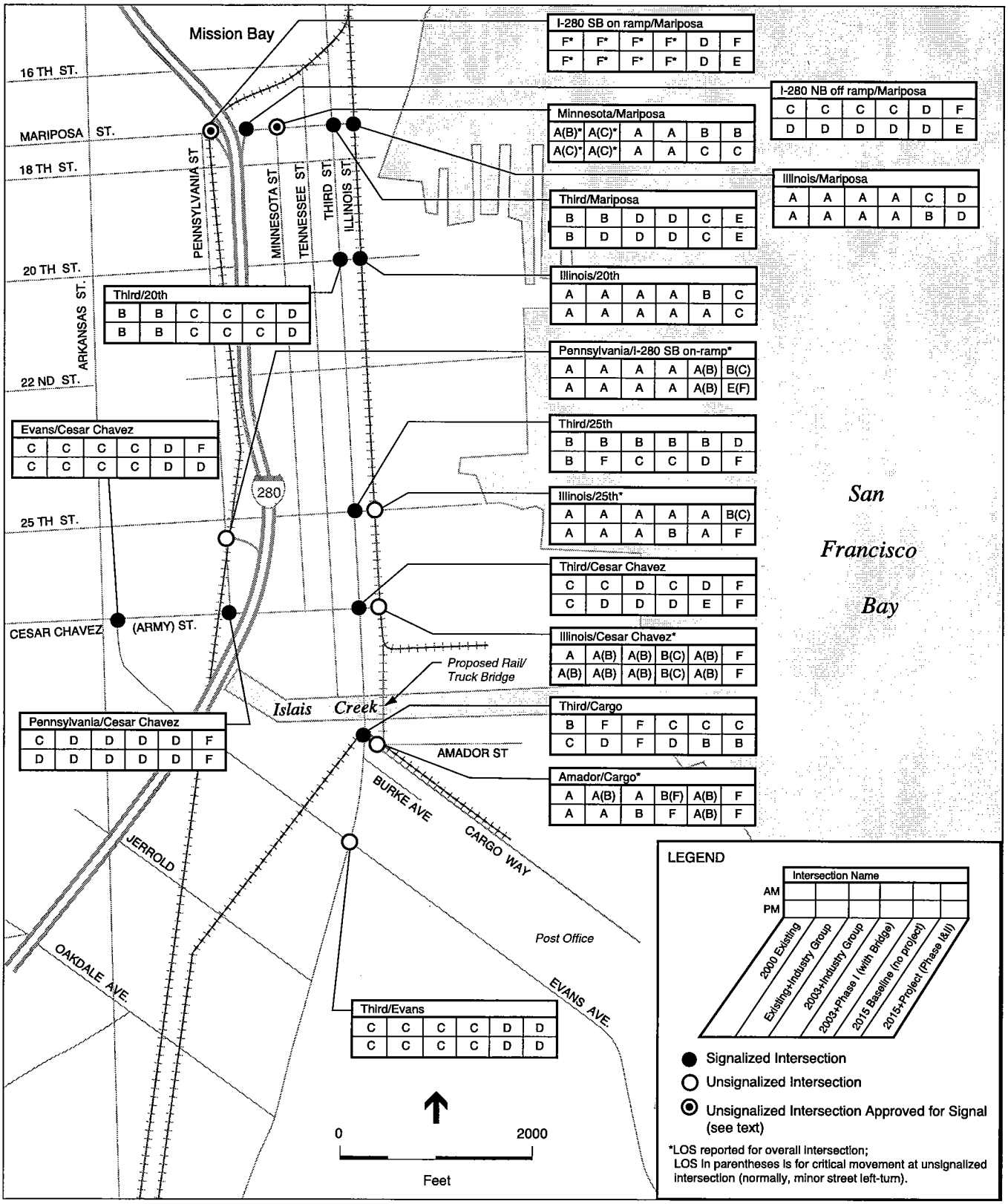
‡ - Unsignalized intersection. LOS and delay reported for overall intersection; LOS in parentheses is for critical movement (normally, minor street left-turn), when worse than overall LOS. Where previously approved signalization is to occur in the future, "‡" symbol is used with LOS for individual scenarios; a check mark (√) denotes scenarios in which a signal is assumed. Where no signalization is approved, "‡" symbol follows name of intersection.

Bold-face text indicates Level of Service worse than City of San Francisco standard (i.e., LOS E or worse).

Box indicates change from acceptable LOS to unacceptable LOS.

"Mitigated Level of Service": LOS improvement with implementation of Mitigation Measures in Chapter IV, p. 144.

SOURCE: Wilbur Smith Associates



1999.377E: Southern Waterfront SEIR (ESA 990267) ■

SOURCE: Wilbur Smith Associates

Figure 5
Intersection Levels of Service

creation of new signal phasing; further, such changes in travel patterns could have their own – albeit speculative – impacts elsewhere. Therefore, Phase I of the project would have an interim (short-term) significant effect at the intersection of 25th and Third Streets, which would be eliminated by implementation of the already-approved change in signal timing as part of the Third Street Light Rail project.

At **Amador Street and Cargo Way**, completion of the Illinois Street bridge would result in a change in traffic patterns such that the volume of traffic turning left from Amador Street to Cargo Way would increase substantially, compared to existing conditions and conditions with Industry Group traffic but without the bridge, in the near term and in 2003. In the p.m. peak hour, this change in traffic flow would result in lengthy delays that would result in the intersection operating at LOS F. (In the a.m. peak hour, delays would also be long for Amador Street left turns, but the volume of traffic making this movement would be less than in the afternoon, and overall intersection operations would remain at LOS B.) By 2015, the addition of Phase I and Phase II project traffic, along with the Illinois Street bridge, would result in unacceptable LOS F conditions at this intersection in both the a.m. and p.m. peak hours. This would be a significant effect. However, the impact could be mitigated through installation of a traffic signal and restriping (see Chapter IV, Mitigation Measures, p. 144).

At the unsignalized intersection of **Mariposa Street and the Interstate 280 southbound on-ramp**, Phase I of the project would result in increased delays during both the a.m. and p.m. peak hours. This intersection currently operates at LOS F during both peak hours, and Phase I project traffic would increase delays. This condition would continue to worsen by 2003, when additional traffic from the approved Mission Bay project would further increase delays. By 2015, this intersection is scheduled to be signalized, and the signalized intersection would operate at an acceptable LOS under 2015 No-Project conditions (i.e., without the Industry Group project components or future Port development).[30] However, the addition of Phase I and Phase II project traffic by 2015 would result in unacceptable conditions at this intersection, even signalized: LOS F in the a.m. peak hour and LOS E in the p.m. peak-hour. This would be a significant effect, and would not be mitigable, as the intersection capacity would be exceeded.

The other 13 study intersections would operate at acceptable levels of service (LOS D or better) in all scenarios prior to 2015.

The Illinois Street bridge would allow for removal of railroad tracks that currently run through the Mission Bay project area and would represent a benefit to traffic patterns in the Mission Bay area: the approved Mission Bay plan currently calls for the tracks that connect the Union Pacific main line to those on Illinois Street to be replaced with tracks in the 16th Street right-of-way. With completion of the

[30] Mitigation for intersection levels of service identified in the Mission Bay Subsequent EIR (Case No. 96.771E; Final SEIR certified September 17, 1998) is keyed to generation of specific volumes of traffic, and thus, based on development assumptions, is assumed to be in place by 2015 at the Mariposa Street / I-280 southbound on-ramp intersection, although it could occur earlier.

Illinois Street bridge, there would be no need for tracks in 16th Street, thereby eliminating a potential conflict between trains and vehicle traffic.

By 2015, all intersections except Third and César Chávez Streets would operate at acceptable levels of service under No Project conditions, accounting for background growth including traffic from the Hunters Point Shipyard redevelopment project, the Mission Bay project, and the Bayview-Hunters Point redevelopment area. The poor p.m. peak-hour LOS at Third / César Chávez Streets (LOS E in the 2015 Baseline) would result from changes in lane configuration due to the Third Street Light Rail Project and increased background (non-project) traffic. This impact was identified in the EIR/EIS for the Third Street Light Rail Project (FTA and San Francisco Planning Department, 1998). Project traffic would degrade this LOS to LOS F in the p.m. peak hour, and the project would result in a considerable contribution to a cumulative significant impact.

The additional traffic from future Port development (Phase II of the project), along with Phase I traffic, would result in unacceptable conditions (LOS E or LOS F) at eight of 17 study intersections in the a.m. peak hour and at 10 of 17 study intersections in the p.m. peak hour. Therefore, the project would result in a significant effect at each of these intersections (see Table 4, which compares conditions in 2015 with and without project traffic). Mitigation has been identified to reduce impacts to a less-than-significant level at Third / 25th Streets; Illinois / 25th Streets; Pennsylvania Street / I-280 southbound on-ramp; Pennsylvania / César Chávez Streets; Third / César Chávez Streets; and Illinois César Chávez Streets, as well as at Amador Street / Cargo Way, as described above (see Chapter IV, Mitigation Measures, p. 144). Impacts at four intersections would not be mitigable. These include Mariposa Street / I-280 southbound on-ramp, described above; Mariposa Street / I-280 northbound off-ramp; Third / Mariposa Streets; and Evans Avenue / César Chávez Street.

Of the four SEIR analysis intersections that were also studied in the Waterfront Plan EIR (Third / Mariposa Streets, Third / 25th Streets, Third /César Chávez Streets, and Third Street / Evans Avenue), levels of service at all but Third / Evans would be worse in the p.m. peak hour in 2015 (a.m. peak hour was not analyzed), based on the present analysis, than was projected for 2010 in the Waterfront Plan EIR. Third / Mariposa and Third / 25th Streets were both projected to operate at LOS B in 2010, while Third / César Chávez was projected to operate at LOS D in 2010. Compared to the 2015 levels of service projected in the Third Street Light Rail EIR/EIS, the LOS identified in the present analysis would be worse at Third / Mariposa in both the a.m. and p.m. peak hours (LOS E vs. LOS D, a.m.; and LOS E vs. LOS C, p.m.), while at Third / César Chávez, the current analysis shows a deterioration in the a.m. (LOS F vs. LOS D), but the same level of service (LOS F) in the p.m. (These are the only two intersections shared by this SEIR and the Third Street Light Rail EIR/EIS.)

Transit

As noted in the discussion of Travel Demand, above, approximately 9 percent of employee trips to work for Phase I of the project (primarily the Industry Group components) are anticipated to be made using transit, which is half the percentage typically assumed for southeastern San Francisco. This is because

transit access to the Industry Group sites is currently limited, and many workers would be expected to begin and end their work days prior to more typical work hours. Furthermore, the number of peak-hour trips would be less for Phase I than for typical land uses, because many of the Industry Group employees in construction- and aggregate-related industries normally begin work by about 7:00 a.m. and finish work by about 3:30 p.m. As a result, Phase I would generate fewer than 25 transit trips in the a.m. and p.m. peak hours. These new transit riders would represent a very small increase over existing ridership in the area, and would not result in a significant effect.

Phase II of the project includes additional growth in cargo shipping and related activities at Pier 70 (the maritime reserve area), Pier 80, and Piers 94-96, as well as development of non-maritime and non-industrial uses at the Pier 70 Mixed-Use Opportunity Area and the Piers 90-94 backlands. The Mixed-Use Opportunity Area and the backlands together would include 1.6 million square feet of office and/or research and development space and 100,000 square feet of retail space, which would have trip generation characteristics such that transit use among commuters and visitors would likely be greater than that assumed for the maritime and industrial uses elsewhere in the project area. Table 5 presents estimated transit ridership for Phase II of the project. Of the estimated approximately 680 a.m. peak-hour and 625 p.m. peak-hour transit trips, about 80 percent would be made in the peak direction (to the work place in the morning and from the work place in the afternoon).

The increase in transit ridership by 2015, along with growth in ridership due to other development in the project area and elsewhere, could be accommodated by Muni routes serving the project area. On the Third Street Light Rail line, the percent of p.m. peak-hour, peak-direction transit vehicle capacity used ("capacity utilization") would be 83 percent in the p.m. peak hour. The project would add about 450 new riders, and increasing capacity utilization from 45 percent (with cumulative growth but without the project) to 83 percent with the project. Because adequate capacity would remain, the effect would not be significant. Peak-direction capacity utilization on the three principal bus lines that serve the project area (19-Polk, 22-Fillmore, and 48-24th Street/Quintara Avenue) would be between 90 percent and 100 percent. Only the 22-Fillmore would operate at capacity; however, project ridership would amount to only 6 trips, and would not result in a significant effect. Project ridership on the other lines would be 40 trips or less; adequate capacity would remain on all lines and the project impact would not be significant.

Project ridership by 2015 on regional transit carriers would total about 95 p.m. peak-hour trips to the East Bay (85 on BART, 10 on AC Transit); about 80 p.m. peak-hour trips to the Peninsula and South Bay (50 on Caltrain, 30 on BART); and about 15 p.m. peak-hour trips to the North Bay on Golden Gate buses and ferries. Both BART (to the East Bay) and AC Transit would operate in excess of capacity, although BART trains would remain within the system's standard of 115 percent for the three-hour peak period. Project-generated ridership would increase BART capacity utilization by less than 0.5 percent, and AC Transit capacity utilization by less than 0.3 percent, and therefore would not result in a significant impact, because the contribution to cumulative overcrowding would be negligible.

TABLE 5
PHASE II PROJECT TRANSIT TRIP GENERATION (2015)

Location	Uses	Size	Transit Trips Daily	AM Pk Hr	PM Pk Hr
Pier 70 Mixed Use Opportunity Area	Office / R&D	610,000 sq. ft.	1,010	148	155
	Retail/Commercial	100,000 sq. ft.	1,467	47	122
Pier 70 Maritime Reserve	Maritime Industry	200,000 sq. ft.	405	49	13
	General Industry	200,000 sq. ft.	312	37	38
Pier 90-94 Backlands	Light Industry	650,000 sq. ft.	1,311	158	42
	Office / R&D	1 million sq. ft.	1,754	242	256
Total			**6,259**	**681**	**626**

SOURCE: Wilbur Smith Associates

Increased traffic congestion on Third Street and at local intersections would be expected to result in some increased delay for transit vehicles traveling in the study area. However, because light rail vehicles would travel in a dedicated right-of-way, delays on Third Street would be limited to those locations where left-turning cars could interfere with light rail vehicles. Additional conflicts could occur in connection with use of the Muni light rail loop track at Third/18th/Illinois Streets. However, use of this loop is not anticipated until substantial buildout has occurred at the Mission Bay project area, when demand for additional light rail service between Mission Bay and downtown will likely be required.

Parking and Loading

For the Industry Group project components in Phase I of the project, the parking demand would be limited almost entirely to employee vehicles. Each of the Industry Group sponsors has indicated plans to provide for on-site employee parking. Because the Industry Group components would include large flat areas, no lack of parking supply is anticipated, even though, as noted above under Travel Demand, this analysis assumes that a greater share of employees would drive than is typically assumed in this part of San Francisco, because of the current relative lack of transit service in the area and the early start time for many construction industry-related land uses. The Planning Code parking requirement is normally calculated on the basis of occupied floor area within building(s) on a site. Because most of the Industry Group uses would involve primarily open yards and equipment, the requirement would be minimal if calculated in this manner. A similar situation would arise with respect to open areas used for cargo shipping (Piers 80 and 94-96) and outdoor industrial uses (potentially the Western Pacific site under future port development). The Phase I components would be mostly related to handling of construction materials, and these facilities therefore would be established to accommodate the loading and unloading

of these materials. However, there would not be expected to be much in the way of more typical loading activity that is associated with commercial buildings.

Future Port development in Phase II of the project would involve development of more conventional land uses, compared to the Phase I components. In particular, the development of more than 1.6 million square feet of office and research and development space at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands would result in an estimated demand for nearly 3,300 parking spaces, or about two-thirds of the parking demand for Phase II of the project. Estimated parking demand and Planning Code parking requirements are presented in Table 6. Actual parking demand and requirements could vary by use and by site, depending on the actual uses that are proposed in the future on Port property. It is assumed that the relative lack of site constraints (i.e., the availability of large development sites) would facilitate the provision of both adequate parking and off-street loading space for individual projects, meaning that no significant effects would be expected. It is also assumed that large projects that may be proposed would be subject to detailed transportation analyses.

Pedestrian and Bicycle Conditions

Phase I project components (primarily those of the Industry Group) would generate little in the way of pedestrian or bicycle traffic (see discussion under Travel Demand, above), so the potential effects of the project would be largely those of increased truck traffic on existing pedestrians and bicycles. Neither pedestrian nor bicycle traffic is noticeable in the immediate vicinity of most of the Industry Group projects (i.e., along Amador Street, 20th Street, César Chávez Street, and other streets east of Illinois Street). Thus impacts would be limited in the immediate area. Pedestrian traffic elsewhere in the greater project area (e.g., on Third Street, Illinois Street,[31] and most east-west streets west of Illinois Street) travels on sidewalks that separate pedestrian traffic from trucks and other vehicles, and these sidewalks would remain in the future, meaning that impacts would be minimal because pedestrians would continue to have separate rights-of-way. Furthermore, the heaviest concentrations of added truck traffic would be in areas with little pedestrian activity. It should also be noted that much of the project area east of Illinois Street is, and will continue to be, a heavy industrial area. Indeed, most of the proposed Industry Group components, including concrete ready-mix plants, aggregate materials import and storage, and, potentially, asphalt batch plant(s), are not pedestrian-friendly, in the sense that the movement of heavy materials, high volumes of truck traffic, and noise and dust in the immediate area are not conducive to leisure walking. Therefore, the provision of pedestrian access for casual walkers is not necessarily the public benefit it would be in areas of the waterfront north of Pier 70.

The project would not adversely affect pedestrian access to the Bay Trail, which is designated on Illinois Street north of 24th Street and on Third Street south of 24th Street. Existing sidewalks on these streets would remain in place and would continue to function as part of the Bay Trail.

[31] Some parts of Illinois Street that are currently unimproved will receive sidewalks in the future, independent of the project, including between 25th and César Chávez Streets, where the street would be paved and sidewalks as part of the construction of the Third Street light rail service yard at the Western Pacific site.

TABLE 6
PHASE II PARKING DEMAND AND REQUIREMENT (2015)

Location	Uses	Size	Parking Demand Empl.	Visitor	Total	Parking Req't.[a]
Pier 70 Mixed Use Opportunity Area	Office / R&D	610,000 sq. ft.	1,127	112	1,239	1,098
	Retail/Commercial	100,000 sq. ft.	155	307	462	320
Pier 70 Maritime Reserve	Maritime Industry	200,000 sq. ft.	191	27	218	120
	General Industry	200,000 sq. ft.	191	21	212	120
Pier 90-94 Backlands	Light Industry	650,000 sq. ft.	622	88	710	390
	Office / R&D	1 million sq. ft.	1,848	183	2,031	1,800
Total			**4,134**	**738**	**4,872**	**3,848**

[a] Estimated Planning Code parking requirement.

SOURCE: Wilbur Smith Associates

Existing bicycle traffic travels in shared lanes with automobile and truck traffic, and increased traffic volumes, particularly on Third Street, could create more potential for conflict between motor vehicles and bicycles. This would be particularly true in 2003 and thereafter, when Third Street will be reduced from three to two travel lanes in each direction due to operation of the Muni Third Street light rail line. Although the San Francisco Bicycle Plan recommends striping of bicycle lanes on Third Street, the loss of one traffic lane in each direction to provide for light rail tracks has precluded the creation of these bicycle lanes (FTA and San Francisco Planning Department, 1998, p. 3-69). Alternative routes are available in portions of the study area, including Indiana Street (Route 7, north of César Chávez Street), Keith-Palou-Phelps Streets and Evans Avenue (Routes 7 and 68, south of César Chávez Street), and César Chávez Street (Route 60), which has an existing bicycle lane linking Evans Avenue and Indiana Street. The Department of Parking and Traffic is also considering a bicycle route on Illinois Street. Although traffic volumes would increase with the project, and there would a potential for increased conflict between bicycles and motor vehicles, as occurs elsewhere in San Francisco, the impact would not be considered significant because bicycle traffic could be accommodated on the variety of bicycle routes that are available through the project area.

The Illinois Street bridge would provide an alternative route to Third Street for bicyclists, connecting Illinois Street and Cargo Way, portions of which are each part of the Bay Trail route.

By 2015, with implementation of Phase II of the project (future Port development, including increased cargo shipping), traffic volumes would increase further, and pedestrian and bicycle use in the project area would also be anticipated to increase, particularly if mixed-use development occurs as planned at Pier 70 and at the Pier 90-94 backlands. Development of these mixed-use projects would be reviewed by the Port to ensure that adequate pedestrian access is provided, potentially including construction of

sidewalks where none exist on the perimeter of the development sites, and would also be required to include bicycle parking in accordance with the requirements in the Planning Code. Thus, pedestrian and bicycle conditions would be improved from conditions at present.

Construction Impacts

Several of the Industry Group project components would likely be under construction at the same time, beginning in early 2001. However, as interim facilities without permanent structures, mostly developed on already paved land, these components would not generate substantial or lengthy construction impacts. Effects on local traffic would be considerably less extensive than those described for the Phase I project itself, because the volume of construction-related traffic would be much less than the traffic volumes once all Industry Group components were operational. Further, to the extent that construction were to result in any traffic disruption, the effects would be largely limited to other project components or to operations at the Port's existing Pier 80 cargo terminal. Because most of the Phase I components would be developed within six months and because the effects would be mostly limited to the project area, no significant effects are anticipated.

Development of the Phase II project components, including future Port development of the Pier 70 Mixed-Use Opportunity Area and the Piers 90-94 Backlands, could result in temporary construction-period impacts much like those of typical urban development, but would not be considered significant. Effects could be limited by coordination between developers and construction contractors of projects that might be under development simultaneously; by avoiding off-site materials storage; and by limiting construction truck traffic, to the extent feasible, to between 9:00 a.m. and 3:30 p.m., or other hours as approved by the Department of Parking and Traffic (DPT). In addition, any lane closures for construction would require approval by DPT, which could limit such closures to non-peak hours. Because neither the Pier 70 nor Piers 90-94 areas are developed to a great extent and each includes large areas of open space, lane closures and sidewalk closures would probably not be required, and construction impacts would be largely limited to any effects that may be caused by truck traffic. Construction worker parking could also be accommodated on site. Therefore, construction impacts would be temporary and would not be significant.

REFERENCES – Transportation

FTA (Federal Transportation Administration) and San Francisco Planning Department, *Third Street Light Rail Project Final Environmental Impact Statement / Environmental Impact Report,* November 1998 (Case No. 96.281E; SCH #96102097).

C. AIR QUALITY

The subject of air quality relates to ambient concentrations of pollutants in the atmosphere. This section translates the expected changes within the Southern Waterfront area (described in the project description) into the language of air quality assessment, namely "emissions" and "concentrations." "Emissions" estimates relay information in terms of quantities of a given pollutant per unit of time. Typically, emissions are reported in units of grams per second, pounds per day or tons per year. "Concentration" estimates relay information in terms of quantities of a given pollutant in a given volume of air. Typically, concentrations are reported in parts per million (by volume) or micrograms per cubic meter. Emissions estimates themselves cannot be directly compared to ambient air quality standards but rather provide only a rough indication of the relative contribution of a source to ambient concentrations. Concentration estimates, on the other hand, can be directly compared to ambient air quality standards. Ambient air quality standards represent concentrations of air pollutants below which public health and welfare are protected. The Waterfront Plan FEIR addressed "air quality" as one of the environmental conditions affected by development on Port lands, including the Southern Waterfront subarea. The following section updates this information and expands upon the analysis presented in the prior EIR with respect to the Southern Waterfront subarea.

SETTING

INTRODUCTION

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions, and of topographic features. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, and consequently affect air quality. This section addresses issues related to the two principal categories of air pollutants: "criteria air pollutants" and "toxic air contaminants." The term, "criteria air pollutants," refers to those pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. The term, "toxic air contaminants," refers to those pollutants that are associated with carcinogenic and other adverse health effects, but occur at relatively lower concentrations than do criteria pollutants and have no established ambient air quality standards that are comparable to those used for criteria pollutants. Instead, emissions are evaluated to determine the degree to which they may increase health risks; there are state standards established for some air toxics, called Reference Exposure Levels (RELs), which are defined as concentrations at or below which no adverse health effects are anticipated for a specified exposure period to a specific pollutant. This setting section provides an overview of the regulatory context followed by region-specific information related to climate and topography; plans, policies, and regulations; and existing air quality conditions.

CLIMATE AND METEOROLOGY

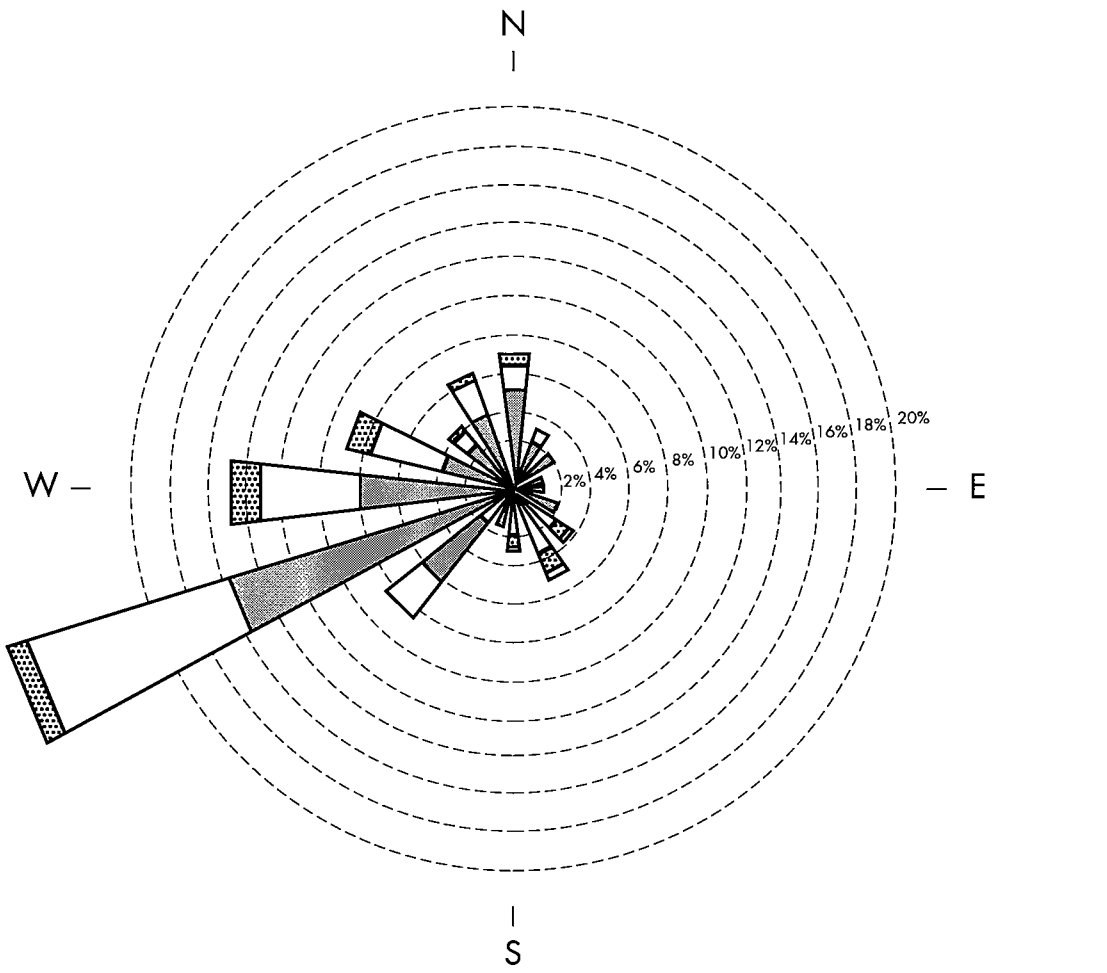
The project area lies within the City and County of San Francisco, which lies at the northern end of the peninsula climatological subregion of the San Francisco Bay Area Air Basin (Bay Area). The peninsula climatological subregion extends from northwest of San Jose to the Golden Gate. The Santa Cruz Mountains extend through the center of the peninsula, with elevations exceeding 2,000 feet at the southern end, decreasing to 500 feet in South San Francisco. Because most of San Francisco's topography is below 200 feet, marine air is able to flow easily across most of the City, making its climate cool and windy. Pollutant emissions in San Francisco are high, especially from motor vehicle congestion. Localized pollutants, such as carbon monoxide, can build up in "urban canyons"; however, winds in San Francisco are generally strong enough to carry the pollutants away from the City before they can accumulate (Bay Area Air Quality Management District, 1999).

Within San Francisco, winds are generally from the west, although wind patterns are often influenced greatly by local topographic features. In the project area, winds generally blow out of the west-southwest, west, and west-northwest (Environmental Science Associates, 1998). Figure 6 shows a "wind rose" plot for the project area. The data that are represented in Figure 6 were collected at a location within the project area between Piers 70 and 72 and are representative of typical wind conditions within the greater project vicinity. The wind rose plot is a graphical description of wind measurements taken over an entire year. The bars on the figure show winds for 16 wind direction sectors spread around the entire 360 degree circle. The lengths of the bars indicate the fraction of time over a year that winds blow from that given direction. The various symbols on the bars represent the fraction of time that winds in a sector are blowing at the designated speed. The figure shows that winds blowing from the south clockwise through northwest account for approximately 67 percent of all observations in the project area. Winds from these directions carry pollutants released from the project site out over the Bay and not on the land area surrounding the site. Average wind speeds observed at the power plant are approximately eight miles per hour.

REGULATORY CONTEXT

Criteria Air Pollutants

Regulation of air pollution is achieved through both national and state ambient air quality standards and emissions limits for individual sources of air pollutants. The federal Clean Air Act requires the U.S. Environmental Protection Agency (U.S. EPA) to identify National Ambient Air Quality Standards (national standards) to protect public health and welfare. National standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead. These pollutants are called "criteria" air pollutants because standards have been established for each of them to meet specific public health and welfare criteria. California has adopted more stringent ambient air quality standards for most of the criteria air pollutants (referred to as State Ambient Air Quality Standards or State standards). Table 7 presents both sets of ambient air quality standards (i.e., national and state) and provides a brief discussion of the related health effects and principal sources for each pollutant.



1999.377E: Southern Waterfront SEIR (ESA 990267) ■

Figure 6
Annual Wind Rose
Potrero Power Plant (1991-92)

TABLE 7
STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES

POLLUTANT	AVERAGING TIME	STATE STANDARD	NATIONAL STANDARD	POLLUTANT HEALTH AND ATMOSPHERIC EFFECTS	MAJOR POLLUTANT SOURCES
Ozone	1 hour 8 hours	0.09 ppm ---	0.12 ppm 0.08 ppm [a]	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NO_X) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide	1 hour 8 hours	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide	1 hour Annual Avg.	0.25 ppm ---	--- 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 hour 3 hours 24 hours Annual Avg.	0.25 ppm --- 0.04 ppm ---	--- 0.5 ppm 0.14 ppm 0.03 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Respirable Particulate Matter (PM-10)	24 hours Annual Avg.	50 $\mu g/m^3$ 30 $\mu g/m^3$	150 $\mu g/m^3$ 50 $\mu g/m^3$	May irritate eyes and respiratory tract. Decreases in lung capacity. Increased cancer and mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
Fine Particulate Matter (PM-2.5) [a]	24 hours Annual Avg.	--- ---	65 $\mu g/m^3$ 15 $\mu g/m^3$	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources. Also, formed from photochemical reactions of other pollutants, including ROG, NO_X, and sulfur oxides.
Lead	Monthly Quarterly	1.5 $\mu g/m^3$	--- 1.5 $\mu g/m^3$	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurologic dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.

NOTE: ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.

[a] On May 14, 1999, a three-judge panel of the U.S. Court of Appeals for the District of Columbia set aside the new national eight-hour ozone and PM-2.5 standards that U.S. EPA had issued in 1997. Essentially, the court left the new standards in place but put a hold on implementing the eight-hour ozone standard and asked for further comments on the PM-2.5 standard. This decision has been appealed to the U.S. Supreme Court.

SOURCE: Environmental Science Associates.

Under amendments to the federal Clean Air Act, U.S. EPA has classified air basins, or portions thereof, as either "attainment" or "nonattainment" for each criteria air pollutant, based on whether or not the national standards have been achieved. In 1988, the State Legislature passed the California Clean Air Act, which is patterned after the federal Clean Air Act to the extent that areas are required to be designated as "attainment" or "nonattainment," but for the state standards, rather than the national standards. Thus, areas in California have two sets of attainment / nonattainment designations: one set with respect to the national standards and one set with respect to the state standards. The Bay Area is currently designated "nonattainment" for state and national ozone standards and nonattainment for the state PM-10 standard (California Air Resources Board, 1999). The urbanized portion of the Bay Area is also designated as a "maintenance" area for the national carbon monoxide standard. The "maintenance" designation denotes that the area, now "attainment," had once been designated as "nonattainment." The Bay Area is "attainment" or "unclassified" with respect to the other ambient air quality standards.

The federal Clean Air Act also requires nonattainment and maintenance areas to prepare air quality plans that include strategies for achieving attainment. Air quality plans developed to meet federal requirements are referred to as State Implementation Plans (SIPs). The state California Clean Air Act also requires plans for nonattainment areas with respect to the state standards (not including state PM-10 nonattainment areas). Thus, just as areas in California have two sets of designations, many also have two sets of air quality plans: one to meet federal requirements relative to the national standards and another to meet state requirements relative to the state standards. Such plans are to include strategies for attaining or maintaining the standards.

There are currently four applicable air quality plans for the Bay Area: two related to the national ozone standard, one related to the state ozone standard, and one related to the national carbon monoxide standard. These plans include the *Ozone Attainment Plan for the 1-Hour National Ozone Standard* (Association of Bay Area Governments (ABAG), 1999), which was developed to meet federal ozone air quality planning requirements and which, when approved by U.S. EPA, will replace the current ozone SIP, the *Ozone Maintenance Plan* (ABAG, 1994a). The *Bay Area '97 Clean Air Plan* (Bay Area Air Quality Management District, 1997) was developed to meet planning requirements related to the state ozone standard. The *Carbon Monoxide Maintenance Plan* (ABAG, 1994b) was developed to ensure continued attainment of the national carbon monoxide standard.

The *Bay Area '97 Clean Air Plan* represents the second triennial update of the first air quality plan (1991) that was developed to meet the requirements of the California Clean Air Act, and it builds upon the control measures outlined in the previous plans. None of the new control measures identified in the *Bay Area '97 Clean Air Plan* specifically relate to the types of maritime/industrial activities associated with Port lands.

Toxic Air Contaminants

Toxic air contaminants are less pervasive in the urban atmosphere than the criteria air pollutants, but are linked to short-term (acute) or long-term (chronic and/or carcinogenic) adverse human health effects.

There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust. Unlike regulations concerning criteria air pollutants, there are no regulatory standards for toxic air contaminants based on the volume of emissions. Instead, emissions of toxic air contaminants are evaluated based on the degree of health risk that could result from exposure to these pollutants.

In particular, for toxic air contaminants linked to potential increases in cancer due to long-term exposure, the measurement of risk is generally calculated based on exposure over many years (e.g., 8 hours per day over 40 years for workers; continuous exposure over 70 years for residents), and is typically reported as an additional number of cancer cases, compared to the risk that would exist without exposure to the pollutant in question. This risk is reported as *n* chance in 1 million (or *n* cases per 1 million persons), where *n* is the number of additional cases of cancer, per 1 million individuals over a lifetime (70-year) exposure, that could be expected due to the pollutant in question. Typically, the reported risk level corresponds to the location, referred to as the "maximally exposed individual (MEI)," where the highest calculated risk from toxic air contaminants from a facility would occur. Risks from toxic air contaminants diminish at locations that are further from the facility than the MEI.

Toxic air contaminants are regulated under the 1977 federal Clean Air Act Amendments. The most recent federal Clean Air Act Amendments (1990) reflect a technology-based approach for reducing toxic air contaminants. The first phase involves requiring facilities to install Maximum Achievable Control Technology (MACT). The MACT standards vary depending on the type of emitting source. U.S. EPA has established MACT standards for more than 57 facilities or activities, such as perchloroethylene dry cleaning and petroleum refineries, as of the end of year 1999. The second phase of control involves determining the residual health risk represented by air toxics emissions sources after implementation of MACT standards.

Two principal laws provide the foundation for state regulation of toxic air contaminants from stationary sources. In 1983, the State Legislature adopted Assembly Bill 1807, which established a process for identifying toxic air contaminants and providing the authority for developing retrofit air toxics control measures on a statewide basis. The current list of toxic air contaminants includes approximately 200 compounds, including all of the toxics identified under federal law plus additional compounds, such as particulate emissions from diesel-fueled engines, which was added in 1998. Air toxics from stationary sources in California are also regulated under Assembly Bill 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. Under Assembly Bill 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the regional air quality management district or county air pollution control district. High priority facilities are required to perform a health risk assessment, and if specific thresholds are violated, they are required to communicate the results to the public in the form of notices and public meetings. Depending on the risk level, emitting facilities can be required to implement varying levels of risk reduction measures.

Regulatory Agencies

U.S. EPA is responsible for implementing the myriad programs established under the federal Clean Air Act, such as establishing and reviewing the national ambient air quality standards and judging the adequacy of State Implementation Plans, but has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented. California Air Resources Board (CARB), the State's air quality management agency, is responsible for establishing and reviewing the state ambient air quality standards, compiling the California State Implementation Plan and securing approval of that plan from U.S. EPA, and identifying toxic air contaminants. CARB also oversees the activities of air quality management districts, which are organized at the county or regional level. As a general matter, U.S. EPA and CARB regulate emissions from mobile sources and the air districts (e.g., the Bay Area Air Quality Management District) regulate emissions from stationary sources associated with industrial and commercial activities.

Criteria Air Pollutants

Mobile Emissions Sources

Generally, U.S. EPA and the CARB do not regulate mobile sources of air pollutants through individual permits but rather through emissions standards enforced on engine and vehicle manufacturers, through fuel specifications, and through vehicle inspection and maintenance programs. The emissions standards and inspection / maintenance (i.e., smog check) program for gasoline-powered automobiles are well-known, but standards and programs have also been established for most diesel-powered vehicles, including heavy trucks.

On-road heavy-duty diesel truck emissions were first regulated by the State of California in 1969, and by U.S. EPA in 1974. Over the years, more stringent emission standards have paralleled improvements in control technology. Diesel emissions standards for trucks focus on reducing ozone precursors [i.e., reactive organic gases (ROG) and nitrogen oxides (NO_x)] and PM-10. The current set of emissions standards for reducing ozone precursors from on-road, diesel-powered vehicles took effect beginning with the 1984 model year, and increasingly stringent standards are being phased in through the 2004 model year. By 2004, the emission standard for new heavy-duty diesel vehicles will be an aggregate of 2.4 grams of NO_x and ROG, combined, per brake horsepower-hour or an aggregate of 2.5 grams of NO_x and ROG, combined, per horsepower-hour with a 0.5 gram per horsepower-hour ROG cap. The current set of emissions standards for reducing PM-10 from on-road, diesel-powered vehicles took effect beginning in 1982 and increasingly stringent standards were phased in through the 1996 model year, which means that all new diesel equipment must meet the PM-10 emissions standard corresponding to the 1996 model year. New heavy-duty diesel engines today emit approximately one-third of the ozone precursors and one-tenth of the particulate matter compared to engines manufactured in the early 1970s (California Air Resources Board, 1998a).

Emissions from diesel-powered vehicles have also been reduced by modifying the formulation of diesel fuel itself. Beginning in 1993, all diesel fuel sold for on-road motor vehicles in California must meet

certain specifications (e.g., low sulfur and low aromatic content) established by CARB. "California diesel" provides a 7 percent reduction in NO_x and a 25 percent reduction in PM-10 relative to conventional diesel fuel. Off-road diesel-powered vehicles and equipment are not required to use "California diesel." Lastly, in 1998, CARB initiated enforcement of its roadside heavy-duty vehicle inspection program and began implementation of its fleet inspection program, referred to as the Periodic Smoke Inspection Program. The former program had been voluntary until 1998 when the program became mandatory. Under the latter program, California-based fleet owners, like some of the members of the Industry Group such as Bode Gravel Company and RMC Pacific Materials, are required to perform annual smoke tests on their heavy-duty vehicles. The purposes of both programs is to reduce excessive smoke from heavy-duty vehicles that travel on California streets and highways. (See below under "Toxic Air Contaminants" for information on U.S. EPA and CARB efforts to reduce TACs from diesel engines.)

Unlike autos and trucks, over which U.S. EPA and CARB share regulatory authority, U.S. EPA has exclusive authority to establish emission standards for marine vessels and locomotives. Until recently, emissions associated with marine vessels and locomotives have been largely unregulated. However, in 1999, U.S. EPA issued a final rule that establishes emissions standards for large, commercial, marine, diesel engines used in the United States (U.S. Environmental Protection Agency, 1999). These standards take effect for new engines manufactured starting in 2004, 2005, or 2007, depending upon their size. U.S. EPA estimates that implementation of the new standards will lead to a 24 percent reduction in emissions of NO_x and a 12 percent reduction in emissions of particulate matter by 2030 when the program is fully phased in. With respect to locomotives, U.S. EPA established emissions-related requirements for newly manufactured and remanufactured locomotives and locomotive engines in 1998 (U.S. Environmental Protection Agency, 1998). These new requirements are expected to achieve an approximate 45 percent reduction in NO_x emissions and an approximate 20 percent reduction in ROG and particulate matter emissions from locomotives by year 2015.

Stationary Emissions Sources

In the Bay Area, the Bay Area Air Quality Management District (BAAQMD) is the regional agency empowered to regulate air pollutant emissions from stationary sources. BAAQMD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and review activities. BAAQMD permit authority would extend to many of the stationary emissions sources that would be operated under this project, including concrete and asphalt plants. To secure a BAAQMD permit, many new sources must be equipped with Best Available Control Technology (BACT) to control emissions, and in some cases, must provide emissions credits to offset residual emissions increases.[32] As

[32] BAAQMD will most likely be providing emissions reductions credits (offsets) from its bank for some of the permits associated with the Industry Group. However, these offsets have been ignored for impact evaluation purposes for this SEIR. That is, no credit for them has been included in the emissions tables provided in the impact discussion.

a general matter, BAAQMD's permit authority, does not extend to on-road motor vehicles, such as automobiles and trucks,[33] or to certain other types of mobile sources, such as locomotives.

Toxic Air Contaminants

Mobile Emissions Sources

The regulatory approach for toxic air contaminants differs between mobile sources and stationary sources. Toxic air contaminants from mobile sources have been generally regulated through establishment (by U.S. EPA and CARB) of emissions standards for motor vehicles (imposed on vehicle manufacturers), and through specifications for gasoline and diesel fuel sold in California (imposed on fuel refineries and retailers), rather than through air quality permits or regulations on how motor vehicles are used by the general public. As described above for criteria air pollutants (mobile emissions sources), the CARB has already adopted control measures which reduce particulate matter emissions from diesel-fueled engines, such as PM-10 emissions standards and diesel fuel specifications. As a result of these measures, the projected outdoor ambient air concentration in California of PM-10 due to particulate matter emissions from diesel-fueled engines is expected to decrease 43 percent by 2010 (California Air Resources Board, 1998c).

Both U.S. EPA and CARB have proposed new rules to reduce cancer risk from diesel exhaust particulates. The proposed federal regulations, published in the Federal Register in June 2000, would substantially reduce – by 97 percent – the amount of sulfur in diesel fuel, allowing for the use of catalytic filters (similar to the catalytic converters that have been required on passenger cars for many years) that can reduce emissions from diesel trucks. Along with the new fuel rules, U.S. EPA has proposed tighter emissions standards that would take effect beginning in 2007. The new rules are proposed to become final by late 2000.

Separately, CARB in July 2000 published a draft plan that identifies a comprehensive program to further reduce emissions and resultant health risks associated with emissions of particulate matter from diesel engine exhaust (California Air Resources Board, 2000a). If approved by CARB, ARB staff will develop a series of new regulations covering both on-road and off-road (both mobile and stationary) diesel engines. This draft diesel risk reduction plan is an outgrowth of CARB's decision, which became effective in August 1999, to designate diesel exhaust particulates as a toxic air contaminant. CARB estimates that the future regulation, when fully implemented, could reduce the statewide cancer risk from diesel by 75 percent by 2010 and by 85 percent by 2020 (compared to an estimated 20 percent decrease in risk due to cleaner engines that would come about without the new rules). These future regulations would rely on retrofitting of existing engines, cleaner new engines (based on the U.S. EPA proposal), and low-sulfur diesel fuel, among other things. CARB is also examining alternatives to diesel fuel for powering heavy-duty engines, including trucks. The CARB board approved the draft diesel risk

[33] An exception exists for fugitive dust generated by truck movement operating within an industrial parcel. BAAQMD typically does include (and regulate) such emissions through the permit process for the facility.

reduction plan on September 28, 2000, and CARB staff will begin development of the regulatory program identified in the plan.

To be conservative, the analyses in this report do not assume implementation of any of the above proposed rules or regulations.

Stationary Emissions Sources

To reduce public exposure to toxic air contaminants from stationary sources in the Bay Area, BAAQMD administers the Bay Area's Toxic Air Contaminant Control Program, which involves reviewing new stationary sources to ensure compliance with required emission controls and limits, maintaining an inventory of existing stationary sources of toxic air contaminants, and developing new rules and regulations to reduce toxic air contaminant emissions. Under the BAAQMD's adopted Risk Management Policy, BAAQMD typically denies permits to new or modified stationary emissions sources where the emissions of toxic air contaminants from such sources, after installation of BACT for toxics (i.e., TBACT), would cause the probability of contracting cancer for the MEI to exceed 10 in a million.

Odorous Emissions

Regulations concerning odorous emissions apply to stationary emissions sources rather than mobile sources. BAAQMD *Rules and Regulations* (specifically, Regulation 7) place general limitations on odorous substances and specific emission limitations on certain odorous compounds. BAAQMD Regulation 7 applies when and if the BAAQMD receives validated odor complaints regarding a specific facility from 10 or more complainants in a 90-day period. The regulation restricts emissions of odorous substances that cause the ambient air at or beyond the property line to remain odorous after dilution with four parts of odor-free air. BAAQMD also regulates odorous emissions through enforcement of the public nuisance provisions in BAAQMD Regulation 1.

REGIONAL AND SAN FRANCISCO AIR QUALITY CONDITIONS

Criteria Air Pollutants

BAAQMD operates a regional air quality monitoring network that provides information on ambient concentrations of criteria air pollutants, including ozone, carbon monoxide, and PM-10, which are the three pollutants of most concern.

Monitored ambient air pollutant concentrations reflect the number and strength of emissions sources and the influence of topographical and meteorological factors. Table 8 is a summary of monitoring data collected at the BAAQMD's Arkansas Street monitoring station (located at 16th and Arkansas Streets, about 1.5 miles northwest of Islais Creek) over the past five years for those pollutants for which the Bay Area is, or has been, designated "nonattainment."

As shown in Table 8, no exceedances of ozone or carbon monoxide concentrations have been recorded at the San Francisco monitoring stations over the past five years, but exceedances of the state PM-10 standard have occurred on occasion (approximately 4 percent of the time, which is equivalent to approximately 15 days per year). PM-2.5 monitoring at the Arkansas Street station began in early 1999, and only one year of data is available. The highest 24-hour-average PM-2.5 concentration measured in 1999 at the Arkansas Street was 71 micrograms per cubic meter, which exceeds the national standard of 65 micrograms per cubic meter. Table 8 also shows that carbon monoxide concentrations are generally higher at the Ellis Street monitoring station (which only monitors carbon monoxide), located in the Van Ness Avenue corridor, than at the Arkansas Street station, located in the Potrero Hill area.

Table 9 presents composite data for the past five years for the BAAQMD's entire regional network of monitoring stations. As shown in Table 9, the regional monitoring network has recorded exceedances of the state ozone standard on an average of approximately 24 days per year over the past five years. Coastal monitoring stations, such as those in San Francisco, Oakland, and San Rafael, record the fewest exceedances, while inland valley stations, such as those in Livermore, Concord, and Gilroy, record the most violations. Exceedances of national one-hour and national eight-hour ozone standards occur less frequently: on approximately 6 and 11 days per year, respectively. Table 9 also shows that no exceedances of the carbon monoxide standard have been recorded over the past five years. With respect to PM-10, the regional monitoring network records exceedances of the state 24-hour standard relatively frequently (approximately 5.4 percent of the time over the three most recent years for which data are available, which is equivalent to approximately 20 days per year). A monitoring network for PM-2.5 in the Bay Area has only recently been established. Based on one year of data, the highest PM-2.5 concentrations were collected at the stations in Vallejo, San Jose and San Francisco, and exceedances of the federal standard were recorded. According to the California Air Resources Board, annual mean concentrations of PM-2.5 in California's urban areas range from 10 to 25 micrograms per cubic meter (mg/m^3), compared to the federal annual PM-2.5 standard of 15 mg/m^3. Observed 24-hour average peaks reach levels as high as 160 mg/m^3, compared to the 24-hour federal PM-2.5 standard of 65 mg/m^3. Annual concentrations have declined at most urban sites in California since monitoring began in 1989.

Several years of PM-2.5 data will be collected in the Bay Area prior to the preparation of a State Implementation Plan for PM-2.5, which will probably be required by around 2006 (California Air Resources Board, 2000b).

TABLE 8
SUMMARY OF LOCAL MONITORING DATA FOR THE ARKANSAS STREET AND ELLIS STREET STATIONS, 1995-1999

	State Standard	National Standard	Pollutant Concentration by Year [a]				
Pollutant			**1995**	**1996**	**1997**	**1998**	**1999**
Ozone							
Highest 1-hour average, ppm [b]	0.09	0.12	0.09	0.07	0.07	0.05	0.08
Days over State Standard			0	0	0	0	0
Days over National Standard			0	0	0	0	0
Highest 8-hour average, ppm	NA	0.08	0.07	0.05	0.06	0.05	0.06
Days over National Standard			0	0	0	0	0
Carbon Monoxide (Arkansas Street)							
Highest 8-hour average, ppm	9.0	9	4.4	3.9	3.5	4.0	3.7
Days over Standard			0	0	0	0	0
Carbon Monoxide (Ellis Street)							
Highest 8-hour average, ppm	9.0	9	5.5	5.6	5.8	3.7	4.6
Days over Standard			0	0	0	0	0
Respirable Particulate Matter (PM-10)							
Highest 24-hour average, $\mu g/m^3$ [b]	50	150	50	**71**	**81**	**52**	**78**
Number of samples [c]			61	61	61	61	61
Days over State Standard			0	2	3	1	6
Days over National Standard			0	0	0	0	0
Annual average, $\mu g/m^3$	30	50	22	21	23	20	23

NOTE: **Bold** values are in excess of applicable standard. NA = Not Applicable or Not Available.

[a] Data was collected at the Arkansas Street monitoring station unless otherwise noted. The Ellis Street station monitors for carbon monoxide only.

[b] ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.

[c] PM-10 is not measured every day of the year. The term, "number of samples" refers to the number of 24-hour-average PM-10 samples collected in a given year at the Arkansas Street monitoring station.

SOURCE: California Air Resources Board, *Summary of Air Quality Data, Gaseous and Particulate Pollutants*, 1996, 1997, 1998; 1998 and 1999 data are from the CARB website at www.arb.ca.gov/adam.

TABLE 9
SUMMARY OF REGIONAL MONITORING DATA FOR THE SAN FRANCISCO BAY AREA AIR BASIN, 1995–1999

	State Standard	National Standard	Pollutant Concentration by Year [a]				
Pollutant			**1995**	**1996**	**1997**	**1998**	**1999**
Ozone							
Highest 1-hour average, ppm [b]/	0.09	0.12	**0.16**	**0.14**	**0.11**	**0.15**	**0.16**
Days over State Standard			28	34	8	29	20
Days over National Standard			11	8	0	8	3
Highest 8-hour average, ppm	NA	0.08	**0.12**	**0.11**	0.08	**0.11**	**0.12**
Days over National Standard			18	14	0	16	9
Carbon Monoxide							
Highest 8-hour average, ppm	9.0	9	6.1	7.1	6.3	6.3	6.3
Days over Standard			0	0	0	0	0
Respirable Particulate Matter (PM-10)							
Highest 24-hour average, $\mu g/m^3$ [b]	50	150	**74**	**76**	**95**	**92**	**114**
Number of sample-days [c]			89	88	81	NA	NA
Days over State Standard			7	3	4	5	NA
Days over National Standard			0	0	0	0	0
Highest annual average, $\mu g/m^3$	30	50	26	22	24	23	25

NOTE: **Bold** values are in excess of applicable standard. NA = Not Applicable or Not Available.

[a] This table summarizes the data from all of the monitoring stations within the Bay Area.
[b] ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
[c] PM-10 is not measured every day of the year. "Number of sample-days" refers to the number of days in a given year during which PM-10 was measured at one or more monitoring stations in the Bay Area.

SOURCE: California Air Resources Board, *Summary of Air Quality Data, Gaseous and Particulate Pollutants*, 1996, 1997, 1998; 1998 and 1999 data are from the CARB website at www.arb.ca.gov/adam.

Toxic Air Contaminants

BAAQMD also operates a regional monitoring network that collects ambient concentration data on some of the more pervasive toxic air contaminants. Table 10 summarizes three years of available toxic air contaminant concentration data collected at the air quality monitoring station located on Arkansas Street in San Francisco and compares the data with the concentration data based on the entire regional network of toxic air contaminant monitoring stations in the Bay Area. Table 10 indicates that ambient toxic air contaminant concentrations at the Arkansas Street station are generally similar to, or less than, the

TABLE 10
SAN FRANCISCO, ARKANSAS STREET STATION,
TOXIC AIR CONTAMINANT CONCENTRATIONS, 1994, 1996, 1998

Toxic Air Contaminant	San Francisco Station [a] Mean Concentration (ppb) [b,c]			As Percent of Bay Area Mean Concentration [d]		
	1994	1996	1998	1994	1996	1998
Methylene Chloride	0.69	0.50	0.43	99%	71%	96%
Chloroform	0.01	0.01	0.02	100%	50%	200%
Methyl Chloroform	0.41	0.24	0.09	64%	77%	75%
Carbon Tetrachloride	0.11	0.10	0.10	100%	91%	100%
Trichloroethylene	< 0.08	< 0.08	0.04	100%	100%	80%
Benzene	1.16	0.55	0.66	89%	100%	106%
Perchloroethylene	0.17	0.09	0.15	68%	45%	100%
Toluene	3.69	1.72	1.96	137%	83%	119%
1,3-Butadiene	< 0.45	0.18	0.33	100%	86%	94%

a Data for San Francisco are from the air quality monitoring station on Arkansas Street in San Francisco, which is located approximately 1.5 miles northwest of Islais Creek.

b ppb = parts per billion.

c "Mean Concentration" is the arithmetic average of the air samples collected in each of the given years at the 15 monitoring stations in the Bay Area. In calculating the mean, samples with concentrations less than the "level of detection" (LOD) were assumed to be equal to one-half the LOD concentration.

d These percentages compare San Francisco measured concentrations to the average for the entire Bay Area. For example, 100% indicates that San Francisco's mean concentration is the same as the mean concentration calculated based on the data from all of the monitoring stations in the Bay Area; 50% indicates that San Francisco's mean concentration is one-half that of the mean concentrations for the entire Bay Area.

SOURCES: Bay Area Air Quality Management District, Toxic Air Contaminant Control Program, *Annual Report, 1994*, August 1995; Bay Area Air Quality Management District, Toxic Air Contaminant Program, *Annual Report, 1996*, December 1997; Bay Area Air Quality Management District, Toxic Air Contaminant Program, *Annual Report, 1998*, December 1999.

average concentrations of those pollutants measured at other stations in the Bay Area. The data in Table 10 show that ambient benzene levels declined substantially in 1996 with the advent of Phase 2 reformulated gasoline. Due largely to the observed reductions in ambient benzene and 1,3-butadiene levels, the average cancer risk in the Bay Area from ambient levels of toxic air contaminants has declined though the 1990s. Based on region-wide monitoring data for year 1998, the incremental cancer risk from exposure to ambient levels of toxic air contaminants – excluding diesel particulate matter – has been estimated to be 199 in a million, which is over 40 percent less than had been estimated for year 1993 (Bay Area Air Quality Management District, 1999b).

Diesel particulate matter consists of more than one compound, making monitoring more difficult than for the single TACs listed in Table 10. However, based on a limited amount of data, CARB has estimated

the statewide, ambient, "population-weighted," cancer risk due to essentially all toxic air contaminants, based on year 2000 emissions, at 758 in 1 million, of which 540 in 1 million, or about 70 percent, is estimated to be due to diesel particulate (California Air Resources Board, 2000a). That is, the average individual in the State of California has a 0.8 in 1,000 chance – beyond the risk from other sources, including hereditary factors and exposure to other substances – of developing cancer due to toxic air contaminants in the ambient air. The average risk in the Bay Area is less than the statewide "population-weighted" average since the latter is influenced heavily by the large numbers of people living in the Los Angeles metropolitan area. The average risk from ambient toxic air contaminants is approximately 30 percent less in the Bay Area than in the South Coast Air Basin (i.e., the Los Angeles metropolitan area) and approximately 17 percent less in the Bay Area than that calculated for the statewide "population-weighted" average (California Air Resources Board, 1998b).

EXISTING EMISSIONS WITHIN PROJECT VICINITY

Existing emissions sources within the project vicinity include large stationary sources, such as the Potrero and Hunters Point power plants, and other stationary sources, as well a mobile sources. The smaller stationary sources in the area, such as paint shops and small boilers, emit quantities of emissions that are substantially less than the mobile sources and the power plants. Mobile sources include autos and trucks traveling on Interstate 280, located approximately one mile west of the project site, and auto and trucks traveling on nearby Third Street and other local streets.

SENSITIVE RECEPTORS

Some land uses are considered more sensitive than others to air pollution. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions source, or duration of exposure to air pollutants. Schools, hospitals and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential areas are also sensitive to poor air quality because people usually stay home for extended periods of time.

The project area contains primarily cargo shipping, ship repair yard, industrial, and service, storage, and light industrial uses; open space at Warm Water Cove, along the north and south banks of Islais Creek, and at Pier 98, Heron's Head Park; and vacant land. No residential uses are located within the project area; the nearest residential areas are those in the Bayview-Hunters Point neighborhood (about one-half mile or more south of the project area), atop Potrero Hill (about one-third of a mile or more west and northwest of the project area), along Third Street (about one-half mile or more southwest of the project area), and in the small community known as Dogpatch, a block west of Third Street near 22nd Street. In the vicinity of the proposed Illinois Street Intermodal Bridge, there are existing vacant lands and industrial/manufacturing uses.

A 1997 hospitalization study conducted by physicians from the San Francisco Department of Public Health and the University of California at San Francisco (Aragón and Grumbach, 1997) indicated that

hospitalization rates for asthma, hypertension, diabetes, and congestive heart failure are higher in the Bayview/Hunters Point area than in other parts of San Francisco. The study also reported that the Bay Area has among the highest age-adjusted breast cancer rates in California and that, while white women in San Francisco had a higher rate of breast cancer, black women were more likely to die from breast cancer. In the predominantly African-American Bayview-Hunters Point neighborhood, the study reported an 87 percent higher age-adjusted death rate from breast cancer than for the City as a whole. The study also found that Bayview-Hunters Point rates for other cancers, including female cervical cancer and male prostate and lung cancer, were higher than in most San Francisco neighborhoods.

The study did not evaluate the cause(s) of the observed higher rates of these ailments, and no inferences can be made regarding the relationships between industrial emissions, mobile emissions, other sources, and health problems in the area. A detailed study, considering health access issues such as availability of regular medical care, ability to pay, diet, and others, as well as environmental factors such as pollution, would be required to begin to address the causes of poor health outcomes in the Bayview-Hunters Point. Such a study is beyond the scope of this SEIR. However, because of the location and concentration of uses proposed by members of the Industry Group and the sensitivity of nearby populations, this SEIR goes well beyond the typical level of air quality analysis in EIRs to address potential health effects of localized air pollution (see p. 91).

IMPACTS

SIGNIFICANCE CRITERIA

The City has not formally adopted CEQA significance criteria, but generally considers a project to have a significant effect on air quality if it would (1) conflict with or obstruct implementation of the applicable air quality plan; (2) violate any air quality standard or contribute substantially to an existing or projected air quality violation; (3) result in a cumulatively considerable net increase of any nonattainment pollutant; (4) expose sensitive receptors to substantial pollutant concentrations; or (5) create objectionable odors affecting a substantial number of people.

BAAQMD has published a set of recommendations that provide specific guidance on evaluating projects under CEQA relative to the above general criteria (Bay Area Air Quality Management District, 1999a). For temporary construction-phase impacts, BAAQMD recommends a qualitative approach that focuses on the dust control measures that would be implemented. If appropriate mitigation measures are implemented to control PM-10 emissions, then the impact from construction would be less than significant.

For evaluating long-term operational emissions increases on a regional basis, effects are assessed by evaluating the total amount of criteria pollutants that the project would emit throughout the Bay Area airshed. Based on BAAQMD guidance, this report uses a criterion of 80 pounds per day or 15 tons per year from indirect sources (such as autos, trucks, trains, and ships) to identify projects that generate significant increases in regional emissions of ROG, NO_X, or PM-10. BAAQMD recommends that

cumulative air quality effects be discussed with reference to the consistency of a project to the regional Clean Air Plan. The BAAQMD recommendations are used herein to identify significant regional air quality effects of the project and significant cumulative effects.

The assessment of local impacts is conducted through dispersion modeling to evaluate the concentration of particular pollutants on nearby receptors. This approach is used for carbon monoxide, which unlike other criteria pollutants, does not disperse readily over wide areas and is therefore more appropriately examined nearer the source. For this report, carbon monoxide concentrations are modeled at selected intersections (where two separate roadway sources come together, resulting in the highest localized concentrations) and compared against the state standard for one-hour and eight-hour periods of 20 parts per million (ppm) and 9 ppm, respectively.

This report also evaluates localized concentrations of respirable particulate matter (PM-10), using a threshold that is equivalent to the standards used by BAAQMD to identify significant air quality impacts under their New Source Review rule (BAAQMD Regulation 2-2-233). Specifically, this SEIR uses concentration thresholds of 5.0 micrograms per cubic meter, 24-hour-average, and 1.0 microgram per cubic meter, annual average, to identify "substantial" contributions to existing or projected PM-10 exceedances, which would be considered a significant effect.

As described in the setting section, the impact of toxic air contaminants is evaluated based on a potential to increase the occurrence of cancer and is typically reported as an additional number of cancer cases, compared to the risk that would exist without exposure to the pollutant in question. This risk is reported as *n* chance in 1 million (or *n* cases per 1 million persons), where *n* is the number of additional cases of cancer that could be expected due to the pollutant in question. This report uses an incremental risk of 10 in 1 million (10 additional cancer cases per million persons over a lifetime (70-year) exposure, or a 1 in 100,000 chance of a single individual developing cancer, beyond the pre-existing risk) as the significance threshold, based on the BAAQMD's procedure for permitting of stationary sources, which typically uses 10 in 1 million as the standard below which individual projects may be permitted.

IMPACT ASSESSMENT METHODOLOGY

Construction-period impacts were evaluated qualitatively and with reference to the dust control measures that can be implemented to reduce the temporary air quality effects associated with construction. Operational impacts were evaluated quantitatively through estimates of pollutant emissions and concentrations. Operational impacts were examined for two years: 2003, when the Industry Group project components would be in operation, the Illinois Street intermodal bridge would be in place, and the Muni Third Street light rail line is anticipated to begin operations; and 2015, by which time the

Future Port Development described in the Project Description would occur.[34] With implementation of the Industry Group components, there is anticipated to be a shift, over time, in the transport of aggregate raw materials used in the production of ready-mix concrete, from truck to ship. As described in Appendix A, approximately half of the aggregate would be brought to the project area by ship by 2003 (and 2001), with this percentage increasing to 80 percent by 2015. These shifts in mode of transport are reflected in this analysis, as they are in the transportation analysis.

Two separate operational analyses were conducted for both analysis years. One aspect of the analysis quantifies the net change in emissions due to project-related sources from a regional perspective (emissions occurring within the multi-county air basin), including emissions from stationary sources (e.g., industrial plants and the like) and from mobile sources (i.e., motor vehicles, ships, trains, etc.). The other aspect of the analysis identifies what portion of the regional emissions would be experienced locally.

For the regional air quality analysis, mobile-source emissions are calculated regardless of where they occur within the Bay Area, to the extent that they result in new emissions, compared to existing conditions. This is the typical approach to air quality analysis, and takes into account emissions not only in the immediate project area, but also emissions from, for example, vehicle trips that begin outside the immediate area, or even outside San Francisco, and end within the project vicinity. This "emissions inventory" for the project does not count existing trips – for example, those being made to and from the existing ready-mix concrete plants in the Mission Bay area – because those trips would not represent a change from existing to future conditions, except to the extent that the distance traveled is anticipated to change. The resulting volumes of criteria air pollutants that are reported would affect the entire Bay Area air shed, and are not directly reflective of local conditions in the vicinity of the project components because only those emissions generated within the immediate vicinity would contribute meaningfully to the local concentrations of various pollutants; that is, for example, emissions from motor vehicles in the East Bay or from ships passing beneath the Golden Gate Bridge are dispersed and diluted such that they would have little air quality impact in Bayview-Hunters Point or Potrero Hill.

To determine the local effects of increased emissions with the project, this EIR also quantifies local project emissions and effects, in particular, due to project-related stationary sources and related truck traffic, on the Bayview-Hunters Point neighborhood. These calculations are provided in recognition of the concentration of industrial uses proposed, and the anticipated corresponding concentration of truck traffic, and because a substantial volume of the Phase I vehicle trips related to the Industry Group project components are currently being made, under existing conditions, to and from other parts of San Francisco. For example, delivery of concrete is made from the existing Bode Gravel Company and

[34] Unlike the traffic analysis, no separate air quality analysis was conducted for 2001. This is because the trip generation from the Industry Group components would be the same in 2001 and 2003, but by 2003 there would be additional emissions from other sources in the project area, including cargo shipping at Piers 80 and 94-96, and assumed expansion of an existing recycling facility at Pier 96. Therefore, 2003 provides for a more conservative evaluation of short-term impacts. (The traffic analysis included 2001 to differentiate between "before" and "after" conditions vis-à-vis the Third Street light rail line.)

RMC Pacific Materials plants located on Third Street at 16th Street and at Mariposa Street, respectively. Existing delivery of asphalt concrete is made to locations in San Francisco from plants in Berkeley and in Brisbane. Therefore, the change in location of, for example, the Bode and RMC concrete plants, would result in very little change in emissions viewed from a regional perspective, although there would be the potential for a proportionately larger increase in the concentrations of certain key emissions in the immediate vicinity of the new plants (with a corresponding decrease in emissions concentrations at the existing locations). These localized calculations report results for carbon monoxide concentrations at local intersections, as well as concentrations of respirable particulate matter (PM-10) and diesel particulate matter.

Like the regional emissions calculations, these local calculations include emissions from on-site stationary sources and emissions from vehicle trips, train trips and ships. However, in this instance, the relocated stationary sources (ready-mix plants and proposed asphalt plant) would result in increased emissions within the immediate area, even if their effect on regional emissions would be negligible. With regard to vehicle trips, only trips within the project vicinity are counted in this local emissions calculation. For the Industry Group components, a maximum trip length of three miles to or from Third Street at Islais Creek – the approximate center point of the Industry Group sites – was used. For this local calculation, trucks traveling in excess of three miles (to the north) were not assumed to generate emissions that would directly affect the neighborhood. Therefore, with regard to existing trips – for example, those being made to and from the existing ready-mix concrete plants in the Mission Bay area – this local inventory only includes the emissions generated by that portion of the trips that occur between the existing concrete plants and Islais Creek, which is the change from existing to future conditions. In addition, project-related emissions from trucks currently traveling to and from the south were not added to this local inventory, because these truck emissions were considered to be already present in the immediate neighborhood.

Both sets of emissions estimates (regional and local) include stationary and mobile sources associated with the various project components. For stationary-source emissions, the calculations were based on information contained in BAAQMD permit applications for those projects for which draft applications have been prepared; information was extrapolated to the analysis of other similar uses. For mobile-sources, emissions were calculated based on published emission factors for specific vehicle types and on vehicle-miles-traveled figures generated by the traffic analysis. The net change in emissions due to the project from the regional perspective was then compared with the applicable emissions-based significance thresholds. The net change in emissions from a project-area perspective were then used as input to air quality modeling for carbon monoxide, PM-10, and diesel particulate.

With respect to concentrations, carbon monoxide concentrations were evaluated using carbon monoxide protocols developed at U.C. Davis for transportation projects (Institute of Transportation Studies, 1997). The screening-level protocol was used to identify intersections where more detailed analysis should be conducted, and the more detailed protocol was then applied to those identified intersections using Caltrans' line-dispersion model, CALINE4. PM-10 concentrations levels due to project sources were

calculated using the Industrial Source Complex (ISC) dispersion model. The estimated carbon monoxide concentrations based on the protocols and CALINE4 were then added to estimated background concentrations and the totals were compared against the applicable ambient carbon monoxide standards.

Project-related PM-10 concentration estimates were made for approximately 16 receptor locations in the nearby residential area. A component of PM-10 derives from combustion of diesel fuel, and the ISC modeling results were tabulated such that the diesel PM-10 concentrations could be extracted from the results for total PM-10 concentrations to provide the basis for calculating the incremental cancer risk from diesel PM emissions from project-related sources.

CONSTRUCTION-PERIOD IMPACTS

Grading and other ground-disturbing construction activities would temporarily affect local air quality intermittently during construction activities for each project component, causing a temporary increase in particulate dust and other pollutants. Heavy equipment would generate fugitive dust and would emit combustion products, including ozone precursors (ROG and NO_x), carbon monoxide, sulfur dioxide, and PM-10, but the most significant emissions would be fugitive dust.

Fugitive dust emission during demolition and excavation would increase particulate concentrations within the project area. Dustfall can be expected at times on surfaces within 200 to 800 feet. Under winds exceeding 12 miles per hour, localized effects including human discomfort might occur downwind from blowing dust. Construction dust is composed primarily of particularly large particles that settle out of the atmosphere more rapidly with increasing distance from the source and are easily filtered by human breathing passages. In general, construction dust would result in more of a nuisance than a health hazard in the vicinity of construction activities. About one-third of the dust generated by construction activities consists of smaller size particles in the range that can be inhaled by humans (*i.e.,* PM-10), although those particles are generally inert. Persons with respiratory diseases immediately downwind of the site could be sensitive to this dust.

The Illinois Street bridge would require minimal grading. Some earthmoving and grading would be required as part of the improvements to connecting rail beds and roads, but this would be no more extensive than typical urban street repaving operations. In general, with the exception of the Mission Valley Rock / Bode Gravel Company sites at Pier 92, most of the Industry Group project components would be located on land that is currently paved, and ground disturbance for grading and earthmoving would be limited. Buildings and other structures to be constructed would be relatively small and/or temporary structures, without a requirement for massive foundations, and existing buildings would be used as part of many of the project components.

Much of the potential future development on Port lands assumed in this analysis would occur on unpaved lands. Because the terrain is flat, however, grading would not be expected to be extensive, unless subsurface parking or other excavation were required. Up to about 100 acres could be developed, about three-fourths of which is currently unpaved. Development would occur in stages, over the next 15 years,

with the volume of PM-10 emitted from any given project dependent on the area of earth being graded or otherwise disturbed. Uncontrolled PM-10 emissions can total about 51 pounds per day per acre (BAAQMD, 1999a, p. 28).

BAAQMD has identified a set of feasible PM-10 control measures for construction activities, and mitigation was included in the Waterfront Plan EIR to reduce construction-related air quality impacts to a less-than-significant level; a revised version of this mitigation measure is included in this SEIR as Mitigation Measure No. C-5 (see p. 148). With implementation of this measure, construction-related air quality effects would be reduced to a less-than-significant level.

OPERATIONAL IMPACTS

Regional Air Quality Analysis

Regional emissions resulting from operations were calculated based on information supplied by the applicants and on emission factors released by U.S. EPA and CARB. The emissions of criteria pollutants were estimated for maximum daily and annual operations, and they include emissions from stationary sources (i.e., fixed equipment) on the project sites, from commuter trips, from haul truck trips, ships, and rail engines for those Industry Group project components that would handle construction materials, and from buses at the Coach USA site. Assumptions used to quantify project emissions are described in Appendix D, Air Quality. Additional background for the air quality assumptions can be found in Appendix A, Assumptions for Production of Construction Aggregates, and Appendix C, Transportation.

The regional project emissions inventory is summarized in Table 11, where the results are compared with BAAQMD-recommended significance thresholds, for both daily and annual emissions. Tables 12 through 15 provide a component-by-component breakdown of the emissions estimates that provided the basis for summaries shown in Table 11. Table 11 shows that the maximum daily emissions of reactive organic gases (ROG), nitrogen dioxide (NO_x), and respirable particulates (PM-10) from all project components combined would exceed the significance threshold of 80 pounds per day in both 2003 and 2015. The significance threshold for annual emissions of 15 tons per year would also be exceeded for ROG and NO_x in each year. Therefore, the project would result in a significant effect with regard to emissions of criteria pollutants. This significant impact would occur regionally within the multi-county air basin and are not directly reflective of local conditions (see "Local Air Quality Analysis," p. 89, for a discussion of project effects on localized emissions concentrations). This impact cannot be reduced to a less-than-significant level because of the magnitude of the project.

As seen in Table 11, the source of the greatest amount of emissions would be ship and rail traffic, particularly on days when ships call at the Port's terminals. (The daily emissions data presented in Table 11 and Tables 12 and 14 are indicative of days when ships call.) As indicated in Table 12, roughly 60 percent of the NO_x would be generated, on a daily basis, by the Industry Group components and the remainder by non-Industry Group shipping. On an annual basis, however, the split would be reversed,

TABLE 11
ESTIMATED NET CHANGE IN REGIONAL POLLUTANT EMISSIONS, 2003 AND 2015[a]

ANALYSIS YEAR 2003	Maximum Daily Emissions (lbs./day)						Significance
Pollutant	Stationary Sources[b]	Motor Vehicle[c]	Truck	Ship and Rail	Total	Pct. of Bay Area[d]	Criteria (lbs./day)
Reactive Organic Gases (ROG)	98	17	-18	221	318	0.04	80
Nitrogen Oxides (NOx)	58	4	-125	2,038	1,975	0.22	80
Particulate Matter (PM-10)	15	1	-13	79	82	0.02	80

	Annual Emissions (tons/year)					Significance
Pollutant	Stationary Sources[b]	Motor Vehicle[c]	Truck	Ship and Rail	Total Emissions	Criteria (tons/year)
Reactive Organic Gases (ROG)	10.2	2.5	-1.8	7.7	18.6	15
Nitrogen Oxides (NOx)	6.0	0.6	-12.4	74.5	68.7	15
Particulate Matter (PM-10)	1.5	0.1	-1.4	2.8	3.0	15

ANALYSIS YEAR 2015	Maximum Daily Emissions (lbs./day)						Significance
Pollutant	Stationary Sources[b]	Motor Vehicle[c]	Truck	Ship and Rail	Total	Pct. of Bay Area[d]	Criteria (lbs./day)
Reactive Organic Gases (ROG)	135	6	3	185	329	0.05	80
Nitrogen Oxides (NOx)	79	2	18	1,938	2,037	0.28	80
Particulate Matter (PM-10)	30	1	1	67	98	0.03	80

	Annual Emissions (tons/year)					Significance
Pollutant	Stationary Sources[b]	Motor Vehicle[c]	Truck	Ship and Rail	Total Emissions	Criteria (tons/year)
Reactive Organic Gases (ROG)	14.1	0.9	0.8	17.9	33.7	15
Nitrogen Oxides (NOx)	8.3	0.3	5.1	170.3	183.9	15
Particulate Matter (PM-10)	2.5	0.1	0.3	5.8	8.7	15

a This table provides estimates of the net change in regional emissions under the project case in 2003 and 2015 relative to existing conditions. Total project emissions would be disbursed throughout the Bay Area, and would not be experienced locally except as described in the following sections (see "Local Air Quality Analysis"). See Tables 12-15 for emissions estimates of individual project components, and Appendix D for more detail.

b Based on BAAQMD permit applications.

c Includes non-truck vehicle emissions (i.e., employee and visitor vehicle trips).

d Percentage of total daily Bay Area emissions in 2003 and 2015 based on CARB emissions inventories.

SOURCE: Environmental Science Associates.

TABLE 12
ESTIMATED NET CHANGE IN DAILY REGIONAL POLLUTANT EMISSIONS BY PROJECT COMPONENT, 2003

	Stationary Sources			Motor Vehicle			Truck			Ship and Rail			Total Emissions		
	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10
DAILY EMISSIONS (pounds per day)															
Industry Group Components															
Bode Gravel	0	0	0	1	<0.5	<0.5									
Mission Valley Rock	98	58	13	0.5	<0.5	<0.5									
ISG Resources	0	0	0.24	1.5	<0.5	<0.5	-26	-178	-17	137	1,227	51			
RMC Pacific	0	0	0	1.5	<0.5	<0.5									
British Pacific Aggregates	0	0	1	1.5	<0.5	<0.5									
Subtotal: Aggregate-Related	98	58	15	6	1	<0.5	-26	-178	-17	137	1,227	51	215	1,108	49
Waste Management	0	0	0	2	<0.5	<0.5	0	0	0	0	0	0	2	<0.5	<0.5
Coach USA	0	0	0	9	2	<0.5	3	20	1	0	0	0	12	22	2
Subtotal: Non-Aggregate	0	0	0	11	3	<0.5	3	20	1	0	0	0	14	23	2
Subtotal: Industry Group	98	58	15	17	4	1	-23	-158	-16	137	1,227	51	229	1,131	51
Future Port Development (includes cargo shipping)	0	0	0	0	0	0	5	33	3	84	811	28	89	844	31
Total	**98**	**58**	**15**	**17**	**4**	**1**	**-18**	**-125**	**-13**	**221**	**2,038**	**79**	**318**	**1,975**	**82**
Significance Criteria													80	80	80

TABLE 13
ESTIMATED NET CHANGE IN ANNUAL REGIONAL POLLUTANT EMISSIONS BY PROJECT COMPONENT, 2003

	Stationary Sources			Motor Vehicle			Truck			Ship and Rail			Total Emissions		
	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10
ANNUAL EMISSIONS (tons per year)															
Industry Group Components															
Bode Gravel	0	0	0	0.2	<0.1	<0.1									
Mission Valley Rock	10.2	6.0	1.4	<0.1	<0.1	<0.1									
ISG Resources	0	0	<0.1	0.2	<0.1	<0.1	-2.7	-18.6	-1.8	2.4	25.1	1.1			
RMC Pacific	0	0	0	0.2	<0.1	<0.1									
British Pacific Aggregates	0	0	0.1	0.2	<0.1	<0.1									
Subtotal: Aggregate-Related	10.2	6.0	1.5	0.8	0.2	<0.1	-2.7	-18.6	-1.8	2.4	25.1	1.1	10.7	12.7	0.8
Waste Management	0	0	0	0.2	<0.1	<0.1	0	0	0	0	0	0	0.2	<0.1	<0.1
Coach USA	0	0	0	1.5	0.4	<0.1	0.3	2.1	<0.1	0	0	0	1.8	2.5	0.1
Subtotal: Non-Aggregate	0	0	0	1.7	0.4	<0.1	0.3	2.1	<0.1	0	0	0	2.0	2.5	0.1
Subtotal: Industry Group	10.2	6.0	1.5	2.5	0.6	0.1	-2.4	-16.5	-1.8	2.4	25.1	1.1	12.7	15.2	0.9
Future Port Development (includes cargo shipping)	0	0	0	0	0	0	0.6	4.1	0.4	5.3	49.4	1.7	5.9	53.5	2.1
Total	**10.2**	**6.0**	**1.5**	**2.5**	**0.6**	**0.1**	**-1.8**	**-12.4**	**-1.4**	**7.7**	**74.5**	**2.8**	**18.6**	**68.7**	**3.0**
Significance Criteria													15	15	15

TABLE 14
ESTIMATED NET CHANGE IN DAILY REGIONAL POLLUTANT EMISSIONS BY PROJECT COMPONENT, 2015

	Stationary Sources			Motor Vehicle			Truck			Ship and Rail			Total Emissions		
	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10
DAILY EMISSIONS (pounds per day)															
Industry Group Components															
Bode Gravel	0	0	4	<0.5	<0.5	<0.5									
Mission Valley Rock	135	79	20	<0.5	<0.5	<0.5									
ISG Resources	0	0	<0.5	0.5	<0.5	<0.5	-23	-154	-15	101	1,127	39			
RMC Pacific	0	0	4	0.5	<0.5	<0.5									
British Pacific Aggregates	0	0	2	0.5	<0.5	<0.5									
Subtotal: Aggregate-Related	135	79	30	2	1	<0.5	-23	-154	-15	101	1,127	39	215	1,053	54
Waste Management	0	0	0	1	<0.5	<0.5	0	0	0	0	0	0	1	<0.5	<0.5
Coach USA	0	0	0	3	1	<0.5	3	17	1	0	0	0	6	18	1
Subtotal: Non-Aggregate	0	0	0	4	1	<0.5	3	17	1	0	0	0	7	18	1
Subtotal: Industry Group	135	79	30	6	2	1	-20	-137	-14	101	1,127	39	222	1,071	55
Future Port Development (includes cargo shipping)	0	0	0	0	0	0	23	155	15	84	811	28	107	966	43
Total	**135**	**79**	**30**	**6**	**2**	**1**	**3**	**18**	**1**	**185**	**1,938**	**67**	**329**	**2,037**	**98**
Significance Criteria													80	80	80

TABLE 15
ESTIMATED NET CHANGE IN ANNUAL REGIONAL POLLUTANT EMISSIONS BY PROJECT COMPONENT, 2015

	Stationary Sources			Motor Vehicle			Truck			Ship and Rail			Total Emissions		
	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10	ROG	NOx	PM-10
ANNUAL EMISSIONS (tons per year)															
Industry Group Components															
Bode Gravel	0	0	0.1	<0.1	<0.1	<0.1									
Mission Valley Rock	14.1	8.3	2.1	<0.1	<0.1	<0.1									
ISG Resources	0	0	<0.1	<0.1	<0.1	<0.1	-2.4	-16.1	-1.6	3.1	33.9	1.1			
RMC Pacific	0	0	<0.1	<0.1	<0.1	<0.1									
British Pacific Aggregates	0	0	0.19	<0.1	<0.1	<0.1									
Subtotal: Aggregate-Related	14.1	8.3	2.5	0.3	0.1	<0.1	-2.4	-16.1	-1.6	3.1	33.9	1.1	15.1	26.2	2.0
Waste Management	0	0	0	<0.1	<0.1	<0.1	0	0	0	0	0	0	<0.1	<0.1	<0.1
Coach USA	0	0	0	0.5	0.2	<0.1	0.3	1.8	<0.1	0	0	0	0.8	1.9	0.1
Subtotal: Non-Aggregate	0	0	0	0.6	0.2	<0.1	0.3	1.8	<0.1	0	0	0	0.9	1.9	0.1
Subtotal: Industry Group	14.1	8.3	2.5	0.9	0.3	0.1	-2.1	-14.3	-1.6	3.1	33.9	1.1	16.0	28.1	2.1
Future Port Development (includes cargo shipping)	0	0	0	0	0	0	2.9	19.4	1.9	14.8	136.4	4.7	17.7	155.8	6.6
Total	**14.1**	**8.3**	**2.5**	**0.9**	**0.3**	**0.1**	**0.8**	**5.1**	**0.3**	**17.9**	**170.3**	**5.8**	**33.7**	**183.9**	**8.7**
Significance Criteria													15	15	15

with non-Industry Group shipping generating two-thirds of the NO_x (see Table 13).[35] The approximately 2,000 pounds per day of NO_x that Phase I of the project as a whole would generate would be about 0.2 percent of the total NO_x generated throughout the Bay Area Air Basin in 2003. Ships, trains, and other off-road mobile sources are estimated to generate approximately 172,000 pounds per day of NO_x throughout the region in 2003, and the project's ship and rail emissions would represent an increase over that projected amount of less than 1.2 percent.

Emissions of all three pollutants generated by trucks from the Industry Group components in 2003 would decrease, compared to existing conditions, because of the shift in means of transport from trucks to ships and rail for much of the raw material used in the production of ready-mix concrete. Truck trips related to non-Industry Group Port activity would generate most of the rest of the NO_x. By 2015 (see Table 11 and Tables 14 and 15), emissions would increase based on the increase in concrete and asphalt production and the corresponding increase in truck traffic, as well as the increase in cargo shipping at the Port. Some of the increase in vehicle emissions would be offset by improved emissions control technology that would be implemented over time under existing regulations.

The impacts of the estimated increases in daily and annual region emissions would affect the entire Bay Area airshed. The emissions would be dispersed over a large area, as this regional analysis takes into account many activities that would occur over a broad expanse of the region (e.g., ships traveling from outside the Golden Gate and truck travel to and from various parts of the region). The local analysis that follows focuses on effects in the immediate vicinity of the Southern Waterfront.

Local Air Quality Analysis

Carbon Monoxide Concentrations

In addition to the regional contribution to the total pollution burden, project-related traffic may result in localized "hot spots" or areas with high concentrations of carbon monoxide concentrations around stagnation points such as major intersections and heavily traveled and congested highways and roadways. Project-related traffic could add more cars and trucks, as well as cause existing non-project traffic to travel at slower, less pollution-efficient travel speeds.

To evaluate "hot spot" potential, a microscale impact analysis was conducted adjacent to four representative intersections within the project area. It was assumed that if the relatively higher volumes of project-generated traffic at these intersections did not result in adverse impacts, impacts at other nearby intersections would experience similar or less substantial effects. For this analysis, local carbon monoxide concentrations were estimated using a protocol developed at U.C. Davis for analyzing project-level effects associated with transportation projects (Institute of Transportation Studies, 1997) and using the results of the traffic study prepared for this report. The estimates are shown in Table 16.

[35] The daily volumes do not directly translate to annual volumes by a common factor because, for purposes of a conservative analysis, daily volumes assume a minimum of one ship call per day for those project components that would include shipping even when the annual total of ship calls averaged over the year is substantially less than one per day.

TABLE 16
ESTIMATED CARBON MONOXIDE CONCENTRATIONS AT SELECTED INTERSECTIONS IN PROJECT VICINITY

Intersection	Averaging Time (hours)	Concentrations (ppm)[a] Existing	Existing + Industry Group	Existing + Phase I + Bridge	2015 + Project (Phase I & II)
Third / Mariposa Streets	1	10.9	11.7	11.7	4.6
AM Peak Hour	8	6.8	7.4	7.4	2.5
Third / César Chávez Streets	1	6.4	6.2	5.9	5.2
AM Peak Hour	8	3.6	3.6	3.3	2.9
Illinois / César Chávez Streets	1	5.6	5.6	10.8	8.7
AM Peak Hour	8	3.0	2.7	6.7	5.4
Third Street / Evans Avenue	1	9.7	8.5	7.8	9.0
AM Peak Hour	8	5.9	5.2	4.7	5.6

[a] Concentrations relate to a location 10 meters from the edge of the roadways that form the intersection. The carbon monoxide analysis focuses on the morning (a.m.) peak-hour because the project's effects on traffic congestion and related carbon monoxide concentrations are greater during that period than during the afternoon (p.m.) peak hour. The UC Davis Transportation Project-Level Carbon Monoxide Protocol (Revised December 1997) was used to develop these estimates based on a.m. peak-hour traffic volumes prepared for this report. Carbon monoxide estimates shown above include background concentrations of 4.5 ppm, one-hour average, and 2.3 ppm, eight-hour average for existing; 4.0 ppm, one-hour average and 2.0 ppm, eight-hour average for 2003; and 3.4 ppm, one-hour average and 1.7 ppm, eight-hour average for 2015.

NOTE: The state one-hour average standard is 20 ppm; the state eight-hour average standard is 9 ppm.

SOURCE: Environmental Science Associates.

The U.C. Davis carbon monoxide protocol involves a screening-level analysis, which serves to identify which intersections under which scenarios require further, more refined, analysis. With respect to the four intersections evaluated for this analysis, the screening-level analysis was sufficient to demonstrate the no exceedances would occur in the vicinities of the intersections of Illinois Street / César Chávez Street and Third Street / Evans Avenue. For the intersection at Third Street / Mariposa Street, the screening level analysis indicated the potential for an exceedance in 2015, but the more refined analysis indicated that no exceedance would occur. At Third Street / César Chávez Street, the refined method was used for both 2003 and 2015 to show that no exceedances would occur. In general, the increase in carbon monoxide concentrations that would normally be associated with projected increases in traffic volumes and associated congestion would be offset by the continued turnover of motor vehicles with newer vehicles manufactured to meet increasingly stringent emissions standards set by federal and state agencies and the shift in transport of heavy freight from trucks to ships and rail. In summary, based on the modeled concentrations shown in Table 16, the project would not result in exceedances of carbon

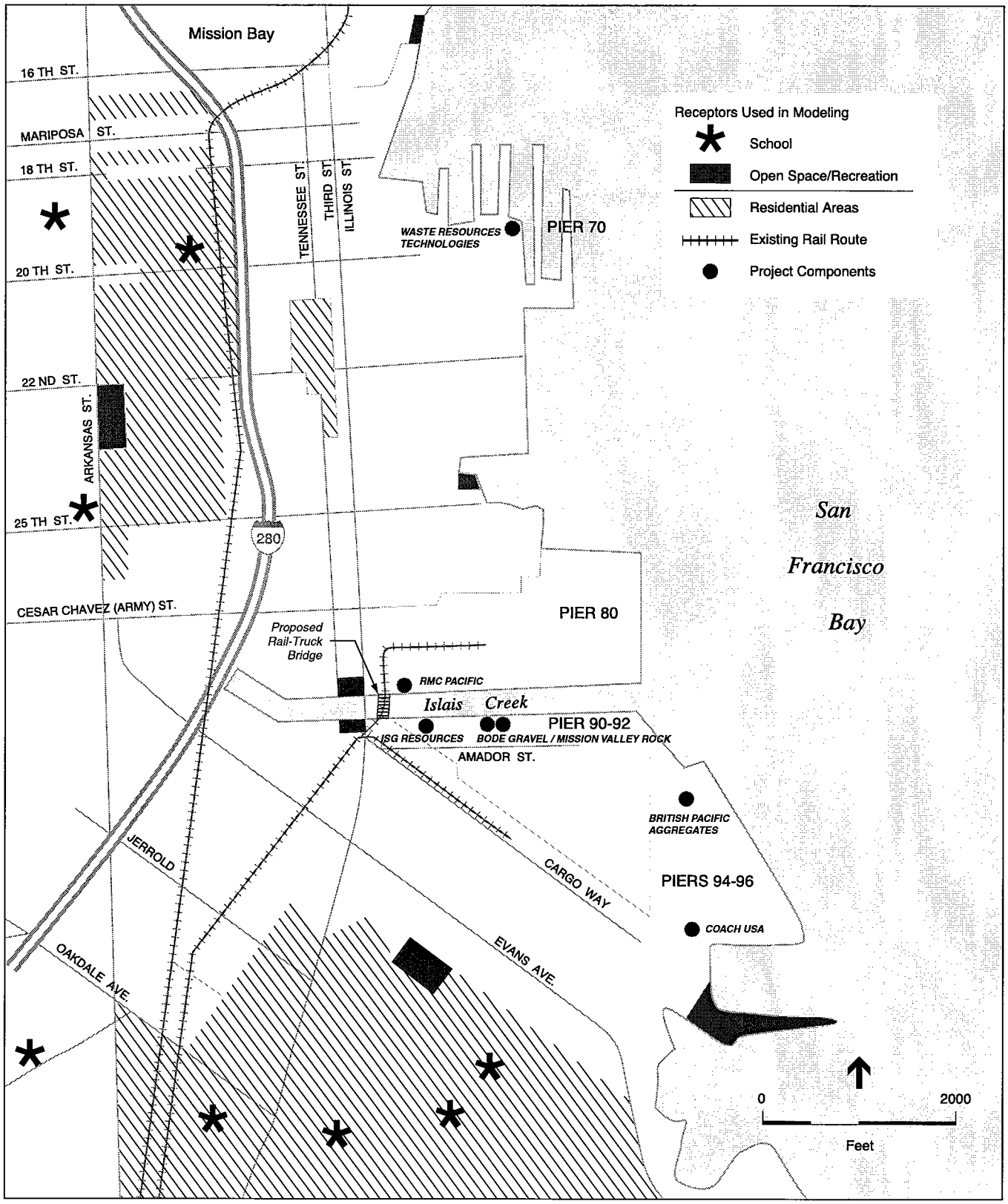
monoxide standards, and therefore, the effect of the project on local carbon monoxide standards would be less than significant.

Project Incremental PM-10 Concentrations

To examine the potential health effects of localized emissions of particulate matter, including PM-10 and diesel particulate, dispersion modeling was conducted to determine whether the local concentration of such particulates would be markedly increased in the Bayview-Hunters Point neighborhood as a result of emissions due to the project. Particulates were selected for dispersion modeling because of their potential adverse effects on respiratory health. The sensitive receptors selected include several schools and parks nearest the project area, in Bayview/Hunters Point and on Potrero Hill. These sites were chosen because children tend to be more susceptible than healthy adults to certain effects of air pollution. Also, the school sites are representative of the exposure locations of the surrounding residential neighborhood. Figure 7 shows the receptor sites selected for analysis.

Emissions that could affect PM-10 and diesel particulate were estimated for the project's stationary sources and for mobile sources serving the project's facilities up to 1.5 miles from the project site (see Appendix D for additional information). In estimating particulate emissions from stationary sources, the analysis took into account air pollution controls required by existing regulations. Each of the Industry Group project components, which would represent "stationary sources" of particulate emissions, is proposed to include "best available control technology" (BACT) to control emissions, consistent with current regulations. For aggregate-handling operations (Bode Gravel, Mission Valley Rock, RMC Pacific, British Pacific Aggregates), this includes maintaining a moisture content in the aggregate that is high enough to eliminate PM-10 "fugitive" emissions (wind-blown dust that could otherwise escape into the surrounding air). A water spray system would be installed at each aggregate-handling facility, including Bode Gravel, Mission Valley Rock, RMC Pacific, and British Pacific Aggregates. Fine aggregate material (sand) would be maintained with a moisture content of approximately 5 percent, because such material with a moisture content of 4.5 percent or more produces virtually no fugitive emissions. Coarse aggregate (gravel) would be kept damp on the surface, which would also virtually eliminate fugitive dust. Aggregate would be stored in bunkers at ready-mix and asphalt plants, rather than open piles, with water spray (including the use of surfactants, as necessary, to bind the water and dust to the aggregate) applied to maintain adequate moisture content to control emissions at both production and shipping/storage operations. ISG Resources, which would store fly ash – a finer, more powdery material than aggregate – in former grain silos, would install BACT dust collection equipment to accommodate truck and rail transport and would use pneumatic equipment for transfer of fly ash.

The asphalt plant proposed by Mission Valley Rock (and potentially the British Pacific asphalt plant) would include controls on the drum mixer where the asphalt cement and aggregate are mixed. Drum mixer(s) would be fired with natural gas, consistent with BACT recommendations, and particulate emissions from the aggregate drying and mixing process would be controlled with a fabric filter, also consistent with BACT. Such filters can achieve control efficiency of greater than 99 percent. Emissions



1999.377E: Southern Waterfront SEIR (ESA 990267) ■

SOURCE: Environmental Science Associates, Pittman & Hames Associates.

● Figure 7 (Revised)
Sensitive Receptors

of toxic substances from the asphalt plant would include mostly benzene and formaldehyde which would volatilize when the asphalt cement is heated. Most of these emissions would occur at the drum mixer/dryer. Using emission factors recently reported by U.S. EPA for hot mix asphalt plants (U.S. Environmental Protection Agency, 2000) in the dispersion modeling analysis, the maximum carcinogenic risk at sensitive receptors was estimated to be 0.3 in a million.

Table 17 provides the results of the PM-10 modeling for the years 2003 and 2015. The table shows that the maximum incremental contribution to 24-hour PM-10 concentrations for local stationary and mobile source emissions at any given receptor would be 1.2 micrograms per cubic meter in 2003 and 1.6 micrograms per cubic meter in 2015. In both cases, these maximums would be well below the significance standard of 5.0 micrograms per cubic meter, and would be registered at Youngblood Coleman Playground, on Hudson Avenue at Mendell Street, which is the closest sensitive receptor downwind from the concentration of proposed Industry Group components along Islais Creek. This playground is located adjacent to the residential area on the hill overlooking Hunters Point shipyard. The PM-10 concentrations at all other receptors modeled (see Figure 7) would be lower than these values.

Based on meteorological conditions (see Figure 6, p. 65), the maximum 24-hour concentration at Youngblood Coleman Playground would occur on fewer than 25 days per year, when winds are blowing from a north direction. Wind measurements in the area indicate that winds in the directions that would result in these conditions are infrequent, with winds from the north direction occurring about 7 percent of the time. Winds from the south/southeast occurring from 3 percent to 5 percent of the time, and would affect receptors to the northwest of the project area, but at lower maximum 24-hour concentrations than shown in Table 17. Winds in the project area are usually from the southwest through northwest, occurring about 65 percent of the time. For these westerly wind directions, pollutant emissions from the project would be transported out over the Bay.

For the maximum annual average PM-10 concentrations, Table 17 shows that the maximum concentrations in 2003 would be 0.09 micrograms per cubic meter, while in 2015, the maximum concentration would be 0.12 micrograms per cubic meter. As with the 24-hour concentrations, these highest annual averages would be well below the significance standard of 1.0 microgram per cubic meter, and would be at Youngblood Coleman Playground.

As stated in the discussion of significance criteria, the significance threshold used in this SEIR for PM-10 concentrations is 5.0 micrograms per cubic meter for a 24-hour average concentration, and 1.0 microgram per cubic meter for an annual average concentration. These standards are based on BAAQMD's New Source Review procedures for new or modified stationary sources (BAAQMD Regulation 2-2-233). Because the maximum PM-10 concentration from local project-related stationary and mobile sources would be less than the significance criteria for both the 24-hour and annual averages, the project impact on local PM-10 concentrations would be less than significant.

TABLE 17
MAXIMUM PM-10 CONCENTRATIONS AT SENSITIVE RECEPTORS

Year	24-hr. PM-10 concentration ($\mu g/m^3$)	Significance threshold ($\mu g/m^3$)	Annual PM-10 concentration ($\mu g/m^3$)	Significance threshold ($\mu g/m^3$)
2003	1.2	5.0	0.09	1.0
2015	1.6	5.0	0.12	1.0

SOURCE: Environmental Science Associates.

Diesel Particulate Concentrations

To calculate the incremental cancer risk from project-related diesel particulate emissions, diesel particulate concentrations were modeled separately. Table 18 summarizes the modeling results with regard to diesel emissions. The table shows that, in 2003, the maximum incremental risk of cancer from diesel particulate emissions resulting from the project is estimated to be 7.5 in 1 million (7.5 additional cancer cases per million persons, beyond the risk from other sources), based on 24-hours per day exposure over a period of 70 years. In 2015, the project's cancer risk from diesel particulate would be 9.0 in 1 million. To put these values in perspective, as stated in the setting, the BAAQMD estimates that the incremental cancer risk from exposure to current ambient levels of toxic air contaminants – excluding diesel particulate matter – is 199 in a million, and the California Air Resources Board estimates the statewide cancer risk due to essentially all toxic air contaminants at 758 in 1 million, of which 540 in 1 million, or about 70 percent, is estimated to be due to diesel particulate.

As noted in the Setting, the analyses in this report do not assume implementation of any of the proposed rules or regulations regarding diesel emissions. Implementation of some or all of these proposals would reduce the cancer risk from diesel particulate to less than described here.

As stated in the discussion of significance criteria, the significance threshold used in this SEIR for diesel particulate concentrations is 10 in 1 million (10 additional cancer cases per million persons, or a 1 in 100,000 chance of a single individual developing cancer, beyond the pre-existing risk), based on the BAAQMD permitting procedure for stationary sources. Because the maximum cancer risk would be less than the significance criterion, the project impact relative to diesel particulate concentrations would be less than significant.

Odorous Emissions

The *BAAQMD CEQA Guidelines* provides buffer distances that can be used to identify areas where significant impacts from proposed odor sources, such as an asphalt batch plant, could occur. Generally, odor impacts at sensitive receptor locations beyond the identified buffer distances can be presumed to be less than significant without further analysis. For sensitive receptors located within the buffer distances,

TABLE 18
MAXIMUM DIESEL PARTICULATE CONCENTRATIONS AND RISK AT SENSITIVE RECEPTORS

Year	Annual concentration ($\mu g/m^3$)	Incremental risk	Significance Threshold
2003	0.025	7.5 in a million	10 in a million
2015	0.030	9.0 in a million	10 in a million

SOURCE: Environmental Science Associates.

a more detailed odor impact analysis is generally warranted. For an asphalt batch plant, the BAAQMD-recommended buffer distance is 1 mile.

The asphalt plant that could be constructed and operated between the Port and Mission Valley Rock would be a potential source of odors and odor complaints. Emissions of volatile organic substances, including toxic and odorous substances, can occur from heated asphalt cement that is used in production of asphalt concrete. Such emissions usually emanate from the drum mixer, where the asphalt cement is mixed with aggregate to create asphalt concrete. Mission Valley Rock proposes to use a counter-flow type drum mixer, which prevents direct contact between the material being mixed and the hot exhaust gases in the dryer. Consequently, the temperature of the asphalt mix would be reduced, compared to other mixers, and vapor emissions, some of which are odorous, would be minimized.

Residential areas are located within one mile of the potential asphalt plant site, generally to the south and to the northwest. The closest residences are located approximately one-half mile south of the potential asphalt plant site in the residential area that is south of Fairfax Avenue in the Bayview-Hunters Point neighborhood. Other, more distant, residences are located to the southwest and southeast. Odors may be perceived at these residences when the plant would be operating during periods when stagnant atmospheric conditions (i.e., little vertical air movement and low wind speeds) would coincide with winds blowing in their general direction. However, the confluence of these three factors (plant operation, stagnant atmosphere, and worst-case winds) would be rare since the plant would not normally operate during nighttime hours when stagnant conditions more frequently occur; high (near-ground-level) atmospheric stability rarely occurs during daytime hours when the plant would normally be in operation; and winds blowing in the direction of these residences occur only about 18 percent of the time, or approximately 65 days per year (based on the data shown in Figure 6). Thus, although the buffer distance between the proposed plant site and the nearest residential areas would not be ideal, the distance would be substantial, and operational and meteorological factors would tend to diminish the potential impact.

The buffer between the proposed plant site and the nearest residential areas to the northwest would be about three-quarters of a mile. Winds in the direction of these residences occur about 9 percent of the

time (based on Figure 6 in the setting section). Thus, like the residences to the south, although the buffer distance between the proposed plant site and the nearest residential areas would not be ideal, operational and meteorological factors would tend to diminish the potential impact.

In summary, the proposed asphalt plant could raise the potential for odor impacts and complaints, but the related impact would not be significant because the plant would be designed to minimize volatile emissions (including odorous emissions) and because favorable operational and meteorological factors would serve to diminish the possibility for annoying odors when most residents are home. In addition, as discussed in the setting section, the BAAQMD's *Rules and Regulations* provide a regulatory mechanism to remedy odor complaints in the unlikely event that they would become frequent.

CUMULATIVE IMPACTS

According to the *BAAQMD CEQA Guidelines*, because the project would exceed the regional significance criteria of 80 pounds per day and 15 tons per year for both ROG and NO_x (and for PM-10 on a daily basis), it would also result in a significant cumulative effect. It should be noted, however, that the project-specific significant and cumulative effects are largely a construct of the BAAQMD's analysis methodology, which are geared more to a single development project, rather than a series of project components analyzed together, as in this SEIR. This finding of significant effect with respect to air quality does not necessarily mean that emissions, when modeled at the local level, will exceed state or federal standards.

For carbon monoxide, the dispersion modeling results presented in Table 16 characterize cumulative conditions because a background concentration is inherent in the analysis and because background traffic volumes were included in the transportation analysis on which the carbon monoxide analysis was based. Neither project-specific nor cumulative carbon monoxide concentrations experienced locally would be significant.

For localized PM-10 and diesel particulate, it is more difficult to quantify a cumulative concentration from this project along with other past, present, and future sources because of the large number of potential sources and their different locations. Locally measured PM-10 concentrations (from the BAAQMD's Arkansas and Ellis Street stations) show exceedances of the state standard. Local diesel particulate emissions data are not available. PM-10 modeling for the project analyzed in this SEIR would not result in PM-10 concentrations exceeding the 5.0 milligrams per cubic meter daily standard or the 1.0 milligrams per cubic meter annual significance criteria, and modeling of cancer risk from project-generated diesel particulate would not exceed the standard of 10 in 1 million. Locally, emissions from project sources, including both stationary and mobile sources, would be combined with emissions from other sources, primarily including area traffic (local streets and freeways), as well as large stationary sources such as the Potrero and Hunters Point power plants. These cumulative concentrations cannot be easily quantified, given the array of sources in the existing environment, and are therefore considered

significant. Local concentrations of pollutants would continue to be affected by activity levels in the area, by climate conditions, and by improvements in technology and fuel formulae.

A major cumulative project that may occur in the area is a proposal to expand the electrical power output of Southern Energy's Potrero power plant. A modeling analysis reported in the Application for Certification submitted to the California Energy Commission indicates that the maximum 24-hour average PM-10 increment would be about 1.0 microgram per cubic meter. This maximum increment, combined with the PM-10 increment from the project, would be below the significance threshold of 5.0 micrograms per cubic meter. Furthermore, if the Potrero plant expansion is approved, it is expected that the existing Hunters Point power plant, on Evans Avenue at Hunters Point Expressway, would be closed, under an agreement between PG&E, the operator of the Hunters Point plant, and the City. Closure of the Hunters Point power plant would result in a decrease in emissions of both criteria pollutants and toxic air contaminants in the immediate vicinity of the residential area overlooking Hunters Point Shipyard.

Cumulative air quality effects are typically discussed in terms of a project's consistency with the most recent Clean Air Plan (i.e., the *'97 Clean Air Plan*). Consistency with the plan is evaluated with reference to the population and employment assumptions used for the plan and with reference to Transportation Control Measures (TCMs). (The project would have essentially no growth-inducing effect, and thus, the project would be consistent with the population and employment assumptions in the plan.) The *'97 Clean Air Plan* identifies a list of Transportation Control Measures (TCMs) that are to be implemented by local governments. These TCMs include support for voluntary employer-based trip reduction programs; improvement of bicycle access and facilities; improvement of arterial traffic management; development of local clean air plans, policies, and programs; implementation of demonstration projects; and promotion of pedestrian travel and traffic calming measures (Bay Area Air Quality Management District, 1999a) The City and County of San Francisco administers programs that implement all of these TCMs, and, while Phase I of the project, by its nature, does not further any of the TCMs in particular, none of the project components would interfere with their implementation, and thus the project would not be inconsistent with the *'97 Clean Air Plan.* TCMs could be implemented as part of Phase II of the project, which would include development of more typical urban land uses.

In summary, the project would result in a cumulative significant regional impact on air quality, in that daily volumes of the three criteria air pollutants of most concern – reactive organic gases (ROG), nitrogen dioxide (NO_x), and respirable particulates (PM-10) – would exceed Bay Area Air Quality Management District (and SEIR) significance thresholds, and annual emissions of ROG and NO_x would also exceed annual thresholds. Cumulative concentrations of PM-10 and diesel particulate experienced locally, while unknown because of the wide array of sources in the existing environment, could exceed significance thresholds. Even though the project would not exceed new source criteria for PM-10 or the 10 in 1 million risk level for particulates from diesel emissions, the project would add some increment to existing local PM-10 and diesel emissions. Monitoring date from the nearest monitoring stations indicates some exceedances of the state PM-10 standard. Therefore, to be conservative, these emissions

are deemed cumulatively significant, although the project itself would not have a significant effect with regard to local concentrations of PM-10 or diesel particulate.

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D. HYDROLOGY AND WATER QUALITY

SETTING

WATER FEATURES AND DRAINAGE

The project site is located along the shoreline directly adjacent to San Francisco Bay. Major water features include: Central Basin, an inlet to the Bay on the north side of the project area; Islais Creek Channel, which runs through the center of the project area; and India Basin, located on the south side of the project area. Average annual precipitation is about 21 inches.

As stated in the Waterfront Plan FEIR, Islais Creek is a tidal inlet between Pier 80 and Pier 90. Historically, Islais Creek was the confluence of several small creeks (one of which is still extant in Glen Canyon) that carried runoff from the southeastern portion of San Francisco and entered the Bay just west of the western end of the existing tidal inlet. Urban development and alterations to the drainage system resulted in culverting of Islais Creek and channeling most of the stream flow from Islais Creek into the City's combined sewer and stormwater system. Currently, surface inflow to Islais Creek occurs during the rainy season through an outfall and two overflow points from the combined sewer and stormwater system along the creek channel as well as direct stormwater runoff from areas adjacent to the creek. The creek channel is approximately 4,800 feet long and varies in width from 325 feet at the western end to 650 feet at the eastern end. The average depth is about 25 feet.

Freshwater flow to the Bay from San Francisco has almost entirely been diverted to the City's combined sewer and stormwater system. Nearly all of the City drains to the combined sewer system, although some piers and adjacent areas along the waterfront drain directly to the Bay. These piers and waterfront sites drain either through isolated storm drain systems or by sheet flow to the Bay. Nearly all of the

Southern Waterfront project area drains directly to the Bay rather than to the combined sewer system, except for some sites along Illinois Street, such as the proposed Waste Resource Technologies site at Pier 70, that drain to the combined sewer system. Currently, the portion of the Bay adjacent to the project area receives surface inflow from stormwater runoff from the piers and waterfront sites as well as from treated wastewater discharges and combined sewer overflows, as discussed below.

WASTEWATER DISCHARGES AND OVERFLOWS

The City is almost entirely served by a combined sewerage system, which collects and transports both sanitary sewage and stormwater runoff in the same set of pipes. Most natural drainage and stream flow in the City is also diverted to the combined sewer system. Flows to the combined sewer system along the east side of the City are transported to the Southeast Water Pollution Control Plant, on Phelps Street, about one-half mile southwest of Islais Creek, for treatment and then discharged to the Bay. During dry weather, all wastewater flows, consisting mainly of municipal and industrial wastewater, are treated to a secondary level[36] at the Southeast Plant and discharged through the deep water Pier 80 Outfall, located in the Bay east of Pier 80 (east of the project area). During wet weather, the combined sewerage system collects large volumes of stormwater runoff in addition to municipal and industrial wastewater, and transports the combined flow to treatment facilities before eventual discharge to the Bay. Wet weather discharges occur through the Pier 80 Outfall or the Quint Street Outfall (in the project area on the south bank of Islais Creek one block west of the Third Street bridge). During periods of extreme wet weather, combined sewer overflows also occur at overflow control structures located along the waterfront. Two overflow points are located in the project area at the western head end of Islais Creek, where combined sewer overflows occur on average about ten times per year. For the discharges through the overflow structures, the combined sewage and runoff undergo primary treatment prior to discharge to the Bay; this consists of flow-through treatment to remove settleable solids and floatable materials. All discharges from the combined sewer system to the Bay, through either the outfalls or the overflow structures, are operated in compliance with permits from the California Regional Water Quality Control Board (California Regional Water Quality Control Board, 1994).

The San Francisco Public Utilities Commission, which includes the Clean Water Program – the City's wastewater treatment agency – has undertaken an examination of cumulative effects of increased development on the City's east side relative to the potential to increase the volume of discharges to San Francisco Bay through the overflow structures. The PUC's 1998 "Bayside Study" evaluated several scenarios, beginning with a "base case" that included completion of Pacific Bell Park, then under construction, as well as the PUC's Sunnydale flood control project. Under the base case, which essentially represents existing conditions, the PUC estimated that a total of 31.1 billion gallons per year of stormwater and wastewater enter the Bayside portion of the city's combined sewer system – essentially the eastern 60 percent of the City. Of this amount, about 910 million gallons per year is

[36] **Secondary Treatment** involves from wastewater or sewage of organic matter using biological and chemical processes. This is a higher level of treatment than primary treatment, which is removal of floating and settleable solids using physical operations such as screening and sedimentation.

estimated to flow treated to the Bay in combined sewer overflows, representing about 2.9 percent of the total flow.

BENEFICIAL USES

The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) identifies the following existing beneficial uses for the San Francisco Bay, Central and Lower portions: ocean, commercial and sport fishing; estuarine habitat; industrial service supply; fish migration; navigation; preservation of rare and endangered species; water contact recreation; non-contact water recreation; shellfish harvesting; and wildlife habitat. Central San Francisco Bay also is identified as having industrial process supply and fish spawning as existing beneficial uses. No "potential" beneficial uses are identified for these waters (California Regional Water Quality Control Board, 1995).

Along the project area between Piers 70 and 96, the predominant water-dependent uses are cargo shipping, ship repair and maritime support. Between Piers 72 and 80, Warm Water Cove Park is a public open space used primarily for picnicking and viewing bay vistas. On infrequent occasions, sport fishing, water contact recreation and non-contact water recreation opportunities are also observed, but are dependent upon water quality conditions and tidal water levels. Islais Creek is used for small-vessel boating and other non-contact water recreation. At the mouth of Islais Creek on the south side, there is an existing wetland area where wildlife habitat is dependent upon water quality conditions. There are also wetlands (a tidal marsh) at Pier 98 (Heron's Head Park).

WATER QUALITY CONDITIONS

As described in the Waterfront Land Use Plan FEIR, water quality data for the Bay specific to the project area are sparse. Water quality conditions in the overall vicinity of the project area are best characterized by data collected for Central San Francisco Bay as part of the Regional Monitoring Program for the San Francisco Estuary by the San Francisco Estuary Institute (San Francisco Estuary Institute, 1997). Data from this on-going study, started in 1993, have indicated that in general, the Central Bay has the highest water quality in the estuary, probably due to the regular tidal flushing in this area. At the Yerba Buena Island sampling station, the closest sampling station to the project area, the most recent monitoring data available for 1996 indicate that water quality conditions remain well within water quality objectives established by the Regional Water Quality Control Board for conventional water quality parameters and all trace elements.[37] The 1996 data show lower levels for nearly all trace elements than the 1993 levels that were presented in the Waterfront Land Use Plan FEIR.

In 1999, the Regional Water Quality Control Board listed the western portion of Islais Creek (west of Third Street) as a Toxic Hot Spot (California Regional Water Quality Control Board, 1999) because of sediment toxicity (sediments from Islais Creek were found in tests to cause mortality of sea urchin larvae and amphipods, a small crustacean); elevated concentrations of chemicals (including the pesticides

[37] Trace elements include silver, arsenic, cadmium, chromium, copper, mercury, nickel, lead, selenium, and zinc.

chlordane and dieldrin, PCBs, polynuclear aromatic hydrocarbons, and metals including lead, mercury, and silver, among other constituents); and an impacted benthic community (low numbers of, and lack of diversity in, bottom-dwelling organisms). The City's Public Utilities Commission staff disagrees with the conclusions reached by the Regional Board and is currently engaged with the Board in further data collection and analysis activities related to sediment in Islais Creek (Lundgren, 2000).

San Francisco Bay is also listed by the State Water Resources Control Board as an "impaired" water body, under Section 303(d) of the federal Clean Water Act, because of the presence of numerous pollutants, including high-priority substances such as copper, dioxin compounds, mercury, PCBs, Furan compounds, and nickel, as well as many other chemicals. Also listed as a high-priority "stressor" of the Bay's water quality are exotic species such as clams that have been introduced to the Bay in ship ballast water.

REGULATORY FRAMEWORK

Water Quality Regulation

The federal Clean Water Act of 1972 and subsequent amendments, under the enforcement authority of the U.S. Environmental Protection Agency (U.S. EPA), established the National Pollutant Discharge Elimination System (NPDES) program to protect water quality of receiving waters. Under the Clean Water Act, discharge of pollutants to receiving waters is prohibited unless the discharge is in compliance with an NPDES permit. Discharge of municipal and industrial wastewater as well as stormwater runoff is regulated under NPDES permit requirements. The regulations initially focused on municipal and industrial wastewater discharges in 1972, followed by stormwater discharge regulations, which became effective in November 1990. The NPDES permit specifies discharge prohibitions, effluent limitations and other provisions (such as monitoring programs) deemed necessary to protect water quality. In California, the U.S. EPA has delegated the implementation and enforcement of the NPDES program to the State Water Resources Control Board and the California Regional Water Quality Control Boards.

The Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) regulates water quality within California and established the authority of the State Water Resources Control Board and the nine Regional Water Quality Control Boards. The San Francisco Bay waters are under the jurisdiction of the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region. The RWQCB established regulatory standards and objectives for water quality in the Bay in the Water Quality Control Plan for the San Francisco Bay Basin, commonly referred to as the "Basin Plan" (California Regional Water Quality Control Board, 1995). The Basin Plan identifies existing and potential beneficial uses (described above) and provides numerical and narrative water quality objectives designed to protect those uses. The RWQCB considers the beneficial uses of receiving water in establishing NPDES permit requirements in the San Francisco Bay region.

City NPDES Permits

The City currently holds two NPDES permits from the RWQCB for discharges to the Bay in the project area. The first permit is for the Southeast Water Pollution Control Plant for discharges of treated wastewater through the Pier 80 and Quint Street outfalls. The second permit is for the Bayside wet weather facilities, which includes the discharges from the combined sewer overflow structures in Islais Creek.

The City and County of San Francisco is currently exempt from the federal stormwater regulations under the NPDES program because it has a combined sewer system. Discharge of nearly all stormwater runoff from the City is covered under its existing NPDES permits, and the City is not required to have a separate municipal stormwater discharge permit. However, current federal proposals indicate that the City may be required to apply for a general stormwater permit that would require the City to develop and implement a stormwater control program in the areas that have separate storm sewers, such as those isolated areas along the waterfront in the project area. Application for such permits is anticipated for approximately August 2001 (Medbery, 1997).

Industrial Stormwater NPDES Permit

The federal Clean Water Act includes regulations requiring that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit. This requirement would apply to project facilities located along the waterfront that drain through isolated storm drain systems directly to the Bay. Most industrial facilities, such as those proposed for the Southern Waterfront area, can comply with the NPDES industrial stormwater requirement through the Industrial Activities Stormwater General Permit adopted by the State Water Resources Control Board in 1997. Some industries may require an industry specific permit, and other may require an individual permit. The requirements for a General Permit are discussed below.

In order to obtain coverage under the General Permit, facilities are required to file a Notice of Intent and to comply with General Permit conditions. Permit conditions include: discharge prohibitions for stormwater containing hazardous substances in excess of established quantities; pollutant controls using best available technology economically achievable, best conventional pollutant control technology, and best management practices; receiving water limitations; preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP); and preparation and implementation of a monitoring program. The SWPPP contains site-specific information to identify and evaluate sources of pollutants associated with industrial activities and to identify and implement site-specific best management practices to reduce or prevent pollutants associated with industrial activities in stormwater discharges. Best management practices may be non-structural (e.g., activity schedules, maintenance procedures, prohibitions of practices) or structural (e.g., treatment measures, runoff controls, overhead coverage) (State Water Resources Control Board, 1997).

Construction Stormwater NPDES Permit

The federal Clean Water Act effectively prohibits discharges of stormwater from construction projects that encompass five or more acres of soil disturbance unless the discharge is in compliance with an NPDES permit. The State Water Resources Control Board has adopted a statewide General Permit for Stormwater Discharges Associated with Construction Activity; the current 1999 General Permit updates the previous 1992 General Permit. Although construction activities of less than five acres are not covered by this permit, those activities will be required to apply for a permit under Phase II regulations by August 2001 (State Water Resources Control Board, 1999). The construction stormwater regulations would apply to the various components of the proposed project, depending on the size of the construction site.

The Construction Stormwater General Permit requires that where construction activity disturbs five acres or more, the land owner and/or contractor develop and implement a Stormwater Pollution Prevention Plan (SWPPP). This plan must specify best management practices that will prevent all construction pollutants from contacting stormwater, with the intent of keeping all products of erosion form moving off site into receiving waters. The permit also requires elimination or reduction of non-stormwater discharges to receiving waters and inspection of all best management practices.

In order to obtain coverage under the Construction Stormwater General Permit, land owners are required to file a Notice of Intent prior to starting construction activities and to comply with General Permit conditions. These permit conditions include: discharge prohibitions for stormwater containing hazardous substances in excess of established quantities; pollutant controls using best available technology economically achievable, best conventional pollutant control technology, and best management practices; eliminating or reducing non-stormwater discharges; receiving water limitations that require immediate corrective action; preparation and implementation of a SWPPP; and preparation, implementation and retaining records of a monitoring program. The SWPPP contains site-specific information to identify and evaluate sources of sediment and other pollutants and to identify and implement site-specific best management practices to reduce or eliminate sediment and other pollutants in stormwater and non-stormwater discharges. The SWPPP must include measures for erosion and sediment controls, methods for construction waste handling and disposal, and post-construction erosion and sediment control requirements. Mitigation Measure D-1, p. 149, address the preparation of SWPPPs and would apply to the project area.

IMPACTS

SIGNIFICANCE CRITERIA

The City has not formally adopted significance standards for hydrology and water quality impacts, but it generally considers that implementation of the Southern Waterfront projects would have a significant effect on hydrology and water quality if it were to:

- substantially change absorption rates, drainage patterns, or the rate and amount of surface water runoff to the Bay;
- substantially degrade water quality;
- contaminate a public water supply;
- substantially degrade or deplete groundwater resources or interfere with groundwater recharge; or
- cause substantial flooding, erosion, or siltation.

Criteria for evaluating surface and groundwater quality in the San Francisco Bay Area are based on beneficial uses and water quality objectives established by the Regional Water Quality Control Board, San Francisco Bay Region as authorized under the Porter-Cologne Water Quality Control Act and Clean Water Act. Both beneficial uses and water quality objectives are described within the Basin Plan.

Given public concerns regarding combined sewer overflows, the change in the volume of discharge from the City's combined sewer system is assessed along with the potential for greater volumes and numbers of overflow events.

Groundwater and flooding hazards are not discussed in this section because the Southern Waterfront project would have no impacts on either groundwater or flooding. In general, the project components would require minimal (shallow) excavation, and therefore, it is unlikely that groundwater would be encountered, and the project area is not within an area subject to flooding. The Illinois Street bridge would likely attain support from driven piles, which would penetrate groundwater. However, piles or piers typically would not cover a large area, and therefore groundwater recharge would not be adversely affected. Further, groundwater from this area is not used for a potable water supply.

IMPACT ANALYSIS

Changes in Stormwater Runoff and Wastewater Flows

The proposed development in the Southern Waterfront area would result in changes in the volume of surface water runoff from stormwater due to changes in the extent of impervious surfaces and would change the volume of wastewater (sewage) and stormwater discharged to the Bay from the City's combined sewer system. In general, replacement of unpaved areas with structures, pavement or other impervious surfaces would reduce the infiltration of rainwater and would increase the volume of stormwater runoff flowing directly from the project site to the Bay. Development of commercial and industrial uses would also result in increased wastewater flows to the combined sewer system. Increases in volume of wastewater flows and any increase in the volume of stormwater runoff that is piped to the City's combined sewer system could in turn affect the volume of treated effluent and combined sewer overflows discharged to the Bay. Increases in direct discharge of stormwater runoff, treated effluent, and combined sewer overflows to the Bay could affect water quality (discussed below under Operational Effects on Water Quality). The changes in stormwater runoff are evaluated separately for the Industry

Group project components and for the future Port development that would occur by the analysis horizon year of 2015.

This EIR assumes that for the Industry Group Projects neither the Port nor the tenants would construct on-site infrastructure related to stormwater collection, and there would be no new connections to the combined sewer system to capture stormwater runoff, because the Industry Group components would be considered interim uses (with leases limited in length such that major capital investment in storm drainage infrastructure would not be economically feasible). Therefore site conditions with respect to drainage infrastructure are anticipated to remain the same as existing conditions. Site locations currently draining to the Bay would continue to do so, and locations currently draining to the City's combined sewer system would continue as well.

Under the Industry Group projects, the total site areas for all projects would be about 32 acres. Of this 32 acres, about 25.5 acres is currently considered to be impervious surfaces, with pavement or structures built on it; the remaining 6.5 acres, consisting of most of the Mission Valley Rock-Bode Gravel site at Pier 92, is unpaved. Table 19 shows the estimated changes in impervious surfaces for each of the various project components.

The Mission Valley-Bode site would be entirely paved with asphalt or concrete, in compliance with a site mitigation plan prepared for the Bode site (see discussion in Section III.F, Hazardous Materials, p. 130), resulting in the overall Industry Group projects being completely covered with impervious surfaces. This would increase runoff from the Industry Group sites by about 12 percent; the overall increase from all project component sites would be 3 percent. The increase in direct stormwater flow to the Bay would be approximately 1.4 million gallons per year. This can be compared to the approximately 47.8 million gallons per year currently discharged to the Bay as direct stormwater flow from the project area, and to the approximately 480 million gallons per year of treated combined sewer overflows currently discharged to Islais Creek (San Francisco Public Utilities Commission, 1998). (Runoff calculations are provided in Appendix E.) As discussed below under "Operational Impacts on Water Quality," any stormwater runoff from the proposed industrial uses would be required to comply with RWQCB regulations under the NPDES program and Mitigation Measure D.2, p. 149. For these reasons, the relatively minor increase in runoff associated with the Industry Group sites would be considered less than significant with mitigation. Resulting changes in water quality are discussed below.

Future Port development would generate an estimated 300,000 gallons per day of wastewater, or dry weather flows. This would represent less than 0.4 percent of the current Citywide total of 84 million gallons per day, and less than 0.5 percent of the 67 million gallons per day currently treated at the Southeast Water Pollution Control Plant. The Industry Group components would generate negligible wastewater flow, as on-site employment would be relatively small and neither stormwater nor process water would be directed to the City's combined sewer system in substantial volumes. The project impact on dry-weather flow and the incremental impact of wastewater flow on the volume of combined sewer overflows would be considered less than significant.

TABLE 19
ESTIMATED CHANGE IN IMPERVIOUS SURFACE DUE TO PROJECT COMPONENTS

COMPONENT	PROPOSED USE	LOCATION	SIZE OF SITE / USE	EXISTING SITE CONDITION	PROPOSED SITE CONDITION
INDUSTRY GROUP PROJECTS					
Bode Gravel	Ready-Mix Concrete Plant	Pier 92	130,000 sq. ft. (3 acres)	Undeveloped; unpaved (except existing railroad spurs)	Entire site to be paved
Mission Valley Rock	Asphalt Plant	Pier 92	225,000 sq. ft. (5.2 acres)	Unpaved. Existing warehouse occupies about 1.5 acres.	Entire site to be paved
British Pacific Aggregates	Ready-Mix Concrete Plant; Asphalt Plant	Pier 94	435,000 sq. ft. (10 acres)	Paved (Pier 94)	No change in impervious surface.
ISG Resources	Fly Ash Storage	Pier 90	100,000 sq. ft. (2.3 acres)	Paved. Existing silos occupy about 0.5 acre.	No substantial change in impervious surface.
RMC Pacific	Ready-Mix Concrete Plant	Pier 80	133,750 sq. ft. (3.1 acres)	Paved (Pier 80)	No change in impervious surface.
Waste Management	Construction and Demolition Debris Recycling	Pier 70 (Bldg. 6)	35,000 sq. ft. (0.8 acres)	Existing building	Existing building (no change in impervious surface)
Coach USA	Bus Storage	Pier 96	350,000 sq. ft. (8 acres)	Paved (Pier 96)	No change in impervious surface.

TABLE 19 (cont'd)
ESTIMATED CHANGE IN IMPERVIOUS SURFACE DUE TO PROJECT COMPONENTS

COMPONENT	PROPOSED USE	LOCATION	SIZE OF SITE / USE	EXISTING SITE CONDITION	PROPOSED SITE CONDITION
FUTURE PORT DEVELOPMENT					
Dredge Material Handling	Temporary storage and drying of dredge material removed from Bay during maintenance.	Pier 94	~ 220,000 sq. ft. (~ 5 acres)	Unpaved	Assumed to be covered with impervious barrier due to landfill closure regulations
Pier 70 Mixed Use Opportunity Area	Office / R&D Retail/Commercial Pub. Acc./Recreation	16 acres east of Illinois Street, betw. 18th & 21st	610,000 sq. ft. 100,000 sq. ft. 240,000 sq. ft. (total 16 acres)	Partially paved	Up to about 15 acres new pavement / structures (likely less due to open space, but assume 15 ac.)
Pier 70 Maritime Reserve	Maritime Industry General Industry	Pier 70	200,000 sq. ft. 200,000 sq. ft. (total 9.2 acres)	Primarily paved	Up to about 3 acres new pavement / structures
Western Pacific Property	Potential future General Industry[38]	Illinois @ César Chávez	~ 1.1 million sq. ft. (~ 25 acres) site total	Unpaved	Little or no increase in impervious surfaces
Pier 90-94 Backlands	Light Industry Office / R&D		~ 650,000 sq. ft. ~ 1 million sq. ft (total 37.9 acres).	Partially paved	Up to 25 acres of new pavement / structures

SOURCE: Environmental Science Associates, 2000.

[38] The Western Pacific site will also be the location of the Muni Metro Third Street Light Rail Storage and Maintenance Facility, which will include about 500,000 sq. ft. of new pavement and structures.

The approximately 100 acres where future Port development would occur is currently about one-fourth paved or otherwise covered with impervious surfaces. Table 19 shows the estimated changes in impervious surfaces associated with the future Port development. Under worst-case assumptions, the full build out of these projects would result in an increase of about 60 acres of impervious surfaces. This would represent an estimated 35 percent increase in surface water runoff from stormwater in the area occupied by the future Port development sites, based on rainfall, runoff and land use assumptions developed for the PUC's Bayside Cumulative Impact Analysis (San Francisco Public Utilities Commission, 1998). The estimated increase in runoff volumes would be about 12.5 million gallons per year, a 26-percent increase over existing runoff from the area occupied all project components combined. Together with Phase I components, the increase would be about 13.9 million gallons per year, or 29 percent more than existing runoff from all project component sites. (See Appendix E for runoff calculations.)

The Waterfront Plan EIR assumed that storm drainage from up to 100 acres of Port land uses could be piped to the City's combined sewer system. This could result in a measurable increase in bayside flows, made up of treated effluent and combined sewer overflows. This runoff would contribute to a cumulative increase of approximately 44 million gallons per year in combined sewer overflows at Islais Creek. Even though this increase would be permitted, recent EIRs have conservatively found the cumulative increase in combined sewer overflows to be a significant impact.[39] Mitigation Measure D.3, p. 150, would reduce the project's contribution to a negligible amount by directing stormwater flow to the Bay with appropriate treatment to meet regulatory requirements, instead of to the City's combined sewer system.

As noted in the Setting, the San Francisco PUC's Bayside Study evaluated several scenarios for future development along the City's Bay shoreline. Table 20 presents modeling results from the PUC study for the "base case" (existing conditions) and for future cumulative conditions, including implementation of both phases of the proposed project analyzed in this SEIR, as well as buildout of the Mission Bay area and redevelopment of Hunters Point shipyard. Table 20 also presents an interim-year analysis for Phase I of the project (primarily implementation of the Industry Group components).

Water Quality

Operations associated with long-term implementation of the proposed Industry Group projects could result in detrimental effects on Bay water quality. These operations include water quality impacts associated with stormwater runoff from proposed developments and with maritime uses, such as shipping and boating activities, involving handling and storage of chemicals in proximity to the Bay.

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[39] For further discussion of cumulative stormwater overflows, the reader is referred to Section 3.9, Water Resources Setting, and Section 4.9, Water Resources Impacts, in the *Hunters Point Shipyard Reuse Final EIR*, Case No. 1994.061E, Final EIR certified February 8, 2000; in particular, pp. 3-132 – 3-136, which describe the City's combined sewer system and existing conditions with regard to water quality in San Francisco Bay and the effects of combined sewer overflows, and pp. 4-78 – 4-82, which describe impacts of the Hunters Point Shipyard Reuse Plan and cumulative effects on water quality related to combined sewer overflows. These pages are hereby incorporated by reference. The *Hunters Point Shipyard Reuse Final EIR* is available for review at the San Francisco Planning Department, 1660 Mission Street, First Floor Planning Information Counter; and at the San Francisco Public Library, Main Library (Civic Center).

TABLE 20
CHANGES IN STORMWATER FLOW AND COMBINED SEWER OVERFLOWS

	Bayside Base Case (Existing) Volume	Existing plus Industry Group Volume	Change[b]	Pct.	Cumulative including Project (Phases I & II)[a] Volume	Change[b]	Pct.
Total Treated Effluent (mgy)	30,203	30,203	0	N/A	31,297	1,094	3.6%
Total Bayside CSOs (mgy)	910	910	0	N/A	949	39	4.3%
Islais Creek CSOs (mgy)[c]	481	481	0	N/A	525	44	9.2%
Total Bayside Flow (mgy)	31,113	31,113	0	N/A	32,246	1,133	3.6%
% receiving Secondary Treatment	87.3%	87.3%	0	N/A	87.4%	0.1%	--
% receiving Primary Treatment	9.7%	9.7%	0	N/A	9.7%	0.0%	--
Stormwater Flow to Bay from Project Area (mgy)[d]	47.8	49.2	1.4	2.9%	49.2	1.4	2.9%
Stormwater Flow to Bay from Project Area – Mitigated (mgy)[e]	47.8	49.2	1.4	2.9%	61.7	13.9	29.1%

NOTES: mgy – million gallons per year; CSOs – combined sewer system overflows.

[a] Assumes stormwater from future Port development (Phase II of the project analyzed in this SEIR) is directed to City's combined sewer system. Also assumes buildout of Mission Bay with separate stormwater system and "first flush"; redevelopment of Hunters Point Shipyard with separate stormwater system flowing to San Francisco Bay, and construction of new stadium and shopping mall at Candlestick Point (Scenario A2B2D2E2). With Mitigation Measure D.3, volume of combined sewer overflows would be less because all stormwater from the project analyzed in this SEIR would flow to the Bay following pre-treatment.

[b] Change from existing conditions.

[c] Islais Creek CSO volume included in Total Bayside CSO volume.

[d] Assumes all new runoff from SEIR project area (except Industry Group sites) would be piped to City's combined system.

[e] Assumes all new runoff would drain to bay (after pre-treatment; see Mitigation Measure D.3).

SOURCE: San Francisco Public Utilities Commission, 1998; Orion Environmental Associates; Environmental Science Associates.

Stormwater runoff from urban areas is a known source of pollutants to receiving waters. Typical sources of pollutants could include fluid leaks from vehicles, brake pad wear, tire abrasion, pavement wear, sediments, pesticides from landscaped areas, and atmospheric deposition. Both oil and grease and sediments can act as a carrier for other pollutants as well as representing a type of pollutant. The types of pollutants may include metals, hydrocarbons, and organic pollutants as well as sediments. During rainstorms, these pollutants may be mobilized and transported in the stormwater runoff to receiving waters. Sometimes the first flush of each storm contains the highest concentration of pollutants, but release of pollutants to stormwater depends on rainfall patterns, intensity and site-specific conditions. These water quality effects could occur with stormwater runoff discharging directly to the Bay, unlike stormwater runoff discharging to the combined sewer system, which would undergo treatment at either

the Southeast Water Pollution Control Plant or the overflow control structures prior to discharge to the Bay.

All industrial users that would discharge stormwater runoff either directly to the Bay by sheet flow or through isolated storm drain systems would be required to comply with NPDES permit regulations. These regulations, described above in the Setting, would likely be met through the Industrial Activities Stormwater General Permit adopted by the State Water Resources Control Board, but could alternatively be met through an industry specific permit or an individual permit. The construction aggregate-related Industry Group project components, for which sediment in stormwater runoff would be a primary water quality concern, would include facilities such as settling ponds and sediment basins to ensure that neither stormwater as sheet flow nor process water (for example, water used to wash out cement mixers) is transported directly to the Bay without removal of sediment and other solids. Much of the process water would be reused in Industry Group operations.

Compliance with NPDES permit conditions, including preparation and implementation of a Stormwater Pollution Prevention Plan, would minimize potential water quality degradation associated with stormwater runoff. In addition, implementation of Mitigation Measure D.2 (implementation of source control Best Management Practices consistent with those identified in the Industrial / Commercial Storm Water Best Management Practices Handbook) and of measures identified in the Waterfront Land Use Plan EIR (and also presented in Section IV of this report) for tenants to participate in the Port's stormwater monitoring program would further reduce the potential for Bay water quality degradation. Therefore, long term water quality impacts associated with stormwater runoff from Industry Group project components would be considered less than significant with mitigation.

The Port's planned location of an expanded dredge material handling facility at Pier 94 would result in runoff back to the Bay of decant water from dredge material placed at Pier 94. The Regional Water Quality Control Board (RWQCB) would require routine testing of the decant water to ensure that sediment levels are below accepted criteria, and that the water does not contain chemicals (e.g., heavy metals) or other constituents at levels in excess of regulatory requirements.[40] If contaminant levels were in excess of applicable requirements, the RWQCB would require that the Port treat the decant water prior to discharging it to the Bay. Treatment could involve removal of settled solids, activated charcoal treatment, and other methods. Operation of the dredge material storage facility in compliance with the required discharge permit from the RWQCB would ensure that water quality effects on the Bay would be less than significant.

Because the proposed Pier 94 dredge material storage site is a former landfill that is currently under regulatory oversight by the RWQCB, one of two approaches would be required prior to implementation of the dredge material expansion project:[41] either the landfill area could be capped with an impermeable

[40] Although the decant water would be Bay water being returned to the Bay after draining from the dredge material, federal and state regulations preclude discharge of such water if sediment or contaminant levels are excessively high.

[41] The former landfill at Pier 94 is discussed further on p. 123, in Section III.E, Hazardous Materials.

barrier to prevent decant water from draining out of dredged material and into and through the former landfill, or the RWQCB could determine, based on additional testing and sampling that would have to be performed by the Port, that infiltration of seawater through the former landfill would not adversely affect water quality in the Bay. Because implementation of the dredge material expansion project would have to occur in compliance with RWQCB regulations, effects of this project component on water quality would be less than significant.

The future Port development that would occur by 2015 could have similar effects to those described for the Industry Group project components. Potential industrial and commercial activity on currently unprogrammed Port lands at Pier 70 and at the 90-94 backlands would likely entail placement of large areas of impervious surfaces (buildings and pavement), which during dry weather accumulate pollutants associated primarily with industrial or urban use. The stormwater runoff associated with the increased area of impervious surface, if collected in the City's combined sewer system, would increase demand on the Southeast Water Pollution Control Plant. A more detailed determination of potential impacts on wet weather combined sewer overflows would require review of detailed development plans, which are not known for any of the potential future development on Port lands. Any such future development proposals, which would be defined through a community planning process, would include this project-specific information, which would then be reviewed by the Port and other City agencies such as the Public Utilities Commission, for potential infrastructure improvements, and would be subject to further environmental review.

Under the potential future Port development projects, about 200,000 square feet of maritime industry uses are proposed for the Pier 70 Maritime Reserve. As discussed in the Waterfront Plan, maritime industry uses may include waterborne commerce and navigation and maritime support uses such as equipment storage and warehousing uses. As with the Industry Group components, compliance with NPDES permit conditions by developers on unprogrammed Port lands would minimize potential water quality degradation associated with stormwater runoff.

Program-level water quality impacts associated with maritime uses are described in detail in the Waterfront Land Use Plan EIR (see pp. 586-589 of the Final EIR) and are summarized briefly here. Any shipping or boating activity would involve handling and storage of chemicals that could be discharged to surface waters. Potential pollutant sources include fuels, bilge water, boat cleaning and maintenance materials, sewage from boats and miscellaneous debris. Maritime uses could also increase the potential for fuels spills to the Bay. However, as described in the Waterfront Land Use Plan EIR, there are numerous regulations in place to protect water quality impacts associated with maritime uses. These include: federal Oil Pollution Act and California Oil Spill Response Act, RWQCB and U.S. Coast Guard permits for discharges from ships or boats, and NPDES permits for runoff from ship and boat repair facilities. Compliance with these regulations would minimize the potential for water quality degradation associated with maritime uses. Therefore, long term water quality impacts associated with maritime uses would be considered less than significant with mitigation.

Construction Impacts

Construction of the various project components could affect water quality due to grading and earthmoving activities, use of fuels and other chemicals for construction equipment, and demolition and construction in proximity to the Bay.

Grading and earthmoving activities would result in exposure of soil during construction and could result in erosion and excess sediments carried in stormwater runoff to surface waters. In addition, construction activities would also likely require temporary on-site use and storage of vehicles, fuels, wastes and other pollutant sources; if improperly handled, these pollutants could also be transported in stormwater runoff to surface waters. For projects with construction sites greater than five acres, the project sponsor would be required to obtain coverage under the statewide General Permit for Stormwater Discharges Associated with Construction Activity described above in the Setting section. These requirements would potentially apply to future Port development at Pier 70 and the Piers 90-94 backlands, as well as to Industry Group project components including Mission Valley Rock, British Pacific Aggregates, and Coach USA, all of which would occupy more than five acres, although the areas to be disturbed through grading or excavation could be considerably smaller and none of these components would require a substantial volume of earthmoving. Depending on the construction schedule for the various projects, the remaining project components under five acres in size may also be required to comply with similar regulations, since it is anticipated that Phase II construction stormwater requirements will be in place by August 2001.

Compliance with these regulations and NPDES permit conditions, including development and implementation of a site-specific Stormwater Pollution Prevention Plan, would minimize the potential for water quality degradation. The SWPPP would typically be required to indicate all pollutant sources within the construction area and to identify best management practices to prevent discharge of pollutants into stormwater. However, due to the uncertain timing of construction schedules and the Phase II construction stormwater requirements, a mitigation measure would require that all proposed construction sites under the Industry Group projects, regardless of size, prepare and implement a SWPPP, in order to minimize construction water quality impacts (see Mitigation Measure D-1, p. 149). Therefore, with compliance of NPDES General Permit requirements for sites over five acres and with implementation of proposed mitigation measures for sites under five acres, water quality impacts associated with construction activities would be considered less than significant.

Water quality impacts associated with demolition and construction in proximity to the Bay are discussed in the Waterfront Land Use Plan EIR. Construction activities located on or adjacent to the Bay would result in increased potential for spills and for construction materials or debris to enter the Bay and affect water quality, particularly if construction activities occur on windy days. Implementation of improvement measures identified in the Waterfront Land Use Plan EIR would minimize the potential for these impacts and are presented in Chapter IV of this report. Thus, implementation of these measures in conjunction with the SWPPP under the NPDES permit requirements discussed above would reduce potential water quality impacts to less than significant.

Water quality effects related to construction of the Illinois Street bridge are discussed in Section III.F, Biological Resources, on p. 139.

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E. HAZARDOUS MATERIALS

SETTING

The assessment focuses on hazardous materials that may be encountered during construction including hazardous materials in the soil, solid waste disposal facilities, hazardous building materials, and abandoned hazardous wastes. The analysis is based on information from the following:

- A regulatory database search to identify known environmental cases within or adjacent to each of the proposed project sites (VISTA Information Solutions, 2000);
- Review of Port of San Francisco, San Francisco Department of Public Health, and San Francisco Department of Public Works Reports; and
- Visual site reconnaissance (Orion, 2000).

REGULATORY SETTING

Hazardous materials and hazardous wastes are subject to numerous federal, state, and local laws and regulations intended to protect health and safety. The overall regulatory framework for hazardous materials is discussed in Appendix F. Three San Francisco regulations from the Public Health Code applicable to the Southern Waterfront projects are summarized below: "Analyzing the Soil for Hazardous Wastes," the Hazardous Materials Ordinance, and the Hazardous Waste Ordinance.

Analyzing the Soil for Hazardous Wastes

In 1986, the City and County of San Francisco first established legislation known as the Maher Ordinance that required the investigation of hazardous wastes in soil at construction sites as a prerequisite for certain building permits. These regulations have since been codified in Article 20 of the San Francisco Public Works Code (in 1986) and Article 22A of the San Francisco Public Health Code (in 1999).[42] Article 22A of the Public Health Code is applicable to projects that include the disturbance of more than 50 cubic yards of soil and:

(1) are located bayward of the historic high tide line (i.e., in an area of Bay fill), as designated on an official City map; or

(2) are located in other areas of the City designated for investigation by the Director of the Department of Public Health. These areas would include locations where the Director has reason to believe that hazardous wastes may be present in the soil.

The regulations take effect at the time of the building permit application and impose the following major requirements on proposed developments:

- Preparation of a site history report to describe past site uses and identify whether the site is listed as a hazardous waste site pursuant to state or federal regulations;
- Implementation of a soil investigation to evaluate the potential presence of hazardous wastes in the soil;
- Preparation of a soil analysis report that evaluates the results of chemical analysis of the soil samples;
- Preparation of a site mitigation report, if contamination is identified, assessing potential environmental and health and safety risks and recommending measures to mitigate the risks;

[42] The requirements of both articles are similar. Only Article 22A of the Public Health Code is referred to in subsequent references in this document.

- Preparation of a certification report stating that either (1) no hazardous wastes present in the soil present an unacceptable risk and that no mitigation measures are required; or (2) all mitigation measures recommended in the site mitigation report have been completed and that completion of the mitigation measures has been verified through follow-up soil sampling and analysis, if required.

The site history report and the soil analysis report must be prepared by knowledgeable, certified professionals and provide information on historic and current hazardous waste contamination at the property to be developed. The site history report is submitted to the San Francisco Department of Public Health. The soil analysis report is submitted to the San Francisco Department of Public Health, California Department of Toxic Substances Control, and the California Regional Water Quality Control Board, San Francisco Bay region. If the soil sampling and analysis report or the site history report indicate that the site proposed for development is listed on the National Priorities List or the list of California Hazardous Substances Account Act release sites, the applicant must certify that any site mitigation required by a federal or state agency has been completed.

Article 22A protects the health and safety of the City's workers, residents, and occupants from risks associated with hazardous wastes in the soil by requiring a site assessment and mitigation of any risks identified as a condition for construction of a planned project. All of the proposed sites in the Southern Waterfront project are located bayward of the historic high tide line and would be subject to the requirements of Article 22A if construction of the project would include the disturbance of more than 50 cubic yards of soil.

Hazardous Materials Ordinance

The Hazardous Materials Ordinance (Article 21 of the San Francisco Public Health Code) provides for safe handling of hazardous materials in the City. In accordance with this ordinance, any person or business that handles, sells, stores, or otherwise uses hazardous materials in quantities exceeding specified threshold, is required to obtain and keep a current hazardous materials certificate of registration and implement a hazardous materials plan submitted with the registration application.

The Hazardous Materials Ordinance helps protect the health and safety of the general community and of emergency response personnel, such as fire fighters and paramedics. Data on hazardous materials use are stored in a City-wide computer system and can be made available to emergency responders. The information assists emergency responders to assess and resolve hazardous materials incidents quickly and safely. Inspections are performed by the City every one to two years or upon complaint.

The Hazardous Materials Ordinance helps San Francisco businesses to satisfy requirements of hazards communication and of community right-to-know laws. The registration process also helps businesses inventory and reduce the amounts of hazardous materials stored and hazardous wastes produced, and reduces overall risks posed to the community by these materials.

Under the Hazardous Materials Ordinance, the Department of Public Health also permits underground storage tanks, oversees the closure of underground storage tanks and hazardous materials establishments,

and oversees the investigation of unauthorized releases of hazardous materials or petroleum products from underground storage tanks.

Hazardous Waste Ordinance

The Hazardous Waste Ordinance (Article 22 of the San Francisco Public Health Code) provides for safe handling of hazardous wastes in the City. The ordinance incorporates the state requirements for hazardous waste described in Section 6.5 (Hazardous Waste Management) of the California Health and Safety Code as well as the accompanying regulations found in CCR Title 22.

POTENTIAL SOURCES OF HAZARDOUS MATERIALS AND HAZARDOUS BUILDING MATERIALS AT PROPOSED PROJECT SITES

This section describes existing site conditions in terms of potential sources of hazardous materials that may affect development at the proposed project sites. Potential sources of hazardous materials at each of the proposed project sites include the following:

- soil or groundwater that have been affected by chemical releases from past or present site uses,
- migration from chemical releases in soil or groundwater at nearby sites,
- abandoned hazardous materials,
- existing permitted uses of hazardous materials, including underground and above-ground storage tanks, and
- hazardous building materials.

If hazardous materials were present in the soil or groundwater at a site, remediation of these materials could be required. The need for site remediation would be determined by the regulatory agency providing oversight for the site on the basis of the types and concentrations of chemicals present. A risk assessment may be conducted to determine acceptable levels of chemicals to be left in place based on the future land use of the property. In addition, if hazardous materials were present, construction workers or the public could be exposed to hazardous materials during construction and there could be special handling requirements for any soil excavated from the proposed project sites.

Existing permitted uses of hazardous materials are well regulated to ensure safe handling of these materials. However, these sites are potential sources of hazardous substances to the soil and/or groundwater because of incidental leakage or spillage that may have gone undetected.

Hazardous building materials are included in this discussion because some project components would involve demolition or renovation of existing structures. Some building materials commonly used in older buildings could present a public health risk if disturbed during an accident or during demolition of an existing building. These materials include asbestos, electrical equipment such as transformers and fluorescent light ballasts that contain polychlorinated biphenyls (PCBs), fluorescent lights containing mercury vapors and lead-based paints. Asbestos and lead-based paint may also present a health risk to

existing building occupants if they are in a deteriorated condition. If removed during demolition of a building, these materials would also require special disposal procedures.

In addition, this section describes three general sources of hazardous materials in the Southern Waterfront project area: fill material, two former solid waste disposal facilities, and Islais Creek. Fill used in the development of San Francisco's waterfront is known to contain hazardous materials. There are two former solid waste disposal facilities within the project area. One of these has been closed under regulatory requirements and the other is undergoing closure. Regulatory requirements for closure are described. A summary of hazardous materials conditions regarding Islais Creek is also presented separately because conditions within this creek could affect more than one project site.

Methodology

To assess the potential for hazardous materials to be present in the soil or groundwater, reports available through the Port of San Francisco and the San Francisco Department of Public Works as well as underground storage tank reports available at the San Francisco Department of Public Health, Local Oversight Program were reviewed in 1994 to identify known environmental conditions within the Project Area as part of the San Francisco Waterfront Land Use Plan EIR (Camp Dresser & McKee, 1998; Crosby & Overton, 1989; ERM-West, 1990; Geo/Resource Consultants, 1990; Orion, 2000; Port of San Francisco, 2000a; Port of San Francisco, 2000b; Port of San Francisco, 2000c; Port of San Francisco, 1997a; Port of San Francisco, 1997b; Port of San Francisco, 1996; Port of San Francisco, undated; SCA Environmental, Inc., 1998; RWQCB, 2000; San Francisco Department of Public Health, 2000; San Francisco Department of Public Works, 1991; Tetra Tech, 1998; Tetra Tech, 1997; Treadwell & Rollo, 2000a; Treadwell & Rollo, 2000b; Treadwell & Rollo, 1999; VISTA Information Solutions, 2000). To update information for this assessment, reports available through the Port of San Francisco were reviewed in February 2000 and a regulatory database search was conducted to identify known environmental cases within or adjacent to the project sites.

A database search was conducted for the project to identify three categories of sites in the project areas that may be affected by hazardous materials: (1) sites with permitted underground or above-ground storage tanks, (2) sites permitted to handle hazardous wastes under the federal Resource Conservation and Recovery Act (RCRA), and (3) known environmental cases (VISTA Information Solutions, 2000). Appendix F presents the name and date of each database reviewed for this evaluation. A summary table, listing those sites of concern identified by the database review, is also provided in Appendix F.

Sites permitted to handle hazardous wastes under RCRA and sites with permitted underground or above-ground storage tanks are approved to handle hazardous substances. Because the use and handling of hazardous materials at permitted sites are subject to strict regulation, the potential for a release of hazardous materials from these sites is considered low. Consequently, permitted RCRA and underground and above-ground storage tank sites are identified only if they are located within a planned project site.

Those sites suspected of releasing hazardous materials or that have had cause for hazardous materials investigations are identified on regulatory agency lists and are referred to as environmental cases. Identification of hazardous materials at these sites is generally due to site disturbance activities such as removal of an underground storage tank, a spill of hazardous materials, or excavation for construction. To evaluate the potential for hazardous materials in the soil at each of the proposed project sites, this section identifies environmental cases within the boundaries of each proposed project site as well as adjacent environmental cases which could impair soil quality within the proposed project site.

General Sources of Hazardous Materials

Fill Materials

Prior to human settlement, most of the Southern Waterfront was part of the shallow margins of San Francisco Bay. Beginning in the 1850s, the waterfront was gradually filled with brick, wood, metal fragments, concrete, other rubble, debris, and sand. The fill along the Bay margins commonly contains polynuclear aromatic hydrocarbons (PNAs), heavy metals, oil and grease, and volatile organic compounds (VOCs), and this is one of the reasons for enactment of San Francisco's Maher Ordinance. All of the proposed project sites are underlain by fill.

Landfill Closures

Areas at Pier 94 and Pier 70 were filled by the Port in the late 1960's and early 1970's. These areas were designated as Class III landfills (non-hazardous solid waste) by the Regional Water Quality Control Board (RWQCB) and in 1987 they became subject to closure orders by the RWQCB. In accordance with the closure orders, the Port of San Francisco has monitored groundwater quality at these solid waste disposal sites on a quarterly basis and reports the results annually to the RWQCB. The status of groundwater monitoring and closure of these facilities is further described below.

Islais Creek Area

The Islais Creek Area is included on the federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list, on the basis of oily wastes, solvents, and landfilling activities. No further remedial action is planned for this site. The Islais Creek area between Cargo Way and Amador Street is also identified in the Calsites database (the state equivalent of the CERCLIS database). Information available from the database review indicates that this is a former Annual Work Plan site that has been referred to the Regional Water Quality Control Board. Two spills were reported in the ERNS database in the Islais Creek area (VISTA Information Solutions, 2000).

Industry Group Project Component Sites

Known hazardous materials conditions at each of the Industry Group project sites are described briefly below and are summarized in Table 21. Additional detail regarding these conditions is provided in Appendix F.

TABLE 21
SUMMARY OF POTENTIAL HAZARDOUS MATERIALS SITE CONDITIONS AT INDUSTRY GROUP PROJECT SITES

COMPONENT	LOCATION	EXISTING LAND USE	HISTORICAL LAND USES	SITE ASSESSMENT AND INVESTIGATIONS	ENVIRONMENTAL CASES IN VICINITY	HAZARDOUS BLDG. MATERIALS
Bode Gravel	Pier 92	Undeveloped with railroad spurs Stockpiled soils present; abandoned drums noted adjacent to stockpile	1950-1966: Fish canneries and reduction plants with 2 fuel oil tanks and 2 ASTs	Soil in upper 4 feet contain lead, zinc, TPH; groundwater contains TPH, metals; stockpiled soils contain TPH	Darling International facility on Amador Street, RCRA site and UST leak in 1991, closure granted; UST fuel leak reported at Pier 92 in 1998	Existing facility at 3rd and 16th Streets would be dismantled, survey needed
Mission Valley Rock	Pier 92	Vacant warehouse and sand processing plant, Stockpiled soils present; abandoned drum noted adjacent to stockpile	Similar to Bode Gravel	None conducted, but likely similar to Bode Gravel	Similar to Bode Gravel	Existing building to be renovated, survey needed
ISG Resources	Pier 90	Vacant grain silos	Not identified	Limited Phase I conducted in 1989; Abandoned wastes at Pier 90	Similar to Bode Gravel	Grain silos to be renovated; survey needed
British Pacific Aggregates	Pier 94	Adjacent to former landfill undergoing closure	Class III landfill	Preliminary closure plan submitted; groundwater monitored	None identified	N/A
RMC Pacific	Pier 80	Paved storage yard for steel pipes / beams, railroad tracks	No studies identified	No studies identified	Imperial Drayage, CERCLIS site; 4 Leaking UST cases near Pier 80	Existing facility at 3rd and Mariposa Streets would be dismantled, survey needed

(continued)

TABLE 21 (continued)
SUMMARY OF POTENTIAL HAZARDOUS MATERIALS SITE CONDITIONS AT INDUSTRY GROUP PROJECT SITES

COMPONENT	LOCATION	EXISTING LAND USE	HISTORICAL LAND USES	SITE ASSESSMENT AND INVESTIGATIONS	ENVIRONMENTAL CASES IN VICINITY	HAZARDOUS BLDG. MATERIALS
Waste Management	Pier 70 (Building 6)	Vacant building	Heavy industry, storage of petroleum products since 1895; building formerly Pacific Coast Steel	No studies identified	See Pier 70 information in Table 22, p. 124.	Existing building to be renovated, survey needed
Coach USA	Pier 96	Vacant buildings and paved storage yard; abandoned wastes present	No studies identified	No studies identified	Leaking UST on Cargo Way in 1996, closure granted	Existing building to be renovated, survey needed

Notes:
AST: aboveground storage tank
N/A: hazardous building materials are not suspected at site
TPH: total petroleum hydrocarbons
UST: underground storage tank

SOURCE: Orion Environmental Associates, 2000

A soil investigation was conducted in the western portion of Pier 92 in 1999 to comply with the requirements of Article 22A (Treadwell & Rollo, 1999). Based on that investigation and on the various document and site reviews conducted for this SEIR, hazardous conditions identified at Industry Group sites include elevated concentrations of total and soluble lead in the soil at the proposed Bode Gravel ready-mix plant site (part of a proposed joint leasehold with Mission Valley Rock), where fuel storage tanks were once located. These levels mean that any soil excavated could be classified as a hazardous waste and would require special handling. Soil from one location contained total zinc at a concentration greater than the total threshold limit concentration.[43] Hydrocarbons and other volatile organic compounds were identified in the soil, but at levels below those for which any remediation would be required prior to industrial reuse. Hydrocarbons and various metals were found in groundwater, but because the groundwater in this area is not used as a drinking water supply, no remediation would be required. In addition to subsurface contamination, there is a large soil stockpile at Pier 92. Sampling indicates that if this soil required disposal, more than half of the pile would be considered hazardous waste under state regulations because of concentrations of lead and other metals.

Although no site survey has been conducted for the site of Mission Valley Rock's proposed aggregate import terminal and asphalt plant, conditions are likely similar to those at the Bode site because of the similarity of prior uses on the two sites and the proximity of nearby sources of potential contamination. A fuel oil tank was removed from the Mission Valley Rock site in 1998, at which time soil contamination was noted. The excavation site was lined with an impermeable barrier and the excavated soil replaced. However, the San Francisco Department of Public Health will require additional remedial action (not completed as of mid-2000). At the adjacent Pier 90 site, where the former grain silos are proposed for use by ISG Resources as a fly ash import and storage facility, a limited Phase I investigation in 1989 revealed low levels of benzene, toluene, ethylbenzene and xylenes, thought to be a result of surface spills from vehicles.

Pier 94, where British Pacific Aggregates (BPA) proposes an aggregate shipping terminal, consists of fill including soil and rock, construction waste, dredge spoil, and miscellaneous refuse. Part of Pier 94 is subject to landfill closure requirements imposed by the Regional Water Quality Control Board. However, the paved portion, where the BPA facility would be located, is outside of the portion of the landfill subject to closure requirements.

No known site assessments or investigations have been conducted at the Pier 80 site where RMC Pacific Materials proposes a concrete ready-mix plant. Several fuel leaks have been identified in the vicinity, and two underground tanks have been removed nearby. Remedial action has occurred at all but one of the four sites noted.

[43] A waste is considered hazardous on the basis of toxicity if it contains the specified substance at a concentration greater than the regulatory levels specified in Title 22 of the California Code of Regulations, Section 66261.24(a)(2). These regulatory levels include the Total Threshold Limit Concentration (TTLC) and the Soluble Threshold Limit Concentration (STLC).

No site assessments are known to have occurred at the other two Industry Group sites, Waste Management's proposed construction materials recycling facility at Pier 70 and Coach USA's proposed bus storage depot at Pier 96. Both of these facilities would use existing buildings, where materials such as asbestos and lead-based paint could be present. The only identified instance of potential subsurface contamination related to either of these sites was as gasoline leak at an underground storage tank near Pier 96 in 1996; soil was excavated and disposed of and this case was reported closed. (See the further discussion concerning Pier 70 on p. 126, under "Potential Future Port Development Projects."

Illinois Street Intermodal Bridge

The review performed for this EIR did not identify any site assessments or site investigations performed for Islais Creek in the area planned for the intermodal bridge. The Islais Creek area was identified as an environmental case in several environmental databases, as described in the Islais Creek Area discussion on p. 119.

Future Port Development Sites

Known hazardous materials conditions at the future Port development sites are described briefly below and are summarized in Table 22. Additional detail regarding these conditions is provided in Appendix F.

Dredge Material Handling Site

As described above in the discussion of British Pacific Aggregates, Pier 94, where the Port proposes its expanded dredge material storage operation, consists of a former landfill subject to closure requirements imposed by the Regional Water Quality Control Board. Pier 94 is an approximately 96-acre partially paved site created by placement of inert and non-inert fill material to construct a marine shipping terminal. The fill is composed of a variety of materials including clayey soil and rock fragments, construction waste mixed with soil, dredge spoil, and miscellaneous refuse. A variety of earthen materials and debris, including concrete, asphalt, and metal debris and household garbage) was placed over the site after fill placement ceased. Groundwater at Pier 94 is monitored in accordance with Closure Order No. 87-061 from the Regional Water Quality Control Board (RWQCB) (Port of San Francisco, 1997a).

In 1991, a preliminary closure plan was submitted to the RWQCB for the 14-acre section of Pier 94 that is subject to the closure order. The plan addressed reconstruction and grading, final cover, precipitation and drainage control, shoreline stabilization, geotechnical stability, and settlement. The Port has not received comments from the RWQCB on the preliminary plan.

TABLE 22
SUMMARY OF POTENTIAL HAZARDOUS MATERIALS SITE CONDITIONS AT FUTURE PORT DEVELOPMENT SITES

COMPONENT	LOCATION	EXISTING LAND USE	HISTORICAL LAND USES	SITE ASSESSMENT AND INVESTIGATIONS	ENVIRONMENTAL CASES IN VICINITY	HAZARDOUS BLDG. MATERIALS
Dredge Material Handling	Pier 94	Vacant	Class III landfill	Preliminary closure plan submitted; groundwater monitored	None identified	N/A
Pier 70 Mixed Use Opportunity Area	Pier 70	Vacant buildings and storage yard for San Francisco Dry Dock	Heavy industrial uses since 1890s, including ship-building, iron works, metal foundries, galvanizing shops, machinery warehouses, plating shops. machine shops, lumber and iron yards, coke pile, railroad tracks, USTs	Phase I Site Assessment; UST removals; Mariposa Sewer Facilities borings	Leaking UST on Illinois Street, case closed.	Vessels accepted at B & C Metals contained asbestos and lead; vacant buildings need surveys; electrical transformers with PCBs; abandoned oils in Buildings 101 and 102; possible wastes in Building 6
Pier 70 Maritime Reserve	Pier 70	Police impound yard; vacant buildings; former landfill undergoing closure; 4 shipyard slips	Class III landfill; Bethlehem Steel; Todd Shipyard, Convoy Company, ASTs, USTs	Groundwater monitoring ongoing; suspected metals in soil by Building 6; USTs removed from and near Building 113 and groundwater may have TPH; USTs removed near Building 117	Southwest Marine, CERCLIS site; Port of San Francisco CORTESE site; leaking UST at 1X SF Bar Pilot; PG&E site adjacent to Pier 70	Metals in Building 12; creosote in Building 113; vacant buildings need surveys; electrical transformers may contain PCBs; reported spill in former Convoy facility

(continued)

TABLE 22 (continued)
SUMMARY OF POTENTIAL HAZARDOUS MATERIALS SITE CONDITIONS at future port development siteS

COMPONENT	LOCATION	EXISTING LAND USE	HISTORICAL LAND USES	SITE ASSESSMENT AND INVESTIGATIONS	ENVIRONMENTAL CASES IN VICINITY	HAZARDOUS BLDG. MATERIALS
Western Pacific	Pier 80	Vacant	Railroad uses, including engine house/maintenance building., fueling, lubrication, and storage; ASTs	Soil and groundwater sampled in 1989; shoreline remediation conducted in 1993 and 1994; Port is reviewing data and conducting risk assessment to identify suitable reuse scenarios	Site on North Bay County toxic list	N/A
Pier 90-94 Backlands	Pier 90-94 between railroad tracks and Islais Creek	Aggregate industries; maritime facility; former landfill undergoing closure	Temporary DPW soil treatment facility	No studies identified	None identified	N/A

NOTES:
AST: aboveground storage tank
DPW: City and County of San Francisco Department of Public Works
N/A: hazardous building materials are not suspected at site
TPH: total petroleum hydrocarbons
UST: underground storage tank

SOURCE: Orion Environmental Associates, 2000.

Various options are under consideration for closure of the landfill (Tetra Tech, 1997) and selection of the appropriate option could depend on the intended reuse of the site. The Port is currently compiling and reviewing groundwater monitoring data for the landfill to further assess closure requirements as required by the Regional Water Quality Control Board (Port of San Francisco, 2000a). The designs, grading plans, material and construction specifications, schedules and cost estimates would all need to be substantially revised prior to submitting the final closure plan for RWQCB approval (Port of San Francisco, 1997b).

Implementation of the Port's dredge material expansion project could require that the area to be used be capped with an impermeable barrier to prevent decant water from draining out of dredged material and into and through the former landfill. Alternatively, the Port could perform further testing that might demonstrate, to the satisfaction of the RWQCB, that infiltration of seawater through the former landfill would not adversely affect water quality in the Bay. Thus, implementation of the dredge material expansion project in compliance with RWQCB regulations would result in a less-than-significant effect.

Other Port Lands

Pier 70 and surrounding areas contain a solid waste landfill and numerous dilapidated old buildings. There has been heavy industrial use, including ship repair, at Pier 70 for more than 100 years. Previous land uses and underground storage tanks within this area have affected soil and/or groundwater quality. In addition, there are several existing land uses that involve the use of hazardous materials. There is also a three-acre solid waste disposal site that includes four shipyard slips. The site was constructed of demolition debris from previously existing structures mixed with earthen material. Deposition of fill material was completed, and the site was capped with asphalt in 1971. On the basis of groundwater monitoring results, the waste material does not pose a threat to water quality and does not require additional characterization or management as a landfill (RWQCB, 2000)

A Phase I site assessment for the Pier 70 area (Tetra Tech, 1998) identified a number of historic underground and above-ground storage tanks, many of which have been removed and some of which were reported to have leaked. Remediation has been conducted at several sites. The Phase I report also identified other potential sources of hazardous materials, including:

- Soil in the vicinity of Building 6 was reported to contain copper, lead, zinc, and PNAs. Additional sampling was recommended and there were plans to clean the inside of Building 6. There were indications that hazardous waste may have been left in Building 6;
- Building 12 may contain concentrations of lead and cadmium;
- There are reported releases of heavy metals from former site activities to areas south of the mixed use opportunity area; and
- There were reported spills of hazardous materials in the old Convoy Company facility in 1987. The DTSC recommended catch basins beneath drums used for oils, hydraulic fluids, and antifreeze. Documentation reviewed did not show the location of this facility, but it is estimated to be to the east of Building 113.

Activities at facility that formerly operated in the northwest corner of Pier 70, B & C Metals, could have affected soil and/or groundwater quality within the Mixed Use Opportunity Area. In 1996, soil identified as a hazardous waste on the basis of lead concentrations was removed from two paved boat ramps adjacent to B & C Metals, where vessels had been dismantled (Port of San Francisco, 2000c). B&C Metals used many hazardous materials including lubricating oils and flammable gasses, but documentation from 1997 indicates that B & C did not register them or comply with hazardous materials storage regulations. In addition, some vessels accepted at the facility contained asbestos containing materials and lead based paint although the employees were not trained to identify and manage these materials. In 1997 five vessels were stored at Pier 70 and three of these vessels contained asbestos containing materials and lead-based paint (Tetra Tech, 1998). The Port reports that four of these vessels have been removed and the one that remains is not believed to contain asbestos (Port of San Francisco, 2000b).

The vacant buildings within Pier 70 are in a generally dilapidated condition. Based on their age (constructed prior to 1950), they would likely contain hazardous building materials, including lead-based paint. Asbestos has been identified in several buildings. There are electrical transformers remaining at Pier 70 with PCB containing oil (Tetra Tech, 1998). These transformers are typically surveyed and retrofitted on a project specific basis and it would be necessary to conduct a survey of any buildings planned for demolition or renovation to determine if any PCB containing electrical equipment remains within a specific building. Mitigation Measure E.4, p. 152, would require such surveys. A cleanup of illegally stored hazardous materials was completed at Building 6 in 1983.

At the Western Pacific Property, lead and arsenic were identified in the soil at concentrations exceeding the total threshold limit concentration. Hydrocarbons and metals were detected in soil samples, and the groundwater was found to be affected by petroleum products, polynuclear aromatic hydrocarbons, volatile organic compounds, and lead. In addition, the off-shore sediments were found to contain polynuclear aromatic hydrocarbons and metals (Dames & Moore, 1989). In accordance with a request from the Regional Water Quality Control Board, a site remediation was conducted in 1993 and 1994 which involved capping the site to reduce the potential for infiltration and runoff. As part of this remediation, the following activities were conducted (Levine-Fricke, 1994): regrading of the shoreline slope; placing a geotextile fabric to inhibit migration of fines to the bay; installing riprap slope protection; constructing a 10-foot wide gravel sediment trap behind the riprap; regrading a 50-foot wide strip behind the sediment trap; placing a geotextile on the subgrade and paving over the geotextile; and constructing an 80-foot wide gravel transition zone behind the paved area.

The San Francisco Municipal Railway plans to use the western portion of this property for a light rail vehicle maintenance and operations facility and has conducted a Site Characterization/Corrective Measures study to comply with Article 22A. The Port is currently reviewing the data for the eastern portion of the site planned for Port use, and is conducting a risk assessment for various reuse scenarios. The choice of uses would depend partially on the results of the risk assessment (Port of San Francisco, 2000a). A draft Risk Assessment report found all re-use scenarios evaluated, except that for single-

family housing, to be below accepted risk criteria; no single-family housing is proposed for the Western Pacific site. The database review identified this site in the North Bay County Toxic List, but no further information was available (VISTA Information Solutions, 2000).

The review performed for this EIR did not identify any site assessments or site investigations performed for the Pier 90 to 94 backlands. A portion of the backlands being considered for development overlap the regulated portion of the landfill at Pier 94 (described under British Pacific Aggregates, above). Current activities at this site include Specialty Crushing, Tide Water Sand and Gravel (Hanson Aggregates), and the Port of San Francisco Marine Terminal. Specialty Crushing and Tide Water Sand and Gravel are located atop the regulated portion of the landfill.

IMPACTS

SIGNIFICANCE CRITERIA

The City has not formally adopted significance standards for hazard impacts, but it generally considers that implementation of the Southern Waterfront project would have a significant hazards effect if it were to:

- involve a substantial risk of accidental explosion or release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation);
- expose people to existing sources of potential hazards including hazardous materials;
- create a public health hazard or potential public health hazard; or
- interfere with an emergency response plan or emergency evacuation plan.

Definition, identification and determination of threshold levels of hazardous materials and wastes are provided in the Title 40 of the Code of Federal Regulations (40 CFR) and in Title 22 of the California Code of Regulations. In accordance with these regulations, a hazardous waste is a substance or combination of substances, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may pose a substantial threat, or potential hazard to human health, or environment, when improperly treated, stored, transported, disposed of, or otherwise managed. Determination of "substantial" hazard or "insignificant" levels of hazardous materials is performed by the regulatory agencies on a case-by-case basis, depending on the proposed uses, potential exposure, and degree and type of hazard.

It is not anticipated that any of the project components would interfere with emergency response or evacuation plans. The Industry Group components would generally be constructed on sites that would be relatively isolated (east of Third Street) and therefore would not substantially interfere with emergency routes. Furthermore, the Industry Group components would not result in large concentrations of people, as employment would be relatively small at each component (most of the sites would be devoted to materials processing and storage). Some of the potential future Port developments (office, research and development, retail uses) could involve large numbers of employees. However, buildings that would

house such uses would be constructed in accordance with applicable building and fire codes, with plans to be reviewed by the Port's fire marshal, which would minimize risks due to any potential inadequacies in emergency response routes.

IMPACT ANALYSIS-INDUSTRY GROUP COMPONENTS

Accidental Release of Hazardous Materials or Petroleum Products

Projects at Bode Gravel, Mission Valley Rock, Waste Resources Technologies, and Coach USA would include above-ground or underground storage tanks for the storage of fuel products. Above-ground fuel tanks may also be required for British Pacific Aggregates and ISG Resources. The proposed Mission Valley Asphalt Plant would also include the above-ground storage of asphalt cement.

If a leak occurred from an on-site fuel tank, the material stored in the tank could affect soil, groundwater, or Bay water quality. However, businesses that store petroleum products above ground would be required to comply with the requirements of the City's Hazardous Materials Ordinance which includes the requirements for secondary containment and preparation of a Spill Prevention Control and Countermeasure Plan to specify emergency procedures to be followed in the event of a spill. When stored above-ground, fuels are commonly stored in an above-ground tank similar to a Convault system with secondary containment that is virtually leak-proof. Regulations governing underground storage tanks (USTs) require a separate permit to operate a UST and include an inspection and monitoring requirement by the Department of Public Health (DPH). Further, all establishments that store fuel on-site, whether in above-ground or underground tanks, must register with DPH.

In the unlikely event that a leak or tank rupture did occur, the spill would likely be contained within the secondary containment system for the tank. Secondary containment and implementation of emergency response procedures would minimize potential exposure of site personnel and the public to petroleum vapors as well as protect the site from potential environmental contamination. Compliance with existing regulations regarding storage and spill protection would therefore render this impact less than significant.

Hazardous Materials in Soil

Construction for the Bode Gravel and Mission Valley Rock projects would involve the excavation of more than 50 cubic yards of soil. If hazardous materials are present in the exposed soil or groundwater, there could be a public health impact. During construction, workers and the public could become exposed to airborne contaminants and if hazardous wastes are left in the soil, site occupants could be exposed through normal operations unless mitigation measures are implemented. These potential impacts are mitigated through compliance with Article 22A "Analyzing the Soil for Hazardous Wastes." The following activities are required to comply with this article:

- Preparation of a site history report;
- Implementation of a soil investigation;

- Preparation of a soil analysis report;
- Preparation of a site mitigation report; and
- Preparation of a certification report certifying compliance with Article 22A.

These activities have been completed for Pier 92 to the satisfaction of the San Francisco Department of Public Health through preparation of the site mitigation report. The site history report is summarized in the Setting, p. 122, and described further in Appendix F. A site mitigation plan has been prepared specifying measures that will be taken to mitigate risks to the site workers and public associated with the presence of lead in the soil at Pier 92 (Treadwell & Rollo, 2000b). The plan specifies the following:

- Placement of part of the stockpiled soil in the lower portions of the site to bring the entire site up to final grade for the proposed project. Soil produced from excavation for utilities would be incorporated into this pile. Soil remaining after site grading would be placed on the western portion of Pier 92 after it is compacted and graded;
- Use of dust control measures during excavation activities. These measures may include moisture conditioning or use of dust suppressants to reduce the exposure to contaminants in the soil;
- Preparation of a health and safety plan specifying measures to protect site workers and the public from exposure to chemicals during excavation activities;
- Installation of an asphalt or concrete cap to mitigate the potential for direct contact with the soil by future site users. The entire site would be covered by a structure or the cap;
- Implementation of maintenance requirements to ensure that the long-term site mitigation measures (specifically capping the soil) will remain in effect during the site's use and occupancy period.

The San Francisco Department of Public Health (DPH) approved the site mitigation plan in April 2000 (SFDPH, 2000). As part of its approval, DPH noted that a certification report and maintenance report are required as part of the proposed project because of the elevated levels of lead that will remain in the soil beneath the cap. The planned maintenance measures specified in the site mitigation report to maintain the integrity of the cap and protect future site workers who may disturb the cap include:

- Notify DPH of any proposed activity expected to disturb the integrity of the capping layer or soil thirty (30) calendar days before work commences. In cases of emergency, DPH shall be notified within 24 hours and work should commence in accordance with the mitigation measures described in the soil management plan.
- Prepare a specific work plan that includes a description of the proposed construction activities, soil management plan, and health and safety plan.
- Require any contractor or employee who disturbs the cap and is engaged in any excavation or earth movement at the property to comply with appropriate local, state, and federal regulations.
- Require any contractor or employee engaged in any activities that involve penetrating the cap to repair the disturbed area as soon as is practical.
- Control dust by wetting and protect the exposed or excavated soil from storm water run-on and run-off during the period of excavation, soil movement, or exposure.

- Determine by appropriate testing whether any excess material removed from the site is hazardous pursuant to state and federal hazardous waste criteria. This material must be managed in accordance with all appropriate regulations.
- Provide DPH with a report that describes the maintenance activities related to the cap or excavation of soil.

The Port and the operator of the site would be required to maintain the site mitigation plan, maintenance report, and maintenance records in a readily accessible on-site location. They would also be responsible for informing any employee or contractor who will perform below-grade construction of the environmental conditions, soil management concerns, and health and safety requirements stipulated in the soil management plan. Compliance with existing Article 22A regulations regarding site mitigation and site maintenance would therefore render this impact less than significant.

In addition, remaining stockpiled soil at Pier 92 may require disposal if it cannot be used in construction projects. If disposed of off-site, the soil would probably be screened to remove large debris and tested to determine an appropriate disposal site. Soil from the stockpile may not be suitable for disposal at a solid waste landfill, and may require disposal as a California hazardous waste due to its soluble lead content. A detailed description of soil disposal requirements is presented in Appendix F. With compliance with existing waste disposal regulations, this impact would be less than significant.

In addition to the Bode and Mission Valley Rock site, other Industry Group project components that may involve excavation of more than 50 cubic yards of soil would also be required to comply with Article 22A. Similarly, construction of the Illinois Street bridge would be subject to Article 22A should more than 50 cubic yards of excavation be required. Compliance with Article 22A procedures would reduce any potential impacts resulting from subsurface contamination to a less-than-significant level. For sites not subject to Article 22A because they would involve excavation of less than 50 cubic yards, the potential for exposure to subsurface hazardous materials is very small, because the amount of soil to be moved would be negligible (the equivalent of a 37-foot by 37-foot square one foot deep).

Release of Chemicals from Construction Equipment

During construction at each of the proposed project sites there is the potential that construction equipment could accidentally release petroleum products such as oil, grease, or fuel which could enter Islais Creek or the Bay and degrade water quality. This impact is judged less than significant because it is mitigated by compliance with existing laws. As discussed in Water Quality (Section III.D), where construction activities are adjacent to a waterway, and where more than five acres would be disturbed through grading or excavation, the construction contractor(s) would be required to prepare and implement a Spill Prevention, Control, and Countermeasure Plan as well as a Storm Water Pollution Prevention Plan. Construction contract specifications would include strict on-site handling rules to keep construction and maintenance materials out of receiving waters. The plan would include measures to be taken in the event of an accidental spill. This impact would be less than significant with mitigation (i.e. compliance with existing requirements for a spill prevention control and countermeasure plan, described

in Mitigation Measure E.1, and with preparation of a storm water pollution prevention plan described in Mitigation Measure D.1).

Hazardous Building Materials

Hazardous building materials may be encountered during renovation or demolition of existing buildings. Exposure to hazardous building materials (if present) could occur as a result of these activities. Potential hazardous building materials that could be present include asbestos, lead-based paint, PCBs, and fluorescent lights containing mercury vapors.

Asbestos

If friable or nonfriable asbestos is present, there is a potential for release of airborne asbestos fibers when the asbestos-containing materials are disturbed, unless proper asbestos abatement precautions are taken. Such a release could expose the public and construction workers to airborne asbestos fibers.

Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable Federal regulations regarding hazardous air pollutants, including asbestos. The Bay Area Air Quality Management District (BAAQMD) is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition (defined as moving or dismantling or any structural member of a building), and any renovation in which more than 100 linear feet, 100 square feet, or 35 cubic feet of asbestos-containing material is to be removed. Notification includes the names, addresses and phone numbers of operations and persons responsible, including the contractor; description and location of the structure to be renovated/demolished including size, age and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. The District randomly inspects removal operations. In addition, the District inspects any removal operations concerning which a complaint has been received.

The local office of the California Occupational Safety and Health Administration (OSHA) must be notified if asbestos abatement is to be carried out. Asbestos abatement contractors must follow State regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos-containing material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement would occur must have a Hazardous Waste Generator Number assigned by, and registered with, the California Department of Health Services. The contractor and the hauler of the material are required to file a Hazardous Waste Manifest that details the hauling of the material from the site and the disposal of the material.

Prior to renovation or demolition of any existing structures, the applicable project sponsor (Industry Group member) would be responsible for properly removing confirmed asbestos containing materials (see Mitigation Measure No. E.4, p. 152). Implementation of this measure and compliance with State asbestos regulations and procedures would ensure that any potential impacts due to asbestos would be reduced to a level of insignificance.

Lead-Based Paint

If lead-based paint is present and has delaminated or chipped from the surfaces of the building materials, there is a potential for the release of airborne lead particles during construction, renovation, or other activities that would disturb loose or peeling paint, unless proper lead abatement procedures are followed. Construction and renovation activities must comply with Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint. Where there is any work that may disturb or remove lead paint on the exterior of any building built prior to December 31, 1978, Chapter 36 requires specific notification and work standards, and identifies prohibited work methods and penalties.

Chapter 36 applies to buildings or steel structures on which original construction was completed prior to 1979 (which are assumed to have lead-based paint on their surfaces), where more than ten total square feet of lead-based paint would be disturbed or removed. The ordinance contains performance standards, including establishment of containment barriers that are at least as effective at protecting human health and the environment as those in the most recent *Guidelines for Evaluation and Control of Lead-Based Paint Hazards* promulgated by the U.S. Department of Housing and Urban Development. The ordinance also identifies prohibited practices that may not be used in disturbance or removal of lead-based paint. Any person performing work subject to the ordinance shall make all reasonable efforts to prevent migration of lead paint contaminants beyond containment barriers during the course of the work, and any person performing regulated work shall make all reasonable efforts to remove all visible lead paint contaminants from all regulated areas of the property prior to completion of the work.

The ordinance includes notification requirements, contents of notice, and requirements for signs. Notification includes notifying bidders for the work of any paint-inspection reports verifying the presence or absence of lead-based paint in the regulated area of the proposed project. Prior to commencement of work, the responsible party (owner or contractor) must provide written notice to the Director of Building Inspection of the location of the project; the nature and approximate square footage of the painted surface being disturbed and/or removed; anticipated job start and completion dates for the work; whether the responsible party has reason to know or presume that lead-based paint is present; whether the building is residential or non-residential, owner-occupied or rental property; the approximate number of dwelling units, if any; the dates by which the responsible party has or will fulfill any tenant or adjacent property notification requirements; and the name, address, telephone number, and pager number of the party who will perform the work. (Further notice requirements include Sign When Contaminant is Required, Notice by Landlord, Required Notice to Tenants, Availability of Pamphlet related to protection from lead in the home, Notice by Contractor, Early Commencement of Work [by Owner, Requested by Tenant], and Notice of Lead Contaminated Dust or Soil, if applicable.) The ordinance contains

provisions regarding inspection and sampling, and enforcement, and describes penalties for non-compliance with the requirements of the ordinance.

These regulations and procedures required as part of the San Francisco Building Code would ensure that potential impacts due to lead-based paint would be reduced to a level of insignificance.

Polychlorinated Biphenyls (PCBs) and Fluorescent Light Tubes

If PCBs are present in the building to be demolished, leakage could expose workers to unacceptable levels of PCBs (greater than 5 parts per million, based on Title 22, *California Code of Regulations*).

Removal of fluorescent light tubes could result in exposure to mercury vapors if the lights are broken. A detailed description of hazardous building material abatement and disposal requirements is presented in Appendix F.

The project sponsors would ensure that survey(s) for hazardous building materials is completed prior to renovations of an existing building, and that removal and disposal of transformers and light tubes, if required, is completed (see Mitigation Measure No. E.4, p. 152). This would reduce impacts related to hazardous building materials to a less-than-significant level.

IMPACT ANALYSIS FOR FUTURE PORT DEVELOPMENT (PROGRAM-LEVEL)

As described in the setting, site remediation was conducted in 1993 and 1994 for the Western Pacific Property, under direction from the Regional Water Quality Control Board, which included regrading of the shoreline slope; placing a geotextile fabric to inhibit migration of fines to the bay; installing riprap slope protection; constructing a 10-foot wide gravel sediment trap behind the riprap; regrading a 50-foot wide strip behind the sediment trap; placing a geotextile on the subgrade and paving over the geotextile; and constructing an 80-foot wide gravel transition zone behind the paved area. A subsequent draft Risk Assessment report found all re-use scenarios evaluated, except that for single-family housing, to be below accepted risk criteria; no single-family housing is proposed for the Western Pacific site.

Impacts associated with the future development projects on Port lands would generally be comparable to those described above for the Industry Group project components. On a program level, these impacts would be considered less than significant through compliance with existing laws including Article 22A, the Hazardous Materials Ordinance, and the Hazardous Waste Ordinance, and hazardous materials abatement and disposal regulations.

Potential impacts could include worker exposure to subsurface contamination (soil and groundwater), including unknown underground storage tanks; exposure of workers and/or the public to hazardous building materials; and accidental release of hazardous materials during project operations. Site-specific environmental review could be required for subsequent development projects on Port lands.

Future development on Port lands would likely occur in phases, meaning that there would be the potential for workers to occupy one building while an adjacent, potentially contaminated, site is under construction. Compliance with the provisions of Article 22A, where applicable, would ensure that effects on occupants of adjacent properties would be less than significant.

With regard to the Pier 90-94 backlands, as noted in the setting, part of Pier 94 is subject to a Regional Water Quality Control Board (RWQCB) preliminary closure plan for 14 acres of a former landfill. The plan addressed reconstruction and grading, final cover, precipitation and drainage control, shoreline stabilization, geotechnical stability, and settlement. The Port has not received comments from the RWQCB on the preliminary plan.

Various options are under consideration for closure of the landfill (Tetra Tech, 1997) and selection of the appropriate option could depend on the intended reuse of the site. The Port is currently compiling and reviewing groundwater monitoring data for the landfill to further assess closure requirements as required by the RWQCB (Port of San Francisco, 2000a). The designs, grading plans, material and construction specifications, schedules and cost estimates would all need to be substantially revised prior to submitting the final closure plan for RWQCB approval (Port of San Francisco, 1997b). Development in accordance with RWQCB regulations would avoid any potentially significant effects on the former Pier 94 landfill site.

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F. BIOLOGICAL RESOURCES

This section focuses on potential impacts on biological resources that could result from construction of the proposed Illinois Street Bridge over Islais Creek. For information on other effects related to biological resources, please see the Waterfront Land Use Plan FEIR (Section IV.H, Biological Resources Setting, p. 244; Section V.H, Biological Resources Impacts, p. 548; and Section VI.H., Biological Resources Mitigation Measures, p. 653). Mitigation Measures from the Waterfront Land Use Plan FEIR are also included in Chapter IV of this SEIR.

SETTING

Historically, Islais Creek intersected the band of tidal marshes and embayments between Candlestick Point and Coyote Point, carrying runoff from a number of small creeks in southeastern San Francisco. At present, it is a thoroughly industrialized urban waterway with a shoreline of predominantly creosoted timber pilings, rock revetment, concrete walls, and rubble. There are small amounts (about a hundred linear feet) of natural and weedy vegetation, including common pickleweed (*Salicornia virginica*) at the mean high tide level, and a small, narrow band of mudflat on the southern bank of the creek mouth, about 2,000 feet bayward of the proposed Illinois Street Bridge site.

Wildlife in the vicinity of the proposed bridge construction project is limited to urbanized birds and mammals (e.g. starling [*Sturnus vulgaris*] and Norway rats [*Rattus norvegicus*]. Nearby terrestrial habitat consists primarily of weeds on vacant sites with rubble and abandoned machinery, some ornamental plantings, and various structures. There is no habitat for any terrestrial species of concern. There are no wetland species of vegetation at the proposed bridge site.

The aquatic habitat is only slightly more productive. At the site of the proposed bridge construction, the 100-foot wide channel is about forty feet deep at MHW. The northern bank is steep-sloped mud bank with rubble and debris to the water's edge; the southern bank is a partially dilapidated creosoted wharf with pilings. There is some shallow littoral habitat along the southern bank about 2,000 feet bayward of the proposed construction site where the shoreline is undeveloped and is composed mainly of mud, with gravel, rubble, debris and some scattered sparse growths of weeds (i.e., the mud-flat area noted above). This area does support some foraging diving ducks such as pied-billed grebe (*Podilymbus podiceps*) and lesser scaup (*Aythya affinis*), both of which were observed during a site reconnaissance on February 6, 2000.

The generally degraded nature of the Islais Creek mouth offers little for aquatic species. A National Marine Fisheries Service survey conducted from 1984-1988 as part of the National Benthic Surveillance Project found only the white croaker (*Genyonemus lineatus*), also known locally as king-fish, in a bottom sample at the mouth of Islais Creek. Some persons were observed fishing at the project site on the February 6 site reconnaissance – when asked, they replied that they were fishing for, and catching, king-fish. Special status fishes (i.e., Federally or State listed as endangered, threatened, or of concern) potentially inhabiting the project area include the tidewater goby (*Eucyclogobius newberryi*); winter and spring run Chinook salmon (*Oncorhynchus tshawytscha*); green sturgeon (*Acipenser medirostris*); longfin smelt (*Spirinichus thalechthys*); and steelhead (*Onchorhychus mykiss*). None of these species are, however, known to use Islais Creek, nor the Bay environs near the proposed project because of the degraded water quality and lack of spawning or foraging habitat.

The most valuable aquatic habitat at the proposed bridge site is probably the partially dilapidated wharf/piling along the northern bank of Islais Creek that extends from the existing Third Street bridge for about 1,000 feet downstream (which includes the approximately 100 feet of bank at proposed bridge construction site). This habitat, which provides a "hard structure" for attachment, although probably

containing residual toxicity from creosote treatments prior to its installation, probably supports a diverse assemblage of invertebrates including mussels, crabs, isopods, tube worms, etc. This habitat also provides generally good substrate for Pacific herring (*Clupea harengeus pallasii*) spawning. The herring eggs are broadcast and adhesive – vegetation, pier pilings, riprap and other hard surfaces provide the preferred substrate for egg attachment. Pacific herring is of concern because it is one of the last remaining commercial fisheries in San Francisco Bay. It is the roe, or eggs, of the herring that are harvested from gravid females, rather than the herring flesh itself. Peak spawning months are typically December through February. It is likely that Pacific herring spawn in the vicinity of the proposed bridge construction site.

EXISTING WETLANDS

Two areas provide small isolated wetland habitat in the Southern Waterfront area. One is Pier 98 (developed into Heron's Head Park) and another is at Pier 94. Both sites are the result of subsided dredged and fill materials that were placed at these locations in the 1970s. These sites contain a total of about 8 acres of tidally influenced salt marsh habitat.

Dominant plants at both sites are pickleweed (Salicornia subterminalis) in the middle tidal zone and saltgrass (Distichlis spicata) at the upper tidal zone. The Pier 94 wetland also contains gum-plant (Grindelia augustifolia) in the upper tidal zone, and cordgrass (Spartina sp.) in the lower tidal zone. These species are common salt marsh plants of the San Francisco Bay area.

Heron's Head Park (Pier 98) consists of a developed trail winding along the approximately 2,000-foot long peninsula formed by disposal of fill and dredged materials in the 1970s. The northern shoreline of this peninsula is steep-sided, rip rap within the tidal zone, and has no native vegetation. About 3 acres of subtidal environment has formed in several small pockets of subsided materials along the unprotected southern shoreline of the peninsula. The subtidal zone is vegetated with pickleweed. The upper tidal zone around these pockets contains sparse growths of saltgrass bordered by iceplant. Much of the upland portion of this Park is non-native ornamental vegetation and wood chips bordering the trail.

Heron's Head Park seems to be a particularly popular bird-watching area. Many of the trailside markers describe birds likely seen in along the Park's shoreline. It is likely that the bay waters adjacent to the southern edge of this peninsula are warmed by effluent from the PG&E Hunters Point power plant located adjacent to the Park. The warmer waters might increase productivity and attract fish and fish-eating birds to the area, creating an enhanced source of aquatic bird activity.

Although there are numerous signs and string borders around native marsh vegetation at the Park, the marsh vegetation (i.e., saltgrass and pickleweed) is relatively sparse, likely due to the poor quality substrate materials.

The Pier 94 wetland area occupies a rounded point of land along the southern mouth of Islais Creek. Tidally influenced salt marsh habitat has formed in two pockets of subsided fill materials along the

shoreline. These pockets total about 5 acres of mostly pickleweed. One of the pockets is slightly higher in elevation and contains mostly middle and upper tide zone vegetation (salt grass, pickleweed, and gum-plant). The other pocket is lower in elevation with no gum-plant, but with a few small bunches of cordgrass in the lower zone and surrounded by dense pickleweed.

The Pier 94 wetland is bounded inland by a large area of dredged and fill material that has become upland vegetation with sparse growths of salt bush, non-native pampas grass, and ice plant. Portions of this upland area are currently being used as a construction materials handling and storage area.

REGULATORY ENVIRONMENT

Environmental regulations that require approvals for the proposed bridge construction include the following:[44]

- Section 10 of the Rivers and Harbors Act, and Section 404 of the Clean Water Act require approval from the U.S. Army Corps of Engineers. This process would also invoke a consultation under Section 7 of the Endangered Species Act (Act). A preliminary phone conversation (Dick Butler, pers. comm.) with staff of the National Marine Fisheries Service (NMFS) in Santa Rosa indicated that there were no anadromous fishes of concern known to inhabit Islais Creek. This suggests that the consultation would be "informal" as defined by the Act and involve no significant permit conditions or mitigation measures which alter the analysis presented here

- Water Quality Certification from the Regional Water Quality Control Board, in accordance with Section 401 of the Clean Water Act.

- A Stream Alteration agreement from the California Department of Fish and Game.

- Review and concurrence from the San Francisco Bay Conservation and Development Commission - BCDC has jurisdiction over all areas of San Francisco Bay subject to tidal action, and a shoreline band extending 100 feet inland. BCDC also has jurisdiction over salt ponds, managed wetlands, and certain other waterways, and is responsible for making a determination of consistency with the federal Coastal Zone Management Act.

[44] As noted in the Project Description, the Illinois Street Bridge would also need approval from the U.S. Coast Guard. Consideration of this approval would be based on navigational issues rather than environmental concerns.

In addition, design and construction of the bridge would be subject to approval of a bridge permit by the U.S. Coast Guard, which must determine the future navigational needs of Islais Creek before it issues a permit.[45]

IMPACTS

SIGNIFICANCE CRITERIA

To determine the level of significance of an identified impact, the criteria outlined in the CEQA *Guidelines* were used. CEQA (Section 15206) specifies that a project shall be deemed to be of statewide, regional, or area-wide significance if it would substantially affect sensitive wildlife habitats including but not limited to riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species as defined by Fish and Game Code Section 903.

IMPACT ANALYSIS

Illinois Street Bridge

No significant adverse impacts of the project to biological resources have been identified, and no mitigation measures beyond those already included in the Waterfront Plan EIR are proposed. As noted below, avoiding activities during the December-February Pacific herring spawning season would reduce non-significant impacts to this species.

Construction of the proposed Illinois Street Bridge across Islais Creek would cause both short-term construction impacts and longer-term changes in habitat that would have minor effects on the environment of Islais Creek in the immediate vicinity of the proposed bridge project. Construction impacts would include primarily water quality effects from disruption of bottom sediments when material is dredged for placement of bridge abutments or other in-water structures. Sediment suspension would cause some increases in turbidity and resettling of fine sediments that can smother and interfere with feeding or respiration of less mobile organisms in the project area. Sessile benthic[46] invertebrates such as tube worms, clams, and mussels would be most susceptible to these effects. Fishes, crabs, and other mobile organisms would avoid the area during construction. If construction occurred during the Pacific herring spawning season (i.e., from December to February), any eggs attached to the wharf/pilings adjacent to the proposed construction site, or any newly hatched larvae, may be subject to smothering or other negative effects of the sediments released from dredging activities.

In addition to the potential for physical effects from any dredging activities, resuspension of bottom sediments can release contaminants into the water column that are harmful to aquatic life. Of concern

[45] Because of the federal action and funding, environmental review of the bridge must also include completion of a document prepared by the Coast Guard pursuant to the National Environmental Policy Act (NEPA).

[46] **Benthic** organisms are those that live on the sea bottom. **Sessile** organisms do not generally move about, but rather are attached to hard surfaces or to the sea bottom.

would be highly organic materials that would increase the oxygen demand and possibly reduce oxygen levels in the adjacent waters sufficiently to harm some sessile organisms. Other contaminants found in the bottom sediments, likely from storm runoff of the nearby highly industrialized landscape, would include heavy metals, hydrocarbons, and oil and grease. If dredging would be required, the Corps of Engineers would require sediment analysis to determine the potential for contamination from any dredged sediments and specify disposal and dredging methods to accommodate the sediment character. However, effects would be less than significant because of the relatively small area that would be affected.

Probably the most identifiable effects of dredging would be the effects on Pacific herring spawning. These could be mitigated by avoiding activities during the December-February Pacific herring spawning season when herring are present. If activities are proposed for December through February, a qualified biological monitor should survey the area to determine if spawning herring are present and, if so, the contractor would temporarily cease work (see Mitigation Measure F.1a, p. 154). Effects on resident sessile organisms would not be considered significant, even locally, because of the limited and degraded nature of this resource.

Longer term effects from bridge construction would include any displacement of existing soft bottom or other natural habitat by bridge abutments and/or other structures placed in, or along the water edge. This would remove habitat for some burrowing invertebrates such as clams and tubeworms, which are, in turn, forage for resident fishes such as the white croaker. This habitat would be replaced with concrete and thus offer "hard surface" habitat for attached organisms such as mussels and Pacific herring eggs. If the wharf/pier habitat along the southern bank is removed and replaced with another material, this would affect the potential of that particular site to support the assemblage of "hard surface" organisms noted above. This might include displacing some Pacific herring spawning habitat. It is likely, however, that the concrete that would replace the creosoted wooden wharf/pier habitat would offer some "hard structure" habitat for the same kinds of organisms – and without the toxicity of creosote. Whether the habitat is improved or reduced in value, the change would be very minor because of the generally degraded quality of the existing habitat and the small quantity of change in relation to the overall habitat of this kind in the area (i.e., only about 100 feet of wharf/pier habitat would be affected by bridge construction).

The mud/rubble northern bank of Islais Creek at the proposed bridge construction would also be replaced with concrete abutment. This change would eliminate a very small area of shallow littoral habitat. This habitat is, however, of little value to the aquatic or riparian biota in the project vicinity. The bank is steep and the zone of shallow water is very narrow and contains no aquatic or wetland vegetation. Bridge construction would limit very little foraging opportunities for aquatic birds that may use this area such as scaup and grebe. The new bridge and concrete abutment habitat may increase use of the area by rats, starlings, and other urban species better adapted and tolerant of industrialized waterfront habitat.

Other Impacts

There are wetlands located in the Southern Waterfront but outside the vicinity of the proposed Illinois Street bridge. The Waterfront Plan EIR notes (p. 556) that wetlands at Pier 98 (now known as Heron's Head Park) and at Pier 94 (Seawall Lot 352) could be adversely affected by contaminated runoff and by public access. Concerning the former, please see the discussion of stormwater runoff (p. 111) in Section III.D, Hydrology, where it is concluded that effects would be less than significant. Concerning the latter, Heron's Head Park has been constructed with numerous signs warning visitors to stay out of wildlife habitat areas, while the Pier 94 wetlands would continue to be located in areas surrounded by industrial uses and therefore would not be subject to public access. Furthermore, the Waterfront Plan calls for "reserv[ing] or improv[ing] areas which will provide opportunities for the protection of wildlife habitat and for passive and active recreational areas" (p. 146). Included in the Plan is the following concerning the Pier 94 wetlands:

> As a result of [a failure of fill adjacent to Pier 94 in the 1970s], adjacent fill material subsided, allowing tidal inundation and subsequent emergence of wetlands. If development of this property for interim or long-term uses causes filling of the wetlands, appropriate mitigation measures will be required.

The project includes British Pacific Aggregates' proposed aggregate import terminal on the paved area of Pier 94, south of the existing wetlands, and the Port's proposed dredge material storage facility, upland from the wetlands. Neither of these components would encroach into the existing wetlands, and therefore no significant effect would occur, and no mitigation is required.

G. GROWTH INDUCEMENT

In general, a project would be considered growth-inducing if its implementation would result in substantial population increases and/or new development that might not occur if the project were not approved and implemented. Both the Industry Group project components and the proposed Illinois Street Intermodal Bridge would primarily be linked to maritime and industrial activities along San Francisco's Southern Waterfront, which represent a relatively small and – in percentage terms – declining portion of the City's economy.

The six project components proposed by the Industry Group include four that would relocate from elsewhere in San Francisco. Two Industry Group members represent the City's two largest concrete producers, both of which are required to relocate from long-time locations due to changing land use patterns with the Mission Bay project area. The other two relocations – one a tour bus and commuter bus operator and the other, a construction materials recycler – would relocate due to expiration of leases at existing locations. The other Industry Group components would supply raw materials and/or finished products related to concrete and asphalt production.. In short, with the exception of Coach USA, the bus operator, all of the Industry Group project components are proposed to respond to demand for construction materials as a result of both private- and public-sector development projects. While a

shortage of these materials could delay and/or increase the cost of such development projects, an increase in the potential supply of construction materials is unlikely, in itself, to result in any change in development activity in San Francisco or the Bay Area. Thus, the construction-related Industry Group project components are not likely to have any growth-inducing effects.

The Coach USA tour/commute bus storage and maintenance facility would be a relocation of an existing operation that provides services to the existing tourism industry and to public transit agencies, which whom the firm contracts to provide commute bus service. Because it would be a continuation of an existing use, and because there are several other tour bus operators in San Francisco and the region, this project component, too, would not be expected to result in any growth-inducing impacts.

The Illinois Street Intermodal Bridge proposed by the Port of San Francisco would also serve existing facilities, namely the Port's container terminals as Pier 80 and Piers 94-96. Although the bridge would improve rail and truck transportation to and between these facilities, the bridge, in itself, is unlikely to result in any perceptible change in cargo shipping activity at the Port of San Francisco. In fact, much like the relocation of the existing concrete plants, the bridge would accommodate land use changes in the Mission Bay area, as it would provide a rail route to the North Container Terminal at Pier 80 to replace the existing rail route that travels north from the county line to 16th Street, within the Mission Bay area, and then south to Pier 80 along Illinois Street. Therefore, the Illinois Street bridge would not have any meaningful growth-inducing impacts.

CHAPTER IV

MITIGATION MEASURES PROPOSED TO MINIMIZE THE POTENTIAL ADVERSE IMPACTS OF THE PROJECT

In the course of project planning and design, measures have been identified that would reduce or eliminate potential significant environmental impacts of the proposed project. Some of these measures have been voluntarily adopted by the Port and/or private project proponents and thus are to be implemented as part of the project. Other measures are identified as a result of this analysis but have not as yet been incorporated into the project. Each mitigation measure and its status are discussed below.

There are several items required by law that would serve to mitigate potential significant impacts; they are summarized here for informational purposes. These measures include: no use of mirrored glass on the building to reduce glare, as per City Planning Commission Resolution 9212; limitation of construction-related noise levels, pursuant to the San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code, 1972); observance of regulations promulgated by the Regional Water Quality Control Board and the Bay Area Air Quality Management District; compliance with Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint; and observance of State and federal OSHA safety requirements related to handling and disposal of other hazardous materials, such as asbestos.

Measures that are not required by legislation but would serve to mitigate potentially significant environmental impacts appear below. Also, where legal requirements exist but provide little specificity with regard to likely compliance actions, such as components of a Stormwater Pollution Prevention Plan, certain specific elements of these requirements that would be required to ensure that no significant impact would occur are identified as mitigation.

As described in the Introduction, this is a Supplemental EIR. Accordingly, this chapter indicates the disposition of mitigation measures that were identified in the 1997 Waterfront Land Use Plan (WLUP) FEIR and approved by the Port Commission with adoption of the Waterfront Plan in June 1997. Some of those measures remain applicable to the project as currently proposed and have been incorporated here, while others have been modified in this SEIR. Some measures do not apply to the project analyzed in this SEIR, principally because they were identified in reference to other components of the Waterfront Plan analyzed in 1997, such as areas of the waterfront other than the Southern Waterfront; they are so noted. Where a measure is not noted as being from the 1997 FEIR, it is newly identified in this SEIR.

A. LAND USE

No mitigation measures are required for the current project.

B. TRANSPORTATION

MEASURE IDENTIFIED IN THIS SEIR

B.1 To mitigate 2015 conditions, monitor traffic level of service (LOS) conditions at the intersections listed below in Table 23. At such time as warranted by traffic conditions (i.e., a degradation of the p.m. peak-hour service level to an unacceptable LOS E or F), institute the identified improvements or implement another measure determined at that time to be adequate to mitigate the degradation in level of service.

TABLE 23
MITIGATION MEASURES FOR INTERSECTION LEVELS OF SERVICE

Intersection	Mitigation Measure	2015 Level of Service A.M. Peak Hr. Project LOS	A.M. Peak Hr. LOS w/ Mitig.	P.M. Peak Hr. Project LOS	P.M. Peak Hr. LOS w/ Mitig.
Third / 25th Streets †	• Restripe the east- and westbound approaches to provide left-turn lanes. • Revise signal timing to provide protected east- and westbound left-turn phases.	D	C	F	D
Illinois / 25th Streets †‡	• Install traffic signal.	B (C)	B	F	A
Pennsylvania / I-280 SB On-Ramp †‡	• Install traffic signal.	B (C)	B	F	B
Pennsylvania / César Chávez Streets	• Reconstruct the roadway to provide an exclusive northbound right-turn lane ("free" right-turn).	F	D	F	D
Third / César Chávez Streets	• Add a second northbound left-turn lane and an additional lane in each direction to the western approach on César Chávez Street. (This would require the acquisition of additional right-of-way on Third Street at the southeast corner of the intersection, where there is an existing building.)	F	D	F	D
Illinois / César Chávez Streets	• Install traffic signal. • Restripe the northbound and southbound approaches to provide left-turn lanes and shared right-through lanes. • Restripe the eastbound and westbound approaches to provide a shared left-through lane and a shared through-right lane.	F	D	F	B
Amador Street / Cargo Way	• Install traffic signal. • Restripe the southbound Amador Way approach to provide a left-turn lane, a shared left-through lane, and a right-turn lane.	F	C	F	B

† - Mitigation required only in p.m. peak hour.
‡ - LOS and delay reported for overall intersection; LOS in parentheses is for critical movement, when worse than overall LOS.

SOURCE: Wilbur Smith Associates

B.2 At such time as specific mixed-use or other non-industrial projects generating more than 100 daily vehicle trips are approved and occupied at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands, the Port shall develop a Transportation Systems Management (TSM) Plan, and potentially a Transportation Management Agency (TMA) that would consist of Port staff, Port tenants, property owners, and project occupants. The goals of the TSM Plan and the TMA shall be to reduce, to the maximum feasible extent, the use of single-occupancy automobile traffic and encourage other forms of travel to and from work, including transit, carpooling and ridesharing, bicycle, walking, and other means.

B.3 The Illinois Street bridge that is proposed by the Port would improve operating conditions at Third Street and Cargo Way to an acceptable level of service (LOS C in the a.m. peak hour and LOS D in the p.m. peak hour), compared to conditions without the proposed bridge.

MEASURES FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

B.4 The Port shall comply with requests from the Major Environmental Analysis section of the Planning Department to analyze intersection levels of service for existing and future conditions at intersections that may reasonably be expected to be affected by each future development project, and shall identify and implement appropriate mitigation measures.

Any such transportation analysis would need to be coordinated with monitoring of the Congestion Management Program network, conducted biennially by the San Francisco County Transportation Authority as the designated Congestion Management Agency for San Francisco County. Within the WLUP Project Area, The Embarcadero, King, Third and Fourth Streets are all included on the Congestion Management Program network. A number of intersecting streets (North Point, Bay, Broadway, Washington, Clay, César Chávez, and Evans west of Third) are also included on the CMP network. The Authority would conduct monitoring activities along these facilities, but only in the context of determining changes in Level of Service for arterial segments (not for individual intersections). Degradation of the Level of Service for one or more individual intersections within an arterial segment, to Level of Service "F" or to below some other designation deemed to be acceptable, could also degrade the segment Level of Service. The degree of impact to the segment may not be sufficient for the Transportation Authority to identify a "deficiency" under the CMP process (Level of Service "F" for the entire segment), even though the Port or City could impose mitigation requirements for developers of projects that would have a significant impact on individual intersections. Based on the transportation analysis for this EIR, cumulative development along the Waterfront might cause degradation of a particular segment of the CMP network to fall to "F," thereby triggering a finding of deficiency requiring formulation of a Deficiency Plan, and implementation of that Plan under the CMP processes identified by the Transportation Authority. The Authority could, in this circumstance, identify the Port as the lead agency for development of the Deficiency Plan and for implementation of any corrective measures, and the Port could require sponsors of specific development projects that contribute to cumulative congestion to participate in improvement and mitigation measures. *(1997 FEIR Measure D.4)*

B.5 To help induce shifts from vehicles to transit and thereby partially mitigate local intersection impacts and regional highway impacts, the Port could require and/or institute Transportation Demand Management Programs among developers of major trip generators, as a condition of lease

approval. This would apply in particular to future Port development at Pier 70 and the Pier 90-94 backlands.

Such programs typically target primarily commute trips, with various educational, assistance and incentives measures to encourage carpooling and vanpooling, and transit use. These measures may be accompanied by such "disincentives" to low-occupant private vehicle use as restricting the amounts and/or location of parking made available to employees, and charging higher fees for all-day parking. Also typical are measures designed to shift time of commute travel to the "shoulders" of the peak, and/or to encourage less trip making through alternative work schedules and telecommuting. The effectiveness of these programs is variable, but they are most appropriate and effective when there are substantial constraints to vehicular travel, circulation and storage coupled with suitable options such as excellent transit accessibility. San Francisco in general, and its downtown and portions of the waterfront in particular, exhibit this combination of factors.

The Port could also design and implement similar programs which would target non-commute travel. An example of the type of measure which might be included is the issuance of discount admission to some uses, or reductions in the price of services and/or merchandise, upon presentation of a valid transit transfer or other proof of transit use payment. Additionally, a free shuttle along The Embarcadero could be a part of this type of program, and would help to alleviate local auto congestion. *(1997 FEIR Measure D-7)*

C. AIR QUALITY

Measure B.3, above, would reduce but not eliminate the project's contribution to potentially significant air quality impacts. The mitigation measures in this section would further reduce but not eliminate the project's contribution to potentially significant air quality impacts.

MEASURES INCLUDED IN THE PROJECT

C.1 Each of the Industry Group construction aggregate industry project components, which would represent "stationary sources" of particulate emissions, shall include "best available control technology" (BACT) to control emissions, consistent with current regulations. For aggregate-handling operations (Bode Gravel, Mission Valley Rock, RMC Pacific, British Pacific Aggregates), this includes maintaining a moisture content in the aggregate that is high enough to eliminate PM-10 "fugitive" emissions (wind-blown dust that could otherwise escape into the surrounding air). A water spray system shall be installed at each aggregate-handling facility, including Bode Gravel, Mission Valley Rock, RMC Pacific, and British Pacific Aggregates. Fine aggregate material (sand) shall be maintained with a moisture content of approximately 5 percent, because such material with a moisture content of 4.5 percent or more produces virtually no fugitive emissions. Coarse aggregate (gravel) shall be kept damp on the surface, which would also effectively eliminate fugitive dust. Aggregate shall be stored in bunkers at ready-mix and asphalt plants, rather than open piles, with water spray (including the use of surfactants, as necessary, to bind the water and dust to the aggregate) applied to maintain adequate moisture content to control emissions at both production and shipping/storage operations. ISG Resources, which would handle fly ash, a finer, more powdery material than aggregate, shall install BACT dust collection equipment to accommodate truck and rail transport and shall use pneumatic equipment to control dust emissions during the transfer of fly ash.

C.2 The asphalt plant proposed by Mission Valley Rock (and potentially the British Pacific asphalt plant) shall include controls on the drum mixer where the asphalt cement and aggregate are mixed. Drum mixer(s) shall be fired with natural gas, consistent with Best Available Control Technology (BACT) recommendations, and particulate emissions from the aggregate drying and mixing process shall be controlled with a fabric filter, also consistent with BACT. Such filters can achieve control efficiency of greater than 99 percent.

C.3 Consistent with the City's Clean Air Program (established by Ordinance 258-99, adopted October 15, 1999), it is City policy to "foster, promote, and encourage the use of low emission [alternative fuel vehicles] and [zero emission vehicles] by developing infrastructures to support the use of these vehicles." Under the ordinance, the City is to (1) assess the need for a network of natural gas fueling stations accessible to the public; (2) site and develop at least five such facilities, by public and/or private entities; (3) install 50 publicly accessible electric vehicle charging stations in City garages, lots, or other sites; (4) develop a plan for additional charging stations and related infrastructure; (5) buy and lease ultra-low and zero emission vehicles for City department use; (6) identify and convert diesel bus lines to electric service; (7) develop a plan to phase out older diesel buses; (8) develop a plan and incentives to encourage larger private vehicle fleets to convert their fleets to very low or zero emission vehicles; and (9) develop a car sharing program in high density neighborhoods.

Consistent with the City's Clean Air Program, the Port shall require that all tenants make a good faith effort to engage in operational practices sensitive to the environment and the neighboring community. In furtherance of this, the Port shall require that tenants operating a fleet of vehicles investigate the potential for use of low- or zero emission vehicles and implement measures to reduce vehicle emissions to the maximum feasible extent. Options may include, but not necessarily be limited to, the use of low-emission diesel fuel (including low-sulfur diesel); the use of catalytic particulate traps for diesel-powered engines that are currently under study by the California Air Resources Board; the use of other emerging technologies to reduce diesel particulate emissions; and use of electric vehicles. The Port shall also require that tenants operating diesel-powered stationary equipment investigate similar options. Tenants shall investigate retrofitting existing engines and purchase of new engines. The Port shall further require that tenants who work with independent trucking contractors encourage those contractors to make similar efforts, including, if reasonably feasible, providing such truckers with economic incentives to retrofit equipment or take other measures as may be necessary to use low-emission fuels. As an economic incentive to minimize diesel emissions from Port property, the Port shall contribute towards the incremental costs incurred by its tenants for Port-approved equipment and improvements in furtherance of this measure. Finally, the Port shall establish a schedule by which tenants described above shall report to the Port on progress in investigating reduced-emission engines.

C.4 At such time as specific mixed-use or other non-industrial projects generating more than 100 daily vehicle trips are approved and occupied at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands, the Port shall develop a Transportation Systems Management (TSM) Plan, and potentially a Transportation Management Agency (TMA) that would consist of Port staff, Port tenants, property owners, and project occupants. The goals of the TSM Plan and the TMA shall be to reduce, to the maximum feasible extent, the use of single-occupancy automobile traffic and encourage other forms of travel to and from work, including transit, carpooling and ridesharing, bicycle, walking, and other means.

C.4A To regulate the production of concrete or asphalt material consistent with the volumes analyzed in the Southern Waterfront SEIR, any lease for concrete or asphalt batching operations on Port property shall include a provision setting forth the maximum production volume allowed under the lease, such that the cumulative total of production volumes of such batching operation leases shall not exceed the volumes assumed and analyzed in the SEIR.

To monitor production volumes that may occur on Port property, the Port shall require as a condition of each lease that each tenant provide annually an audited account of the concrete and/or asphalt production volumes provided by each concrete or asphalt production business. The Port shall incorporate this information in an annual report to the Port Commission.

Should any existing tenants propose to increase production above the amounts stipulated in the lease, such change would require an amendment to the lease, and would be subject to further environmental review by the San Francisco Planning Department's Major Environmental Assessment (MEA) division. In determining whether further environmental impact analysis will be required, MEA will consider the production levels cited in the Port's report and any emission-reducing improvements that may have been incorporated into the on-site operations (stationary sources), and trucks and other vehicles associated with the operations (mobile sources).

REVISED MEASURE FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

C.5 The Port shall require that project sponsors direct construction contractors to implement a dust abatement program to reduce the contribution of project construction to local PM-10 concentrations. Elements of this program, which is currently applied to all Port tenants, include the following:

- Water internal roadways and unpaved construction areas just prior to the morning and evening peak traffic periods (to limit the potential for major roadway traffic to entrain dust), limit speeds to 10 mph, and sweep paved internal roads after the evening peak period.

- In addition, water active sites (e.g., where demolition, excavation or other earth work is underway) at least twice per day. Increase the frequency of watering when wind speeds exceed 15 miles per hour. Suspend all excavating and grading operation when instantaneous gusts exceed 25 miles per hour.

- Replace ground cover in disturbed areas as quickly as possible.

- Enclose, cover, water twice daily, or apply soil binders to exposed stockpiles of sand, gravel, and dirt.

- Install gravel at construction equipment entrances to unpaved areas to prevent tracking of dirt and mud onto streets.

- Sweep paved access roads, parking areas, and construction staging areas, at the end of day (with water sweepers), and sweep adjacent City streets if any visible soil material is carried over to these streets.

- Cover all trucks hauling dirt, sand, soil, or other loose materials. Maintain at least six inches of freeboard between the top of the load and the top of the trailer.

- Sweep up dirt or debris spilled onto paved surfaces immediately to reduce resuspension of particulate matter through vehicle movement over these surfaces.

- Designate a person or persons to oversee the implementation of a comprehensive dust control program and to increase watering, as necessary.

- Maintain and operate construction equipment so as to minimize particulates from exhaust emissions. During construction, require contractors to operate trucks and equipment only when necessary. Equipment should be kept in good condition and well-tuned, to minimize exhaust emissions.

Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor shall require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose.

This mitigation measure also would reduce demolition-related impacts regarding lead paint chips/lead dust. The project sponsor shall also be required to comply with Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint, enforced by the San Francisco Department of Building Inspection.

MEASURE IDENTIFIED IN THIS SEIR

C.6 Consistent with the construction-period dust abatement program described in Mitigation Measure C.5, the Port shall require that Industry Group components and other aggregate-related tenants employ dust abatement procedures including, but not necessarily limited to, the following:

- installation and operation of truck wheel-washing systems at the plant exits;
- daily street sweeping on streets surrounding aggregate-related facilities; and
- clearly posting on the exterior wall or fence of such facilities a company telephone number for citizens to call with dust, noise, or other operational complaints, and designation of a Port staff contact for same.

No other feasible mitigation measures have been identified that would reduce the project's total regional emissions to a level below Bay Area Air Quality Management District thresholds, or eliminate the project's contribution to potentially significant cumulative impacts from all existing (unquantified) and future (unknown) emissions sources.

D. HYDROLOGY

MEASURES INCLUDED AS PART OF THE PROJECT

D.1 For construction sites of less than five acres of disturbed area, the contractors shall be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) similar to that required under the statewide General Permit for Storm Water Discharges Associated with Construction Activity. The SWPPP would include site-specific information to identify and evaluate sources of pollutants associated with industrial activities and to identify and implement site-specific best management practices to reduce or prevent pollutants associated with industrial activities in stormwater discharges. Best management practices may be non-structural (e.g., activity schedules, maintenance procedures, prohibitions of practices) or structural (e.g., treatment measures, runoff controls, overhead coverage). Elements of the SWPPP shall include the following:

- measures for erosion and sediment controls
- methods for construction waste handling and disposal, and
- post-construction erosion and sediment control requirements.

D.2 To minimize the potential for water quality degradation from stormwater runoff, the Port shall require that all tenants and developers, including interim lessees such as the Industry Group members, implement source control Best Management Practices consistent with those identified in the Industrial / Commercial Storm Water Best Management Practices Handbook (Stormwater Quality Task Force, 1993). Measures shall include, but are not limited to, the following (some of which are proposed as part of one or more Industry Group components):

- prohibiting discharge of process water to storm drains or otherwise directly to the Bay or Islais Creek;
- separating stormwater from process water, such as concrete truck washout water and truck wash water, through the use of berms and other features, and ensuring that treated stormwater to be discharged to the Bay meets applicable permit and regulatory standards, including pH (acidity or akalinity);
- for Industry Group components that would use water in dust control, creation of settling basins or similar features that would allow sediment to be removed from water prior to reuse and/or discharge;
- daily street sweeping of surrounding streets and, for facilities that operate on unpaved surfaces, installation and operation of truck wheel-washing systems at aggregate-related plants;
- employing appropriate containment measures for fuel, asphalt cement, and other hazardous materials stored on-site, to capture potential spills (including at on-site fueling areas);
- installing and maintaining grease and sediment traps at vehicle maintenance and washing areas to prevent contaminated runoff from entering the storm drains or Bay;

- installation of sediment containment systems around outdoor aggregate storage facilities to limit sediment entering stormwater runoff, and covering such storage areas if feasible to limit stormwater infiltration;
- creation of a designated wash-out area for concrete trucks to prevent concrete slurry from reaching the Bay; and
- cover any open conveyors in use over the Bay (i.e., between piers and ships and barges) to minimize the potential for direct sediment spill to the Bay.

REVISED MEASURES FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

D.3 As part of permit and lease requirements for future Port development projects, runoff from stormwater at new or re-developed facilities located outside of the City's combined sewer system shall be, at a minimum, subject to appropriate treatment such as on-site oil/water separators and/or sediment traps, depending on the nature of the pollutants that may be in the runoff, so that stormwater runoff is treated prior to discharge and that there is no direct, untreated discharge to the Bay or Islais Creek. Stormwater runoff from future Port development sites shall not be directed to the City's combined system, as originally contemplated in the Waterfront Plan EIR, and the volume of stormwater flows from the project area to the City's combined sewer system shall remain the same as at present, unless the increased flow to the combined system would result in no additional volume of combined sewer overflows.

D.4 Sponsors of individual project components, including members of the Industry Group, shall be required to implement appropriate Best Management Practices for stormwater pollution prevention throughout the life of each lease and shall be required to monitor stormwater quality in accordance with the requirement of the statewide General Permit for Discharge of Industrial Stormwater.

D.5 Sponsors of individual project components, including members of the Industry Group, shall conduct water quality monitoring during construction of facilities on or adjacent to the Bay to minimize effects of construction activities on water quality. In order to minimize potential for spills, construction materials or debris to enter the Bay and affect water quality, site specific construction methods and precautions, such as limiting activities on days of strong winds, could be included in the contractor's construction specifications to minimize effects on water quality. Demolition of structures with lead-based paint should include physical precautions to ensure that paint dust and chips do not enter the Bay.

E. HAZARDS

MEASURES INCLUDED AS PART OF THE PROJECT

E.1 Accidental Release of Hazardous Materials or Petroleum Products

In accordance with the Hazardous Materials Ordinance, the sponsor of each Industry Group or Port project component shall ensure that a Hazardous Materials Business Plan is prepared for each of the project components involving the use of petroleum products or hazardous materials. The plan would specify methods for handling and storage of these including containment, site layouts, and emergency response and notification procedures for a spill or release.

The project sponsor(s) shall ensure that a Spill Control and Countermeasure Plan is prepared for any project involving the aboveground storage of petroleum products. The plan would include requirements for appropriate spill containment or equipment to divert spills from sensitive areas, a discussion of facility-specific requirements for the storage system, inspections and a record keeping system, security for the system, and personnel training. The project sponsor(s) would also comply with the state requirement that above-ground storage tanks subject to federal regulations are registered with the Regional Water Quality Control Board.

E.2 Hazardous Materials in Soil

E.2a Because the Bode Gravel and Mission Valley Rock projects would be constructed bayward of the historic high tide line and would involve the excavation of at least 50 cubic yards of soil, the sponsors of those components shall ensure that the contractors comply with the requirements of Article 22A, "Analyzing the Soil for Hazardous Wastes." In accordance with the approved site mitigation report for this project component, the site would be capped with an asphalt or concrete slab and structures. Upon completion of capping, a certification report would be prepared to document construction activities and a maintenance report would be prepared specifying procedures to be followed to control exposure to the subsurface soil following construction of the proposed project. These reports would be submitted to the San Francisco Department of Public Health for review and approval to ensure regulatory compliance.

For any other Industry Group or Port-sponsored project components for which Article 22A would apply (including the Illinois Street bridge, if applicable), a site history report, soil investigation, and soil analysis report would be completed to identify potential hazardous materials at this site.

If indicated by the results of the soil investigation, the project sponsor would ensure that the contractors for each project prepare a Site Mitigation Report in compliance with Article 22A if warranted by the levels of hazardous materials identified in the soil. The plan would include measures for the handling of soil produced during excavation, to control dust and runoff during construction, and to characterize soil for off-site disposal purposes. Upon completion of construction, the project sponsor would ensure that the construction contractors prepare a certification report certifying that either (1) no hazardous wastes present in the soil present an unacceptable risk and that no mitigations are required; or (2) all mitigation measures specified in the site mitigation report have been completed and that completion of the mitigation measures has been verified through follow up sampling and analysis, if required. All reports would be submitted to the San Francisco Department of Public Health (DPH) for review and approval to ensure regulatory compliance.

The project sponsor shall prepare and submit to DPH a site-specific Safety and Health Plan (SHP) that would address worker safety concerns resulting from potential contaminants on the site. The SHP would include provisions for responding to unknown hazardous materials site conditions that could be encountered during construction.

If the soil investigation demonstrates that hazardous wastes present in the soil could be at levels that pose an unacceptable health risk, the project sponsor would ensure that appropriate site investigations and risk evaluations are performed to evaluate potential human health risks related to any hazardous substances left in the soil or groundwater after completion of construction. The investigations, risk evaluations, and any required remedial actions would be implemented under the oversight of the appropriate regulatory agency(ies) to ensure compliance with applicable laws and that the public health and safety are protected.

E.2b For all projects where subsurface contamination is identified, the project sponsor would ensure that from the time that ground surfaces are exposed until the time that all remedial activities have been completed, a fence is erected around the area where chemicals have been identified in the soil and site access is restricted to necessary personnel. Warning signs prohibiting access by the general public onto the project site would be posted at all construction access points. Access would be limited to authorized personnel only.

Dust-control measures applicable for air quality impacts would also minimize the potential public health impact associated with dust emissions and air quality pollutants. (See also Air Quality Mitigation Measures.)

MEASURE PROPOSED BY THE PORT AS PART OF THE PROJECT

E.3 Soil Disposal

The Port shall contract for or require that Port tenant(s) contract for disposal of any portion of the soil pile on the Bode and Mission Valley Rock sites at Pier 92 that cannot be reused for construction projects in accordance with applicable waste disposal regulations. Such reuse would also require approval of the San Francisco Department of Public Health.

REVISED MEASURE FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

E.4 Hazardous Building Materials

The project sponsor for each Industry Group component and each future Port development component involving demolition or renovation of existing facilities shall ensure that hazardous building material survey(s) for asbestos, PCB-containing equipment (including transformers, elevator equipment, and other applicable equipment), hydraulic oils, fluorescent lights, and lead-based paint is conducted prior to the start of demolition or renovation, for each such project component. The survey(s) would be completed by a Registered Environmental Assessor or a registered engineer prior to construction or demolition activities. If any friable asbestos-containing materials or lead-containing materials are identified, adequate abatement practices, such as containment and/or removal, would be implemented prior to demolition or renovation. Detailed requirements for the assessment, abatement, and disposal of hazardous building materials are presented in Appendix F. Any PCB-containing equipment or fluorescent lights containing mercury vapors would also be removed and disposed of properly.

Any hazardous materials discovered through building survey(s) would be abated according to federal, state, and local laws and regulations. In particular, the project sponsors will be required to comply BAAQMD requirements for the removal of friable and non-friable asbestos containing materials as well as other requirements of Cal/OSHA, BAAQMD and the Contractors Licensing Board for abatement of asbestos prior to demolition.

F. BIOLOGICAL RESOURCES

REVISED MEASURES FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

F.1a The Port could limit dredging operations and other construction activity in connection with the Illinois Street Bridge to between March 1 and November 30 to eliminate any potentially significant impacts of dredging or pier repair/replacement on the Pacific herring fishery. The Port would specify in construction contracts that, in exceptional cases where dredging operations or bridge construction must conflict with the herring season, the following conditions must be fulfilled:

- A professional fisheries biologist or other individual sufficiently competent to identify herring spawning activity would monitor the project site daily at any time when dredging or other in-water construction activity were taking place.

- In the event that the on-site monitor detects herring spawning at, or within 200 meters of dredging or other in-water construction activity, the monitor would immediately notify the Environmental Review Officer and the project construction manager, who would halt the dredging or other construction activity for a minimum of 14 days, or until the monitor determines that the hatch has been completed and larval herring have left the site. The dredging or other construction activity may resume thereafter.

F.1b Project sponsors of Industry Group project components would similarly limit dredging operations and pier repair/replacement to between March 1 and November 30 to eliminate any potentially significant impacts of dredging or pier repair/replacement on the Pacific herring fishery. In exceptional cases where dredging operations or major pier repair/replacement operations (beyond routine maintenance) must conflict with the herring season, the project sponsor(s) would consult with the permitting agencies, including but not necessarily limited to the U.S. Army Corps of Engineers, Bay Conservation and Development Commission, State Department of Fish and Game, and Regional Water Quality Control Board. The sponsor(s) would comply with specific monitoring requirements established by these and other agencies to avoid impacts on the herring fishery.

F.2 Prior to demolition or renovation of any abandoned building between August 15 and October 15, or between February 1 and May 1, project sponsor(s) would ensure that survey(s) are conducted during the same period by a qualified bat biologist. If no Townsend's western big-eared bats are found during the survey(s), no additional mitigation is required.

If Townsend's western big-eared bat, a California Species of Special Concern, is found during an August - October survey, appropriate exclusion devices approved by CDFG & USFWS should be installed by a qualified bat biologist. Once the bats have been excluded, demolition may occur.

If Townsend's western big-eared bats are found during a February - May survey, demolition should not take place until the end of the nursery season in August. Exclusion devices should be placed by a qualified bat biologist in accordance with CDFG and USFWS.

G. GEOLOGY, SOILS, AND SEISMICITY

REVISED MEASURES FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

G.1 A geotechnical investigation should be conducted under the direction of a Geotechnical Engineer prior to permitting any new construction, including construction of the proposed Illinois Street bridge, or reuse of an existing structure for new uses that could increase the load of the structure so as to trigger the requirements of Section 3403.6 of the San Francisco Building Code. The investigation should be performed to evaluate subsurface conditions and existing foundation conditions at the site. The geotechnical investigation should evaluate the potential hazards such as settlement, ground shaking, ground rupture, liquefaction, subsidence, slope stability, and lateral spreading. Recommendations to mitigate geologic hazards should be made to the project's structural engineer regarding the design of new foundations, upgrading of existing foundations, seismic design, and mitigation of geologic hazards. *(1997 FEIR Measure I-1)*

G.2 To minimize hazards to building occupants from non-structural damage, the Port should require all Port facilities and tenants to carry out the following measures at a minimum: heavy objects should be attached to secure walls and floors, and light, loose objects should be placed to minimize their potential to move or overturn; large storage containers should not be loosely stacked, and those stored on shelves should have appropriate restraints or other means to prevent them from tipping or sliding off the shelves.

Heavy objects like freezers, boilers, chillers, laboratory equipment, battery racks and electrical transformers, heavy storage cabinets, tanks, safes, oversize file cabinets, etc., should be firmly secured to floors and walls to prevent their falling or sliding. All equipment using natural gas should be anchored. Care should be taken to avoid placement of such objects where they could topple or move and block exit doors. *(1997 FEIR Measure I-7b)*

G.3 Because of the large number of employees and visitors in some facilities potentially on-site in an earthquake and the likelihood that the facilities will be needed to supply emergency response services, high-occupancy facilities should be required to store emergency response supplies and equipment on-site for a 72-hour reserve.

It is likely that emergency response systems in San Francisco and in the Bay Area as a whole would be overloaded in the immediate aftermath of a large earthquake. Because of the large population that may be present in the Project Area in an earthquake (especially under Alternatives A and B), it likely would be necessary for offices, hotels, industrial facilities and residents to be relatively self-sufficient for a period of a day or two until supply systems can be restored. Observations from large earthquakes, such as Mexico City in 1985 and Kobe in 1995, confirm that most supply services for water, power, food and medical supplies would be unavailable for a minimum of 72 hours after the earthquake. For this reason, medical supplies needed for common earthquake injuries, stretchers, blankets, flashlights and at least 72 hours' potable water and non-perishable food supply should be stored at easily accessible locations in offices, business complexes, hotels and large residential structures. Heavy crow-bars, other heavy tools, and hand-operated loudspeakers should be kept in easily accessible and well-marked locations in every building and in large parking structures. *(1997 FEIR Measure I-7c)*

G.4 Non-structural interior elements (ceilings, partitions, light fixtures, HVAC, pipes, etc.) should be designed to withstand strong ground shaking and remain intact. This would be accomplished, for

example, by selecting lightweight materials and firmly securing them to structural elements of the building and by using flexible connections for pipes. *(1997 FEIR Measure I-7d)*

G.5 Require the use of flexible utility connections and fasten water heaters to walls. Require the installation of automatic shut-off valves in all natural gas pipelines and provide similar emergency shut-off valves for other gas (oxygen and nitrogen) systems or as otherwise required by the San Francisco Fire Department or the Port fire marshal. Do not install automatic shut-off valves for water supplies. Require the posting of room/building layout diagrams that indicate the location of shut-off valves for natural gas. *(1997 FEIR Measure I-7e)*

G.6 Require fire extinguishers in all rooms and hallways and adjacent to all exit doors (including stairwell exits), as required by the San Francisco Fire Code. Require that cabinets are not placed where they could overturn and block access to fire extinguishers. Require the training of all staff of offices, hotels, industrial facilities, restaurants and entertainment complexes in the use of fire extinguishers. *(1997 FEIR Measure I-7f)*

G.7 The Port has prepared an earthquake preparedness plan and an earthquake response plan for its facilities. The Port shall assist its tenants in preparing earthquake preparedness and response plans covering all uses with more than 100 employees and public uses accommodating more than 100 persons, in compliance with San Francisco Fire Department requirements. *(1997 FEIR Measure I-7g)*

Some of the key provisions of an earthquake preparedness plan include the following:

- Assign responsibilities for disaster control, including primary responsible individuals and back-ups.
- Ensure that individuals with assigned responsibilities are aware of their proper roles (e.g., medical response, fire response and coordination with the Fire Department, locating the whereabouts of all individuals within an assigned area/unit, conducting periodic inspections to reduce earthquake hazards within individual work areas, and maintaining a stock of necessary emergency response supplies and equipment).
- Train all employees in self-protective behavioral response during an earthquake. Train all employees in the use of fire extinguishers.
- Inform all employees about the location of emergency response equipment and supplies.
- Train all employees to report to an emergency supervisor at a designated safe location immediately after an earthquake.
- Provide free and accessible general first aid training. Training for injuries related to spills of hazardous substances during an earthquake is included in OSHA-required Contingency Plans.
- Conduct an earthquake drill at least once a year.

Some elements of an emergency response plan include the following:

- Assign all employees a predesignated place and individual to report to immediately after an earthquake.
- Establish a search and rescue plan within designated areas.
- Establish designated areas at or near the ground floor for short-term occupancy by employees or, alternatively, set up shelters in outside areas in a safe place.
- Provide battery-operated radios and televisions in these areas.

- Establish a chain-of-command and operations center for dealing with fires, spills, and damaged structures.
- Assign individuals to coordinate with the Fire Department if they arrive on-site to respond to a fire. The Fire Department may have additional requirements for emergency preparedness and response.
- Design response plans for an objective of near-regular medical service capability. *(1997 FEIR Measures I-7g and I-7h)*

While earthquake hazards could not be entirely eliminated, implementation of Measures G.2 through G.8 would reduce the hazards of an earthquake to an acceptable level of risk, within the requirements of the City of San Francisco.

G.8 The Port should take feasible steps to minimize potential earthquake safety risks related to hazardous materials in its operations and that of its tenants.

Specific steps may include appropriate seismic safety provisions, such as prohibiting the storage of hazardous materials in containers above head level (about five feet); anchoring hazardous materials shelves and heavy equipment to walls and floors; constructing heavy doors that are designed to remain shut during earthquake vibrations; providing hand-operable closures for vents and air ducts; and other provisions as discussed in the Association of Bay Area Governments' *Hazardous Material Problems in Earthquakes: A Guide to Their Cause and Mitigation.* Other measures should be implemented as recommended by the San Francisco Fire Department and/or Health Department. Additionally, The Port has prepared an Emergency Procedures Manual for Port operations and periodically revise it to be consistent with changes in the facilities and operations. Tenants who use or store hazardous materials are required by the local Hazardous Materials Ordinance to develop a hazardous materials Business Plan, which includes emergency procedures. *(1997 FEIR Measure I-8a)*

G.9 The Port should require tenants to design all facilities for storage of hazardous chemicals in containers, such as cabinets, shelves, and drawers, to minimize potential hazards in an earthquake, in accordance with Fire Department and/or Health Department requirements.

Storage facilities should include safety lips to contain spills and to reduce the likelihood of contents falling. All shelves and cabinets should be secured to a wall or ceiling. All cabinets and drawers should be provided with positive latches that would not open during earthquake motions and vibrations. Compressed gas cylinders, including empty ones, should be secured to fixed features. Gas cylinders should be secured at two locations along their vertical axis, one in the top one-third of the cylinder and another in the bottom third of the cylinder.

The Port should require storage of hazardous chemicals in approved containers and separation of incompatible chemicals in separate storage areas. If chemical storage is vented by an electric fan, an alternative (emergency) means of ventilation should be provided, which may be a mechanical (non-powered) vent. *(1997 FEIR Measure I-8b)*

Implementation of Measures G.9 and G.10 would reduce hazardous materials-related non-structural safety hazards of an earthquake to an acceptable level of risk.

G.10 Project sponsors, including the Port, should employ an engineer qualified in earthquake engineering to incorporate into the final design of individual facilities developed under the WLUP all economically feasible engineering methods to reduce the potential for loss of life-line services. This may include methods to improve unstable ground conditions, to strengthen infrastructure to be more resistant to earthquake induced ground movements, and to organize and prepare for

earthquake response. While specialized techniques for ground improvement to reduce liquefaction hazards likely are not practical or economically feasible over large areas, ground improvements within selected strategic sites may result in substantial hazard reduction to utility systems. In such areas a variety of ground stabilization techniques may be considered, such as compaction grouting, placement of stone columns, and deep soil mixing. *(1997 FEIR Measure I-9a, Revised)*

G.11 For individual development projects, the use of flexible connections for utility lines may be needed (see Mitigation Measure G.7). Back-up supplies of water, power generators, and battery-operated telecommunications equipment may need to be installed (or enlarged at the existing facilities). The engineer should recommend the appropriate approach (e.g., separate facilities and equipment or upgrading existing facilities) for all Project Area facilities. *(1997 FEIR Measure I-9b)*

G.12 The Port, in cooperation and compliance with the City's Office of Emergency Services, Fire Department and Police Department, should plan routes of alternative emergency access to development sites.

Available routing for emergency response vehicles needs to be quickly assessed following an earthquake and conveyed immediately to ambulance drivers, fire persons and police officers. Consistent with the City's *Civil Defense and Disaster Operation Plan*, information should be provided about routing to hospitals including consideration of streets blocked by debris, collapsed or unsafe bridges, and streets rendered impassable by road damage. To prepare for such possible loss of access, the City should consider developing alternative routing concepts to reach the hospitals and familiarize ambulance drivers, fire persons and police with the alternates. *(1997 FEIR Measure I-9c)*

G.13 An inspection schedule should be developed and followed for regular inspection and evaluation of the condition of the piers. In conjunction with the inspection schedule, a maintenance and repair schedule should be developed and implemented, coordinated with the Port's Capital Plan. *(1997 FEIR Measure I-10a)*

G-14 All open sub-grade structures and pits, whether temporary or permanent, should be provided with protection against damage resulting from adjustment to buoyant and lateral deforming soils.

All construction and design of such projects should provide specific measures to prevent hazards to people and damage to proposed or nearby structures that could result from these adjustments. In some cases, a specific geotechnical investigation may be required for permanent open sub-grade structures and open underground structures. *(1997 FEIR Measure I-2)*

G-15 Prior to any construction that would require dewatering, the applicant should submit and the Port should review a dewatering and excavation plan and an analysis of potential impact to adjacent properties to determine whether the potential exists to damage off-site property.

As a standard practice, the Port should require an application package that will indicate the amount of dewatering and the period over which dewatering may be required. The package should include a survey of adjacent structures with information concerning their age, foundation type, construction type, status as a historic landmark or structure of special significance, and record of any existing damage. The package should also identify adjacent City streets, the location of buried infrastructure, and an evaluation of groundwater quality, flow patterns, and disposal. In addition, the application should indicate any specific mitigation measures incorporated into the project to minimize hazards to structures and groundwater. *(1997 FEIR Measure I-3a)*

G-16 To minimize dewatering hazards, construction projects should provide shoring of all excavation pit walls, and provide supports to adjacent structures, including foundation support if needed. *(1997 FEIR Measure I-3b)*

G-17 All applicants for construction projects involving dewatering (as well as vibration-inducing pile driving) should post a surety bond or other equivalent mechanism to cover the costs of potential damage to off-site property from construction. (The bond is included in this EIR as a mitigation measure because of the uncertainty that other mitigation measures would protect off-site property from damage. If needed, the bond would be used to repair off-site damage and thus mitigate that impact.) The amount of the bond would be determined by the Port. *(1997 FEIR Measure I-3c)*

G-18 Prior to any construction that would require dewatering or pile driving, the Port should notify all property owners within 200 feet of the proposed construction activity at least 30 days prior to the date of initiating demolition or excavation, whichever is the first activity to occur. The Port should provide an opportunity for all property owners to comment on the construction activity and allow them the opportunity to have their property photo-documented for its pre-construction condition. The Port is responsible for inspection of construction activities and should note any observations of proven or suspected subsidence damage on the site and at adjacent sites. This measure would allow adjacent property owners to document the condition of their property prior to initiation of an activity that could result in damage. If damage does occur, the measure would help to identify the extent of the damage caused by construction within the Project Area. *(1997 FEIR Measure I-3d)*

G-19 For impacts from pile driving, the Port and project sponsors should implement Measures G-16 through G-19. *(1997 FEIR Measure I-4)*

G-20 Proposed new dredging activities (deeper than the designed depth or in different locations than ongoing maintenance dredging) should be reviewed by an engineering geologist to assess potential hazards to Port facilities. Dredging programs in areas with a past history or high potential for lateral movement of Bay Mud should be designed to hold a slope without readjustment or slippage. (This measure would apply to suction and clamshell dredging.)

To minimize slope failure in the Bay sediments, dredged cuts should be properly designed and dredged, as recommended by the engineering geologist. Typically, subestuarine slopes in soft Bay sediments are cut at 3:1 to 6:1 (horizontal to vertical ratio).[47] *(1997 FEIR Measure I-5)*

G-21 If demolition is not immediately followed by redevelopment, the Port or project sponsor, as determined by the Port, should carry out effective measures that leave the site of all demolished buildings in a condition that will not pose a life safety hazard or potential to damage adjacent properties.

Such measures should include removal and or proper sealing of pipes (including water, gas, and sewer lines), establishment of effective shoring or construction of retaining walls for unstable pit walls, filling of basements that create hazardous conditions, removal of hazardous substances, and other measures as deemed appropriate at a specific site, such as fencing. The Port would be responsible for vacant lands that may include the hazards identified in the Geology, Soils and

[47] U.S. Department of the Navy, Western Division, Naval Facilities Engineering Command, EIS: Homeporting Battleship Battlegroup/Cruiser Destroyer Group, p. 7-4, 1987.

Seismicity section of the WLUP FEIR. The above measures are minimum requirements to ensure that hazards would be held at acceptable levels until such time as land development could occur. The Port would be responsible for carrying out the mitigation or overseeing compliance with it. *(1997 FEIR Measure I-6)*

H. HISTORIC ARCHITECTURAL RESOURCES

REVISED MEASURE FROM THE 1997 WATERFRONT PLAN FEIR IDENTIFIED IN THIS SEIR

The Waterfront Plan FEIR included an historic resources survey in the Pier 70 area (ARG, 1996). That survey identified Building 6, proposed for reuse by Waste Resources Technologies, as a potential contributor to a potential Pier 70 historic district. Accordingly, the following more specific measure supplements the general measures included in the 1997 FEIR (which shall continue to apply to other buildings in the Pier 70 area).

H.1 To avoid adverse effects on the potential historic district at Pier 70, the Port should ensure that a qualified historic preservation architect reviews the proposed renovation plans for Building 6 at Pier 70 prior to issuance of any demolition or building permit for the project component that would reuse this building. To the extent that exterior changes are to be made to Building 6, these changes should be consistent with the maritime/industrial character of the Pier 70 area, particularly with regard to the rear of the building, abutting Michigan Street, consistent with the Waterfront Plan Design and Access Element direction to preserve views of the historic warehouses (including Building 6).

I. ARCHAEOLOGICAL RESOURCES

REVISED MEASURE FROM THE 1997 WATERFRONT PLAN FEIR, AS APPROVED BY THE PORT COMMISSION, JUNE 1997 (Included in the Project)

I.1. Given the possibility that subsurface archaeological resources exist in the Southern Waterfront project area, yet the inherent uncertainty about the specific locations and scope of such buried resources, the Port or sponsor of individual future project(s), as determined by the Port, shall retain an archaeologist as early as is practical in the site selection or schematic design stage of future development project(s) that would involve excavation or other substantial soil disturbance of greater than four feet in depth. The archaeologist would prepare a brief preliminary site-specific evaluation or letter report, based on existing archival report information, assessing the archaeological sensitivity of the specific site(s) under consideration relative to the scope of excavation proposed. The archaeologist would consider the history of fill soils on the site(s) in the assessment of the potential for significant archaeological resources to exist and be disturbed or destroyed by the contemplated project, and make recommendations on subsequent actions designed to ensure the protection of potentially significant resources.

Based on the initial site-specific report, the archaeologist and the Environmental Review Officer (ERO) would determine whether a more detailed site assessment is warranted, the results of which could include an appropriate course of action necessary to minimize the disturbance to significant

archaeological resources, and/or maximize information recovery where such disturbance cannot be avoided. Depending on the expected sensitivity of the area to be excavated, this could include a program of pre-construction testing, excavation monitoring, or both. If the ERO concurs with a preliminary evaluation determining that a project site has no potential to contain significant archaeological resources that could be impacted by a proposed development (which may commonly occur in the areas of recent fill or disturbance, such as most of the waterfront south of China Basin), then this measure would be satisfied and archaeological issues would no longer be a concern for that particular development project.

If, based on the likelihood of encountering significant archaeological resources as identified in the site assessment report(s), the archaeologist and the ERO determine that pre-construction testing is warranted to better determine the probability of finding cultural remains, the sponsor would retain the services of an archaeologist familiar with prehistoric and urban historical archaeology, and San Francisco specifically. The archaeologist would carry out a pre-excavation testing program using a series of mechanical, exploratory borings or trenches and/or other testing methods determined by the archaeologist and the ERO to be appropriate.

If, after testing, the archaeologist determines that no further investigations or precautions are necessary to safeguard potentially significant archaeological resources, the archaeologist would submit a written report to the ERO, with a copy to the project sponsor. If the archaeologist determines that further investigations or precautions are necessary, he/she should consult with the ERO and they should jointly determine what additional procedures are necessary to minimize potential effects on archaeological resources.

These additional mitigation measures would be implemented by the project sponsor and might include a program of on-site monitoring of all site excavation, during which the archaeologist would record observations in a permanent log. The monitoring program, whether or not there are finds of significance, would result in a written report to be submitted first and directly to the ERO, with a copy to the project sponsor. During the monitoring program, the project sponsor would designate one individual on site as his/her representative. This representative would have the authority to direct and suspend work at the site to give the archaeologist time to investigate and evaluate archaeological resources should they be encountered.

Should evidence of cultural resources of potential significance be found during the monitoring program, the archaeologist would immediately notify the ERO, and the project sponsor would halt any activities which the archaeologist and the ERO jointly determine could damage such cultural resources. Ground-disturbing activities which might damage cultural resources would be suspended for a total maximum of four weeks over the course of construction.

If prehistoric archaeological deposits are fortuitously discovered, the California Native American Heritage Commission in Sacramento and local Native American organizations should be consulted and involved in making resource management decisions. All applicable legal requirements concerning the treatment of cultural materials and Native American burials should be enforced.

After notifying the ERO, the archaeologist would prepare a written report to be submitted first and directly to the ERO, with a copy to the project sponsor, which would contain an assessment of the potential significance of the find and recommendations for what measures should be implemented to minimize potential effects on archaeological resources. Based on this report, the ERO would

recommend specific additional mitigation measures to be implemented by the project sponsor. These additional mitigation measures might include a site security program, additional on-site investigations by the archaeologist, and/or documentation, preservation, and recovery of cultural material.

Finally, the archaeologist would prepare a report documenting the cultural resources that were discovered, an evaluation as to their significance, and a description as to how any archaeological testing, exploration and/or recovery program was conducted.

Copies of all draft reports prepared according to this mitigation measure would be sent first and directly to the ERO for review. Following approval by the ERO, copies of the final report would be sent to the President of the Landmarks Preservation Advisory Board and the California Historical Resources Information System Northwest Information Center. Three copies of the final archaeology report(s) shall be submitted to the Office of Major Environmental Analysis of the Planning Department, accompanied by copies of the transmittals documenting its distribution to the President of the Landmarks Preservation Advisory Board and the California Archaeological Site Survey Northwest Information Center. *(1997 FEIR Measure O-1b)*

Based on the descriptions of the Industry Group project components and the proposed Illinois Street bridge, minimal excavation would be required, and none of these project components would appear to have the potential to disturb subsurface cultural resources, should such resources be present at a particular project component site. Measure I.1 above would apply, however, to future Port development.

J. MEASURES FROM THE 1997 WATERFRONT PLAN FEIR NOT APPLICABLE TO THE PROJECT ANALYZED IN THIS SEIR

TRANSPORTATION

- Under Alternative A for the weekday P.M. peak hour, the intersection of The Embarcadero and Bay Street would be at LOS E, an unacceptable service level. A right turn arrow for the Bay Street approach to the intersection would improve this condition to LOS D, an acceptable level of service. *(1997 FEIR Measure D-1)*

- Under Alternative B for the weekday P.M. peak hour and during the Saturday midday peak hour, the intersection of The Embarcadero and Bay Street would operate at LOS F, an unacceptable service level. A right turn arrow for the Bay Street approach to the intersection eastbound would improve weekday P.M. peak hour delay time by about 40 seconds; however, the LOS would remain at F. With the right turn arrow, the Saturday midday peak hour service level would improve from LOS F to D, an acceptable service level. *(1997 FEIR Measure D-2)*

- Also under Alternative B for the weekday P.M. peak hour, the intersection of The Embarcadero and North Point would operate at LOS E. Providing a right turn pocket, by removing two to three parking spaces and removing the red zone along the southern edge of North Point Street approaching the intersection (assuming this bus stop will not be needed in the future with the F-line operation), would improve this intersection to LOS D. *(1997 FEIR Measure D-3)*

- To reduce vehicular traffic, and to accommodate demand for transit along The Embarcadero generated by Alternative B, additional transit capacity along The Embarcadero (with direct connection between Fisherman's Wharf and the South Beach/China Basin subareas) would be needed, particularly on weekends. Ideally, additional Muni service (e.g., additional F-Line streetcars, continual service along the full length of The Embarcadero [formerly proposed as the E-Line], F-Line supplemented by reinstating 32-Embarcadero bus service, or some combination of these) should be provided. If conditions warrant such additional transit capacity, the Port and/or its tenants should provide financial assistance to Muni for both capital and operating costs. If augmentation of Muni service is determined to be infeasible, and/or the degree of augmented Muni service is not sufficient to meet demand, the Port and/or its tenants could institute private transit shuttle services along The Embarcadero with stops located to increase accessibility to and the attractiveness of regional transit (e.g. BART, Caltrain, SamTrans and ferries). *(1997 FEIR Measure D-5)*

- Under Alternative B significant numbers of short transit trips along The Embarcadero north of the Ferry Building are forecast, which would primarily have an impact on the Muni F-Line, particularly on weekends. Alternative B would also generate new demand for Muni service that could cause significant congestion on individual lines Citywide. Muni may not have sufficient operating funds to provide additional seating capacity over that currently projected. Several options are available to help mitigate this impact.

  A. The Transit Impact Development Fee Ordinance currently is applicable only to net new office development within a specific geographic area. The Ordinance could be amended to specifically apply to development within the Project Area, although the amount of net new office growth in the Project Area would not be large and thus would provide limited additional revenue to Muni to help support additional transit service on The Embarcadero. The TIDF could also be amended to be more inclusive in terms of the land uses that would trigger imposition of the fee on a developer, while continuing to be related primarily to special (extraordinary) demand for peak period service.

  B. A new funding mechanism for Muni could be enacted, such as a Special Transit Assessment District. Various proposals for alternative funding mechanisms have been put forward in the past. The Port should actively support future proposals which are designed to provide additional operating and capital resources to Muni, including any future local proposals for a special district, tax or fee that would support Muni services, and any future proposals before the State and federal legislatures which would provide additional financial resources to Muni for both operations and capital projects. The Port could also be an advocate for specific transit capital projects that would enhance Muni service to the Project Area.

  C. The San Francisco half-cent sales tax for transportation expires in the year 2009. The Transportation Expenditure Plan establishes a prioritized list of specific projects for use of these funds. It is possible, if not likely, that the San Francisco County Transportation Authority, which administers the sales tax funds, may seek reauthorization of the sales tax prior to its expiration. A new Transportation Expenditure Plan would need to be prepared to support such reauthorization. The Port should actively support identification of specific transit improvements along the waterfront which could help mitigate unmet transit demand identified in this EIR as a component of this Expenditure Plan.

D. The Port and/or its tenants could directly provide funds to Muni for additional waterfront transit service. Such direct payment to Muni might be partially financed from additional revenues to the Port resulting from Waterfront Land Use Plan (WLUP) development. *(1997 FEIR Measure D-6)*

VISUAL QUALITY

Subsequent to certification of the 1997 Waterfront Plan FEIR and adoption of the Waterfront Land Use Plan, the Port adopted design guidelines for the waterfront. The Waterfront Plan's Design and Access Element includes language calling for preservation of historic resources, including – in the Southern Waterfront Area – the principal Union Works Buildings at Pier 70 (Buildings 101, 102, and 104 on the north side of 20th Street east of Illinois Street, and, if feasible, Buildings 113-114 on the south side of 20th Street). The Design and Access Element states also that "additional Pier 70 resources may be identified for preservation following further research and analysis of Pier 70's periods of historical significance and the feasibility of reusing individual buildings." Outside the Southern Waterfront, the Port is considering nominating historic buildings along the waterfront from China Basin north to Fisherman's Wharf as National Register Historic District. Accordingly, visual quality mitigation measures from the 1997 WLUP FEIR have largely been completed. The Port is required to consider visual quality objectives early in the development of proposed projects, evaluate projects against standards in the Design and Access Element, and ensure that project approvals are consistent with the adopted standards.

GEOLOGY, SOILS, AND SEISMICITY

- New high-occupancy mid-rise structures (i.e., on the order of 6 to 15 stories) in the Project Area should be designed with the aid of a dynamic method analysis. The Port should consider establishing specific building design criteria developed by a task force of structural engineers to determine which types of structures (considering framing system, foundation, height and massing) should be designed using a dynamic method analysis and adopt this requirement as a Waterfront Land Use Plan policy.

The severe ground shaking hazards of Port lands indicate that large structures (including high-occupancy mid-rise structures) should be designed to meet seismic resistance standards greater than the minimum standards in the UBC. The UBC does not require this except for certain buildings (none of which are specifically identified in the Waterfront Land Use Plan, although the Ferry Terminal is being designed as an "essential structure," to more stringent earthquake force design requirements. Fire and police stations, hospitals and schools also would be essential structures). Currently, the best available method for achieving this end is the use of a dynamic method analysis for the design of the buildings. This method incorporates a consideration of the response of the site soils to earthquakes generated in the region. For each building, the site response spectra are modeled and incorporated into the structural design. As noted in the Geology, Soils and Seismicity of the WLUP FEIR, the entire Project Area should be considered part of a "special studies zone" in which the severe earthquake hazards of ground shaking and secondary effects are evaluated and incorporated into structural designs. Use of a dynamic method analysis substantially enhances the chances that the new building would be more resistant to collapse and damage from a major earthquake than if it meets only the minimum UBC requirements. The higher costs associated with using the method and applying it in design and construction likely are

significantly less than those that would result from a building being red-tagged or required to undergo substantial repair following a major earthquake. *(1997 FEIR Measure I-7a)*

- Piers that are in poor condition should be repaired or demolished and removed. If repaired, piles that are deteriorated should be replaced or the portion that is rotted or deteriorated should be cut off and replaced with a concrete steel sleeve. A structural engineer should be consulted regarding the repair of the piers. *(1997 FEIR Measure I-10b)*

- At the time of anticipated tsunami incursion, the San Francisco Police Department should close off the immediate waterfront area of Aquatic Park, Fisherman's Wharf and the Hyde Street Pier to the public; all marina operators should close off access to the docks for the public and boat owners; and ferry boat operators should prevent people from standing on water-level ferry loading docks everywhere in the Project Area. *(1997 FEIR Measure I-11a)*

  This mitigation measure would help to reduce the potential for casualties to occur from tsunami by keeping people away from areas where injury could occur. Damage to facilities would not be mitigated.

- To reduce potential damage to facilities from tsunami, consider constructing larger and higher breakwaters at the Hyde Street Pier, Fisherman's Wharf and marinas. The infrequency of tsunami may not warrant the cost and environmental impact of breakwater reconstruction. *(1997 FEIR Measure I-11b)*

REFERENCES – Mitigation Measures

ARG (Architectural Resources Group), "Port of San Francisco Historic Resources Data B." November 1996.

Stormwater Quality Task Force, *Industrial/Commercial Best Management Practices Handbook*, prepared by Camp Dresser & McKee, et. al., March 1993.

CHAPTER V
SIGNIFICANT ENVIRONMENTAL EFFECTS

In accordance with Section 21067 of the California Environmental Quality Act (CEQA), and with Sections 15040, 15081 and 15082 of the State CEQA Guidelines, the purpose of this chapter is to identify environmental impacts that could not be eliminated or reduced to an insignificant level by mitigation measures included as part of the project, or by other mitigation measures that could be implemented, as described in Chapter IV, Mitigation Measures, pp. 143-164. Findings in this chapter are subject to final determination by the Planning Commission as part of its certification of the SEIR.

The project would result in significant, unmitigable traffic congestion at selected local intersections. The project also would result in total project emissions of criteria air pollutants on a region-wide basis that would exceed Bay Area Air Quality Management District project-specific thresholds and would therefore be considered significant and unmitigable, and would contribute to potentially significant cumulative air emissions from existing (unquantified) and possible future (unknown) sources in the greater site vicinity.

Specifically, traffic congestion at four intersections would not be mitigable with the addition of traffic from both phases of the proposed project in 2015. These intersections are:

- Mariposa Street / I-280 southbound on-ramp (LOS F in a.m. peak hour; LOS E in p.m. peak hour);
- Mariposa Street / I-280 northbound off-ramp (LOS F in a.m. peak hour; LOS E in p.m. peak hour);
- Third / Mariposa Streets (LOS E in a.m. and p.m. peak hours); and
- Evans Avenue / César Chávez Street (LOS F in a.m. peak hour).

Project-generated maximum daily emissions of reactive organic gases (ROG), nitrogen dioxide (NO_x), and respirable particulates (PM-10) from all project components combined would exceed the significance threshold of 80 pounds per day in both 2003 and 2015. The significance threshold for annual emissions of 15 tons per year would also be exceeded for ROG and NO_x in each year. Therefore, the project would result in a significant effect with regard to emissions of criteria pollutants. This significant impact would occur regionally, and would not be directly reflective of local conditions in the immediate vicinity of the project. (As discussed in the local air quality analysis on p. 89, localized emissions concentrations would not be significant). This significant regional impact cannot be reduced to a less-than-significant level because of the magnitude of the project.

The project would also contribute to a potentially significant cumulative regional impact on air quality because daily and annual volumes of criteria pollutants would exceed Bay Area Air Quality Management District (and SEIR) project-specific significance thresholds as described above. Locally, cumulative carbon monoxide concentrations would be less than significant. However, cumulative concentrations of PM-10 and diesel particulate cannot be quantified because of the multitude of existing sources. Therefore, to be conservative, these emissions are deemed cumulatively significant, although the project itself would not have a significant effect with regard to local concentrations of PM-10 or diesel particulate.

CHAPTER VI
ALTERNATIVES TO THE PROPOSED PROJECT

As described in the Waterfront Land Use Plan EIR, market conditions and other factors will determine the nature of development that occurs along the waterfront, consistent with provisions of the Waterfront Plan. Alternative buildout scenarios were analyzed fully in the Waterfront Plan EIR, and are incorporated herein by reference. In addition, this chapter describes alternatives to the project analyzed in this Supplemental EIR, and thereby provides further specificity regarding the range of alternatives that could occur in the Southern Waterfront subarea under the Waterfront Land Use Plan. Project decision-makers must adopt and implement one of the following alternatives, in lieu of approving the project, if the alternatives are determined feasible and if they would substantially lessen or avoid significant environmental effects of the proposed project.

In preparing this Supplemental EIR, staff of the Planning Department and the Port considered carefully whether alternative sites are available that could potentially accommodate the entirety of the project and eliminate potentially significant effects identified. San Francisco has a limited supply of industrially zoned land that could accommodate components of the project such as the Industry Group uses, and also has a limited supply of land that can accommodate both marine and rail transport. This supply of land is located entirely within the southeastern quadrant of the City, and thus the staff concluded that even if an alternative site could be identified, its use would not eliminate significant impacts associated with the project. For example, traffic impacts of project uses would likely affect many of the same intersections examined in this SEIR, and particularly those where significant unavoidable effects were identified, because those intersections are along key routes through the southeastern portion of San Francisco. With regard to air quality, the project's significant unmitigable effects would occur with regard to regional air quality, and would therefore be little affected by a shift to other site(s). For these reasons, the alternatives analysis presented below delineates a range of possible intensities that could occur in the Southern Waterfront subarea, including alternatives that would delete or modify components and land uses within the project description. In addition to those alternatives explicitly described and analyzed below, alternatives that rearrange components of the project within the site area could be considered by the decision-makers, along with alternatives that would delete or modify other components and land uses within the project, as long as no new significant environmental impacts would result.

A. ALTERNATIVE A: NO PROJECT

DESCRIPTION

This alternative would entail no change to the project area, which would remain in its existing condition. None of the Industry Group project components would be implemented, and the Illinois Street Multimodal Bridge would not be built. Because several of the Industry Group components are proposed in response to the need for Industry Group members to relocate from existing locations, this alternative would necessarily involve displacement of those uses elsewhere in San Francisco, including the existing Bode Gravel and RMC Pacific concrete plants and the Coach USA bus operation. Those uses could relocate elsewhere in the City, although particularly in the case of the concrete plants, the potential locations are limited by the heavy industrial nature of the uses. It would be speculative, however, to project potential relocation sites for these uses, which could be forced to move out of San Francisco under this alternative. It should be noted that, if concrete plants were to relocate outside of San Francisco, the demand for ready-mix concrete would not be expected to change, since the demand is a result of development activity. The result would be longer trips by cement mixers between out-of-City plants and construction sites in San Francisco and/or an increase in the use of small on-site "batch plants."

Also under this alternative, the future development envisioned for the Pier 70 Mixed-Use Opportunity Area, the Pier 70 Maritime Reserve area, the Pier 90-94 backlands, and the Western Pacific site (except for the already approved Muni Light Rail storage and maintenance facility) would not necessarily occur as described in this SEIR. There might still be some development on these sites in the future, consistent with the Waterfront Land Use Plan, and subsequent environmental review could be required if projects were to differ substantially from those described in this document. Increased cargo shipping could also occur in the Southern Waterfront, consistent with the Waterfront Plan.

IMPACTS

This alternative would result in little or no short-term (Phase I) increase in automobile or truck travel, as would occur with implementation of the proposed project. The Phase I adverse impacts on intersections would not occur at Third / 25th Streets, Third Street / Cargo Way, and Amador Street / Cargo Way. Long-term (2015) effects on local intersections would be less substantial than would occur with the project, but could still be significant, depending on the volume of future development on Port lands and increased cargo shipping. Long-term future conditions would be similar to those identified in other analyses. For example, the intersection of Third and César Chávez Streets would operate at LOS F in the p.m. peak hour, as described in the Third Street Light Rail EIS/EIR. Therefore, this alternative would result in significant traffic impacts in 2015, although to a lesser degree than would the project.

Emissions of criteria air pollutants would be less substantial than with the project, particularly in the short-term (consistent with Phase I of the project). By 2015, depending on the increase in cargo shipping at the Port, emissions of NOx could be significant, as with the project, although the volume of emissions

would be less. This alternative would also result in a significant cumulative effect related to air quality. Like the project, however, this alternative would result in less-than-significant effect with regard to local concentrations of carbon monoxide, PM-10, and diesel particulate.

Effects related to hydrology would be less substantial than those of the project, and would be less than significant with the mitigation measures revised from the Waterfront Plan EIR to control stormwater runoff. As with transportation and air quality, the precise nature of future development on Port lands and the potential future increase in cargo shipping is not known for this alternative, but it is likely that there would be some increase in impervious surface that could result in an increase in stormwater runoff to the Bay, albeit to a lesser degree than with the project.

Similarly, the No Project Alternative would result in less potential for exposure to and accidental release of hazardous materials than would the project, although any potential impacts would continue to be mitigated, as with the project, by reliance on existing regulations, including Article 22A of the City Public Health Code. As with the project, impacts would be less than significant with mitigation.

The No Project Alternative would be environmentally superior to the project because it would avoid much of the environmental impact of the project.

The No Project Alternative would not meet the project objectives.

B. ALTERNATIVE B: REDUCED-SCALE ALTERNATIVE

DESCRIPTION

This alternative would include all Industry Group facilities with the exception of the proposed Mission Valley Rock asphalt plant and the Coach USA bus storage facility, as well as those shipping-related components that are proposed to provide for an anticipated shift in the supply of construction aggregate from local sources to out-of-area sources. Included would be two concrete plants (Bode Gravel at Pier 92 and RMC Pacific at Pier 80); Mission Valley Rock's aggregate import terminal at Pier 92 (but not Mission Valley's proposed asphalt plant; British Pacific Aggregates aggregate shipping and storage operation at Pier 94 (but not BPA's potential future concrete and asphalt plants); ISG Resources fly ash storage facility (in the former grain silos at Pier 90); and Waste Resource Technologies' construction materials recycling operation at Pier 70. Not included in this alternative would be the Mission Valley Rock asphalt plant, the potential future BPA concrete and asphalt plants, or Coach USA's bus storage and maintenance facility at Pier 96. Under this alternative, concrete production would remain at the 2003 level through 2015 (see Appendix A for a discussion of assumptions regarding construction aggregate production).

This alternative would also include construction of the Illinois Street Intermodal Bridge, proposed by the Port. However, less future development would occur on other Port lands than with the proposed project. Alternative B would include increased cargo shipping at Pier 80 and Piers 94-96, although at a lesser

level than would occur with the project; expansion of the Port's dredge material handling site at Pier 94; development of the Pier 70 mixed-use opportunity area and the Pier 70 maritime reserve area; and development of the Western Pacific property. This alternative does not include development of the Piers 90-94 backlands.

IMPACTS

This alternative would result in less traffic generation, particularly with Phase II (2015) development, than would the project. With this alternative, Phase I daily vehicle trip generation would be about 20 percent less than with the project (Industry Group vehicle trip generation would be about 30 percent less than with the project). In 2015, Phase II daily vehicle trip generation would be almost 35 percent less than with the project. The decrease in peak-hour trip generation, compared to that with the project, would be even greater – about 50 percent in the a.m. peak hour and about 85 percent in the p.m. peak hour.

Because Phase I of the project would not result in any significant unavoidable traffic impacts, intersection levels of service for Alternative B were evaluated for Phase II only. With this alternative's decreased traffic volumes, compared to the project, intersection levels of service would be improved, compared to conditions with Phase II project development. In the a.m. peak hour, only two intersections would operate at LOS F – Mariposa Street at the southbound I-280 on-ramp and at the northbound I-280 off-ramp. These intersections would also be at LOS F with the project. Three other intersections would operate at LOS E. Impacts could be mitigated at one of these five intersections. Three other intersections that would operate at LOS F with the project would instead operate at LOS D or better with Alternative B. In the p.m. peak hour, only three intersections would operate at LOS E or F under Alternative B, compared to 11 intersections with the project. Impacts at these three intersections could be mitigated to LOS D or better. Thus, like the proposed project, Alternative B would result in significant unavoidable traffic impacts, although the impacts would be less substantial than those with the project. Level of service results are shown in Table 24.

Near-term air quality impacts (2003) would be similar to, but slightly less than, those identified for the project, because the overall level of activity in Phase I would be similar under this alternative to that with the project. By 2015, the overall emissions of criteria pollutants generated by this alternative would be reduced, compared to the project. In particular, annual emissions of NO_x from future cargo shipping activity at the Port would be about half of those with the project, because the annual volume of cargo handled would be about half that with the project. However, criteria pollutant emissions would not be reduced to a less-than-significant level, and would be significant, as with the project. Local air quality impacts (concentrations of carbon monoxide, respirable particulate matter, and diesel particulate) would be less-than-significant, as with the project, and would be would be incrementally less substantial. Cumulative air quality effects would remain significant, although this alternative's contribution would be less than that of the project.

TABLE 24
TRAFFIC LEVELS OF SERVICE FOR ALTERNATIVE B

	A.M. Peak Hour				P.M. Peak Hour			
	2015 + Project		Alternative B (2015)		2015 + Project		Alternative B (2015)	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Intersection								
I-280 SB on-ramp/ Mariposa Street	**F √**	**>60**	**F √**	**>60**	**E √**	**46.2**	D	30.7
I-280 NB off-ramp/ Mariposa Street	**F**	**>60**	**F √**	**>60**	**E**	**42.1**	D	39.3
Minnesota / Mariposa Streets	B √	13.9	B	14.0	C √	15.9	C	16.1
Third / Mariposa Streets	**E**	**59.1**	**E**	**41.2**	**E**	**56.4**	D	35.0
Illinois / Mariposa Streets	D	25.1	D	25.1	D	21.5	D	21.5
Third / 20th Streets	D	37.5	C	19.7	D	37.2	C	20.9
Illinois / 20th Streets	C	17.3	C	17.3	C	11.0	C	11.0
Third / 25th Streets	D	28.6	C	18.2	**F**	**>60**	**F**	**>60**
Mitigated Level of Service (2015)	N/A	N/A	N/A	N/A	*D*	*34.1*	*D*	*<34.1*
Illinois / 25th Streets ‡	B (C)	9.3	A (B)	4.3	**F**	**>60**	A (B)	3.5
Mitigated Level of Service (2015)	N/A	N/A	N/A	N/A	*A*	*4.3*	N/A	N/A
Pennsylvania / I-280 SB on-ramp ‡	B (C)	5.3	A (B)	3.1	**E (F)**	**40.9**	A (B)	4.4
Mitigated Level of Service (2015)	N/A	N/A	N/A	N/A	*B*	*8.5*	N/A	N/A
Evans Av. / César Chávez St.	**F**	**>60**	**E**	**42.2**	D	36.9	C	23.6
Pennsylvania / César Chávez Streets	**F**	**>60**	D	39.8	**F**	**>60**	**E**	**57.6**
Mitigated Level of Service (2015)	*D*	*26.7*	N/A	N/A	*D*	*32.6*	*D*	*<32.6*
Third / César Chávez Streets	**F**	**>60**	**E**	**56.5**	**F**	**>60**	**F**	**>60**
Mitigated Level of Service (2015)	*D*		*D*		*D*		*D*	
Illinois / César Chávez Streets ‡	**F**	**>60**	B (C)	5.8	**F**	**>60**	A (C)	3.4
Mitigated Level of Service (2015)	*D*	*32.6*	N/A	N/A	*B*	*11.5*	N/A	N/A
Third Street / Cargo Way	C	18.7	C	18.6	D	38.9	D	38.6
Amador Street / Cargo Way ‡	**F**	**>60**	B (D)	7.2	**F**	**>60**	A (C)	2.0
Mitigated Level of Service (2015)	*C*	*15.7*	N/A	N/A	*B*	*14.4*	N/A	N/A
Third Street / Evans Avenue	D	37.3	D	27.9	D	34.4	D	32.6

KEY: LOS = Level of Service; Delay = Delay in average seconds per vehicle. Where delay is in excess of 60 seconds, the notation ">60" is used; beyond 60 seconds, measurement of average delay becomes unreliable.
‡ - Unsignalized intersection. LOS and delay reported for overall intersection; LOS in parentheses is for critical movement (normally, minor street left-turn), when worse than overall LOS. Where previously approved signalization is to occur in the future, "‡" symbol is used with LOS for individual scenarios; a check mark (√) denotes scenarios in which a signal is assumed. Where no signalization is approved, "‡" symbol follows name of intersection.
Bold-face text indicates Level of Service worse than City of San Francisco standard (i.e., LOS E or worse).

SOURCE: Wilbur Smith Associates

Effects related to hydrology and to hazardous materials, both of which would be related to the physical areas where development would occur, would be similar to impacts of the project because, while Alternative B would have a reduced level of concrete production and reduced cargo shipping, compared to the project, this alternative would include development on virtually all of the same sites as would the project, with the only exception being the Pier 90-94 backlands. With regard to hydrology, therefore,

this alternative would result in a reduction of about 38 percent in new stormwater runoff, compared to the project (and an increase of 18 percent compared to existing conditions), and the impact would be less-than-significant with mitigation, as with the project.

Concerning hazardous materials, because Alternative B would not include development on the Pier 90-94 backlands, there would be no effects related to development on the former landfill at Pier 94. As described in the Hazardous Materials setting, however, project effects would be less than significant assuming compliance with Regional Water Quality Control Board regulations. Other effects of Alternative B with regard to hazardous materials would be less than significant with mitigation, as they would with the project.

Effects on biological resources would be essentially the same as those of the project, and would be less than significant, because this alternative, like the project, would include construction of the Illinois Street bridge and associated mitigation.

Because it would result in less substantial traffic impacts than would the project, and would have slightly less impact on air quality than would the project, the Reduced Density Alternative would be considered the Environmentally Superior Alternative.

C. ALTERNATIVE C: RESIDENTIAL USE FUTURE SCENARIO

DESCRIPTION

With regard to Phase I, this alternative would be the same as the proposed project, in that the six Industry Group project components[48] would be implemented, and the Illinois Street Intermodal Bridge would be constructed. However, in Phase II, Alternative C would include residential uses at the Pier 70 Mixed-Use Opportunity Area, and would also include less office / research and development space there, compared to the proposed project. Other future Port development would be the same as with the project.

At the Pier 70 Mixed-Use Opportunity Area, this alternative would include 500 residential units, compared to no residential use under the primary set of cumulative assumptions. Approximately 200,000 square feet of office / research and development use would be included, compared to 610,000 square feet of such uses with the project. Retail / commercial activity would be unchanged from the project, at 100,000 square feet, and public access / recreational uses would also be unchanged, at 240,000 square feet. To avoid adverse effects on the future residential uses from continuing operation of the working shipyard at Pier 70, the residential units would be located along Illinois Street, while office / research and development uses and retail / commercial uses would be between the shipyard and the residences, serving as a buffer from shipyard noise.

[48] The six components would include seven operators; as described in the Project Description, Bode Gravel and Mission Valley Rock will be co-tenants.

IMPACTS

Effects of Alternative C would be generally similar to those of the proposed project. Overall daily vehicle trip generation for Phase I and Phase II combined would be about 2.5 percent less than with the project, while peak-hour vehicle trips would increase slightly, by about 2.5 percent in the a.m. peak hour and almost 6 percent in the p.m. peak-hour. However, the changes, which would total fewer than 50 additional vehicles in the a.m. peak hour and just over 100 additional vehicles in the p.m. peak hour, would not be substantial enough to result in changes in the 2015 level of service at most intersections. For those intersections were level of service would be different, most would improve, compared to the project, except at Third Street and Cargo Way, where this alternative would result in LOS E in the p.m. peak hour, compared to LOS D with the project. Level of service results are shown in Table 25.

Air quality impacts would be incrementally less substantial than those with the project, owing to the slight decrease in daily vehicle trip generation. However, regional effects would be significant, as with the project, both on a project-specific and cumulative basis. Like the project, this alternative would not result in a project-specific significant effect on local air quality impacts (concentrations of carbon monoxide, respirable particulate matter, and diesel particulate). Also like the project, cumulative local air quality effects would be unknown, but would be considered significant with this alternative, and the contribution would be similar to that of the project.

Effects related to hydrology and hazardous materials would be virtually unchanged from those of the project, because the areas to be developed and the amount of new impervious surface would be the same. Because Alternative C would include residential units at the Pier 70 Mixed-Use Opportunity Area, remediation of sites where past use of hazardous materials has resulted in contamination would be required by law to achieve a higher standard of cleanup.

Effects on biological resources would be essentially the same as those of the project, and would be less than significant, because this alternative, like the project, would include construction of the Illinois Street bridge and associated mitigation.

Depending on the specific configuration of the development at the Pier 70 Mixed-Use Opportunity Area, site specific noise analysis, and potentially analysis of nighttime lighting, would be required to determine whether 24-hour operations at the Pier 70 shipyard could prove annoying to residents at the Mixed-Use Opportunity Area.

TABLE 25
TRAFFIC LEVELS OF SERVICE FOR ALTERNATIVE C

	A.M. Peak Hour				P.M. Peak Hour			
	2015 + Project		Alternative C (2015)		2015 + Project		Alternative C (2015)	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Intersection								
I-280 SB on-ramp/ Mariposa Street	**F √**	**>60**	**F √**	**>60**	**E √**	**46.2**	D	36.6
I-280 NB off-ramp/ Mariposa Street	**F**	**>60**	**F √**	**>60**	**E**	**42.1**	**E**	**40.2**
Minnesota / Mariposa Streets	B √	13.9	B	14.2	C √	15.9	C	16.0
Third / Mariposa Streets	**E**	**59.1**	**E**	**44.9**	**E**	**56.4**	**E**	**48.6**
Illinois / Mariposa Streets	D	25.1	D	23.5	D	21.5	C	16.9
Third / 20th Streets	D	37.5	C	14.8	D	37.2	C	22.0
Illinois / 20th Streets	C	17.3	D	27.3	C	11.0	B	8.8
Third / 25th Streets	D	28.6	D	27.3	**F**	**>60**	**F**	**>60**
Mitigated Level of Service (2015)	N/A	N/A	N/A	N/A	*D*	*34.1*	*D*	
Illinois / 25th Streets ‡	B (C)	9.3	B (C)	7.3	**F**	**>60**	B (C)	8.6
Mitigated Level of Service (2015)	N/A	N/A	N/A	N/A	*A*	*4.3*	N/A	N/A
Pennsylvania / I-280 SB on-ramp ‡	B (C)	5.3	A (B)	5.1	**E (F)**	**40.9**	D	34.3
Mitigated Level of Service (2015)	N/A	N/A	N/A	N/A	*B*	*8.5*	N/A	N/A
Evans Av. / César Chávez St.	**F**	**>60**	**F**	**>60**	D	36.9	D	27.6
Pennsylvania / César Chávez Streets	**F**	**>60**	**F**	**>60**	**F**	**>60**	**F**	**>60**
Mitigated Level of Service (2015)	*D*	*26.7*	*D*		*D*	*32.6*	*D*	*<32.6*
Third / César Chávez Streets	**F**	**>60**	**F**	**>60**	**F**	**>60**	**F**	**>60**
Mitigated Level of Service (2015)	*D*		*D*		*D*		*D*	
Illinois / César Chávez Streets ‡	**F**	**>60**	**F**	**>60**	**F**	**>60**	**F**	**>60**
Mitigated Level of Service (2015)	*D*	*32.6*	*D*		*B*	*11.5*	*B*	
Third Street / Cargo Way	C	18.7	C	17.8	D	38.9	**E**	40.6
Mitigated Level of Service (2015)	N/A	N/A	N/A	N/A	N/A	N/A	*D*	
Amador Street / Cargo Way ‡	**F**	**>60**	**F**	**>60**	**F**	**>60**	**E (F)**	46.6
Mitigated Level of Service (2015)	*C*	*15.7*	*C*		*B*	*14.4*	N/A	N/A
Third Street / Evans Avenue	D	37.3	D	31.3	D	34.4	D	33.8

KEY: LOS = Level of Service; Delay = Delay in average seconds per vehicle. Where delay is in excess of 60 seconds, the notation ">60" is used; beyond 60 seconds, measurement of average delay becomes unreliable.

‡ - Unsignalized intersection. LOS and delay reported for overall intersection; LOS in parentheses is for critical movement (normally, minor street left-turn), when worse than overall LOS. Where previously approved signalization is to occur in the future, "‡" symbol is used with LOS for individual scenarios; a check mark (√) denotes scenarios in which a signal is assumed. Where no signalization is approved, "‡" symbol follows name of intersection.

Bold-face text indicates Level of Service worse than City of San Francisco standard (i.e., LOS E or worse).

SOURCE: Wilbur Smith Associates

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CHAPTER VIII

SUMMARY OF COMMENTS AND RESPONSES

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SECTION A
INTRODUCTION

This document contains public comments received on the Draft Supplemental Environmental Impact Report (Draft SEIR, or DSEIR) prepared for the proposed Southern Waterfront Project, and responses to those comments. Also included in this document are staff-initiated text changes.

Following this introduction, Section B contains a list of all persons and organizations who submitted written comments on the Draft SEIR and who testified at the public hearing on the Draft SEIR held on October 26, 2000.

Sections C and D contain the comments and responses. Comments are grouped by commenter to allow commenters to easily find the responses to their comment(s). As the subject matter of one comment may overlap that of others, the reader may be referred to a prior response.

Section C contains comment letters received during the public review period from September 23 to November 7, 2000, and the responses to each comment. Each substantive comment on the SEIR is labeled with a number in the margin and the response to each comment is presented immediately after the letter containing that comment.

Section D contains transcribed comments made at the public hearing on the Draft SEIR and the responses to each of those comments. Each substantive comment on the SEIR is similarly labeled with a number in the margin, and the responses to each set of comments follow those comments.

Some comments do not pertain to physical environmental issues, but responses are included to provide additional information for use by decision makers.

Section E contains text changes to the Draft SEIR made by the SEIR preparers subsequent to publication of the Draft EIR to correct or clarify information presented in the DSEIR.

These comments and responses will be incorporated into the Final SEIR as a new chapter. Text changes resulting from comments and responses will also be incorporated in the Final SEIR, as indicated in the responses.

SECTION B
LIST OF PERSONS COMMENTING

Written Comments

Federal Agency

Calvin C. Fong, Chief, Regulatory Branch, San Francisco District, U.S. Army Corps of Engineers, letter, October 20, 2000

State Agency

Harry Y. Yahata, District Director, California Department of Transportation, letter, October 25, 2000

Susan Gladstone, Environmental Specialist IV, California Regional Water Quality Control Board, letter, December 29, 2000[1]

Companies, Organizations, and Individuals

Industry Group (Project Co-Sponsors)

Dan Boardman, President, Bode Gravel Company, letter, November 3, 2000

William Howard, Vice President, Mission Valley Rock Company, letter, November 3, 2000

Lawrence W. Appleton, Manager of Engineering and Environmental Affairs, Hanson Aggregates Mid-Pacific Inc., letter, November 6, 2000

H. W. Reppert, Director of Environmental Affairs, RMC Pacific Materials, letter, November 1, 2000

Jack Isola, General Manager, Waste Resources Technologies, letter, November 7, 2000

Others

Alex Lantsberg, Sewage and Stormwater Committee Co-Chair, and Jennifer Clary, Port Chair, Alliance for a Clean Waterfront, letter, November 10, 2000

Jeff Marmer, Coalition for Better Wastewater Solutions / Alliance for a Clean Waterfront, letter, November 10, 2000

---

[1] Note that this letter was dated and received by the Planning Department several weeks after the close of the public comment period, and shortly before publication of the Summary of Comments and Responses. This letter therefore appears at the end of Section C of this document.

Janet Carpinelli, Corresponding Secretary, Dogpatch Neighborhood Association, letter, November 1, 2000

Anne Eng and Lynne Saxton, Environmental Law and Justice Clinic, Golden Gate University Law School, letter, November 7, 2000

Robin Chiang, President, Friends of Islais Creek, undated letter (received November 8, 2000)

Arthur Feinstein, Executive Director, Golden Gate Audubon Society, letter, November 7, 2000

Toby Levine and John Borg, co-chairs, Pier 70 Advisory Group, letter, October 25, 2000

Carl Hanson, President and General Manager, San Francisco Drydock, Inc., letter, November 7, 2000

Jane Morrison, President, and Jennifer Clary, Waterfront Chair, San Francisco Tomorrow, letter, November 10, 2000

Ruth Gravanis, letter, November 9, 2000

Corrine W. Woods, letter, November 7, 2000

Public Hearing Comments, October 26, 2000

Toby Levine, co-chair, Pier 70 Advisory Board

Alex Lantsberg

Juan Barragan

Patrick Maury Rump

Dana Lanza

Lynne Saxton, Environmental Law and Justice Clinic

Roslyn Baltimore, member, San Francisco Planning Commission

SECTION C
WRITTEN COMMENTS AND RESPONSES

This chapter includes copies of the comment letters received during the public review period on the Draft SEIR and responses to those comments. Each substantive comment on the Draft SEIR is labeled with a number in the margin and the response to each comment is presented immediately after the letter containing that comment. Where responses have resulted in changes to the text of the Draft SEIR, these changes will also appear in the Final SEIR.

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, CORPS OF ENGINEERS
333 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94105-2197

A

OCT 2 0 2000

REPLY TO
Regulatory Branch

SUBJECT: File Number 25665S

Ms. Hillary Gitelman
City and County of San Francisco
Environmental Review Officer
1660 Mission Street, Suite 500
San Francisco, California 94103

Dear Ms. Gitelman:

Your request for comments on the Draft Supplemental Environmental Impact Report concerning the San Francisco Southern Waterfront, dated September 23, 2000, was received on October 3, 2000. The proposed project includes the expansion of private industry, capital improvements and potential future development at the Southern Waterfront, a port within the San Francisco Bay and in the City and County of San Francisco, California. While the majority of your proposed project does not impact jurisdictional waters of the U.S., the proposed Illinois Street Intermodal Bridge may impact portions of Islais Creek and might therefore be subject to Corps regulatory authority.

All proposed work and/or structures extending bayward or seaward of the line on shore reached by: (1) mean high water (MHW) in tidal waters, or (2) ordinary high water in non-tidal waters designated as navigable waters of the United States, must be authorized by the Corps of Engineers pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). Additionally, all work and structures proposed in unfilled portions of the interior of diked areas below former MHW must be authorized under Section 10 of the same statute.

In addition, all proposed discharges of dredged or fill material into waters of the United States must be authorized by the Corps of Engineers pursuant to Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344). Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including intermittent streams), and wetlands.

Your proposed work appears to be within our jurisdiction and a permit may be required. Application for Corps authorization should be made to this office using the application form in the enclosed pamphlet. To avoid delays it is essential that you enter the file number at the top of this letter into Item No. 1. The application must include plans showing the location, extent and character of the proposed activity, prepared in accordance with the requirements contained in this pamphlet. You should note, in planning your work, that upon receipt of a properly completed application and plans, it may be necessary to advertise the proposed work by issuing a public

notice for a period of 30 days.

If an individual permit is required, it will be necessary for you to demonstrate to the Corps that your proposed fill is necessary because there are no practicable alternatives, as outlined in the U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines. A copy is enclosed to aid you in preparation of this alternative analysis.

If you have any questions, please call Phelicia Gomes of our Regulatory Branch at 415-977-8452. Please address correspondence to Regulatory Branch and refer to the file number at the head of this letter.

Sincerely,

Edward A. Wyle

for Calvin C. Fong
Chief, Regulatory Branch

Enclosures

LETTER A – U.S. ARMY CORPS OF ENGINEERS

A-1) The comment is noted. The SEIR notes, in the Project Description on p. 22 and in the discussion of Land Use, Plans, and Policies on p. 41, that approval of the proposed Illinois Street Intermodal Bridge would require approval by the U.S. Army Corps of Engineers. The Port of San Francisco or its designee would need to obtain all necessary permits for the proposed bridge prior to the initiation of bridge construction.

DEPARTMENT OF TRANSPORTATION
P O BOX 23660
OAKLAND, CA 94623-0660
Tel: (510) 286-4444
Fax: (510) 286-5513
TDD (510) 286-4454

B

October 25, 2000

SM-280-5.62
94123007
SM280110

Ms. Lezley Buford
San Francisco Planning Department
1660 Mission Street, Suite 500
San Francisco, CA 94103

Dear Ms. Buford:

Supplemental Environmental Impact Report (SEIR) for the San Francisco Southern Waterfront Project; City and County of San Francisco

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. We have examined the SEIR and have the following comments:

1. The traffic data in the SEIR is insufficient to evaluate the impact of the proposed project on State Highways from an operational point of view, especially at the Mariposa Street/Interstate 280 interchange southbound and northbound on-and-off ramps.

2. Please submit a copy of the project plans, specifications and estimates (PS&E) when completed.

If you need further information or have any questions regarding this letter, please call Nandini N. Shridhar, AICP, of my staff at (510) 622-1642.

Sincerely,

HARRY Y. YAHATA
District Director

By Jean CR Finney

JEAN C. R. FINNEY
District Branch Chief
IGR/CEQA

c: Ms. Katie Schulte (State Clearinghouse)

LETTER B – CALIFORNIA DEPARTMENT OF TRANSPORTATION

B-1) The Draft EIR includes level of service analysis at both the intersection of Mariposa Street / Interstate 280 southbound on-ramp and Mariposa Street / Interstate 280 northbound off-ramp (see Table 4, pp. 53-54 and Figure 5, p. 55). Also included in Table 4 and Figure 5 is the intersection of Pennsylvania Street and the I-280 southbound on-ramp. These three intersections represent the nearest freeway ramps to the project area.

As stated in the SEIR, the Mariposa Street / Interstate 280 southbound on-ramp intersection currently operates at LOS F during both peak hours, and Phase I project traffic would increase delays. By 2015, this intersection is scheduled to be signalized due to the nearby Mission Bay project. However, by 2015 Phase II project traffic would result in unacceptable conditions at this intersection, even signalized: LOS F in the a.m. peak hour and LOS E in the p.m. peak-hour. This would be a significant effect, and would not be mitigable, as the intersection capacity would be exceeded. The Mariposa Street / I-280 northbound off-ramp intersection currently operates at an acceptable LOS D or better, and would continue to do so until 2015, when Phase II project traffic would result in LOS F in the a.m. peak hour and LOS E in the p.m. peak hour. This, too, would be a significant, unmitigable impact. The Pennsylvania Street / I-280 southbound on-ramp intersection currently operates at LOS A, and operations would remain acceptable until 2015, when Phase II project traffic would result in LOS F in the p.m. peak hour. This impact could be mitigated by installation of a traffic signal.

In terms of the effect on the I-280 freeway, the transportation report prepared for the project indicates that, prior to the implementation of Phase II of the project (assumed to be 2015), the project would result in no more than about 50 new vehicle trips on the freeway in either direction in the a.m. and p.m. peak hours, which would not result in a noticeable change in level of service. By 2015, with the assumed buildout of Phase II, the project would add nearly 300 new vehicle trips to the freeway in the a.m. peak hour and nearly 650 new vehicle trips in the p.m. peak hour, which would represent an increase of up to 15 percent over existing peak-hour traffic volumes on I-280. As stated in the SEIR, other than the Industry Group project components and the Illinois Street bridge (Phase I of the project), there are no specific proposals for development on Port lands. The SEIR evaluates a reasonably foreseeable development program for development of Port lands by 2015, but the program identified in the SEIR is neither approved nor certain to occur.

B-2) The project would not involve any construction on or adjacent to State highway rights-of-way.

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NOV -6 2000

CITY & COUNTY OF S.F.
DEPT. OF CITY PLANNING
ADMINISTRATION

C

November 3, 2000

Environmental Review Officer
1660 Mission Street, Suite 500
San Francisco, California 94103

RECEIVED
NOV 7 2000
PLANNING DEPT

Re: Planning Department Case Number 1999.377E
State Clearinghouse Number 94123007

Subject: Comments on Draft SEIR
San Francisco Southern Waterfront

Ladies and Gentlemen:

Bode Gravel is providing these comments on the draft SEIR for the San Francisco Southern Waterfront, as referenced above.

1. The environmental impact analysis of the proposed Bode facility at Pier 92 correctly indicates a zero impact, considering that the proposed project will be virtually identical to Bode's existing operation at Third and 16th Streets. For example, Tables 12 through 15 indicate a net impact of zero pounds of air pollutants from the Bode operation.

   We are pleased to see that the draft SEIR (Section VI-A) recognizes that the "No Project" alternative would result in net increases in emissions from the Bode facility (and others). This is because the City's demand for concrete products will not be affected by the proposed project; therefore, the "No Project" alternative would result in a net increase in impacts (especially traffic and air quality) over Bode's present operation. This is because Bode (or its competitors) would supply the City's concrete products from more distant locations. C-1

   The draft SEIR does not quantify the increased impact of Bode's contribution to the "No Project" Alternative. However, it is clear that the "No Project" Alternative results in greater impacts of the Bode operation than would result from the project proposed by the draft SEIR.

2. The description of the Bode project (Chapter 2, page 10) indicates that the plant will employ 20 persons on site. The draft SEIR fails to mention that Bode will employ an additional 30 persons who will drive Bode-owned cement mixer trucks at off-site locations. The Bode facility will provide (continue to provide) opportunities for employment to its nearby neighbors. Bode is committed to continue its employee training program, which allows many young workers to enter the workforce. C-2

Thank you for consideration of these comments. If you have questions, please contact me.

Sincerely,
BODE GRAVEL COMPANY

Dan Boardman
President

cc. Fred Cooper, Cooper Environmental

LETTER C – BODE GRAVEL COMPANY

C-1) The Bode facility, like all of the aggregate-related Industry Group components, would result in effects related to the intensity of development – in this case, the amount of concrete produced – such as traffic and air quality, and effects related to the location and "footprint" of physical improvements, such as changes in surface runoff and potential exposure to or handling of hazardous materials. The commenter thus is incorrect in stating that there would be "zero pounds" of criteria air pollutants emitted as a result of the Bode facility; rather, as indicated in Tables 12 through 15, the five aggregate-related Industry Group facilities, including Bode, would result in a net increase of more than 1,000 pounds per day in emissions of nitrogen oxides (NOx) – due entirely to increased use of ships to transport aggregate to the project area – and lesser increases in the volume of reactive organic gases (ROG) and respirable particulate matter (PM-10). Furthermore, while the commenter correctly states that the Bode facility would essentially replace the company's existing plant at Third and 16th Streets, as stated on SEIR p. 9, the relocation of the Bode facility and other facilities near Islais Creek would result in local transportation effects, which are accounted for in the SEIR's analysis of intersection levels of service, and local air quality effects, which are described in the SEIR beginning on p. 89.

Regarding the No Project Alternative, the SEIR does not state that this alternative would result in increased emissions, compared to the proposed project. In fact, emissions of NOx would be considerably less under the No Project Alternative, which does not assume increased shipping of aggregate, than with the project. As stated on SEIR p. 169, however, the No Project Alternative would result in a significant cumulative effect related to air quality, as would the project.

C-2) The additional employment noted by the commenter would not materially affect the SEIR traffic analysis, as the additional 30 employees would increase the number of vehicles in the morning and afternoon peak hours by 3 percent or less, which would not be enough to alter the level of service analyses in the SEIR. (Truck traffic in the analysis is based on production volume, and therefore the change in the number of employees would not result in a change in truck traffic.) Daily vehicle trip generation would increase by 2 percent or less. With regard to air quality, the above-noted increases in trip generation from the additional employees traveling to and from work would affect only cars and light trucks, not heavy-duty (diesel) trucks, and therefore would result in imperceptible changes in project emissions. Please see also the response to Comment G-1, p. C&R.28, concerning changes in estimated employment.

MISSION VALLEY ROCK COMPANY
ASPHALT COMPANY
READY MIX COMPANY

7999 ATHENOUR WAY SUNOL, CA 94586 (925) 862-2257

D

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NOV 16 2000
PLANNING DEPT

November 3, 2000

Environmental Review Officer
1660 Mission Street, Suite 500
San Francisco, California 94103

Re: Planning Department Case Number 1999.377E
State Clearinghouse Number 94123007

Subject: Comments on Draft SEIR
San Francisco Southern Waterfront

Ladies and Gentlemen:

Mission Valley Rock Company is providing these comments on the draft SEIR for the San Francisco Southern Waterfront, as referenced above, As discussed in the EIR, Mission Valley is one of the industrial project proponents. We propose to construct an aggregate importing operation and an asphalt plant at Pier 92. These comments provide some clarification of the details of project that were not addressed in the Draft EIR.

1. The Draft EIR correctly identifies various air pollution abatement equipment and measures that will be incorporated into these operations. These include the following measures:
   - On-ship water-sprays will be used to moisten aggregate materials on the ship, prior to their conveying to on-shore storage bins.
   - Some aggregate storage will be located indoors.
   - For the aggregate that is not stored indoors, aggregate piles will be located in three-sided bins. Water will be sprayed on these piles, as needed, to abate potential wind-blown dust emissions.
   - Asphaltic cement will be stored in enclosed storage tanks with vents to limit emissions of Volatile Organic Compounds (VOC).
   - The aggregate drum dryer will use a Low-NOx burner.
   - Potential particulate from the aggregate dryer will be controlled with the use of a baghouse filter.

   These measures are all considered to be the Best Available Control Technology (BACT) as defined by the Bay Area Air Quality Management District. Due to the capacity of the plant, BAAQMD will require use of BACT; therefore Mission Valley has incorporated these mitigation measures.

D-1

2. Mission Valley proposes to purchase a new non-portable asphalt plant that can incorporate recycled asphalt pavement (RAP) into the paving products. The design of the plant will meet the needs of the community for the foreseeable future. The asphalt plant will not be a used plant that is transferred from another location. D-2

3. As we have proceeded with the CEQA process, Mission Valley has also applied for the required permits with the Bay Area Air Quality Management District. Subsequent to filing the application with BAAQMD, we have learned of new ultra-low-NOx technology that has been used successfully in asphalt plants in the Los Angeles area. Mission Valley is committed to use this newly-defined technology to fulfill BACT requirements. Specifically, BAAQMD defines BACT for asphalt plants as equipment that reduces Nitrogen Oxides emissions to 90 ppm (at three percent oxygen). Mission Valley will use Low-NOx burner equipment that achieves the proposed 36-ppm (at three percent oxygen) standard. Use of this equipment will reduce stationary source NOx emissions to approximately one-fourth of those indicated in Tables 12, 13, 14, and 15. Because the stationary source emissions are much less than the project's motor vehicle, truck, ship, and rail emissions, this change does not affect the significance determination indicated in the Draft EIR. D-3

4. In addition, there is experimental technology to control emissions of "blue smoke" which comes from asphalt truck-loading operations. This technology has been used, sometimes successfully, in the Los Angeles area. Currently, the Bay Area Air Quality Management does not recognize this technology (capture of emissions in a truck shed and control of the "blue smoke" with use of a filter pack control system) and does not require it to fulfill BACT requirements. Mission Valley hopes that it's San Francisco asphalt plant will be the first and only asphalt plant in the Bay Area to incorporate this technology. Mission Valley will incorporate the technology that is currently used in the Los Angeles are if BAAQMD will accept this technology in its permitting program.

5. The Mission Valley/Bode projects will employ approximately 56 persons, plus will support the employment of approximately 10 additional private contractors (such as truck drivers). These projects will employ a wide range of job classifications. Although some employment will be available for plant managers, plant engineers, plant operators, sales staff, clerical and accounting staff, a majority of the jobs will be trained labor positions (such as truck drivers and vehicle- and plant-maintenance staff). We anticipate that many of these positions will be filled by residents of the nearby Hunters Point neighborhood. Clearly, these projects will provide employment to residents of the area. D-4

6. At the October 26, 2000 Hearing before the City of San Francisco Planning Commission, neighbors expressed concern that Mission Valley's asphalt plant will be built and then expanded to capacities beyond those included in the analysis of the draft SEIR. This will not happen. Mission Valley has proposed a maximum annual D-5

production of 400,000 tons per year of asphalt. This upper limit was proposed in both the application to BAAQMD and in the project analysis included in the draft SEIR. BAAQMD is expected to propose a permit condition that will limit asphalt production to 400,000 tons per year. Mission Valley would accept a similar legal limitation as a part of this CEQA process.

D-5 CONT.

In summary, Mission Valley's proposed operations will include brand-new equipment. We will use the Best Available Control Technology to reduce potential emissions of air pollutants. We propose to be the first and only asphalt plant in the Bay Area to use experimental technology to reduce "blue smoke" emissions from truck loading operations. (This will likely set the standard for other new asphalt plants in the Bay Area.) Our operations will provide jobs for our neighbors. We have been straightforward in defining our project, and assure that our voluntary throughput capacity will not be exceeded.

Thank you for consideration of these comments. If you have questions, please contact me.

Sincerely,
MISSION VALLEY ROCK COMPANY

W Howard

William Howard
Vice-President

cc. Mort Calvert, Mission Valley Rock Company
Fred Cooper, Cooper Environmental

LETTER D – MISSION VALLEY ROCK COMPANY

D-1) The comment is noted. The assumptions for the asphalt plant analyzed in the SEIR are consistent with the description provided. The assumptions (with the exception of the Low-NOx drum mixer; see the response to Comment D-3, below) were employed in the air quality analysis, and most are described in the Project Description (SEIR p. 11), and are also included in Mitigation Measures C.1 and C.2, SEIR pp. 146-147.

D-2) The comment is noted. The use of reclaimed asphalt pavement (RAP) would have a beneficial effect in that it would reuse some material that might otherwise be sent to a landfill. The use of RAP would not alter the emissions calculations provided in the SEIR.

D-3) As noted by the commenter, while the reduction in asphalt plant emissions would be a beneficial effect of the technology described, there would remain a significant, unavoidable effect in regard to overall emissions from the aggregate-related Industry Group components because, as noted by the commenter, ship and rail emissions would far exceed stationary source emissions.

D-4) Please see the response to Comment C-2, p. C&R.12. The total employment of 56 noted by the commenter for Bode and Mission Valley Rock combined includes the additional employment noted in response C-2.[2]

D-5) The comment is noted, and is consistent with the analyses in the SEIR.

[2] The SEIR (p. 10) states that the Bode facility would employ 20 and (p. 11) that Mission Valley Rock would employ 10. Adding 30 employees, from Comment C-2, would cover the total of 56 cited in Comment D-4.

Hanson

November 6, 2000

Hanson Aggregates
Mid-Pacific, Inc.
3000 Busch Road
P.O. Box 580
Pleasanton, CA 94566-0808
Tel. 925 846 8800

E

Ms. Hillary E. Gitelman
Environmental Review Officer
1660 Mission Street, Ste. 500
San Francisco, CA. 94103

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NOV 8 2000
PLANNING DEPT

Subject: DEIR - San Francisco Southern Waterfront Planning Department Case No. 1999.377E

Hanson Aggregates Mid-Pacific, Inc. (HAMP) has been assigned the six-acre lease recently granted to British Pacific Aggregates (BPA) at Pier 94 and has an option to lease an additional four acres from the port if a readymix plant or asphaltic concrete plant becomes feasible. Ship unloading, stockpiling and distribution of imported aggregates were addressed in the 1997 "Waterfront Plan FEIR".

As a future tenant, HAMP has an obvious interest in the contents and accuracy of the SEIR. Hanson would like to offer the following comments:

1. In the first paragraph of page S-3, several incorrect assumptions are made regarding ship unloading at Pier 94.
   a. The stockpiles are not partially enclosed.
   b. The piles would be about 350 feet shoreward of the wharf, not 150 feet as stated.
   c. No outdoor storage bins are planned unless they are part of an asphaltic concrete plant or a readymix concrete plant.

   E-1

2. The statement in the last paragraph on page S-16 that "Aggregate would be stored in bunkers, rather than open piles" is incorrect unless the issue is restricted to an asphaltic concrete plant or a readymix concrete plant.

3. Paragraph E3 - Soil Disposal on page S-36 is written in such a way that it cannot be understood. An explanation/clarification should appear in the FEIR.

   E-2

4. Page 13 of the Project Description - The same comments applies here as do to page S-3, Comment 1.
   a. The stockpiles are not partially enclosed.
   b. The piles would be about 350 feet shoreward from the wharf.
   c. No outdoor storage bins are planned.

   E-1 CONT.

Hanson

5. Page 72, Section III C, Air Quality Setting - "To be conservative, the analysis in this report does not assume implementation of any of the above proposed rules or regulations". The reference is to a draft program from the Air Resources Board to develop new regulations which, when fully implemented, could reduce the statewide cancer risk from diesel exhaust 75 percent by 2010 and 85 percent by 2020.

   The California Air Resources Board adopted the above "Risk Reduction Plan for Diesel-fueled Engines and Vehicles" on September 28, 2000, with the plan phased in by 2007. It would seem to be prudent, for the Final SEIR to recognize and comment on the new regulations, which will reduce all emissions quantified in the SEIR.

E-3

Thank you for the opportunity to review this SEIR.

Very truly yours,

Lawrence W Appleton

Lawrence W. Appleton
Manager of Engineering &
Environmental Affairs

LWA:dc

LETTER E – HANSON AGGREGATES

E-1) Hanson Aggregates, which since publication of the Draft SEIR has superceded British Pacific Aggregates as a member of the Industry Group, would operate an aggregate import terminal at Pier 94. Because the storage area proposed would be larger than those at the Bode and RMC Pacific ready-mix concrete plants and the Mission Valley Rock asphalt plant, aggregate storage would be in open piles, rather than bins, with spray bars provided to ensure adequate moisture content to minimize dust. Aggregate would typically arrive with a moisture content of between 4 percent and 5 percent, and would remain moist in the center of these larger storage piles. Water spray would be used as needed to maintain adequate moisture on the surface of the piles. Therefore, the effectiveness of dust control would be essentially the same as that assumed in the SEIR for the smaller bin-contained aggregate piles, and thus the air quality analysis in the SEIR remains valid as described. The following revisions are made to the text of SEIR p. 13 for accuracy (new and revised text shown underlined; deleted text shown in ~~strikethrough~~):[3]

> British Pacific Aggregates (BPA) would develop a storage facility for the waterborne importation of construction aggregates (sand, gravel, and crushed stone) to be used in the production of concrete and asphalt. BPA proposes to use Pier 94 as the dock for ships that would bring aggregate from out-of-state to supplement and/or replace existing local supplies. The aggregate would be delivered by self-unloading ships directly to Pier 94, where it would be unloaded using on-board equipment and stored in ~~partially enclosed~~ stockpiles in up to about six acres on the pier apron, approximately ~~150~~ 350 feet shoreward of the wharf. To minimize dust, BPA would use spray bars to moisten aggregate both during unloading and while in storage. BPA proposes to supply local producers of ready-mix concrete and asphalt, potentially including Bode Gravel Company's ready-mix plant and Mission Valley Rock Company's proposed asphalt plant (see above), and RMC Pacific's ready-mix plant concrete (see below, p. 15), as well as other existing, smaller concrete producers in the project area[footnote] and possibly elsewhere.
>
> Improvements to be constructed would include ~~outdoor storage bins for aggregate and sand, and possibly~~ conveyors to move material from ships to stockpiles and from one location to another and/or for loading into trucks for transport to end users. Front-end loader(s) may also be used for loading trucks. As noted above, spray bars would be employed to keep the material moistened while in storage, to minimize dust. No new paving would be needed, because the BPA storage facilities would be located on an already-paved portion of the Pier 94 apron.

Similar revisions are made on p. S-3, in the summary.

---

[3] Note that the references to British Pacific Aggregates and "BPA" are retained in the SEIR because the change to Hanson Aggregates as leaseholder has no material effect on the analysis of physical impacts.

In addition, the second-to-last sentence in Mitigation Measure C.1 (SEIR p. 146 and p. S-30) is revised as follows (new text is underlined):

> Aggregate shall be stored in bunkers at ready-mix and asphalt plants, rather than open piles, with water spray (including the use of surfactants, as necessary, to bind the water and dust to the aggregate) applied to maintain adequate moisture content to control emissions at both production and shipping/storage operations.

The above revision is also made to the second to last sentence of the second full paragraph on SEIR p. 91, and the last sentence on p. S-16 in the Summary.

E-2) Mitigation Measure E.3, SEIR p. 152 (and p. A-36) is reworded as follows to clarify (new and revised text shown underlined; deleted text shown in ~~strikethrough~~; deleted commas indicated by brackets ([])):

> The Port shall contract for[] or require that Port tenant(s) contract for[] disposal of any portion of the soil pile on the Bode and Mission Valley Rock sites at Pier 92 that cannot be reused for construction projects in accordance with applicable waste disposal regulations.[] Such reuse would also require approval of the San Francisco Department of Public Health~~, for construction projects in accordance with applicable waste disposal regulations~~.

E-3) The comment is noted. Pending approval of the risk-reduction plan for diesel-fueled vehicles was identified in the SEIR on pp. 71-72. Although approved by the Air Resources Board (ARB), the plan is not regulatory in nature and will require development by ARB staff of a series of regulations aimed at reducing diesel emissions. The SEIR analysis therefore remains valid. To acknowledge approval of the plan, the last sentence on SEIR p. 71, continuing to p. 72, along with the following sentence, are revised as follows (new and revised text shown underlined; deleted text shown in ~~strikethrough~~):

> The CARB board ~~is scheduled to consider approval of~~ approved the draft diesel risk reduction plan on September 28, 2000, and ~~. If the CARB board approves the draft plan, it is likely then to direct~~ CARB staff ~~to~~ will begin development of the regulatory program identified in the plan.

RMC PACIFIC MATERIALS

www.rmcpacific.com

H. W. Reppert,
Director of Environmental Affairs
(925) 426-2113
FAX: 426-2231

6601 Koll Center Parkway
P.O. Box 5252
Pleasanton, CA 94566

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F

November 1, 2000

Hillary Gitelman, Environmental Review Officer
Planning Department, City & County of San Francisco
1660 Mission Street
San Francisco, CA 94103-2414

Subj. **Comments on Southern Waterfront SEIR, Case # 1999.377E**

RMC has two principal concerns regarding its proposed operations in the SEIR, namely: (1) recognition that our proposed business relocation is within the project area, and (2) recognition that projected diesel truck emissions will be reduced as a result of new technologies mandated by the California Air Resources Board.

RMC presently operates at 3rd and Mariposa streets. Our proposed new location is approximately 5,600 feet south of our current operation at Pier 80. The 3rd and Mariposa intersection is included in the project area Transportation Study prepared by Wilbur Smith Associates for the SEIR. However, in the main body of the SEIR it is not clear to us that our current operation is considered in all respects as an existing activity for the 2003 time horizon. Under our current lease, and absent an approval to re-establish our business to Pier 80, RMC could continue to operate in the project area at 3rd and Mariposa beyond 2003. Because we now operate within the project area and would continue to do so over the short term, we believe that our relocation should contribute no net increase in environmental impact for the SEIR analysis of year 2003. In fact, we believe our relocation will lead to a significant decrease in truck-related impacts compared to our current operations in the project area. F-1

The business projection of 850,000 cu-yd./year for ready-mixed concrete in 2015 is termed "conservative" from an environmental impact assessment viewpoint. However, from a commercial perspective we regard that projected level of activity to be extreme and unrealistic. Despite the increased transportation which that assumption attributes to our business, we believe the associated diesel emissions will be mitigated substantially by future CARB regulations, especially those that are aimed at diesel particulate. For example, CARB's Diesel Risk Reduction Plan represents California's latest effort to significantly reduce diesel PM emissions. This regulatory effort represents a realistic and measured method to achieve clean air standards, utilizing a systems approach, which combines low-sulfur diesel fuel, new technology cleaner diesel engines and varied high-tech exhaust after-treatment systems. RMC believes that such emerging emissions control technology is an important aspect of the transportation component that deserves consideration in the SEIR. F-2

Sincerely,

H. W. Reppert

Cc: Eric Woodhouse; Joe Sostaric; Bob McQuoid

LETTER F – RMC PACIFIC MATERIALS

F-1) As stated on p. 47 of the SEIR, the traffic analysis is conservative because existing trips, including those to the Bode and RMC Pacific plants on Third Street, were not "backed out" of the traffic analysis because many of these trips originate at the fringe of or outside the study area and thus may not travel through most of the analysis intersections. However, pollutant emissions from existing activities, including traffic to and from the Bode and RMC Pacific sites, were included in the existing baseline in calculating regional emissions, because the area of analysis (i.e., the entire Bay Area Air Basin) is much greater. For the local emissions analysis, the change in emissions resulting from the change in location of the facilities and the change in method of transporting materials (e.g., from truck to ship) was considered.

Please see also the response to Comment C-1, p. C&R.12.

F-2) As stated in SEIR Appendix A, the long-range (2015) analysis assumed a production level based on the sum of individual Industry Group members' forecasts, even though the total was greater than market conditions might support, resulting in a conservative analysis of future conditions.

Regarding the proposed new state Air Resources Board regulations, please see the response to Comment E-3, p. C&R.20. As noted in that response, the recently adopted risk-reduction plan for diesel-fueled vehicles is not regulatory in nature and will require development by ARB staff of a series of regulations aimed at reducing diesel emissions.

WASTE RESOURCE TECHNOLOGIES
A WASTE MANAGEMENT COMPANY

895 Egbert Ave.
San Francisco, CA 94124
(415) 822-2175
(415) 822-3852 Fax

November 7, 2000

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NOV 9 2000
PLANNING DEPT

Environmental Review Officer
1660 Mission Street, Suite 500
San Francisco, California 94103

RE: Comments on San Francisco Southern Waterfront Draft Supplemental Environmental Impact Report (DSEIR); Planning Department Case No. 1999.377E; State Clearinghouse No. 94123007

Ladies and Gentlemen:

Waste Resource Technologies (WRT) submits the following comments on the subject document.

Page/Section	Comment
General	While the Draft Supplemental Environmental Impact Report (DSEIR) was being prepared and issued, Waste Resource Technologies (WRT) has been involved in ongoing discussions with representatives of the Port of San Francisco regarding its requirements for space. As a result, a second potential site for WRT's operation was identified. This potential site is Building 6 within Pier 70. A meeting with the Pier 70 Advisory Committee to evaluate community reaction to this location indicated that the community would generally support the use of Building 6 rather than Building 116 because it would further remove the proposed WRT operation from residential and commercial areas. Although a lease arrangement has not been finalized and an engineering evaluation of the building has not yet been completed, the following comments assume that Building 6, rather than Building 116, will be the space used by WRT at Pier 70.

Page/Section	Comment
	Because Building 6 is located approximately ¼ mile from Building 116 and is also accessed via 20th and Third Streets, there would be no material change to the Transportation or Air Quality sections in the DSEIR. The use of Building 6 rather than Building 116 does not materially affect the Land Use or Hydrology and Water Quality sections of the DSEIR. The historical significance of buildings within Pier 70 (including Building 116) was identified in the Waterfront Plan FEIR and a mitigation measure was included to require a qualified historic preservation architect review the proposed renovation plans prior to issuance of any demolition or building permit. In the DSEIR, Building 116 is specifically discussed in regard to any exterior changes. It was determined that if exterior changes were to be made, these changes: *"...should be consistent with the maritime/industrial character of the Pier 70 area, particularly with regard to the rear of the building, abutting Michigan Street, consistent with the Waterfront Plan Design and Access Element direction to preserve views of the historic warehouses (including Building 116)."* These measures will be reviewed for their application to Building 6 and, if applicable, implemented prior to the renovation of the building. The Biological Resources section of the DSEIR discusses mitigation measures for the impact of pier repair. If the engineering study of Building 6 determines that the repair of the pier is required, these mitigation measures would be applicable and implemented. Because Building 6 is located within the jurisdiction of the Bay Conservation and Development Commission (BCDC), WRT would take the appropriate measures to obtain any required approvals and/or permits.

Page/Section	Comment
	Prior to completion of the planned engineering study of Building 6, it is unknown whether there will be soil excavation or addition of impervious surfaces associated with development of the site. The Hazardous Materials component of the DSEIR already discusses the potential hazardous materials that may be present in Building 6 or surrounding soils (Tetra Tech, 1998). If Building 6 is used, the required site assessment and mitigation measures to manage hazardous wastes and/or contaminated soils will be implemented. On-site parking for employees and for inbound and outbound trucks will be incorporated into the site design. ******************************* The following comments on the DSEIR call out the changes required to reflect the use of Building 6 rather than Building 116 by WRT.
S-4/A. Project Description	As discussed above, WRT is proposing to use Building 6 in Pier 70. Building 6 was constructed in 1944 and has 35,000 square feet of interior space.
6/Table 1 Project Characteristics	"Location" column should be changed to list Building 6. "Size of Site" column should be changed to reflect the building area of 35,000 square feet.
8/Figure 2 Project Components	Figure 2 should be revised to reflect WRT's location in Building 6 in Pier 70.
17 & 18/II.C Project Description	In the third paragraph of the Section titled "Waste Management", the number of employees is given as 16. Although this was the original estimate of employees transmitted in November 1999, a revised estimate was given in May 2000. The revised estimate was 30 employees.

Page/Section	Comment
	This section should be revised to reflect WRT's location at Building 6 in Pier 70. The final paragraph of this section should be revised to indicate that it is within 100 feet of the shoreline and subject to BCDC jurisdiction.
50/Table 2	As stated above, WRT revised the number of employees that will be located at the Pier 70 site in May 2000. The number should be 30. This table should be revised to reflect the appropriate number of vehicle trips.
51/Table 3	As stated above, WRT revised the number of employees that will be located at the Pier 70 site in May 2000. The number should be 30. This table should be revised to reflect the appropriate number of vehicle trips.
92/Figure 7 Sensitive Receptors	This figure should be revised to reflect the location of WRT in Building 6, Pier 70.
107/Table 19	This table should be revised to reflect the location of WRT in Building 6, Pier 70.
121/Table 21	This table should be revised to reflect the location of WRT in Building 6, Pier 70.
159/IV.H Historic Architectural Resources	This section should be revised to reflect the location of WRT in Building 6, Pier 70. As stated above, if it is determined that this mitigation measure is applicable to Building 6, it will be implemented.
Appendix F/F-5	This section should be revised to reflect the location of WRT in Building 6, Pier 70.
IX/Industry Group	Please change the address for Waste Resource Technologies to 2615 Davis Street, San Leandro, CA 94577.

On behalf of Waste Resource Technologies, thank you for accepting and considering these comments.

Sincerely,

Waste Resource Technologies

Jack Isola
General Manager

LETTER G – WASTE RESOURCES TECHNOLOGIES

G-1) The comments are noted, and the changed location for the proposed Waste Resources Technologies (WRT) site will be incorporated in the Final SEIR. No change in the transportation or air quality analyses will result, because 20th Street would remain the route to and from the WRT facility at Building 6, as it would have been for Building 116.

As noted by the commenter, use of Building 6, which is within 100 feet of the San Francisco Bay shoreline, would require approval from the Bay Conservation and Development Commission. Accordingly, the last sentence of the first paragraph on SEIR p. 18 is revised as follows (new language is underlined; deleted text is shown in ~~strikethrough~~):

> The project would ~~not~~ require BCDC approval, as it would ~~not~~ be within 100 feet of the shoreline.

Like Building 116, Building 6 was identified in the Waterfront Plan historic resources survey for the Pier 70 area as a potential contributor to a potential Pier 70 historic district. As with Building 116, effects related to historic resources in connection with reuse of Building 6 would be mitigated to a less-than-significant level through implementation of Mitigation Measure H.1, SEIR p. 159, which is revised to account for Building 6 instead of 116 in lines 2, 4, and 8. Also, the reference to Building 116 in the second line of the paragraph introducing Mitigation Measure H.1 is revised to read "Building 6."

Effects related to hydrology and water quality and potential exposure to hazardous materials, if any, would generally be similar at Building 6 to those at Building 116. Because Building 6 is along the Bay shoreline, existing stormwater flow is directly to the Bay. The WRT reuse of this building could result in incremental improvement in water quality, with implementation of Mitigation Measures D.2, D.4, and D.5.

Regarding employment, the increased employment identified by WRT would not materially affect the SEIR traffic analysis. An increase of 14 employees, compared to the figure used in the SEIR, would increase the number of vehicles in the morning and afternoon peak hours by less than one percent, which would not be perceptible against the daily variation in traffic volumes. Combined with the additional 30 employees noted in the response to Comment C-2, p. C&R.12, no changes in intersection level of service or other effects, such as emissions of criteria air pollutants, would result. Therefore, no changes are made to Tables 2 through 6 in Section III.B, Transportation, nor are any changes made to Tables 11 through 18 in Section III.C, Air Quality. However, the first line of the third paragraph under "Waste Management" on SEIR p. 17 is revised to reflect the changed number of employees.

The following additional revisions to the SEIR are made to accommodate the change in location of the WRT component from Building 116 to Building 6 (new and revised text shown underlined; deleted text shown in ~~strikethrough~~):

On p. 6, in Table 1, the third column ("Location") of the entry for Waste Resources Technologies is revised to read "Building 6" instead of "Building 116."

On p. 17, the second full paragraph is changed as follows (and the same changes are made to the third paragraph on p. S-4, in the Summary) (Note that the state Historic Resources Inventory form for Building 6 states that it was constructed in 1941):

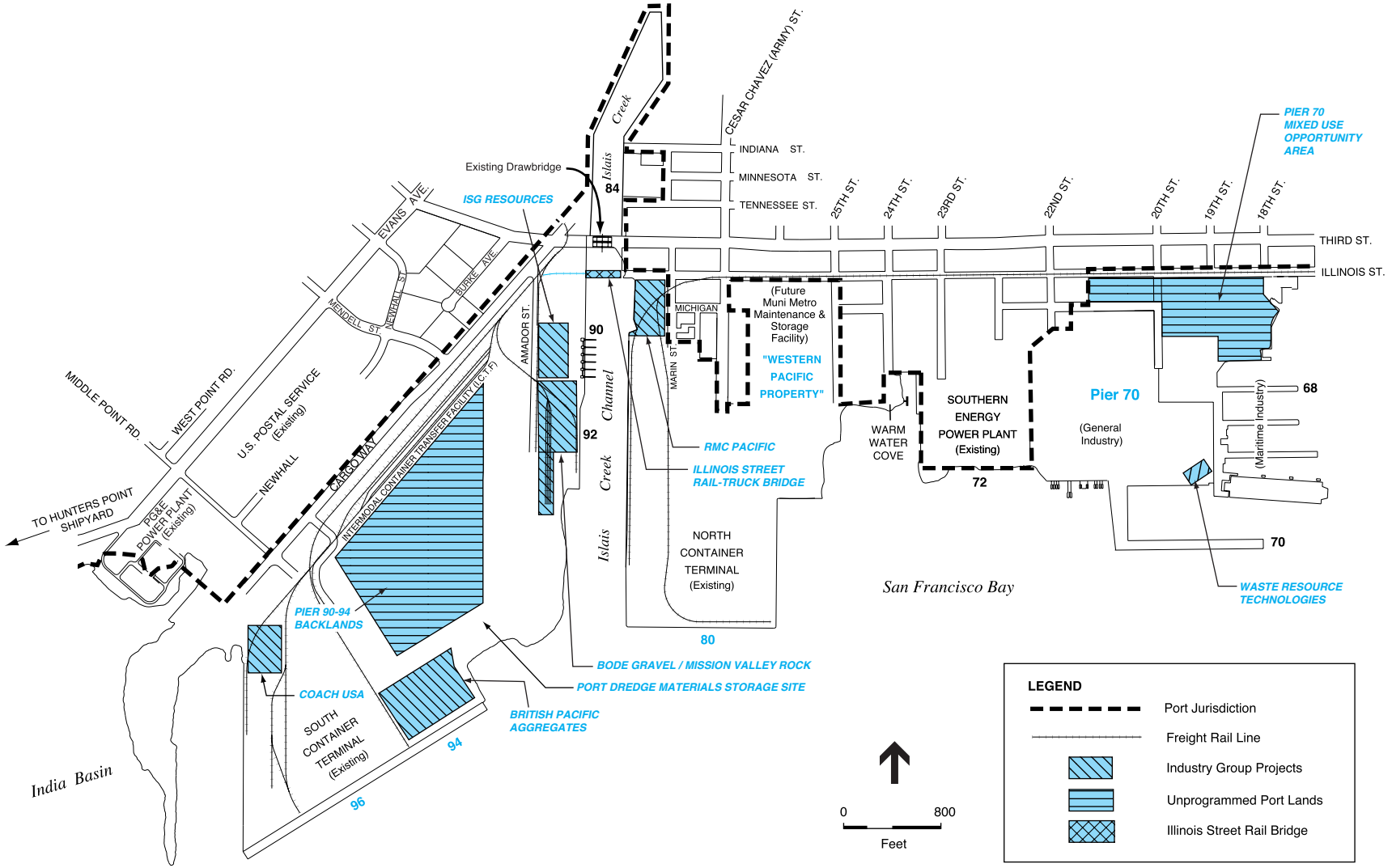
> WRT proposes to lease an existing building at Pier 70, located near 20th and Illinois Streets, in the former Union Iron Works complex. The structure, identified as Building 6 ~~116~~, contains approximately ~~24,000~~ 35,000 square feet of interior space. There would be no structural modifications to the exterior of the building, which was constructed in 1941 ~~1917~~. However, WRT would renovate portions of the building's interior to accommodate the MRF. WRT would install a sort line with associated screens, conveyors, and other equipment for processing of construction and demolition material inside Building 6 ~~116~~. In contrast to WRT's former outdoor facility at Candlestick Point, all sorting and storage of material would be accomplished within Building 6 ~~116~~. Parking would be provided on-site for employee vehicles and for staging of semi-trailer transfer trucks.

Also, the second line of p. 18 is revised to read "Building 6" instead of "Building 116."

On p. 107, in Table 19, the third column ("Location") of the entry for Waste Management is revised to read "Building 6" instead of "Building 116" and the fourth column ("Size of Site") is changed to "35,000 sq. ft."

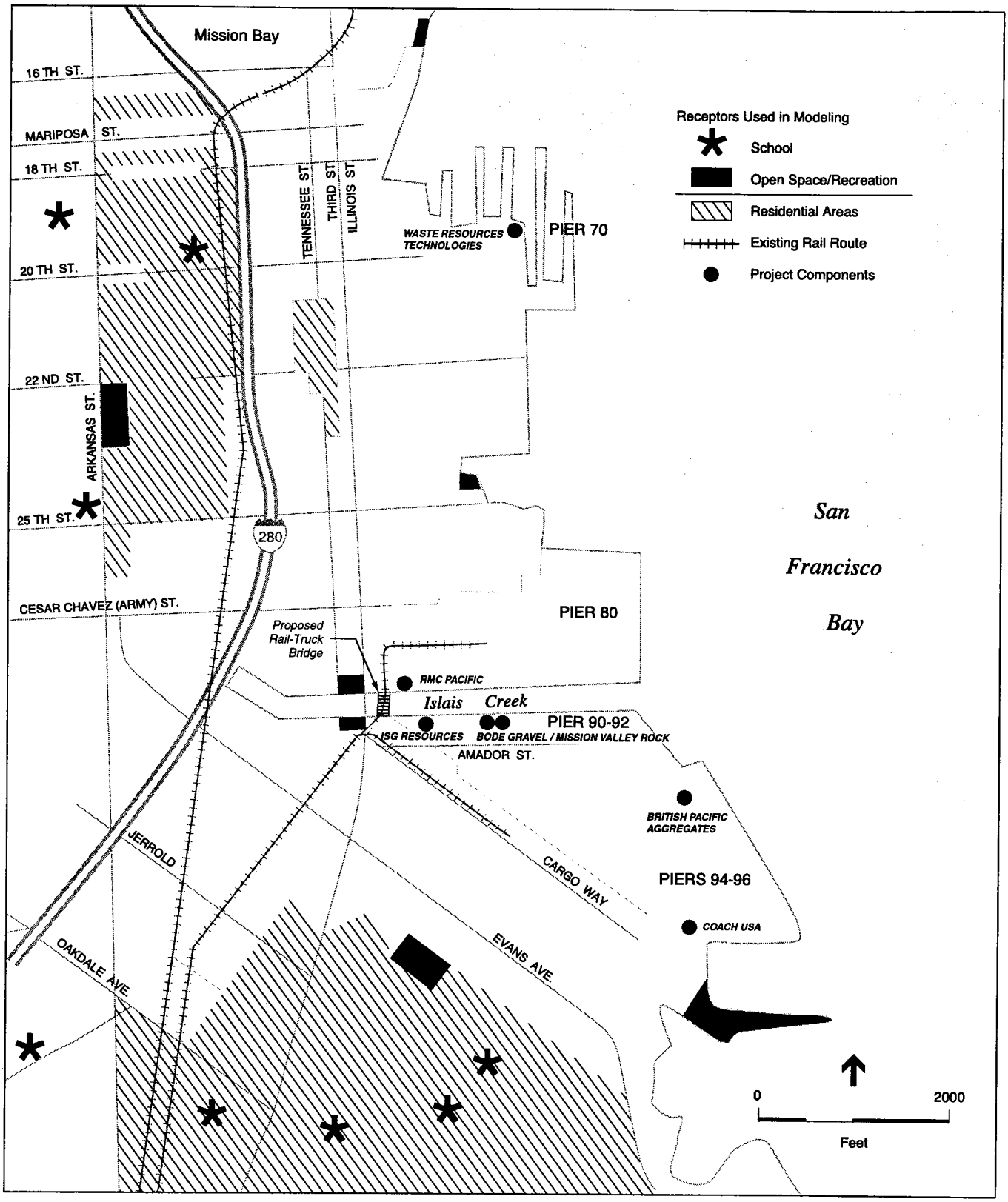
On p. 121, in Table 21, the second column ("Location") of the entry for Waste Management is revised to read "Building 6" instead of "Building 116."

In addition, SEIR Figures 2 (p. 8) and 7 (p. 92) are revised to show the changed location of the proposed Waste Management component. The revised figures appear on the following two pages.



SOURCE: Waterfront Land Use Plan EIR

Figure 2 (Revised)
Project Components



SOURCE: Environmental Science Associates, Pittman & Hames Associates.

1999.377E: Southern Waterfront SEIR (ESA 990267) ■

Figure 7 (Revised)
Sensitive Receptors

H

ALLIANCE FOR A CLEAN WATEFRONT

A Network of Diverse San Francisco Environmental and Neighborhood Organizations

November 10, 2000

Hillary Gitelman
30 Van Ness
San Francisco, CA 94102

RE: Southern Waterfront Draft SEIR

Dear Ms. Gitelman,

Thank you for this opportunity to comment on the DSEIR and the short deadline extension. These are comments on behalf of the Alliance for a Clean Waterfront, a coalition of San Francisco environmental organizations and neighborhood groups, including San Francisco Baykeeper, Communities for a Better Environment, Arc Ecology, India Basin Neighborhood Association, San Francisco Tomorrow, Coalition for Better Wastewater Solutions, Urban Watershed Project, and the Treasure Island Wetlands Project. The Alliance also supports and joins the comments submitted by the Golden Gate University Environmental Justice Clinic and the Golden Gate Audubon Society. This letter is to supplement the extensive comments provided by the Coalition for Better Wastewater Solutions on the Alliance's behalf.

To start off, we would like to mention some of the good ideas behind this project. First, it allows some businesses that are being displaced by development in other parts of the City to relocate locally. This will allow San Francisco to keep taxes within City limits and is obviously beneficial for all City residents. Second, the project will generate a small increase in employment for about 50 people, while maintaining the existing jobs that would be lost, if some of these companies were forced to leave the City. Again, this is a good thing. Our city needs to promote blue-collar living wage jobs, especially those that are accessible to residents of the Bayview Hunters Point neighborhood. Third, it will result in the refurbishment of the grain silos at Islais Creek. This gives us an opportunity to create a great welcome into Bayview Hunters Point for people coming down Third Street. It also considers revitalization of the Pier 70 area, a long desired step. And lastly, the project's aim to bring together related industries, make use of the Port's marine facilities, and keep suppliers close to jobsites creates an excellent opportunity for both environmental and economic benefits.

While we acknowledge that this project may have a number of benefits to the Port and City, we nonetheless have concerns about the project and feel that several areas have been inadequately reviewed. We look forward to working with the Port and with your office to improve both the final document and the proposed projects.

INADEQUATE ANALYSIS

Open Space.

Although the Port has a mandate to improve public access on the waterfront, the project reviewed in this document includes no significant increase in public access and no improvements to existing public open space on Port property. Since this supplemental EIR reviews permanent as well as interim uses, it is appropriate to include some description of prospective open space improvements that could occur over the period studied.

The only reference to new open space is to the "landscaped open space" (Page S-7) that will be part of the Pier 90-94 backlands development. This description is inadequate. What proportion of the 50-acre site would be dedicated open space? What are the planning code recommendations for open space with a development of this size (1.65 million square feet)? Would the open space be functional as a public amenity, or would it be simply setbacks and landscaping? How does the Southern Waterfront Advisory Committee feel about this proposal? How does this impact the ongoing open space planning efforts of the Bayview Hunters Project Area Committee as well as the Planning Department's own "Better Neighborhoods" project? H-1

Environmental Justice

The Planning Department met regularly with the local community in getting input on this draft. Yet there is little acknowledgment in the document of the documented health problems and compromised environment of the residents. Indeed the language often seems to minimize the impacts of this project on the community. For example

"...maximum 24-hour concentration at Youngblood Coleman Playground would occur on fewer than 20 days per year" (Page S-17). Please consider replacing the underlined words with "up to". H-2

"...winds blowing in the direction of these residences occur only about 18% of the time" (Pages S-18, 95). 18% of 365 equals 65 days. Please consider changing the underlined phrase to "approximately 65 days per year."

"...the maximum 24-hour concentration (of the PM-10 standard) at Youngblood-Coleman Playground would occur on fewer than 25 days per year...". Please consider changing the underlined phrase to up to.

The document refers (on pages 77-78) to the documented health problems of the neighborhoods adjacent to the project, and states that a "detailed study" of the causes of these problems is beyond the scope of the EIR. That is true; but it is a primary responsibility of this document to clearly and accurately outline the current and projected future impacts that could reasonably impact the health of the neighborhood. Specifically, this document needs to more accurately assess the existence and extent of hazardous soil conditions on the site; and to more accurately monitor the air quality in the adjacent residential neighborhoods that are downwind of the project. H-3

Page 105 lists informal significance criteria for determining whether the project will have a significant effect on hydrology and water quality. The PUC has acknowledged the impact that combined sewage/stormwater overflows (CSOs) have on the Southeast community and has developed a list of "community values" to assess the impact of CSOs on the community. We suggest that these values be included in this document, and that a bullet be added to the significance criteria that could read "negatively impact the quality of life for residents by increasing the number and duration of CSOs and increasing exposure to toxic contamination." A H-4

discussion of increased health risks to people who fish in the Bay for subsistence would be appropriate.

The section on hazardous materials provides an inadequate description of the current setting. The Southeast Alliance for Environmental Justice conducted an inventory of hazardous sites in the area (not including Port property) in 1996(?). Their extensive database search identified over 300 hazardous sites. Given the acknowledged area health concerns and the number of untreated sites in the area, it seems only appropriate that the publicly held Port property be subjected to a more thorough inspection and review. At the least, the site history for the entire property should be completed, and the results evaluated to gauge the concentration of toxic material and the probability of toxic discharges into groundwater or air. H-5

The Islais Creek Rail Bridge is cited as mitigation for the severe transportation impacts of the project; but it also represents a significant source of emissions, and will route rail service directly through the neighborhood. The document states that rerouting rail traffic will result in a significant improvement to the Mission Bay neighborhood - but at what cost to the existing Southeast neighborhood? That has not been analyzed. Specifically, the increase in emissions and in noise resulting from increased rail traffic has not been listed in this document. H-6

Asphalt Plant.

The analysis of the plant' impacts are confusing. On Page S-18, it is written that the BAAQMD recommended buffer distance is 1 mile and acknowledging that residences are located within that 1-mile buffer. But this "buffer" recommendation is then contested with two main points - first, that a "counter-flow drum mixer" will minimize the odors involved, and second, that the prevailing winds would keep the odors away from the affected residences most of the time. Provide more information? First, is there quantifiable data on the relative odor emissions of standard vs. counter-flow drum mixers? Second, what is entailed in the "more detailed odor analysis" sited on Page 95 for sites where the buffer zone is less than 1 mile? And what is the difference between "warranted" rather than "required" in referring to this analysis? What regulatory oversight does the BAAQMD have in such cases?

In discussing the significance of odors from the asphalt plant, it is written that The BAAMQD Rules and Regulations provide a regulatory mechanism to remedy odor complaints in the unlikely event that they would become frequent. Can you please provide an outline of what the regulatory mechanism would be? And please quantify what is meant by "frequent." Additionally, please discuss the cumulative impacts of the asphalt plant odors and the smells from the existing Southeast sewage treatment plant and the rendering plant. A map showing the existing and new odors at the community's northern and northwest gateways would be particularly helpful for the graphically inclined. H-7

The Project Description states that there are currently no private asphalt plants within San Francisco's city limits. Is there a need for an asphalt plant in the City? Are job sites not being served effectively? What are the environmental justice implications of the siting of this noxious, unsightly, and toxic air contaminant? How will this plant impact the schoolchildren who go to Heron's Head Park at Pier 98 for environmental education classes?

Air Quality

In several places, this document uses the prevailing wind direction as a reason to reduce the significance of the odor and air quality impacts of this document. So it should also be noted that the air quality monitoring station whose data is used in this document is located at 16th and Arkansas Streets, northwest of the area being studied. That means that the prevailing winds, H-8

which are so well quantified on page 64 and Figure 6, actually direct the pollution produced in the area away from the pollution monitoring station. Was air quality data collected at other sites closer to the project? If not, how can the air quality of the affected area be accurately measured? This raises the question of whether the background air quality values are accurate, and also calls into question the accuracy of the cumulative air quality impacts. H-8 CONT.

This document refers to PM-2.5 monitoring on Page 73, but does not study the impacts. Although long-term monitoring has not been done, the evidence cited here does raise concerns, and the document offers no further information. If the national standard was exceeded last year at the 16th and Arkansas station, which is located upwind of many of the major pollution sources in the area, then the concentrations downwind are certainly higher. The fact that the state has not yet imposed standards does not mean that this is not a significant impact; why haven't the PM-2.5 concentrations for the project been measured and compared to the national standard? If, as is noted here, an implementation plan will be required by 2006, it is within the scope of this document to perform such an analysis. H-9

Tables 12-15 go to great lengths to identify regional air pollution impacts from both stationary and mobile sources. Why does the document not provide a similar analysis of local impacts? The City already has experience with concrete plants and should be able to quantify their air pollution impacts. Additionally, why does the document not list the individual truck, ship, and rail impacts for the aggregate-related Industry Group components? H-10

Hydrology

The description of water quality conditions (Pages 101-102) is incomplete and misleading. The section begins with a correct statement that water quality data specific to the project area is incomplete; then contradicts that by citing water quality data taken by the San Francisco Estuary Institute at Yerba Buena Island. In fact, this data cannot accurately describe water quality conditions in the project area because it cannot measure the water quality at the bayside sewer outflows. The best indication of the compromised water quality in the area is the Regional Water Quality Board (RWQCB) designation of Islais Creek as a Toxic Hot Spot; but this is dismissed with the statement that PUC staff is contesting the designation. Since the PUC is unable to supple data on which to base this refutation, it is the responsibility of this analysis to assume that the designation of the RWQCB is accurate, and to identify the probably sources, which could include contaminated groundwater and sewage overflows. A more detailed discussion of this point can be found in the comments submitted by the Coalition for Better Wastewater Solutions. H-11

Hazardous Materials

The background of this section is insufficient. The site histories are incomplete, making it impossible to determine the likelihood of finding toxic hot spots or plumes at those sites. No new site assessments were done, even where the site history indicates that hazardous material could be present. The site investigations that have been done indicate the presence of hydrocarbons, volatile organic compounds, and heavy metals. Several sites are subject to remediation orders. Yet no tests were done, no samples taken, to determine the status of the rest of the project area; there is no way to determine from this document whether there are additional areas of concern in this project area. The document relies on the implementation of the Maher ordinance to determine and remedy hazardous waste sites. But this ordinance only take effect if, and when, 50 cubic yards of soil are removed. If no action is taken at any of these sites, what will be the excess cancer risk for individuals working at the Southern Waterfront? H-12

Page 122 cites the presence of hydrocarbons and metal in the groundwater at Pier 92, but states that this is not significant because the groundwater is not used for drinking. What is the likelihood of migration of contaminant through groundwater into the bay? What is the impact to both human and ecological receptors? H-12 CONT.

Page 123 states that the review performed for this EIR did not identify any site assessments or site investigations for Islais Creek. Doesn't the Regional Water Quality Control Board Toxic Sediment study qualify?

Biological Resources

The document only discusses the immediate project area, and fails to examine the impacts on wildlife at the Heron's Head Park wetlands, or at the emerging wetland at the mouth of Islais Creek (Pier 94). Please evaluate the impacts to these areas. H-13

INADEQUATE MITIGATION MEASURES

Despite our many concerns, there are ways to improve the project. First, the asphalt plants should be removed from the project. There is no need for them or the smells, toxics, and ugliness that they bring. The City's asphalt need is already being met by the municipal facility near the sewage treatment plant and private industry has been getting asphalt from Brisbane for years. There is simply no reason to place them in a neighborhood already overburdened from polluting and unhealthy industries

Second, all potentially polluting processes should be done indoors. Concrete batch plants can be constructed inside buildings in order to minimize fugitive dust and the fly ash handling in the grain silos should use the best available technology to add whatever equipment is necessary to ensure that none of the fine powdery dust escapes into the air.

In order to address the project's transportation related air pollution, a clean fuel program air pollution increases *must be mandated* for all fleets. Fleet owners should set out a conversion schedule, with clear and enforceable performance standards, prior to the signing of any leases. Industry, the Port of SF, and other relevant regulatory agencies such as the Bay Area Air Quality Management District and the California Air Resources Board should also develop a regional air pollution mitigation plan to address the significant pollution from ships and rail. This will allow the public and regulators to monitor progress as well as identify actions that may not be working to reduce transportation related air pollution H-14

In respect to congestion impacts, the rationale for mitigation measure B.1 is incomprehensible. A requirement to simply monitor traffic until it has reached saturation point (LOS E or F) seems a little too hands-off. Surely, it would be more appropriate to implement traffic improvements before the problems reach an extreme level. Mitigation measures B.2 and C.4 call for a Transportation Management Plan to reduce single-occupancy vehicle traffic at the Pier 94-96 backlands and at Pier 70. Why is no similar plan considered for the truck traffic generated by the Industry Group? If the plan doesn't include regulation of truck traffic, which represents a quarter of the vehicle trips, it has little chance of being effective. Please consider expanding the scope of the Plan to include regulation of all project traffic. In addition, the membership of the Transportation Management Agency should include City staff (planning and Muni), a representative of the District 10 Supervisor, as well as interested area residents.

Although the project's stormwater runoff will be kept out of the combined sewer system and discharged to the bay after some pre-treatment, the increase will nonetheless degrade an already

impaired bay. As an innovative and community friendly mitigation, the Port should apply natural stormwater treatment methods that will improve the Bay's health as well as provide recreational amenities to neighbors. Measures should include stormwater treatment wetlands and improved park and green space to buffer between the Bay and pollution sources, in addition to the already identified pretreatment technologies, "best management practices" and regulatory mandates. This will not only protect water resources, but help the Port meet its other responsibilities to promote public uses and fisheries.

H-14 CONT.

We are also concerned about the impacts on Page 137 states that people were seen fishing in Islais Creek; but the stirring of contaminated sediment during dredging for the rail bridge is not identified as a human health hazard and no mitigation is listed. An appropriate mitigation would be to require signage warning the public of health hazards, suggesting refraining from fishing in that location for the duration of construction, and offering alternative areas where subsistence fisher-people could go to avoid these elevated risks.

The project's proponents – both the Port and the Industry Group – should also recognize the important link that the Southern Waterfront can provide between the development at Mission Bay and Pier 70 and the long neglected Bayview Hunters Point neighborhood. Aesthetically pleasing design standards should be a fundamental tenet of this project. Buildings to enclose the concrete plants and materials handling businesses, as suggested above, can be designed in an economically feasible, yet tasteful, style. As elements of the community's northern gateway, these buildings and the refurbished grain silos can serve as canvasses for murals or other artistic displays to evoke the Third Street corridor's industrial history and envision the brighter future that many residents hope comes through economic revitalization efforts.

H-15

Finally, this project should use help further long-held San Francisco goal to improve economic opportunity for disadvantaged residents. To that end, the Industry group and Port should prioritize the incremental job growth from this project to Bayview Hunters Point residents and others of low income and support the hiring of these individuals through contributions to relevant education and apprenticeship programs. Bayview Hunters Point has a number of organizations has a number of organizations that serve these groups.

CONCLUSION

The Project's many benefits and good points are overshadowed by the numerous impacts that it will bring. But its scope can help, as well as detract, from it by allowing the financial means to undertake the bold and innovative steps to mitigate the air quality, water, aesthetic, and other impacts resulting from the project. Taking these steps will make development along the southern waterfront beneficial not just for the Port and Industry Group, but for residents of the surrounding neighborhood's as well.

Thank you for the opportunity to comment

For the Alliance for a Clean Waterfront,

Alex Lantsberg, Sewage and Stormwater Committee Co-Chair
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Jennifer Clary, Port Chair
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LETTER H – ALLIANCE FOR A CLEAN WATERFRONT

H-1) The Planning Department thanks the commenters for the thoughtful and detailed comments on the SEIR and on components of the proposed project.

The open space noted by the commenters in the SEIR summary, also referenced on p. 24 in the project description, is discussed in the context of potential future development space that could be constructed on the Pier 90-94 backlands, an area that is under study by the Port and its Southern Waterfront Advisory Committee, a citizens' group. Currently, all but 10 acres of the Pier 90-94 backlands is designated in the Port's Waterfront Land Use Plan for future maritime uses. The Port has targeted this backlands area for further study to determine its potential for maritime or non-maritime use. The office and/or research and development uses assumed in the SEIR for the Pier 90-94 backlands were analyzed for purposes of providing a general understanding of environmental impacts at a very conceptual level, to inform the planning study for this area.

In addition, as stated on p. 24 (and on p. S-8 in the summary), public access and recreational maritime uses are anticipated to be included in future development at the Pier 70 Mixed-Use Opportunity Area. As stated on both p. 23 and on p. S-6, "the Port has not identified specific development proposals for" either the Pier 90-94 backlands or the Pier 70 Mixed-Use Opportunity Area, and therefore it is not possible for the SEIR to describe potential future open space and public access in more detail. For information, it is noted that the Planning Code does not require open space in Industrial zoning districts such as those that make up the project area. Furthermore, the Design and Access Element of the Waterfront Land Use Plan currently does not contain urban design or public access policies for the area south of Pier 70, in light of the existing and future industrial nature of much of the Southern Waterfront, and because Piers 80, 90, 92, and 94-96 are existing developed maritime terminals. The Port could establish specific policies applicable to office and research and development uses on the backlands should such development be proposed in the future. The area around Pier 70, on the other hand, is identified in the Design and Access Element as being appropriate for new public access to the Bay, "provided such access does not interfere with ship repair or related maritime activities." As noted on p. 24 of the SEIR, the Port plans to issue a Request for Proposals to potential developers of the Pier 70 Mixed-Use Opportunity Area, which will include open space and public access improvements. The RFP is now due out in spring 2001, rather than late 2000 as stated in the SEIR. The RFP will include new open space and public access objectives that would be used to evaluate the acceptability of all development proposals for the Pier 70 Mixed-Use Opportunity Area.

In addition to the Pier 90-94 backlands and Pier 70, the SEIR also discusses future open space on p. 29, where it is noted that the City plans to convert the existing Hunters Point power plant site to open space once that plant is closed.

H-2) Documented health problems in the Bayview-Hunters Point neighborhood are included in the SEIR on pp. 77 and 78, where a recent study conducted in the area is described. However, after consultation with the San Francisco Department of Public Health, the SEIR authors noted that the 1997 hospitalization study did not attempt to establish any cause-and-effect relationship between emissions sources and hospitalization rates.

The suggested edits are acknowledged. The phrase "fewer than 25 days per year" (SEIR p. 93) accurately reflects the intent of the EIR authors to characterize the maximum concentration of PM-10 as occurring relatively infrequently. The reference in the summary, p. S-17, is revised to read "fewer than *25* days per year" rather than "fewer than *20* days per year." The phrase "approximately 65 days per year" will be added to pp. S-18 and 95 of the Final SEIR.

H-3) Potential soil and groundwater contamination in the project area is discussed extensively in Section III.E of the SEIR and in Appendix E. Monitoring of existing concentrations of criteria air pollutants was not conducted for the SEIR because these data were not necessary to evaluate the project impact (not significant with respect to local emissions; see SEIR pp. 89-94) or the project contribution to cumulative impacts (assumed significant with regard to PM-10 and diesel particulate; see SEIR pp. 96-98).[4] It is noted that cumulative impacts with regard to local concentrations of PM-10 and diesel particulate would be the product of numerous sources in addition to the project.

H-4) The list of "community values" referenced by the commenter refers to a document produced as part of an as-yet incomplete effort initiated by the Clean Water Program of the San Francisco Public Utilities Commission (PUC) with the aim of identifying and evaluating potential alternative forms of treatment for both sanitary sewage and stormwater runoff. These alternatives, if implemented, could supplement the City's existing combined sewer-stormwater system, which currently collects both sanitary sewage and stormwater together and delivers the entire flow to three wastewater treatment plants. On the east side of the City, including the project area, these flows are directed to the Southeast Water Pollution Control Plant on Phelps Street. As stated in the SEIR on p. 100, during dry weather, all wastewater is treated to a secondary level at the Southeast Plant and discharged into San Francisco Bay east of Pier 80. During wet weather, however, the volume of stormwater can exceed the capacity of the treatment plant (even with use of the North Point plant on North Point Street, which operates only during wet weather), resulting in combined sewer system overflows, or CSOs, of wastewater and

[4] Note that the analysis of local carbon monoxide (CO) concentrations presented on SEIR pp. 89-91 and in Table 16, p. 90, includes existing roadside concentrations of CO, modeled on the basis of existing traffic volumes.

stormwater that are treated only to a primary level, meaning that settleable solids and floatable materials are removed but no biological or chemical processes are used, as with secondary treatment.

The Clean Water Program initiated the Screening of Feasible Technologies (SOFT) study to evaluate options to improve the existing wastewater treatment system, potentially including on-site treatment of wastewater and/or stormwater through construction of "package" treatment plants included in these projects; installation of separate sanitary sewer and stormwater collection systems with different levels of treatment; use of natural or constructed wetlands to remove contaminants from stormwater; and other techniques. As part of the evaluation process, a citizens group was convened that included PUC staff, representatives of other City agencies, and members of the public. This group developed a draft list of community values that were intended to evaluate the feasibility of alternative treatment technologies, rather than assess the impact of CSOs, as suggested by the commenters. The list of community values included public health risk; ecological risk (Bay, creeks, ocean); water resource value; system information value; public and worker safety; cost and economic impacts; neighborhood impacts (odor, traffic, noise); land use; environmental justice; regulatory risk; resource impacts; and community enhancement opportunity. As noted, the SOFT study has not been completed, and no consensus emerged from the citizens group, nor has City policy emerged to date from the effort. Nevertheless, by virtue of the above discussion, the community values most recently discussed are included in the Final SEIR.

As a planning and implementation agency, the PUC appropriately may have policies, objectives, and "values" that go beyond the significance criteria used in an EIR to determine an adverse physical change in the environment. Whether the project would "substantially degrade water quality" is considered in the SEIR based on the Regional Water Quality Control Board beneficial uses and water quality objectives, as discussed on p. 105 of SEIR, which are based on public health criteria and thus implicitly take into account the "quality of life for residents." As to commenter's suggested addition to the list of significance criteria for analysis of hydrology and water quality impacts concerning an increased number and duration of CSOs, while the SEIR bases its significance determination with regard to hydrology and water quality in part on the potential increase in CSO volume, it should be noted that any interpretation as to whether or not an increase in number or duration of CSOs would "substantially degrade water quality" must be evaluated with respect to compliance with RWQCB's NPDES permit requirements for allowable CSOs, since the permit requirements account for the Total Maximum Daily Load (TMDL) process. (See the response to Comment I-3, p. C&R.63, for additional information about TMDL.)

As for the suggested addition of "increasing exposure to toxic contamination" as a significance criterion, including with regard to persons who fish in the bay, first, without substantial

degradation of water quality, such exposure would not occur. Second, such effects are analyzed in the SEIR in Section III.E, Hazardous Materials.

Please see also the response to Comment H-14, p. C&R.49 below, for additional discussion of bay fishing.

H-5) As noted above, potential soil and groundwater contamination in the project area as a result of past land uses is discussed in Section III.E of the SEIR and in Appendix E.

H-6) Construction of the proposed Illinois Street Intermodal Bridge over Islais Creek would not, in itself, result in any increase or decrease in rail or truck traffic, but would redistribute existing traffic and future traffic generated by the Industry Group project components and by increased activity at the Port's maritime terminals. As can be seen in Figure 3, SEIR p. 21, with respect to rail emissions, the Illinois Street bridge would result in *decreased* emissions, even in the area of the bridge, because rail trips that would otherwise require a four-mile rail journey between Pier 80 and Piers 94-96 would be reduced to approximately 0.2 miles with the bridge. It is noted that existing rails serve Pier 94-96 over the Quint Street Rail Link, between the Union Pacific main line and Cargo Way. Similarly, with regard to noise, as indicated in SEIR Figure 3, the Illinois Street bridge would not result in trains being closer to any residences, and in fact would eliminate some rail traffic along the base of Potrero Hill. Furthermore, based on the assumed volumes of cement and fly ash to be hauled by train, the Industry Group components as a whole would result in one train load approximately every three days in 2003, and one train load every two days in 2015. Given the existing frequency of Caltrain service over much of the same route (except for the Quint Street Rail Link between Jerrold Avenue and Cargo Way), the potential increase in rail-generated noise would not be meaningful.

H-7) The PM-10 emissions rate for a drum-type mixer is approximately 30 percent of that of a conventional batch mixer. (See the response to Comment K-5, p. C&R.100, for additional discussion.) As stated on p. 12 of the SEIR, the proposed Mission Valley Rock asphalt plant would require an Authority to Construct and a Permit to Operate from the Bay Area Air Quality Management District. The District would review the proposed facility, including proposed emission-control technology, to ensure that maximum controls are provided and that minimum emissions levels would result.

Concerning the District's procedures for addressing potential odor impacts, Regulation 7 of the District's *Rules and Regulations* provides for a complaint-based mechanism of addressing odor impacts. In general, the District must receive 10 or more complaints within a 90-day period for the District to take action to evaluate odors. Air samples would be taken and evaluated by the District, which can require the correction of any violation of District standards. However, the District investigates all complaints. According to the BAAQMD website (www.baaqmd.gov), under Air Pollution Complaints, "District inspectors will contact each complainant and will

confirm odor complaints in the presence of the complainant whenever possible." If the District receives a number of complaints that are traced to a particular plant or facility, the District may determine that the facility is creating a public nuisance. The California Health and Safety Code and District regulations prohibit emissions of air contaminants that cause nuisance or annoyance to a considerable number of people, or that present a threat to public health, or damage to property. The District may issue a Notice of Violation, which may prosecuted through either administrative, civil, or criminal processes.

The frequency of odor impacts would be expected to be less often than 65 days per year, in that, as stated on p. 95 of the SEIR, winds blow towards the nearest residences at that frequency, but odor impacts would require also that the proposed asphalt plant be in operation, which would generally be during the daytime, and that atmospheric conditions be stagnant, which would generally occur at night. Furthermore, the very fact that stagnant atmospheric conditions would be present would tend to diminish odor impacts at off-site locations, because winds would be calm.

There is no standard means of evaluating cumulative odor impacts from different sources, in as much as different odors are perceived differently by individuals. Furthermore, wind directions that could direct one odor to a particular receptor could direct other odors to different receptors.

The SEIR does not evaluate the need for asphalt production within the project area, but analyzes a specific proposal advanced by one member of the Industry Group. It should be noted, as stated on p. 9 of the SEIR, that the Port has not to date indicated support for this proposal. However, the proposed asphalt plant was included in the SEIR analysis for purposes of a conservative assessment. Concerning Heron's Head Park (Pier 98), odor impacts there from the asphalt plant would be similar to those at nearby residences; that is, infrequent.

H-8) The commenters are correct in stating that prevailing winds in the project area, depicted in Figure 6, SEIR p. 65, direct pollutants from the area away from the BAAQMD's Arkansas Street station (the nearest monitoring station to the project area). The BAAQMD monitoring stations are situated to provide a reasonable representation of air quality conditions over a relatively broad geographic area. In general, over a broad area, emissions from motor vehicles represent a greater share of total emissions than do emissions from, for example, industrial sources. More than 40 percent of reactive organic gases (ROG) emitted in the Bay Area and nearly 50 percent of the regional emissions of nitrogen oxides (NOx) – both of which are ozone precursors – are emitted by on-road vehicles, compared to 8 percent and 3 percent, respectively, emitted by industrial and commercial sources (Bay Area Air Quality Management District, 1997, Figures 1 and 2). The Arkansas Street station is subject to receiving emissions from motor vehicle traffic for most of San Francisco. Furthermore, data collected at the PG&E Hunters Point Power Plant, at the southeast corner of the project area, in 1992 indicate that ozone and PM-10 levels were

comparable to those reported for the Arkansas Street station in SEIR Table 8[5] (*Hunters Point Shipyard Reuse Final EIR*, Case No. 1994.061E, Final EIR certified February 8, 2000; p. P10-4 in the comments and responses document). In light of the above, the Arkansas Street monitoring data are reasonably representative of conditions for the City.

It is also true that air quality conditions in San Francisco generally are more favorable than in many other portions of the Bay Area, because San Francisco air quality benefits from the prevailing winds discussed above, which tend to direct airborne pollutants east and southeast, across the Bay. SEIR Tables 8 and 9, pp. 74 and 75, show that, for every 1-hour, 8-hour, and 24-hour average, for all pollutants, the highest concentration at the Arkansas Street station in San Francisco was lower than the highest concentration elsewhere in the Bay Area.

H-9) As stated on SEIR p. 79, the evaluation of the significance of local particulate concentrations, including PM-10 and diesel particulate, is based on the BAAQMD's standards for stationary sources; there are no corresponding BAAQMD standards for PM-2.5. The significance criterion for PM-10 that was used in the SEIR is 5.0 milligrams per cubic meter ($\mu g/m^3$) over 24 hours, which is far lower than either the state or national 24-hour criteria air pollutant standards for PM 10 of 50 $\mu g/m^3$ and 150 $\mu g/m^3$, respectively. Because PM-2.5 concentrations are necessarily lower than PM-10 concentrations (because particles of 2.5 microns or less in diameter are smaller than those of 10 microns or less in diameter), and because the project's 24-hour average concentrations of PM-10 at the modeled sensitive receptors would be no greater than 1.6 $\mu g/m^3$ (in 2015; see Table 17; SEIR p. 94), it is clear that the project's PM-2.5 concentration would be substantially below the federal 24-hour standard of 65 $\mu g/m^3$.

H-10) As explained in the discussion of Significance Criteria on SEIR pp. 78-79, for the regional air quality analysis, the results of which are summarized in Tables 12-15, "effects are assessed by evaluating the total amount of criteria pollutants that the project would emit throughout the Bay Area airshed. Based on BAAQMD guidance, this report uses a criterion of 80 pounds per day or 15 tons per year from indirect sources (such as autos, trucks, trains, and ships) to identify projects that generate significant increases in regional emissions of ROG, NO_x, or PM-10." These criteria, however, do not provide specific information about associated public health risks.

Use of these criteria is the standard practice for an EIR's analysis of air quality impacts. However, as noted in footnote "a" of Table 11, SEIR p. 84, "Total project emissions would be disbursed throughout the Bay Area," and only a portion of these total emissions would be experienced locally. Therefore, the SEIR takes the air quality analysis a step further by including analysis of local impacts in terms of public health risk. As stated on SEIR p. 79, this

5 The highest one-hour ozone level measured at the power plant was 0.06 ppm, lower than that recorded in four of the five years from 1995 through 1999, as shown in SEIR Table 8, SEIR p. 74. The highest 24-hour average PM-10 level measured at the power plant was 68.1 $\mu g/m^3$, which is slightly higher than the average (66.4 $\mu g/m^3$) and slightly lower than the median (71 $\mu g/m^3$) of the highest 24-hour average values for 1995 through 1999, as shown in Table 8.

local analysis "is conducted through dispersion modeling to evaluate the concentration of particular pollutants on nearby receptors." Therefore, rather than presenting *volumes* of criteria pollutants for comparison against the 80-pounds-per-day standard, as is done in Tables 12-15, the results of the local analysis are summarized in Tables 16-18, and are compared against criteria in the form of *concentrations* in Tables 16 and 17, and *risk values* in Table 18.

Regarding truck, rail, and ship emissions attributable to each Industry Group component, the SEIR does not break out these calculations by component because the Industry Group components represent a substantially closed system. That is, for example, aggregate and cement imported by ship, truck, or rail to one component site might be trucked to a second component site and processed there for delivery by truck to a user. As described in Appendix A of the SEIR, the analysis of aggregate-related impacts is based on an overall production volume that is assumed to be generated by the market for construction materials.

H-11) The SEIR does not present contradictory data regarding water quality; rather, it states that "water quality data *for the Bay* specific to the project area are sparse" (emphasis added), and presents the data from the Yerba Buena Island sampling station as "the closest sampling station to the project area" within San Francisco Bay (SEIR p. 101). Information regarding the Toxic Hot Spot designation at Islais Creek, as well as information on the status of San Francisco Bay as an "impaired" water body, is similarly presented as factual background data. Please see the response to Comment I-1, p. C&R.60, for additional information.

The SEIR's analysis of water quality considered potential sources of pollution resulting from project components and the amount of new stormwater flow and found that, with the incorporation of mitigation measures presented on SEIR pp. 149-150 (implementation of Storm Water Pollution Prevention Plans during construction; implementation of Best Management Practices; inclusion of on-site stormwater treatment such as oil/water separators and/or grease traps; monitoring of stormwater quality prior to discharge; and construction-period monitoring and precautions), potential impacts would be reduced to a less-than-significant level.

H-12) The SEIR analysis of hazardous materials considers not only past land uses that may have contributed to existing contamination, but the extensive array of laws and regulations concerning hazardous materials, including those governing both handling and disposal of hazardous substances. (These regulations are summarized in SEIR Appendix F.) Additionally, review was conducted of more than two dozen reports and databases documenting existing conditions on portions of the project area. Finally, site visits were conducted as part of the SEIR analysis to visually inspect the sites of the Industry Group components and the future Port development locations. The commenters correctly note that the SEIR states that sites subject to the Maher Ordinance (Article 22A of the Public Health Code) would be subject to further analysis and potential remediation prior to development, as described on pp. 129-131 of the SEIR. This would be expected to result in site history reports, at a minimum, for nearly all development

sites. As also stated on p. 131: "For sites not subject to Article 22A because they would involve excavation of less than 50 cubic yards, the potential for exposure to subsurface hazardous materials is very small, because the amount of soil to be moved would be negligible (the equivalent of a 37-foot by 37-foot square one foot deep)." The type of review conducted for the SEIR is a standard procedure in CEQA documentation because it provides an adequate assessment of whether or not a project would result in significant impacts that could not be mitigated. Given the results of the review and site visits, in the context of the stringent regulatory framework, the EIR authors concluded that, with mitigation identified in Chapter IV of the SEIR, effects related to hazardous materials would not be significant because the project would not result in any substantial risk of the release of hazardous materials, would not expose workers or the public to hazardous materials, would not create a public health hazard, and would not interfere with emergency planning efforts.

Regarding the presence of hydrocarbons and lead in soil at Pier 92, while there is some overlap in the regulatory and analytical framework for handling and disposal of contaminated soil and concerns regarding water quality in San Francisco Bay, the discussion in the SEIR's Hazardous Materials section is specific to the former. As stated on p. 122, "soil excavated [at Pier 92] could be classified as a hazardous waste and would require special handling . . . but because the groundwater in this area is not used as a drinking water supply, no remediation would be required."

Regarding the Regional Water Quality Control Board listing of the western portion of Islais Creek as a Toxic Hot Spot, this is discussed in the Water Quality section, rather than the Hazardous Materials section, because conditions in Islais Creek are likely the result of wastewater discharge collected from past activities at numerous locations, including nearby former industrial uses as well as possibly discharges of treated wastewater.

Concerning the potential for adverse effects resulting from groundwater migration to the Bay, the project would not result in any changes to groundwater flow patterns, as no major excavation or subsurface structures are contemplated as part of the project.

It should be noted that, while the former landfill at Pier 94 is the subject of a Regional Water Quality Control Board closure order – as discussed on SEIR pp. 111 and 123 – and while remediation activities have occurred in the past at other locations within the project area (e.g., Pier 70, Western Pacific Property), Port staff has indicated that it is not the case that "several" sites within the project area are subject to current remediation orders, as claimed by the commenter.

H-13) The following additional description of the wetlands at Pier 94 and Pier 98 is added to the SEIR prior to the heading "Regulatory Environment" on p. 138:

EXISTING WETLANDS

Two areas provide small isolated wetland habitat in the Southern Waterfront area. One is Pier 98 (developed into Heron's Head Park) and another is at Pier 94. Both sites are the result of subsided dredged and fill materials that were placed at these locations in the 1970s. These sites contain a total of about 8 acres of tidally influenced salt marsh habitat.

Dominant plants at both sites are pickleweed (*Salicornia subterminalis)* in the middle tidal zone and saltgrass (*Distichlis spicata*) at the upper tidal zone. The Pier 94 wetland also contains gum-plant (*Grindelia augustifolia*) in the upper tidal zone, and cordgrass (*Spartina* sp.) in the lower tidal zone. These species are common salt marsh plants of the San Francisco Bay area.

Heron's Head Park (Pier 98) consists of a developed trail winding along the approximately 2,000-foot long peninsula formed by disposal of fill and dredged materials in the 1970s. The northern shoreline of this peninsula is steep-sided, rip rap within the tidal zone, and has no native vegetation. About 3 acres of subtidal environment has formed in several small pockets of subsided materials along the unprotected southern shoreline of the peninsula. The subtidal zone is vegetated with pickleweed. The upper tidal zone around these pockets contains sparse growths of saltgrass bordered by iceplant. Much of the upland portion of this Park is non-native ornamental vegetation and wood chips bordering the trail.

Heron's Head Park seems to be a particularly popular bird-watching area. Many of the trailside markers describe birds likely seen in along the Park's shoreline. It is likely that the bay waters adjacent to the southern edge of this peninsula are warmed by effluent from the PG&E Hunters Point power plant located adjacent to the Park. The warmer waters might increase productivity and attract fish and fish-eating birds to the area, creating an enhanced source of aquatic bird activity.

Although there are numerous signs and string borders around native marsh vegetation at the Park, the marsh vegetation (i.e., saltgrass and pickleweed) is relatively sparse, likely due to the poor quality substrate materials.

The Pier 94 wetland area occupies a rounded point of land along the southern mouth of Islais Creek. Tidally influenced salt marsh habitat has formed in two pockets of subsided fill materials along the shoreline. These pockets total about 5 acres of mostly pickleweed. One of the pockets is slightly higher in elevation and contains mostly middle and upper tide zone vegetation (salt grass, pickleweed, and gum-plant). The other pocket is lower in elevation with no gum-plant, but with a few small bunches of cordgrass in the lower zone and surrounded by dense pickleweed.

The Pier 94 wetland is bounded inland by a large area of dredged and fill material that has become upland vegetation with sparse growths of salt bush,

> non-native pampas grass, and ice plant. Portions of this upland area are currently being used as a construction materials handling and storage area.

None of the project components would affect the two wetland areas at Pier 98. Pier 98, Heron's Head Park, would continue to be designated and managed as a shoreline park. Its primary attributes will probably continue to be bird observation and as a walking trail. Without substrate restoration activities, the marsh vegetation will likely remain sparse. Upland areas in the Park will probably remain non-native for trailside bordering.

As stated on p. 141 of the SEIR, there would be no encroachment onto the wetlands at Pier 94 from either the British Pacific Aggregates (now Hanson Aggregates) aggregate import terminal at Pier 94 or from the Port's proposed dredge material handling facility, upland from the wetlands. The Pier 94 wetland would remain intact and unaffected by current and proposed uses of the adjacent upland areas for fill handling and dredged material disposal. Neither of these activities would encourage development or human use of the wetlands. Any effluent from the disposal of dredged material above this location would be discharged to the bay in accordance with water quality permits from the Regional Water Quality Control Board and would not impair the wetland site. As noted in the SEIR, the BPA/Hanson aggregate terminal would be located on the paved portion of Pier 94, which is developed as one of the Port's existing cargo terminals. There is an existing fence that separates the paved portion of Pier 94 from the unpaved area to the north that contains the wetlands and the undeveloped backlands of Seawall Lot 352. In general, potential impacts to wetlands would be avoided or mitigated due to compliance with regulations under the jurisdiction of the U.S. Army Corps of Engineers. Thus, any potential impacts would be less than significant. Similarly, potential impacts to special status species would be mitigated to a less-than-significant level due to compliance with regulatory requirements under the jurisdiction of the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Nonetheless, the Port has agreed to implement the following measure to further reduce these less-than-significant impacts.

> Prior to the start of any ground-disturbing construction activity on the proposed dredge material handling facility at Pier 94, the Port shall engage a qualified biologist or other professional to conduct a wetlands delineation of the emergent wetlands at Pier 94, just south of the mouth of the Islais Creek Channel. Once the delineation is complete and mapped, the Port shall erect a permanent fence around the wetlands, including a 200- to 300-foot upland buffer, with allowance for pedestrian access for wetlands monitoring and research Detailed design of the buffer and fence would be developed as part of a biological assessment to be completed (see below).
>
> Also prior to the start of any ground-disturbing construction activity on the proposed dredge material handling facility at Pier 94, the Port shall engage a qualified biologist or other professional to conduct a wildlife survey of the northeastern portion of the Pier 90-94 backlands; that is, the area between the

emergent wetlands and a line extending northwest to Islais Creek from the southwest boundary of the paved portion of Piers 94-96. The biologist shall identify any special status plants and animals, and any habitat that supports such species in the area. Should special status species or related habitat be identified, the Port shall consult with the U.S. Fish and Wildlife Service and the California Department of Fish and Game, and shall either reconfigure the dredge material storage facility to eliminate potential impacts or relocate the proposed facility to avoid the species/habitat.

As part of the planning process for the Pier 90-94 backlands, and prior to the approval by the Port Commission of any development plan for the Pier 90-94 backlands, the Port shall engage a qualified biologist or other professional to conduct a wildlife survey of the southwestern portion of the Pier 90-94 backlands; that is, the area not included in the above survey. The biologist shall identify any special status plants and animals, and any habitat that supports such species in the area. Should special status species or related habitat be identified, the Port shall consult with the U.S. Fish and Wildlife Service and the California Department of Fish and Game, and shall either reconfigure the dredge material storage facility to eliminate potential impacts or relocate the proposed facility to avoid the species/habitat.

The Port shall make the results of the above survey(s) publicly available, in the form of a Biotic Assessment. The assessment shall include sections on methodologies used, persons consulted, description and mapping of sensitive habitats, potential impacts and mitigation, and recommendations for enhancement and monitoring. The names and qualifications of the report preparers shall be included as well.

H-14) Regarding the asphalt plant(s), it is noted that Alternative B, SEIR p. 169, would not include development of any asphalt plants in the project area.

Concerning indoor ready-mix concrete batch plants, it is noted that these facilities would be a relatively small contributor to emissions of criteria air pollutants, in that aggregate-handling operations would maintain a moisture content in the aggregate that is high enough to eliminate wind-blown dust that could otherwise escape into the surrounding air (SEIR p. 91). In fact, the greatest volume of project emissions would be generated ship and rail traffic, particularly on days when ships call at the Port's terminals. Therefore, the complete enclosure of concrete plants would result in relatively little decrease in emissions. Regarding the fly ash operation proposed for Pier 90, as stated on SEIR p. 14, this facility would include enclosure of the conveyor system and installation of state-of-the-art dust control systems on the silos and conveyor system.

Because the regulatory environment with regard to diesel engines is rapidly changing, a series of measures as part of a clean fuel program is included in Mitigation Measure C.3, SEIR p. 147,

which the Port would require its fleet-operating tenants to investigate and report upon. New controls on diesel engines are discussed in the SEIR on p. 71.

Because the intersection impacts included in Mitigation Measure B.1 would not occur until several years from the present, and only if future development on Port lands were to occur as assumed, it is neither feasible nor necessary to impose mitigation now to avoid significant impacts. As noted in the response to Comment H-1, above, nearly all of the Pier 90-94 backlands is designated in the Port's Waterfront Land Use Plan for future maritime uses. Thus, the development assumptions used in the SEIR transportation analysis would entail major changes in the planning framework and in land uses. The Port plans further study to determine whether non-maritime use is feasible on the Pier 90-94 backlands; the SEIR assumed office and/or research and development uses to provide a general understanding of environmental impacts at a very conceptual level, to inform the planning study for this area. Thus, the rationale for Mitigation Measure B.1 is to ensure that, should subsequent projects be approved that would generate impacts like those described, continual monitoring of traffic conditions would identify the time when mitigation would be required for a particular intersection.

Concerning the Transportation Management Plan identified in Mitigation Measures B.2 and C.4, there would be no applicability of measures such as carpooling, increased transit use, and other alternative forms of transportation to operation of construction truck fleets. (Truck traffic would represent about one-fourth of a.m. peak-hour trips, and about 15 percent of p.m. peak-hour trips in 2015, when intersection impacts were found to be significant and unmitigable at several locations, and thus would contribute relatively less to congestion in 2015 than would auto traffic.)

The SEIR (pp. 149-150) includes mitigation measures for stormwater runoff that would reduce impacts to a less-than-significant level. Depending on the long-range development proposed on Port lands, alternative stormwater treatment strategies could be pursued. Creation of "natural stormwater treatment" would be less feasible for interim uses.

Concerning warning signs to alert persons fishing at Islais Creek, there are existing signs, posted by the San Francisco Department of Public Health, at both of the major shoreline open spaces in the project area, Pier 98 (Heron's Head Park) and Warm Water Cove. These signs warn, in eight languages, of the potential health hazard of eating fish caught in San Francisco Bay, particularly shark and striped bass.

H-15) The commenters' opinions and suggestions are noted. While the SEIR does not identify significant environmental impacts related to urban design or aesthetics, and therefore related mitigation is not required, these are issues that are regularly considered as part of lease and development approval actions. The comments regarding economic activity in the project area are noted.

REFERENCES – Response H

Bay Area Air Quality Management District, *Bay Area '97 Clean Air Plan*, December 1997

November 10, 2000

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CITY & COUNTY OF S.F.
DEPT. OF CITY PLANNING
ADMINISTRATION

RECEIVED
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PLANNING DEPT

Environmental Review Officer
1660 Mission St., Suite 500
San Francisco, CA 94103

Re: Comments on San Francisco Southern Waterfront Draft EIR

Dear Ms. Gitelman,

Thank you very much for allowing us a few extra days to get in our comments. We sincerely appreciate it. On behalf of The Coalition for Better Wastewater Solutions and as co-chair of the Alliance for a Clean Waterfront Stormwater Committee, I write to express our concerns about the wastewater issues that may arise from this proposed project. We feel that there was an inadequate vetting of relevant information concerning these issues - information needed to see the full picture, and that may affect the conclusions or mitigations required. We look forward to working with the Port and with your office to improve both the final document and the proposed project. Herein are our major concerns.

Islais Creek as a RWQCB-declared "known Toxic Hot Spot ; Potential Implications Not Accounted For

There was a seriously inadequate discussion of the fact that the Regional Board has declared Islais Creek a" known Toxic Hot Spot" in its "Final Regional Toxic Hot Spot Cleanup Plan." Additionally there was but one sentence mentioning the City's position: that " the City's PUC "disagrees with the conclusions reached by the Regional Board and is currently engaged with the Board in further data collection and analysis."

We believe that much more information is needed on both the RWQCB's conclusions and their preliminary assessment of corrective actions, as well as more information regarding the City's position and current information gathering .

I-1

We believe this information is highly relevant because it gives a much more complete picture of the environmental state of this impaired water body, and what may or should be allowed to go in it - regardless of the tussle between the RWQCB and the City over whether Islais Creek is actually a "Toxic Hot Spot". It is clearly impaired.

Secondly, should the RWQCB ultimately decide on some of their proposed corrective actions, the situation in Islais Creek could be much more restrictive that this EIR currently plans for. Given the advanced stage of the RWQCB's view on this matter, and, given the magnitude of either of the potential corrective actions, it would seem that the EIR should take this into account and make additional recommendations should this come to pass.

The Regional Board Report lists a "Preliminary assessment of actions required to remedy of restore ...." the creek that includes the possibility of dredging and sediment removal as well as corrective action that could include "reduc(ing) or eliminat(ing) the number of overflows." The PUC, in its 1999 draft Strategic Plan for the Clean Water Program (dated Nov. 1998) acknowledges that the City may be faced with a major sediment removal project / cost; and that "the City could also be forced to implement additional CSO control measures if the data shows continuing sediment problems from CSO's."

While the RWQCB Report acknowledges that a substantial cause of the pollutant problem in Islais Creek is historical, (past polluters, including past discharge of primary sewage) it also names the most likely current sources of pollutants are the CSO's and the discharges of secondary sewage at the Quint Outfall during wet weather discharge conditions. Other pollutant sources, estimated to be minor, but still contributors, may include sheet runoff, discharges from business facilities bordering Islais Creek, depositions from air emissions (PAH's associated with fossil fuel combustion, mercury and other metals are contaminates in diesel exhaust).

Industry Group development will increase the volume of wastewater flows to the combined system, and increase direct discharge of stormwater runoff directly to the Bay. Current and new runoff estimates are nearly 50 million gallons per year. While the increase due to more impervious surface may be a small percentage, the relocation and concentration of industry will add to the pollutant load in the full amount of runoff .

I-1 CONT.

Insufficient Reporting of : Available Data on Islais Creek ; Potential Additional Pollutants; Potential or Upcoming Regulatory Issues

Again, regardless of whether or not the RWQCB decides to enforce its corrective actions, more information should be available on the current conditions of Islais Creek and the potential pollutant contribution of the new and relocating industries. Further there was an insufficient discussion of known or potentially upcoming tighter regulations. All this, it would seem , would be necessary to determine levels of significance and provide the City the opportunity to insist on additional mitigations.

Insufficient Reporting of Available Data on Islais Creek

The EIR also insufficiently reports on the water quality conditions. On page 101 it states that "water quality data for the Bay specific to the project are sparse." It then goes on to state that "in general, the Central Bay has the highest water quality in the estuary"...and then goes on to use monitoring data from the Yerba Buena Island sampling station - "the closest sampling station to the project area" - to indicate that water quality conditions are "well within water quality objectives."

We find both those statements to be a bit amazing and misleading, given that there have been several studies of Islais Creek, especially due to its listing as a potential toxic hot spot by the RWQCB. The RWQCB Toxic Hot Spot Report cites 3 such studies done specifically on Islais Creek. (see Attachment 1)

In addition, the RWQCB issued a Water Code Section 13267 letter (June 1998) requiring San Francisco to define the extent of the sediment contamination, and determine if the CSO's and Quint Street outfall are continuing the contamination or may act to resuspend contaminated sediments already there. San Francisco submitted a Sampling and Analysis Plan and in October (1998) started the investigation." There is a PUC "Sediment Investigation at Islais Creek Report" submitted to the RWQCB in May 1999 that we have requested but have not seen. We do know that there were several monitoring stations along Islais Creek for that study.

I-1 CONT.

In addition, it is reported in the PUC's SOFT Study (Screening of Feasible Technologies) that "six overflow stations are involved in the CSO monitoring program" (page 3-23) - with Selby Street Outfall(#33), on Islais Creek, among them.

Why was none of this reported? We believe this relevant data should be part of the EIR information Base and analysis.

Insufficient Reporting of Potential Additional Pollutants from the Proposed Development. Its Not Just Sediment.

There also seems to be a dearth of information with regard to what pollutants might be in the wastewater from flushing and dust control, or other such process, or additional pollutants that might be added to the stormwater runoff as a result of these proposed industrial activities. More complete information might lead the City to different conclusions regarding levels of significance or required mitigations.

The principal concern in the EIR appears to be sediment. Even here there is no estimation of what level of particle size may be of concern. Smaller particles are known to carry certain types of pollutants, not attached to the larger sized particles that the City expresses concern about.

I-2

Totally unaddressed is the issue of what dissolved pollutants there may be in the wastewater or stormwater runoff. Sediment traps will be useless here. As an example, with regard to the concrete business wastewater, will ph levels be a problem? What is known in terms of potential pollutants from these businesses. The City has direct experience with several of them including a concrete business, Waste Resources Technology, and Coach USA - as they are relocating. The others are

known traditional businesses. What has been their record with regard to their previous permits and the City's pollution prevention efforts. Surely more information is known about the "new" incoming industries.

With regard to decant of dredge materials, an assessment should be made of the cumulative pollutant load in the area, what upcoming regulatory restrictions may be coming, and a restriction on handling of certain types of dredge spoils.

Because the City has deemed sediment to be the major serious concern, explicit measures have been put in the in the mitigations : "Measures shall include ..." A full vetting of the potential pollutants and water quality setting should be in the EIR in order to give everyone concerned the opportunity to see the full picture and make recommendations . I-2 CONT

With a fuller understanding of the picture you may require additional measures specifically related to potentially identified pollutants of concern. Some methods of stormwater treatment such as stormwater wetlands, or sand filters require x amount of land to be set aside, and set aside in key strategic locations. Without the full picture this opportunity to insure that such a land set-aside would be lost.

Insufficient Reporting of Potential or Upcoming Regulatory Issues

In addition to the potential restrictions that may be required with regard to the RWQCB's Toxic Hot Spot Clean Up Plan, there are other impending regulatory issues that may impact the situation. At a minimum, there should be some discussion of the implications of the California Toxics Rule and Statewide Implementation Policy and the TMDL Process (Total Maximum Daily Load), and more specifics on the regulation of stormwater runoff. I-3

There is, also, no discussion in the EIR of cummulative effects. Along with the addition of a fuller disclosure of possible additional pollutants, there should be a discussion of cumulative pollutant loads in the Creek and around the mouth of Islais, nearby shoreline and the sewage outfall mixing zones. I-4

Air Born Emissions

Since other colleagues will address the air born emissions with regard to intake from breathing, deposits on land, etc., these comments will only address the issues of air born pollutants as they relate to water pollution. Are there any calculations about the contribution of the air born pollutants from the proposed projects to Bay and Islais Creek pollutant totals? As acknowledged in this EIR as well as the RWQCB Toxic Hot Spot Report, airborne emissions are an contributor to Bay pollution, I-5

including Islais Creek. Would concentrating these sources near Islais Creek add significantly to its burden.

Concerns About the Nearby Wetlands

With regard to the proposed development's effect on the two wetlands in the area, it is stated that the effects are less than significant. Yet without knowing all the pollutants in the stormwater runoff, that conclusion again seems premature.

In addition to what pollutants may be added to the receiving waters, what are the water current patterns with regard to the existing and proposed discharges and runoff patterns? Do the currents cause the migration of pollutants released in one area to effect these resources? I-6

Further, would there be any additional airborne pollutant burden to these habitats.

Water Recycling

There was insufficient information on the required or desired use of recycled water, beyond the mention of its use for dust control. What is the full required or potential for both phases of the development. If its required, where would the source be, and the conveyance system? What are the opportunities for on-site or near site creation of recycled water. I-7

Assumption of No New Investment in Wastewater Treatment / Infrastructure. A Challenge to the Assumption of "not... economically feasible" ; A Call for a "Screening of Feasible Technologies" for This Site

The EIR assumes that because of the "interim" use, "neither the Port nor the tenants would construct on-site infrastructure related to stormwater collection" (p.106) because, due to the "limited" timeframe, it is not "economically feasible".

Once again, without a full understanding of the potential pollutants coming from the proposed project, nor a contextual understanding within a potentially more restrictive regulatory environment, we don't know what may be required or should be done to protect the receiving waters. Yet, in fact, some additional means of treatment and control may be necessary. Why should these industries not pay for or significantly contribute to these additional protections should they be required. If it's economical to move here and use City land, located in sensitive areas, then the economics of protecting the people and resources of the City should be part of the price. Further, until you have a better handle on what may or should be required, how do you know its uneconomical. Once again, we, the Board of Supervisors, the past President of the PUC Commission have urged, and the City is supposedly investigating a Screening of I-8

Feasible Technologies - looking at alternative technologies to see if they can be used to help meet the challenges that face the Clean Water Program - to see if they can better achieve the environmental treatment needed, and to see if treatment can be achieved more economically. While a report has recently been submitted, it was roundly criticized as failing to be comprehensive, strategic, and failing to take into account critical prerequisite information necessary to make recommendations. We are waiting for the PUC to gather the advise of the Technical Review Committee on how to correct the work plan to achieve the important goals. In addition, we have called for the need for site-specific studies for situations precisely like this - where there is major proposed development that could have a significant impact on water quality issues that is moving forward at a faster pace than the overall strategic study. In fact, in June of 1998, the focus group of citizens, invited by the PUC to advise them on the SOFT study, asked explicitly for additional site specific studies, including the Port.

Had that been done, the City might have before it a range of technologies and methods that might be economically feasible for the situation. We urge the City to immediately conduct such an investigation of both the potential pollutants and possible alternative technologies to determine if there is a need and whether there are economically feasible solutions. This should be done before certification in order to preserve the City's ability to enforce such industry contributions with the power it has in this process.

I-8 CONT.

The goal of the RWQCB's Bay Protection and Toxic Cleanup Program are to address enclosed bays,estuaries, or adjacent waters in the "contiguous zone", the pollution or contamination of which affects the interests of the state, where hazardous substances (1)may pose a substantial present or potential hazard to aquatic life, wildlife, fisheries, or human health, or (2) may adversely affect the beneficial uses of the bay, estuary...,or (3) may exceed adopted water quality or sediment quality objectives.

These are worthy goals. We request that this EIR do a more thorough investigation in order to insure that these projects will not add to the environmental burden in this already impacted area.

Thank you for your attention to these matters.

Sincerely,

Jeff Marmer

Jeff Marmer
Coalition for Better Wastewater Solutions
Alliance for a Clean Waterfront, Co- Chair of Wastewater Committee

plus Attachment 1

Attachment 1 Comments Jeff Marmer

Bay Protection and Toxic Cleanup Program

DRAFT FINAL

REGIONAL TOXIC HOT SPOT CLEANUP PLAN

DECEMBER 1998

SAN FRANCISCO BAY REGION

REGIONAL WATER QUALITY CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

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G. Two-year expenditure schedule identifying funds to implement the plans that are not recoverable from potential dischargers

In the next two years, we estimate the expenditure will be $1,100,000. This includes the completion of the site investigation and feasibility study with Regional Board staff oversight.

Currently, the City and County of San Francisco is funding the site investigation. The plan is for the Regional Board to issue a Cleanup and Abatement Order to the responsible party or parties subsequent to completion of the site investigation, at which point staff oversight costs and the feasibility study will be recoverable from that party.

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LETTER I – COALITION FOR BETTER WASTEWATER SOLUTIONS

I-1) As stated on SEIR p. 101, the designation as a Toxic Hot Spot applies to that portion of Islais Creek west of Third Street, although the *Final Regional Toxic Hot Spot Cleanup Plan* from March 1999 indicates that the Toxic Hot Spot extends "probably farther east towards the Bay." According to the *Cleanup Plan,* "the most likely source of pollutants are the combined sewer overflows" from the City's combined sewer-stormwater system. (There are four wet-weather overflow structures that discharge into the western segment of Islais Creek, according to the report.) Another "likely source" is the City's treatment plant discharge outfall where Quint Street meets Islais Creek. The report continues, "Because of recent improvements in the quality of the discharges from these two sources in the past two years, historic discharges are probably more of a factor." Other potential sources of pollution in Islais Creek, according to the report, include sheet runoff or past discharges from auto dismantlers and metal recycling facilities. Finally, deposition from vehicle traffic could also be a minor source of certain contaminants such as polynuclear aromatic hydrocarbons, mercury, and other metals. The Regional Water Quality Control Board has ordered the City to investigate whether CSOs and the Quint Street outfall continue to cause contamination in Islais Creek or may act to re-suspend contaminated sediments. As noted in the SEIR, the City Public Utilities Commission is collecting additional data on contamination in Islais Creek.

Regardless of the existing status of Islais Creek, the Industry Group project components would increase stormwater flow to the Bay from the project area by about 3 percent (SEIR Table 20, p. 110), and would treat stormwater flows as provided for in Mitigation Measure D.2, SEIR p. 149. With the Best Management Practices and Mitigation Measures identified on SEIR pp. 149-150, the 3 percent increase in stormwater runoff would result in little or no net effect on Bay water quality, and would therefore be considered less than significant. This is because industrial users that would discharge stormwater to the Bay would be required to comply with National Pollutant Discharge Elimination System permit regulations that would include discharge prohibitions for stormwater containing hazardous substances in excess of established quantities; pollutant controls using best available technology economically achievable, best conventional pollutant control technology, and best management practices; receiving water limitations; preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP); and preparation and implementation of a monitoring program, as stated on SEIR p. 103. Such permit requirements could be met through the Industrial Activities Stormwater General Permit adopted by the State Water Resources Control Board or through an industry specific permit or an individual permit. Techniques employed by the Industry Group components could include features such as settling ponds and sediment basins to limit pollutants that could reach Bay waters, as stated on SEIR p. 111. In addition, as also stated on SEIR p. 114, "implementation of Mitigation Measure D.2 (implementation of source control Best Management Practices consistent with those identified in the Industrial / Commercial Storm

Water Best Management Practices Handbook) and of measures identified in the Waterfront Land Use Plan EIR (and also presented in Section IV of this report) for tenants to participate in the Port's stormwater monitoring program would further reduce the potential for Bay water quality degradation." Finally, none of the stormwater from the Industry Group components would be discharged into the western portion of Islais Creek, which is designated a Toxic Hot Spot.

For clarification, the first bulleted point in Mitigation Measure D.2 is revised as follows (new language is underlined):

> prohibiting discharge of process water to storm drains or otherwise directly to the Bay or Islais Creek.

Future Port development, if all stormwater were discharged to the Bay and not directed to the combined sewer, would, in combination with the Industry Group components, increase stormwater flow from the project area by 29 percent. Again, none of the stormwater would be discharged to the western portion of Islais Creek, and Mitigation Measures on SEIR pp. 149-150 – including pre-treatment before discharge to the Bay – would reduce impacts of increased stormwater flow to a less-than-significant level. Given that project impacts could be mitigated, no additional discussion of existing conditions at Islais Creek is required beyond that included in the Draft SEIR.

Concerning water quality data in the SEIR, as noted in the response to Comment H-11, p. C&R.44, the SEIR citation of data from near Yerba Buena Island refers to data within San Francisco Bay, as opposed to data from specific inlets such as Islais Creek.

Concerning increases in wastewater flow and the potential effect on combined sewer overflows (CSOs), as stated on SEIR p. 106, "the Industry Group components would generate negligible wastewater flow, as on-site employment would be relatively small and neither stormwater nor process water would be directed to the City's combined sewer system in substantial volumes." Therefore, Phase I of the project would not result in any wastewater-related effect on the amount, frequency, or volume of CSOs. Phase II – future Port development – could generate an estimated 300,000 gallons per day (gpd) of wastewater, or dry weather flows, as also stated on SEIR p. 106, based on the development assumptions identified in the SEIR. This would represent less than 0.4 percent of the current Citywide total of 84 million gallons per day, and less than 0.5 percent of the 67 million gallons per day currently treated at the Southeast Water Pollution Control Plant. The addition of 300,000 gpd of wastewater – annualized to 109.5 million gallons – would represent approximately nine times the annual increase in stormwater flow from the future Port development sites but only about 10 percent of the approximately 1.1 billion gallons per year of total treated effluent anticipated to be generated by 2015 under the cumulative scenario reported in SEIR Table 20, p. 110. Therefore, while it is not possible to quantify precisely the effect on CSOs, on an order of magnitude basis, a comparison

of the figures in Table 20 appears to indicate that the increase in wastewater would result in an increase in CSO volume in Islais Creek of less than 1 percent. Therefore, the impact is considered less than significant.

I-2) The commenter correctly notes that sediment is the major potential water quality concern addressed in the SEIR, because several of the Industry Group project components would handle large quantities of aggregate, including gravel of various sizes, as well as sand, Portland cement, and fly ash. Furthermore, most contaminants in stormwater are adhered to particles, so removal of sediment is one of the best ways to minimize stormwater pollution in general.

As stated by the commenter, the pH (acidity or akalinity) of water discharged from ready-mix concrete plants can be of concern. In particular, akaline compounds in Portland cement can result in high pH readings that can be harmful to fish and other marine life. As stated in the SEIR (p. 111), each of the Industry Group components would be required to comply with National Pollutant Discharge Elimination System (NPDES) permit requirements, which would include preparation of a site-specific Stormwater Pollution Prevention Plan. Typically, a NPDES permit includes limitations on the contents of water to discharged to a water body such as San Francisco Bay, including limits for pH and sediment. In addition, separation process wastewater from stormwater would reduce the potential for stormwater to be contaminated. Accordingly, the following is added to the bulleted list of potential Best Management Practices accompanying Mitigation Measure D.2 on SEIR pp. 149-150 (and in the summary on p. S-33):

- separating stormwater from process water, such as concrete truck washout water and truck wash water, through the use of berms and other features, and ensuring that treated stormwater to be discharged to the Bay meets applicable permit and regulatory standards, including pH (acidity or akalinity).

Other dissolved pollutants in stormwater can include heavy metals such as lead, zinc, and copper, which originate from motor vehicles and highway structures, moving engine parts, automotive lubricating oils, brake pad wear, pesticide and fungicide application, and other sources. (Lead concentrations in the roadside environment have declined in the last 20 years since the introduction of unleaded gasoline.) Dissolved quantities of petroleum byproducts in stormwater also result from motor vehicles and other sources of petroleum combustion. In particular, polynuclear aromatic hydrocarbons are contaminants derived from petroleum products and combustion of organic materials. Removal of dissolved pollutants, particularly metals and particularly at higher concentrations, poses problems even for municipal treatment plants, and therefore source control (i.e., avoiding the introduction of these pollutants to stormwater in the first place) is often the preferred means of reducing dissolved pollutant loads although, in practice, it is difficult to remove roadside pollutants. However, implementation of Best Management Practices by the Industry Group components and at Future Port Development sites, as described in SEIR Mitigation Measures D.2, D.3, and D.4, would reduce dissolved

pollutant loading to the maximum extent feasible by prohibiting discharge of process water to storm drains, eliminating pathways for potential spilled materials to enter stormwater, intercepting grease and vehicle wash water, and other features commonly included in stormwater pollution prevention plans.

Concerning decant water from dredge material, the Port's proposed expanded dredge material handling facility would require a permit from the Regional Water Quality Control Board (RWQCB), which, as noted on SEIR p. 111, would require routine testing of the decant water to ensure that sediment levels are below accepted criteria, and that the water does not contain chemicals (e.g., heavy metals) or other constituents at levels in excess of regulatory requirements. Alternatively, this facility could be designed to function without discharge of decant water to the Bay. While the Port's continued compliance with regulatory requirements can be assured, it would be speculative to project changes to those requirements that could occur over time, or specific responses necessitated by those changes that might occur.

As stated on p. 111 of the SEIR, much of the process water used at Industry Group facilities would be reused.

I-3) As described on pp. 101-102 of the SEIR, the Regional Water Quality Control Board (RWQCB) has developed a Regional Toxic Hot Spot Cleanup Plan (March 1999) to provide direction for the remediation or prevention of toxic hot spots in the San Francisco Bay Region. The western segment of Islais Creek was identified as a high priority candidate site in this plan based on sediment quality and the status of the benthic community. However, the cleanup of specific sites identified in this plan is directly related to overall watershed management plans, the National Pollutant Discharge Elimination System and Total Maximum Daily Load (TMDL) processes, and stormwater runoff control (discussed below). The City has completed a number of the RWQCB's recommended corrective measures, and currently further site investigation of the extent of sediment contamination is required to determine whether and to what extent the combined sewer overflows (CSOs) and outfalls are contributing to sediment contamination.

The TMDL process is provided for in the Clean Water Act, under which states are required to identify impaired water bodies and the pollutants causing the impairment. The TMDL process requires identifying pollutant sources and allocating the allowable pollutant load to the sources to eliminate the impairment. Portions of San Francisco Bay have been identified as impaired for a range of pollutants, including mercury, copper, nickel, selenium, polychlorinated biphenyls, and pesticides. The RWQCB is now in the process of developing TMDL workplans to address the required TMDL allocation and implementation plan for incorporation into the Basin Plan. However, the TMDL workplans will vary in their degree of specificity and focus, depending on the status of available data on the water quality impairment as well as data on the pollutant source. Within the project area, the TMDL process would be incorporated into the NPDES

permitting process for wastewater outfalls, CSOs, and stormwater, which is also within the jurisdiction of the RWQCB, as described in the SEIR pp. 102-103.

Stormwater regulations applicable to the proposed project are summarized and discussed on pp. 103-104 of the SEIR. More detailed information is available in the Regional Toxic Hot Spot Cleanup Plan, cited on SEIR p. 114, which is available on line through the California State Water Resources Control Board web site (www.swrcb.ca.gov).

I-4) Table 20 on SEIR p. 110, along with the text on p. 109, includes increases in stormwater flow for cumulative conditions, based on the Bayside planning model developed for the San Francisco Public Utilities Commission. As described in the response to Comment I-1, above, the Industry Group components' contribution to cumulative stormwater increases would be very small. Increased stormwater flow from future Port development, as assumed in the SEIR, while greater in volume, would be subject to Mitigation Measures D.2 and D.3, as described above, that, along with permit requirements also described above, would reduce potential water quality effects of increased stormwater to a less-than-significant level.

I-5) As described in the response to Comment H-9, p. C&R.43, project emissions of particulate matter would not result in significant effects with regard to human health, even at sensitive receptors close to the project area. As noted in the response to Comment I-1, above, past discharges of wastewater and/or stormwater are believed to be the major cause of existing degraded water quality in Islais Creek. The *Final Regional Toxic Hot Spot Cleanup Plan* referred to in the response to Comment I-1, above, states that airborne pollutants from vehicles traveling on nearby Interstate 280 and on surrounding streets may contribute to contamination in Islais Creek, in that polynuclear aromatic hydrocarbons (PAHs) are associated with fossil fuel combustion and mercury and other metals are contaminants in diesel exhaust. However, the report concludes, "compared to the CSO and Quint Street outfall contributions, these are estimated to be minor sources." Therefore, it is not likely that incremental increases in airborne pollutants resulting from the project would substantially degrade water quality in Islais Creek or in the Bay.

I-6) As stated in previous responses to the same commenter, dust and its potential for sedimentation is the primary constituent of concern with regard to stormwater runoff from the Industry Group sites, but the amount of increased runoff would be so small as to be almost negligible. Similarly, as stated in the prior response, airborne pollutants would result in minimal effect. Furthermore, any discharge from the project area to the Bay, including stormwater runoff, would be subject to the applicable National Pollutant Discharge Elimination System (NPDES) permit requirements, which are designed to promote identified beneficial uses, including estuarine and wildlife habitat. Please see also the response to Comment H-13, p. C&R.45.

I-7) As stated on p. 111 of the SEIR, much of the process water used at Industry Group facilities would be reused; for example, concrete truck washout water would be incorporated into processing of additional concrete. Use of potable water in production operations at Industry Group facilities, therefore, would be minimized. Furthermore, there would be relatively low employment at these sites, which would also minimize the demand for potable water.

As for future Port development, as stated throughout the SEIR, there are no specific development proposals for the project area other than the Industry Group sites. However, the project area is within the Eastside Reclaimed Water Use Area designated by Section 1029 of the Reclaimed Water Use Ordinance (approved November 7, 1991), which added Article 22 to Part II, Chapter X of the *San Francisco Municipal Code* (*Public Works Code*). Within this area, non-residential projects over 40,000 sq. ft. (of building area) must provide for the construction and operation of a reclaimed water system for the transmission of the reclaimed water within buildings and structures. That is, new buildings would need to be designed with separate plumbing to service uses that could employ reclaimed water (*e.g.*, toilets). The ordinance also requires that owners, operators, or managers of all development projects register their projects with the Water Department. The Water Department will issue a certificate of intention to use reclaimed water, and reclaimed water shall be used unless the Water Department issues a certificate exempting compliance because reclaimed water is not available, an alternative water supply is to be used, or the sponsor has shown that the use of reclaimed water is not appropriate. Although reclaimed water is available for limited use (e.g., construction dust control) at the Southeast Water Pollution Control Plant, there is no widely available reclaimed water in the project area. The City has prepared a Recycled Water Master Plan, with implementation anticipated within approximately three to five years in the western portion of San Francisco, which would be supplied from the Oceanside Water Pollution Control Plant. However, at this time, there is no timetable for implementation of the Reclaimed Water Master Plan on the east side of San Francisco, including the project area.

I-8) The text on SEIR p. 106 describes the assumptions under which the analysis of increased stormwater flow from Industry Group sites was calculated. The primary point made in the cited text is that there would be no connections made between the Industry Group sites and the City's combined sewer-stormwater system. The resulting increase in runoff – approximately 1.4 million gallons per year, or about 3 percent more than under existing conditions – would be directed to San Francisco Bay. However, mitigation measures on SEIR pp. 149-150 would, if adopted by the Port, require pre-treatment of all stormwater runoff to reduce or eliminate potential contaminants that could otherwise reach San Francisco Bay. (As noted in the mitigation measures, treatment of runoff could use a variety of approaches, and it is conceivable that alternative treatment techniques could be employed as suggested by the commenter in connection with future large-scale development.) Similar controls would be imposed on future Port development at the Pier 90-94 backlands, at and near Pier 70, and elsewhere. In this way,

impacts from increases in stormwater runoff would be reduced to a less-than-significant level. Contrary to the commenter's assertion, no significant effects on water quality would occur, as stated in the SEIR.

Please see the response to Comment H-4, p. C&R.40, regarding the Screening of Feasible Technologies study regarding alternative strategies for wastewater and stormwater treatment.

DOGPATCH
NEIGHBORHOOD ASSOCIATION

J

DATE: November 1, 2000

TO: Ms. Hillary Gitelman, Environmental Review Officer
City and County of San Francisco, Planning Department

FROM: Janet Carpinelli, Corresponding Secretary
Dogpatch Neighborhood Association

RE: Dogpatch Community Response to Southern Waterfront Draft SEIR

I. OVERVIEW:

This response to the San Francisco Southern Waterfront Draft SEIR has been drafted on behalf of the Dogpatch Neighborhood Association by members of its executive committee. The Dogpatch Neighborhood Association is a grassroots organization of citizens concerned about San Francisco's historic Dogpatch neighborhood, generally bounded by Mariposa Street to the North, Tubbs Street (23rd) to the south, Highway 280 to the west, and Illinois Street to the east. The subject area and proposed projects covered in the Draft SEIR have clear impacts on our neighborhood, and on the greater Central and Southern Waterfront Districts.

By way of background, the Dogpatch Neighborhood Association monitors issues relevant to the neighborhood and encourages thoughtful and visionary urban planning that respects, celebrates, and preserves the character, integrity, and quality of life of the area as it evolves for the 21st Century.

In particular, the proposed projects covered in the Draft SEIR impact several of our organization's key issues, including neighborhood improvement, public access to the waterfront and local open space, public safety, health and environmental issues, noise and pollution issues, transportation, parking and traffic infrastructure planning. Our historic little neighborhood is quickly being transformed — but often, it seems, without clear overall planning that considers the grand scheme. The Planning Department is now studying a new master plan for our area as part of its Better Neighborhoods 2002 program, however due to the current development boom, by the time the study is finished much of our area will already have been forever changed. We believe all projects should realistically consider the City's varied needs for residential, commercial, and industrial uses in the area, and their cumulative impacts on the future of our district.

We have particular interests in the future of Pier 70 and its surrounding area, because it is in the heart of our district and we have been planning for public amenities, open space and dynamic mixed use development there for years. We respectfully present these comments for review.

888 Illinois Street · San Francisco · California · 94107

II. INADEQUACIES OF THE DRAFT SEIR:

What follows are a range of issues and impacts that we believe are inadequately addressed in the Draft SEIR document:

1. Negative impacts of existing concrete industry in our neighborhood is not adequately considered.

We favor preserving places for industry in the City and in our neighborhood. But we also expect industry to be a good neighbor that shows respect for our neighborhood and consideration for other businesses and residents that call Dogpatch home. Unfortunately, our historically industrial-residential neighborhood (and the greater Central Waterfront district) already has significant problems with messy industrial business operations that result in dirt, sand, gravel, and grime on our main streets and sidewalks, particularly along Illinois Street and Third Street. Further, our area suffers from general lack of maintenance by the City and from offending operations that cause the mess — including some businesses that are part of the industry group covered in the Draft SEIR. Particularly during this period of booming construction, parts of our neighborhood are covered in dust, sand, gravel, and cement debris. For example, the streets leading to the existing Bode gravel facility on Third and 16th and the RMC Pacific Materials concrete facility on Mariposa are particular problem areas. These are messy operations, whose processing facilities and truck fleet traffic result in small concrete spills, potholes, and debris covering roads and sidewalks near the facilities. These existing conditions are not covered in the Draft SEIR.

J-1

Solution:

Amend the Draft SEIR to provide a thorough verbal and environmental description of the dust, sand, gravel and cement debris and other related impacts in the immediate vicinity of the existing operations of Bode Gravel/Mission Valley Rock around Third and 16th and RMC Pacific Materials existing ready-mix plant at Third and Mariposa Streets.

2. Projects that could have a significant cumulative impact on the study area are not adequately considered.

In recent years we have watched the face of our neighborhood change with a wave of fast-track dense development and new uses that most other neighborhoods would not be able to accommodate (nor tolerate). Some of these uses lack appropriate master planning that considers the big picture of the district. We fear the lack of qualitative consideration of other projects will cause conflicts in the future — for example, traffic conflicts or needs of residential and commercial uses vs. industrial uses. We want uses that will improve our neighborhood.

J-2

Many key projects that we are monitoring in the study area are not factored into the Draft SEIR, nor commented upon in any qualitative way. Examples include:

•Pier 70 Opportunity Area. While covered in the document, since the Draft SEIR was written, more has been learned about development plans for this 16-acre site. This includes plans for 150,000 square feet of new non-profit space, and possibly up to another 500,000 square feet of new commercial space. The Pier 70 Opportunity Area project and the masses of people and vehicles it will draw will only add to the traffic and congestion problems in our neighborhood, and could cause conflicts with the proposed new industries covered in the Draft SEIR.

•Conversion of the American Industrial Center Buildings from industrial and manufacturing uses to much more dense commercial and high tech office uses. This huge building complex provides very few parking spaces for its growing number of tenants. This transformation has caused increasing traffic congestion and parking problems in the vicinity of Pier 70 and in the Dogpatch neighborhood, particularly along Third and Illinois Streets, between Mariposa and 24th Streets.

J-2 CONT.

•Southern Energy's proposed new 880-megawatt power plant at pier 72, off Illinois Street near 22nd. This fast-track project, resulting from the City's growing energy needs and the closure of the heavily-polluting and inefficient Hunter's Point Power Plant, could have considerable impact on our local air quality.

•The 175-unit live/work loft complex on Illinois Street between 23rd to 24th proposed by Michael Strausz & Company, and dozens of other approved live/work projects in the area resulting in hundreds of new residential loft units. Further, according to press reports, many of these so-called residential lofts have been illegally converted into office spaces, including: 1025 17th Street, 1200-1240 22nd Street, 2030 Third Street, 1011 23rd Street, 1099 23rd Street, 1209 Indiana Street, 1409- 1415 Indiana Street, 1568 Indiana Street, 1001 Mariposa Street, 1020 Mariposa Street, 696 - 698 Pennsylvania Ave., 701 Pennsylvania Ave., 635 Tennessee Street, 655 Tennessee Street, and 685 Tennessee Street. These projects will increase vehicle, pedestrian, and bicycle traffic in the area.

•MUNI's Third Street Light Rail line and its impact on truck traffic, particularly along the Illinois Street corridor.

•MUNI's Metro storage and repair facility on Illinois Street and 25th.

•MUNI's approved turnaround on Illinois at 18th. This has the potential to create a horrible bottleneck for industrial trucks, big rigs, commuter cars, trains, bicycles, and pedestrians.

•Designation of Illinois Street as a preferred truck route.

•Reopening of Illinois Street, between 24th and 25th Streets. This will generate additional truck traffic on Illinois.

•Proposed bike lanes on Illinois Street. We believe the North-South corridor needs safe bike lanes, and these lanes have already been refused along Third Street due to the space needs of MUNI Light Rail line.

J-2 CONT.

Solution:
Revise Draft SEIR to describe and thoughtfully consider implications of all significant projects that could impact the area of study — particularly in terms of truck and vehicle movement, public safety, congestion and air quality. Suggest ways that the negative effects of these projects and the six new industries could be handled in terms of the environmental consequences. If these additional projects change the overall conditions of the study area or alter the projected impacts of the six new industries, consider additional planning and/or mitigation measures as appropriate.

3. Bicycle and pedestrian impacts are not adequately addressed.
We have concerns that the fleets of trucks serving the proposed new industries will significantly increase truck traffic along Illinois Street, Third Street, and key east-west arteries. This increase will impact pedestrian and bicycle traffic and safety in areas surrounding the proposed project sites, where dense commercial and residential development is taking place and where alternative modes of transit are needed beyond Light Rail. The Draft SEIR suggests that the impact between bicycles and cars would not be significant because bicycle traffic could be handled on the "variety of bicycle routes that are available throughout the project area." However, the bicycle routes available are not specifically identified.

J-3

Solution:
Revise the Draft SEIR to specifically identify the bicycle routes available throughout the area, including specifically defined bicycle lanes available on the north-south arteries of Illinois and Third Streets, and any key east-west arteries.

4. Data on environmental hazards seems inadequate.
There is limited in-depth discussion of the environmental hazards created by previous and current industries throughout the area of the SEIR (noise, air, soil, water, etc.). This makes it difficult to consider the additional environmental problems that the six new industries will cause, and then, their accompanying mitigations.

J-4

Solution:
Provide pertinent information regarding the current status of the area covered by this SEIR.

5. Existing conditions at Pier 70 are not adequately covered.
Pier 70 has become increasingly congested in recent years, and it will get worse when the 16-acre Pier 70 Opportunity Area is developed. The Draft SEIR features minimal discussion of the current conditions at Pier 70. This area currently includes San Francisco Drydock, City Tow, the Moscone Marshalling Yard, Granny's Movers, B&C Iron & Metal, Underground Construction Company, a bus repair facility, the Noonan Building and its 25 tenants, and the American Industrial Center complex and its hundreds of tenants. All of these businesses are tightly clustered around Illinois Street between 20th and 22nd. They all generate a heavy amount of truck, automobile and pedestrian traffic. Further, DPT has designated Illinois and 20th Streets as a main route for cars entering and exiting baseball games and events at Pacific Bell Park. The City should set an accurate traffic baseline to examine the cumulative impact of the new industry.

The chart which indicates the Traffic Level of Service Results shows that the intersection of 20th and Illinois Streets has a service level of A (p. 53). This is an area of heavy congestion! Those of us who live and work in the neighborhood know that this rating is incorrect. MUNI drivers park out of service buses along the south side of 20th Street near Third frequently. Commuter cars take up all the street parking. Delivery trucks and big rigs frequently double-park while they run into local restaurants, stores, and businesses. When large trade shows are in town at Moscone Center, it occasionally results in complete grid lock along Illinois Street to 20th Street, as dozens of big rigs attempt to enter the Moscone Marshalling yard simultaneously. This level of service needs to be reconfirmed as it does not match our personal experience.

J-5

Solution:
Provide a thorough verbal and environmental description of the Pier 70 area as it is now in order to provide a more accurate baseline.

6. Traffic counts around Pier 70 appear to be inaccurate.
The chart on p. 53 indicates that the intersection of 20th and Illinois (the entrance to Pier 70) maintains an Level of Service of A. Again, we question this finding. This is an intersection of considerable vehicular congestion, particularly weekdays between 9am to 5pm, when cars and trucks frequently double-park and traffic is most heavy. This intersection is the main route for trucks from City Tow, San Francisco Drydock, the Moscone Marshalling Yard, other Pier 70 tenants and the American Industrial Center tenants and other local industries — in addition to standard vehicular traffic. The problem is compounded at this intersection and all along the Illinois Street corridor during periods before and after Giants games and other events at Pacific Bell Park. We fare concerned that the congestion will be further complicated by the MUNI Turnaround at 18th and Illinois Streets, the possible future presence of Waste Resources Technologies and its fleet of trucks at Pier 70, and the fleet of trucks serving the other industry businesses, which will use Illinois Street as a main route for moving materials.

J-5 CONT.

Solution:
Recount the intersection of 20th and Illinois. Expand recount analysis to include the intersections of 18th and Illinois, 19th and Illinois, and Mariposa and Illinois. Recount should include peak daytime hours, Monday through Friday between 8am and 5pm. Study should also provide accurate data for traffic changes when the Marshalling Yard and other Pier 70 and American Industrial Center tenants are active. Recount should examine traffic impacts during baseball games and other events at Pacific Bell Park in order to confirm that the LOS is currently an A.

7. Waste Resources Technologies is no longer considering Building 116 at Pier 70.
The site for the proposed construction and demolition recycling facility to be operated by Waste Resources Technologies is no longer building 116. The company is now considering an alternative light warehouse and lot on the back side of Pier 70 next to San Francisco Drydock.

J-6

Solution:
Amend the Draft SEIR to reflect the new site of the proposed Waste Resources Technologies facility. This should include any alterations planned to the new proposed building, which may be an historic resource.

8. Planned uses for Waste Resources Technologies at Pier 70 are not clearly defined. The Draft SEIR does not indicate whether Waste Resources Technologies plans to truck in and handle asbestos, lead, PCBs, or other hazardous materials at its proposed construction and demolition recycling facility adjacent to our neighborhood at Pier 70. Further, it is not clear whether this proposed tenant, part of a multi-billion-dollar waste company, plans to operate any other related businesses, such as garbage hauling or public recycling facilities for cans, bottles and scrap metal. We also have hundreds of homeless and vehicularly housed individuals. We are concerned that these other type of potential uses might further attract homeless scavengers and dumpster divers to our area. The community wants to know exactly what is planned for the Waste Resources Technologies operations. We want to improve Pier 70, and do not want this historic site to be used as a "dumping ground". J-7

Solution:
Revise the Draft SEIR to include information as to whether or not Waste Resources Technologies, or any other proposed tenants, plan to handle hazardous materials within the study area. Note whether Waste Resources Technologies plans to operate any other related businesses that might attract nuisances to the area.

III. SUGGESTED MITIGATIONS:

We respectfully suggest the following additional mitigation measures to minimize the potential adverse impacts of the project:

1. Projects would limit public access to our limited waterfront resources.
Members of the industry group plan to locate non-maritime industrial facilities along much desired San Francisco waterfront property, rather than at other potential sites further inland. While the proposed projects are allowable uses in areas historically used for industry, members of the industry group do not meet critical Public Trust criteria for preferred uses such as maritime commerce, navigation and fisheries, public access and open space, environmental restoration, and activities which attract public use and enjoyment of the waterfront. The cumulative impact of the SEIR projects will limit ability for environmental restoration of the waterfront, as will restrict public access to the waterfront. In addition, there is a general lack of parks, open space and gardens in the area of study, especially in the increasingly densely developed inland areas. We suggest the following: J-8

a) Require industry group to help support efforts for the public to access and enjoy the waterfront within the area of study. For example, help fund restoration of rotting piers within the study area for a new local fishing spot.

b) Require the industry group to jointly fund creation of, or maintenance of, planned or existing waterfront parks and open space sites within the district. Possible locations include the neglected waterfront park at the mouth of Warm Water Cove, Islais Landing Park, or the proposed shipyard park conceived by the community and the Port as part of the Pier 70 Opportunity Area.

J-8 CONT.

c) Require the industry group to provide its products or services, at below market rates, for projects related to creating or maintaining parks and open space within the area of study.

2. Traffic congestion & parking problems.

Parking availability is virtually non-existent during normal business hours along the eastern portions of Dogpatch, including most parts of 23rd, 22nd, 20th, 19th, 18th, Mariposa, Third, Illinois. The parking crunch is creeping into the chiefly residential streets such as Tennessee and Minnesota. We fear that increases in truck and automobile traffic congestion will make it difficult for residents and for existing and future industries and businesses to function in the area of the SEIR. Without proper planning, the increased industrial traffic will also conflict with other existing and planned uses near the study area, including high tech and biotech firms, commercial businesses, live/work lofts, non-profit organizations, arts groups, performance spaces, and public open spaces. We suggest the following:

J-9

a) Require the development of a truck movement master plan for the entire area of study, with particular emphasis on Illinois and Third, from Cargo Way to 16th Street. This plan should include the impacts of existing industries, the Third Street Light Rail, Giants game and PacBell Park event traffic, and the six new industries.

b) As a condition of issuing permits to large building owners such as the American Industrial Center that grant conversion of industrial/manufacturing spaces into more dense commercial or high tech uses, require that the building owners develop a parking mitigation plan for their surrounding area.

c) Provide a second access point for traffic to enter and exit Pier 70 to help alleviate congestion along Illinois and at 20th. Require that 22nd Street be extended into the back side of Pier 70 through property leased by City Tow that is currently inaccessible.

d) Move the MUNI turnaround away from its planned location at 18th and Illinois and place it instead in the new MUNI storage and repair facility on Illinois Street and 25th. This change will ease possible conflicts with truck, train, automobile and bicycle movement in the heavily congested area of Illinois at 18th and 20th Streets.

e) Require industry group to provide its products or services, at below market rates, for a project to develop a new City-sponsored or privately-owned multi-level satellite parking facility within the area of study (ideally located near Cesar Chavez and the Light Rail Line). Such a parking facility would promote public transit, alleviate traffic congestion, and help keep the air clean. It would allow auto commuters coming into the City from the Peninsula or South Bay to exit the freeway, and then park their cars and transfer to Light Rail for the ride into Dogpatch, the Central Waterfront, Mission Bay, and downtown — thus eliminating traffic congestion and air pollution in those areas.

J-9 CONT.

2. Develop and promote better and more diverse alternative transportation plans.
As Dogpatch and its surrounding area continues to evolve into a more dense area for workers and residents, we encourage the City to plan for alternative means of transportation beyond Light Rail that will decrease traffic and parking congestion and related air quality problems. This would include greater use of options such as MUNI, car pooling, ferry service, bicycling, and walking, particularly in the area of Pier 70. We fear that increases in heavy truck traffic in the area of study, particularly along the Third Street and Illinois Street corridors, will result in accompanying bottlenecks and hazards to pedestrians and bicycles. We suggest the following:

a) Work with businesses in the area to develop incentive plans that encourage their employees to use alternative means of transportation, including public transit, bicycling, car pools, and ferry service/water taxis.

b) Require the development of a bicycle and pedestrian plan for the Illinois Street and Third Street corridor, and key east-west streets. This should include safe and convenient bicycle lanes, improved signage, clearly marked lanes, safer pedestrian routes, including paved sidewalks and adequate cross walks.

c) If moving the MUNI turnaround away from 18th and Illinois is not feasible, require MUNI to add a passenger service stop at the 18th street turnaround loop to provide direct access to the Pier 70 Opportunity area.

J-9 CONT.

d) See 1e above.

3. Noise impacts.

The proposed Waste Resources Technologies facility adjacent to our neighborhood at Pier 70 may have some noise impacts related to general operations, fleet traffic, truck safety beepers, heavy load dumping, and debris processing. The community must be clear about any possible noise problems that could cause conflicts. We suggest the following:

a) Require Waste Resources Technologies to work with groups such as the Pier 70 Advisory Group and the Dogpatch Neighborhood Association to assure that noise levels will not cause conflicts with the community and with other local businesses.

J-10

b) If necessary, require Waste Resources Technologies to enclose or muffle work areas so that noise levels will be minimized.

4. Health and environmental issues.

Health and environmental issues are of grave concern to the people of Dogpatch, Potrero Hill, and the Central and Southern Waterfront. Our neighbors in Hunters Point have suffered from health-related problems linked to heavy industry in their neighborhoods, such as abnormally high rates of cancer and asthma. Hunters Point fought to shut down an inefficient PG&E power plant, clean up its ship yards, and the community is now rejecting location of some new industries in their community. In addition to the new industries covered in the Draft SEIR, a large new power plant project is also being planned for the study area by Southern Energy Company. This project could have significant impacts on air quality in our neighborhood, and on the health of our children and elderly residents. We suggest the following:

J-11

a) Require the industry group to fund air monitoring stations within the area of study, particularly along routes that will be used for heavy industry traffic. Require the industry group to monitor air quality within these areas on an ongoing basis, and report its findings to the City and to local community groups (such as the Dogpatch Neighborhood Association, the

Potrero Boosters, and the Pier 70 Advisory Committee) on a regular basis to inform them of issues that could impact health and safety.

b) Require that the industry group's truck fleets use cleaner burning alternative fuels, such as natural gas, to minimize levels of air pollution and particulates in the area.

J-11 CONT.

c) Require industry group to fund tree plantings that will help beautify the neighborhood and clean the air.

5. Sand, gravel, and dirt in our neighborhoods and in the sensitive San Francisco Bay environment.

We are open to a mix of uses, including industry, in our area. However, we will strongly oppose these uses if they carelessly pollute our local environment, cause hazards on our streets, or endanger the health of the Bay. We are not impressed with how some of the sand, gravel, and cement companies covered in this Draft SEIR have soiled our streets with their existing operations in our neighborhood. While the new operations would be located in a primarily industrial area on the outskirts of our district, their truck fleets will continue to pass through our neighborhood. We expect cleaner and more organized operations from all industry companies if the project is allowed to move forward. We suggest the following:

a) Require industry group to monitor dirt and grime levels around its facilities and along the primary routes its truck fleets use within the study area.

J-12

b) Require industry group to provide accessible contact persons within their organizations, and community clean-up response plans, so community members can report messy operations and problems areas and can expect prompt clean up.

c) Carefully monitor industry group operations. Require them to maintain the area surrounding their facilities, and the roads leading to and from their operations, in as clean a manner as possible.

d) Require industry groups to fund extra street cleaning in their areas of operation, and/or in other areas throughout the area of study where their heavy truck traffic could cause spilling of sand, gravel, dirt, and dust.

e) If industry group operations cause problems with sand, gravel, and dust in the Bay, require them to work with Bay environmental agencies and organizations to consider and develop appropriate mitigation measures.

J-12 CONT.

LETTER J – DOGPATCH NEIGHBORHOOD ASSOCIATION

J-1) The commenters' concerns regarding operation of the existing ready-mix concrete plants on Third Street at 16th and at Mariposa Streets are acknowledged and are incorporated into the Final SEIR by virtue of their appearance in the Summary of Comments and Responses. As described in the SEIR, these existing ready-mix plants would be relocated as part of the project to Piers 80 and 92, respectively. Therefore, to the extent that the existing plants result in dust and dirt on nearby streets, this condition would end. Because the new ready-mix plants would be located farther from Third Street than at present, and would be geographically separated from residences and from more typical commercial uses than at present, nuisance effects of concrete plant operations at the new Industry Group sites would likely be less substantial than described by the commenters. In addition, a new mitigation measure is added to the SEIR to require truck street sweeping and, for unpaved surfaces, wheel-washing systems, at aggregate facilities (see the response to Comment J-12, p. C&R. 83, below).

J-2) The comment suggests that the SEIR fails to acknowledge a number of other changes in the project area vicinity. On the contrary, the cumulative analysis in the SEIR specifically includes several other major projects in the vicinity, including planned development of the Pier 70 Mixed-Use Opportunity Area (SEIR p. 24). As noted on p. 24 of the SEIR, the Port will issue a separate Request for Proposals to potential developers of the Pier 70 Mixed-Use Opportunity Area (although the RFP is now due out in spring 2001, rather than late 2000 as stated in the SEIR); it is expected that further environmental review of this development could be required once a formal proposal is made for development of the opportunity area.

Also included in the SEIR cumulative analysis are the proposed expansion of the Southern Energy[6] Power Plant on Illinois Street (SEIR pp. 29 and 97), and the planned opening of the Muni Metro Third Street light rail line and its accompanying maintenance and storage facility on Illinois Street and turnaround loop at 18th Street (described on SEIR p. 24 under "Western Pacific Property" and assumed in the transportation analysis of conditions in year 2003 and beyond; see also SEIR pp. 45 and 59, and note further that the Third Street Light Rail Project was the subject of a separate EIR/EIR completed in 1998). The SEIR transportation analysis also expressly assumes use of Illinois Street as a truck route, including the block between 24th and 25th Streets, once the proposed Illinois Street bridge is constructed. As stated on SEIR p. 47, the transportation analysis also accounts for additional background, or cumulative, traffic growth due to the Mission Bay project and redevelopment of Hunters Point shipyard and the larger Bayview-Hunters Point neighborhood. This is consistent with the direction in Section 15130(b)(1) of the state CEQA Guidelines, which permits cumulative analysis to be based either on a list of specific project or, as in the SEIR, on growth projections.

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6 Southern Energy changed its name to Mirant Corp. on January 22, 2001.

Other land use changes noted by the commenters are not formal "projects" within the meaning of CEQA (i.e., they do not require discretionary approval actions), such as releasing of the former American Can Company building (the "American Industrial Center"). Turnover in commercial tenants is a normal part of operation of a commercial building, and it would be speculative to attempt analysis of future leasing conditions. To the extent that the changes described by the commenters have already occurred, however, they are included in the existing conditions reported in the SEIR, because the transportation study reflects actual conditions, and are therefore part of the future "baseline" to which project impacts are added. The same can be said for potentially extralegal conversions of loft space to office use.

J-3) The SEIR describes bicycle routes serving the project area and bicycle conditions on pp. 44-45, and impacts are discussed on pp. 61-62.

J-4) Please see the response to Comment H-3, p. C&R.39 and the response to Comment H-12, p. C&R.44.

J-5) The intersection levels of service presented in Table 4 (SEIR pp. 53-54) are based on actual counts of traffic volumes during the morning and afternoon peak hours that were taken in 2000. This is the standard approach to traffic analysis, because it captures commuter traffic, which is typically the largest component of traffic at a given intersection. The counts conducted at the intersections of 20th and Third Streets and 20th and Illinois Streets would have accounted for traffic generated by existing activities at Pier 70, including most of those listed by the commenters. An exception is Pacific Bell Park, which does not generate traffic on a daily basis. Similarly, there are days when truck traffic to and from the Moscone Center Marshalling Yard, at Pier 70, is heavier than on other days. However, the existing intersection levels of service presented in the SEIR are intended to represent typical conditions. It is noted that, for signalized intersections, such as the two intersections studied on 20th Street, the level of service is based on the average delay for all vehicles on all approaches to the intersection. There may be more congestion on specific approaches than is indicated by the level of service, although typically this would involve fewer vehicles experiencing longer delays.

Concerning the additional intersections requested for analysis, 18th and Illinois and 19th and Illinois are between the intersections of Mariposa and Illinois (which was analyzed) and 20th and Illinois, both of which would operate at acceptable levels of service under all scenarios analyzed. There is little likelihood that the two intersections in between would operate at conditions much worse than those to the north and south.

J-6) Please see the responses to comment letter G (from Waste Resources Technologies), which appears on p. C&R.23.

J-7) As noted on p. 17 of the SEIR, Waste Resources Technologies would operate a material recovery facility for construction and demolition debris, which would reclaim usable materials, including metal and wood. Construction and demolition debris is regulated by the California Integrated Waste Management Board (CIWMB) as a Class III waste, the least hazardous type of solid waste (the same type as household trash). No program would be included to accept loads of consumer recyclables, such as cans and bottles. Nor would hazardous materials such as PCBs, lead, or asbestos be accepted; handling of hazardous materials requires separate permits from the state Department of Toxic Substances Control and other agencies, and Waste Resources Technologies does not intend to apply for such permits. Should hazardous materials or wastes be received at the Waste Resources Technologies facility at Pier 70, the materials would be isolated and placed in a containment area. If the hazardous materials or wastes could be tracked to a specific source, that "generator" would be required to remove the materials and/or make arrangements for proper disposal. If the materials could not be traced, Waste Resources Technologies would be responsible for transport to an appropriate facility for disposal. In this manner, the operation would be similar to a transfer station, which is required to have in place procedures for responding to inadvertent deliveries of non-permitted materials.

As a condition of the permits issued by the CIWMB and the Local Enforcement Agency – the City of San Francisco in this instance – Waste Resources Technologies would be required to implement a load-checking program for hazardous materials and wastes. Drivers are trained to recognize hazardous materials and wastes by visually inspecting containers prior to collection. All collection boxes would be marked with "No Hazardous Materials" and company work orders would contain a prohibition against placement of hazardous materials or wastes in a Waste Resources Technologies container, a practice that is currently used at other company facilities.

J-8) This comment concerns the proposed project, and does not address the adequacy or accuracy of the SEIR. For information, it is noted that, as stated on p. 37 of the SEIR, "[t]he majority of the Industry Group components would include a maritime component in their operations, and therefore would be considered maritime tenants of the Port." RMC Pacific, British Pacific Aggregates, and Mission Valley Rock would import raw materials by ship and barge, and ISG Resources is likely to use waterborne transportation in the future. In terms of public access to the waterfront, most of the Southern Waterfront is intended in the City's General Plan and the Port's Waterfront Land Use Plan to remain in maritime and industrial use, which generally limit opportunities for safe public access. No mitigation measures with regard to public access are required for the SEIR project.

J-9) As stated on p. 59 of the SEIR, Phase I of the project (Industry Group components plus Illinois Street bridge) would not result in any parking shortfall attributed to the project. It is true, as stated by the commenters, that on-street parking availability is very limited in the area near Pier 70, although this is a function of activities and uses that exist at present, and would not be

exacerbated by Phase I of the project. Because there are no precise plans for Phase II – including development of industrial uses at Pier 70 and of the Pier 70 Mixed-Use Opportunity Area, there could be substantial additional parking demand, which would have to be addressed in future project-specific analyses. Review of development proposals for the Mixed-Use Opportunity Area, for which the Port will issue a separate Request for Proposals, would analyze parking supply and demand, and could also address other issues raised by the commenters, such as the potential for additional access to Pier 70. In addition, the Planning Department's Better Neighborhoods 2002 initiative will analyze other issues raised for the broader area, such as the development of additional transportation planning, including increased transit use and more bicycle routes. The commenters' suggestions regarding an extension of 22nd Street, development of bicycle and pedestrian paths, and development of a satellite parking facility could be considered in that context. However, with regard to the SEIR project, the SEIR identifies no significant transportation-related effects in the immediate Pier 70 area. However, the SEIR includes mitigation (Measure B.2, SEIR p. 145, and Measure C.4, SEIR p. 147) calling for the Port to develop a Transportation Systems Management Plan for future projects proposed at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands to reduce transportation and air quality impacts.

J-10) Concerning potential noise impacts of the Waste Resources Technologies facility, it is very unlikely that operational noise would be apparent from nearby residential areas, particularly given the proposed new location for the operation, one fourth of a mile east of Illinois Street, or three times as far east of Illinois Street as the site described in the SEIR. Virtually all operations would be conducted indoors, lessening the potential for noise to travel. As for truck traffic, the volume of trucks would not be such that it would noticeably increase traffic noise, even on 20th Street, where trucks would be concentrated. In addition, the Waste Resources Technologies operation would be subject to the San Francisco Noise Ordinance (Article 29 of the Police Code).

J-11) Concerning controls on diesel engines, please see the discussion in the response to Comment H-14, p. C&R.48.

Concerning air quality monitoring, such an effort would potentially be meaningful only for particulates, such as PM-10. Monitoring for concentrations of other pollutants, such as nitrogen oxides or reactive organic gases, would not be relevant because those pollutants are important not in themselves, but as ozone precursors that result in ozone formation only upon interaction in the atmosphere. Regarding PM-10 concentrations, the project includes numerous dust control measures, such as maintaining sufficient moisture content in stored aggregate, use of a filter on asphalt drum mixer(s) and installation of other best available control technology on stationary sources, and implementation of street sweeping and other ongoing dust control techniques around project components. These measures, assuming they are properly implemented, would

reduce potential particulate emissions. In addition, the Port routinely requires, as part of its tenant lease agreements, that tenants implement an ongoing dust mitigation monitoring problem.

Routine monitoring, by contrast, would not do anything to reduce or eliminate particulate emissions. Furthermore, monitoring at one or more of the sensitive receptors identified in the SEIR would not allow for identification of the sources of particulates. Spot monitoring could be employed, at one or more potential sources of emissions – such as Industry Group component sites – as part of the Port's mitigation monitoring program, to ensure that project sponsors are complying with mitigation measures identified in the SEIR. Spot monitoring might also be used in the event that a problem is perceived; this might be an instance in which observation indicates that a mitigation measure is not being implemented or a complaint is received concerning dust.

Issues such as tree planting are regularly considered as part of lease and development approval actions. While street trees can provide visual screening of industrial operations, they would be of limited benefit to air quality because they would not affect winds and air currents except at street level, whereas most major pollutant sources (exhaust stacks on industrial facilities and ships and even truck exhaust pipes) are at a greater height. Street trees could, however, provide incremental benefits with regard to roadside emissions.

J-12) The following is added as a new mitigation measure on p. 149 (and to p. S-32 in the Summary) of the SEIR:

MEASURE IDENTIFIED IN THIS SEIR

C.6 Consistent with the construction-period dust abatement program described in Mitigation Measure C.5, the Port shall require that Industry Group components and other aggregate-related tenants employ dust abatement procedures including, but not necessarily limited to, the following:

- installation and operation of truck wheel-washing systems at plant exits for facilities that operate on unpaved surfaces;
- daily street sweeping on streets surrounding aggregate-related facilities; and
- clearly posting on the exterior wall or fence of such facilities a company telephone number for citizens to call with dust, noise, or other operational complaints, and designation of a Port staff contact for same.

In addition, the following is added to the bulleted list of practices in Mitigation Measure D.2 on p. 149 (and p. S-33 in the Summary) of the SEIR:

- daily street sweeping of surrounding streets and, for facilities that operate on unpaved surfaces, installation and operation of truck wheel-washing systems at aggregate-related plants;

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November 7, 2000

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Via Facsimile and First-Class Mail

Environmental Review Officer
San Francisco Planning Department
1660 Mission Street, Suite 500
San Francisco, CA 94103-2414

Re: San Francisco Southern Waterfront Project - SAEJ Comments on Draft Supplemental Environmental Impact Report (Case No. 1999.377E)

To Whom It May Concern:

On behalf of the Southeast Alliance for Environmental Justice ("SAEJ"), the Environmental Law and Justice Clinic ("ELJC") of Golden Gate University School of Law is pleased to submit the following comments on the Draft Supplemental Environmental Impact Report ("Draft SEIR") for the San Francisco Southern Waterfront Project ("Project"). These comments are submitted pursuant to CEQA[1] and are intended to supplement oral comments made by ELJC student clinician, Lynne Saxton, and by several representatives of SAEJ, all of whom appeared at the public hearing conducted by the San Francisco Planning Commission on October 26, 2000.

I. INTRODUCTION

The environmental impact report ("EIR"), with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed decision making and to expose the decision making process to public scrutiny. Planning and Conservation League v. Department of Water Resources, 83 Cal. App. 4th 892 (2000); No Oil, Inc. v. City of Los Angeles, 13 Cal.3d 68,86 (1974). The EIR is, as the courts have said repeatedly, the 'heart of CEQA,' " "an 'environmental "alarm bell," ' " and a "document of accountability." Planning and Conservation League, 83 Cal.App.4th at 910 (*citing* Laurel Heights Improvement Assoc. v. Regents of University of California, 47 Cal.3d 376, 392 (1988) ("Laurel Heights")). Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR protects not only the environment but also informed self-government. CEQA Guidelines

[1] California Environmental Quality Act (CEQA), Pub. Resources Code Section 21000 et seq., and the CEQA implementing regulations, known as "CEQA Guidelines", Cal. Code Regs., Tit. 14, Section 15000 et seq.

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§15003; Citizens of Goleta Valley v. Board of Supervisors, 52 Cal.3d 553, at 554 (1990); Laurel Heights, 47 Cal.3d at 392; County of Inyo v. Yorty, 32 Cal.App.3d 759, 180 (1973).

The Port of San Francisco ("Port") and City Planning Department are attempting to use a single CEQA environmental review document to serve multiple purposes. The Draft SEIR is intended to supplement the Waterfront Land Use Plan ("WLUP"), which is a "program EIR" certified by the Port in 1997. Furthermore, the Draft SEIR is intended to serve as a "project EIR" for several site-specific projects proposed by private entities seeking to lease property from the Port. Also, the Draft SEIR is to provide an environmental analysis of major Port projects, including construction of an intermodal bridge and phased development of more than 100 acres of Port-managed land. During the scoping phase of the Project's environmental review process, ELJC submitted a letter to San Francisco Planning Department and characterized the Southern Waterfront EIR as an unusual, hybrid combination of a "program EIR" and "project EIR." We said that CEQA requires a full, detailed analysis of the Project's environmental impacts, and that the Draft SEIR should include an analysis of alternatives for each individual site-specific project. See ELJC letter, dated July 12, 1999, incorporated herein by this reference.

Unfortunately, the Draft SEIR fails in its objectives and purpose. The Draft SEIR does not provide an accurate, clear description of the Project and the environmental setting. It fails to properly analyze the Project's potential environmental impacts, particularly with regard to the traffic and air quality impacts caused by the Industry Group proposals. The Draft SEIR also does not adequately identify and evaluate feasible mitigation measures and alternatives to minimize the Project's significant impacts. Accordingly, the Planning Department and Port should reject the current Draft SEIR and prepare a complete, detailed EIR for the Project.

II. DRAFT SEIR FAILS TO PROVIDE CLEAR PROJECT DESCRIPTION

CEQA Guidelines Section 15124 requires certain information in the project description of EIRs, including "a general description of the project's technical, economical, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities." See County of Inyo v. City of Los Angeles, 71 Cal.App.3d 185, 193 (1977)("An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR."). CEQA does not require technical perfection in an EIR, but rather adequacy, completeness, and a good-faith effort at full disclosure. CEQA Guidelines Section 15003(i). K-1

In the Draft SEIR, the Project is described as comprised of three categories of proposals: (1) six private entities' proposals, collectively referred to as the "Industry Group" components; (2) the Port's proposal to develop an intermodal rail and truck bridge over Islais Creek; and (3) the Port's future development projects. In reviewing the Draft SEIR, we found that the Industry Group proposals cover the following nine projects:

1. Bode Gravel's proposal to build an all-new ready-mix concrete facility, with an annual production of 500,000 cubic yards (one million tons) per year, at Pier 92.

2. Mission Valley Rock's proposal to develop an aggregate import terminal at Pier 92, next to Bode Gravel's concrete facility (amount of aggregate to be handled unknown).

3. Mission Valley Rock's proposal to construct a new asphalt plant, with an annual production of 400,000 - 550,000 tons per year, at Pier 92.

4. British Pacific Aggregates' (BPA) proposal to develop a storage facility for aggregate materials (sand, gravel and crushed stone), at Pier 94 (amount of aggregate to be handled unknown).

5. BPA's proposal to construct a ready-mix concrete and/or asphalt plant at Pier 94 (estimated 150,000 tons per year of each material).

6. ISG's proposal to develop a "fly ash" storage facility using former grain silos, with an ultimate volume of 100,000 tons per year, at Pier 90.

7. RMC Pacific Materials' proposal to develop a new ready-mix concrete facility, with an annual production of 325,000 - 425,000 cubic yards at Pier 80.

K-1 CONT.

8. Waste Resources Technologies' proposal to operate a construction/demolition material recovery facility, which will handle an estimated 350 tons per day, at Pier 70.

9. Coach USA's proposal to develop a bus storage, maintenance and repair facility, with 410 daily vehicle trips by buses, at Pier 96.

Additionally, the Draft SEIR covers the following Port proposals:

10. Port's proposal to develop the Illinois Street Intermodal Bridge across Islais Creek.

11. Port's proposal to increase cargo shipping at its container terminals, to handle 200,000 TEU (20-foot equivalent units) of new cargo at Pier 80 and Piers 94-96.

12. Port's proposal to increase the storage and drying of approximately 20,000 cubic yards of dredged materials annually at Pier 94.

13. Port's proposal to develop approximately 100 acres of industrial, commercial, and residential projects at Pier 70, the "backlands" at Piers 90-94, and at the former Western Pacific rail yard.

In total, the Draft SEIR is intended to analyze the environmental impacts of thirteen separate proposals, all of which are considerably large and complex.[2] However, the Draft SEIR does not provide an accurate and detailed Project description for many of the proposals. The type of information that would ordinarily be included in an EIR is omitted or incorrectly described. For the Industry Group proposals, the following information should be included: amount and types of throughputs for all equipment used to manufacture and store concrete, asphalt and aggregate materials; amount and types of fuel use for combustion equipment; amount of concrete, asphalt and raw materials to be transported by trucks and other mobile sources; amount of hauling capacity of trucks and other mobile sources; and an identification of processes that release pollutants to the environment, including all mobile and stationary sources of air pollution (criteria and toxic pollutants) and air pollution control equipment. The EIR should also identify the Industry Group's throughputs (production levels) as identified in their permits or permit applications, if available.

The Draft SEIR does not clearly describe the amount of concrete, asphalt and aggregate materials that each facility will process and the maximum throughput levels established in their permits. For example, the project description in the Draft SEIR (p. 16) identifies RMC Pacific's future concrete production levels as 325,000 cubic yards in the immediate future, and 425,000 cubic yards by 2015. It also states that RMC Pacific would keep its existing plant at Third Street operational as a satellite facility, at about half of its capacity, for two years.

K-1 CONT.

Based on documents received by ELJC from the Bay Area Air Quality Management District ("BAAQMD"), RMC's concrete mixer at its Third Street facility had a throughput of 396,800 tons in 1997 (equivalent to 198,400 cubic yards). Thus, the Draft SEIR indicates that RMC is planning to increase its 1997 concrete production levels by 125,000 to 225,000 cubic yards. However, the impact analysis of the Draft SEIR fails to take into account this predicted increase in production and omits any information about the RMC plant doubling its current output (see p. 15-16). Also, Table A-1 in Appendix A identifies RMC Pacific's annual production level for concrete at 200,000 cubic yards and does not reveal the planned increases. This inconsistency is confusing and does not provide the clear and accurate information required by CEQA for informed decision making.

Furthermore, the Draft SEIR is legally deficient because it does not provide a stable and finite description. It states that British Pacific Aggregates (BPA) is proposing to build a concrete and/or asphalt plant, which is supposedly covered by the Draft SEIR. The SEIR

[2] Last year, when the Planning Department issued the Notice of Preparation for the Project last year, there was no information provided on the asphalt plants proposed by Mission Valley Rock and British Pacific Aggregates. See ELJC letter of May 12, 1999. The lack of notice and description regarding these facilities violates CEQA Guidelines Section 15082(a).

includes the BPA proposal, despite its vagueness and uncertainty. The SEIR does not analyze the impacts of the BPA concrete/asphalt plant proposal because it is assumed that BPA's production of these materials will shift production from other Industry Group facilities. See Draft SEIR, p. 13; A.3-A.4. Thus, the Draft SEIR is intended to serve as the CEQA document for a new industrial facility, but provides very little information about this proposal. The Draft SEIR's omission of fundamental information about the Project components prevents informed decision-making and informed public participation and undermines the purpose of the CEQA review process. (See also, Section IV below regarding deficiencies in SEIR's impact analysis.)

K-1 CONT.

III. DRAFT SEIR FAILS TO ACCURATELY DESCRIBE THE PROJECT'S ENVIRONMENTAL SETTING

Section 15125 of the CEQA Guidelines provides, "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time of the notice of preparation is published, or if no notice is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an environmental impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives."

Chapter III of the Draft SEIR describes the environmental setting and potential impacts of the Project. Since the Project is comprised of thirteen different proposals, the Project's environmental setting is described as including various vacant, undeveloped lands, vacant industrial buildings, and industrial/manufacturing buildings along the Southern Waterfront, extending from Pier 70 near 20th and Illinois Streets in the northern section of the Southern Waterfront area to Pier 96, near Cargo Way.

K-2

The Draft SEIR states that most of the Industry Group companies are currently located at existing sites in San Francisco, and would relocate to the Project area, and that two of the existing sites (Bode and RMC Pacific) are within the land use study area at Third and 16th Streets and Third and Mariposa Streets, respectively. Draft SEIR, p. 37. This statement is misleading and should not be interpreted to mean that the Bode and RMC existing facilities are within the Project's environmental setting. The Southern Waterfront area was originally defined by the Port as extending from Piers 68-70 to India Basin. See Figure 1 of Draft EIR for Waterfront Land Use Plan (1997). The sites of the existing plants operated by Bode and RMC Pacific are located immediately north of the Southern Waterfront area, in a section referred to as South Beach/China Basin, which extends from Pier 22-1/2 to Mariposa Street (Pier 66). Bode and RMC Pacific must demolish their existing plants in the South Beach/ China Basin area as a result of the new Mission Bay development project and are seeking leases from the Port to build all new concrete facilities. Their relocation to the Southern Waterfront area would not be modification of existing projects, but a continuation and expansion of their businesses in a different environmental setting at new sites. Presumably, Bode and RMC's existing

facilities in the South Beach/China Basin area were not previously subjected to CEQA environmental review. These companies do not have any pre-existing rights or entitlements to cause environmental pollution on Port lands. Thus, they should not be deemed a part of the Project's physical environmental setting nor be used to establish the "baseline" for determining the significance of the Project's local impacts. *See* Benton v. Board of Supervisors, 226 Cal.App.3d 1467 (1991); Temecula Band of Luiseno Mission Indians v. Rancho California Water District, 43 Cal.App.4th 425 (1996).

K-2 CONT.

IV. DRAFT SEIR FAILS TO ACCURATELY AND COMPLETELY ANALYZE THE PROJECT'S SIGNIFICANT ADVERSE IMPACTS

A. Industry Group Proposal Impacts Should Be Evaluated Based on the Permitted Capacities, and Not Estimated Production Levels Based on a Market Demand Theory

In evaluating the environmental impacts of the Industry Group proposals, the Draft SEIR assumes their facilities will operate at certain production levels, based on a prediction of future market demand, and this is used to identify traffic and air quality impacts. As discussed above in Section II of this letter, the Draft SEIR provides limited information with regard to the permitted throughputs and allowable production capacities of the Industry Group proposals for the concrete and asphalt producing facilities. Instead, the Draft SEIR relies upon a market-based approach for determining production levels and these are used to calculate traffic and air pollution impacts for the short-term (2003) and long-term (2015).

K-3

According to the Draft SEIR, the Planning Department, Port staff, and EIR consultants "reviewed current production volumes by local concrete-producing members of the Industry Group..., along with the estimates and forecasts provided by the Industry Group, and determined that the production assumptions in this SEIR should be based on Industry Group consensus market estimate for near-term analysis. . . and the sum of the individual Industry Group members' production projections. . . should be the basis for the longer-range (cumulative) impacts. . ." Draft SEIR, p. A.1-A.2. The Draft SEIR claims that San Francisco is a relatively "mature" market whose demand for concrete is more stable and "somewhat lower, on a per-person basis, than that of a rapidly growing community." Draft SEIR, p. A.3.

This approach is flawed and violates the mandates of CEQA. The Draft SEIR does not provide any detailed information to evaluate the basis and reasonableness of the "Industry Group consensus market estimate." It is unclear what factors were considered in determining the future market for concrete and asphalt. The Draft SEIR refers to San Francisco's market as being stable, but may have ignored major development projects that are now underway, including the Mission Bay project, redevelopment of the Hunters Point Shipyard and Muni Light Rail System along Third Street.

The SEIR is misleading in that it claims the Industry Group's individual forecasts were used for long-term (2015) production predictions, while the Industry Group's consensus estimates of existing and near-term market demand was used for short-term (2003) production predictions. As discussed earlier, BPA's concrete and asphalt production is not included in the long-term production predictions (year 2015) and so the "worst case" scenario is never described in the Draft SEIR. Furthermore, the Draft SEIR contains inaccuracies in production calculations. We previously discussed the inconsistencies in the production levels for RMC Pacific; Appendix A uses 200,000 cubic yards while the project description indicates that RMC will produce up to 450,000 cubic yards by 2015.

The Draft SEIR's use of a market demand approach for determining production levels and the Project's potential impacts does not give the community residents who will be most adversely affected by the Project any guarantees that the Industry Group companies will not increase their production levels if the market should increase. Unless the production levels are enforceable, there is nothing preventing the Industry Group companies from expanding their operations to the maximum permitted levels (whatever that may be) and causing greater impacts than those analyzed in the Draft SEIR. K-3 CONT.

Due to the adverse affect the Project will have on air quality and cumulative environmental impacts, the community should be informed of what will happen if the demand for concrete and asphalt increase, to be able to make informed and balanced decisions regarding the impact of the project on their community. Information about the maximum capacity or throughput for each pollution source of the Industry Group components is necessary for a proper evaluation of environmental impacts and health risks

B. Local Impacts of Air Pollutants Will Be Greater

The Draft SEIR underestimates the local impacts of the Project's emissions. For trucks traveling north, the local emissions calculations are based on traffic within the project vicinity, using a maximum trip length of 3 miles (the average distance of the relocated concrete plants from Third Street at 16th Street and Mariposa Street to Third Street at Islais Creek). For trucks traveling south, no local emissions were added because it was assumed that this traffic was already in the immediate neighborhood of the project area. Draft SEIR p. 81.

It is unclear whether the Draft SEIR separated out traffic generated by existing facilities versus new facilities. Also, the Draft SEIR does not reveal whether increased traffic along Third Street, from congestion and the construction of the Muni Light Rail line along Third Street, had been taken into account when calculating emissions of trucks idling at intersections or stopped by congestion. The Draft SEIR clearly indicates that the level of service (LOS) at various intersections in the project area would get worse through time. Furthermore, construction of the Muni Third Street light rail project is expected to remove one traffic lane in each direction along Third Street. It is reasonable to assume K-4

that these conditions would produce traffic delays and an increase in emissions generated by traffic heading southward.

The Draft SEIR does not clearly reveal what assumptions were used to calculate PM-10 emissions from stationary and mobile sources. The draft SEIR states that the maximum daily emissions of reactive organic gases (ROG), nitrogen dioxide (NOx) and respirable particles (PM-10) from all project components combined would exceed the significance threshold of 80 pounds per day, and that the significance threshold for annual emissions would be exceeded for ROG and NOx, but not for PM-10 emissions. Pp .S-15; 84 (Table 11). This assumes that the Bode and RMC projects do not increase their production levels. However, there is already evidence in the record that there may be significant increases in production – in the immediate future as well as long term.

Also, the new asphalt facilities proposed by Mission Valley Rock and BPA most likely will generate significant PM-10 emissions. Two years ago, ELJC was involved in the CEQA environmental review process for the expansion and modernization of Berkeley Asphalt Company's facility, located at 699 Virginia Street, Berkeley, CA, which increased its production capacity of "hot mix" asphalt concrete from 145,000 tons per year to 250,000 tons per year. The Berkeley Asphalt Company facility submitted permit applications to BAAQMD for various components, including a new baghouse and modified dryer, new low-Nox burner for dryer, new pug mill and ancillaries, new cyclone and two condensers, and new asphalt tank. BAAQMD determined that Berkeley Asphalt Company's increases in PM-10 emissions for the various facility components totaled more than 5 tons per year. K-5

In comparison, Mission Valley Rock is proposing to build an asphalt plant at Pier 92, with production levels at 400,000 tons per year in the near term and 550,000 tons by 2015. Draft SEIR, p. 11. Mission Valley Rock's new asphalt facility is expected to produce 4 to 5 times the net increase of asphalt production that will be generated by Berkeley Asphalt Company's plant modernization and expansion efforts, but the Draft SEIR Appendix D (Table D-4) claims that the PM-10 emissions at Mission Valley Rock's plant will be 0.00 for PM-10 comb. and 1.12 tons/year of PM-10 dust. The SEIR does not reveal its net emissions calculations in Appendix D. We question their reasonableness and require additional information in order to fully evaluate this analysis.

C. Draft SEIR's analysis of the Project's Cumulative Impacts is Incomplete

The Draft SEIR fails to recognize that the Bayview-Hunters Point community, a predominantly African-American neighborhood, has been disproportionately burdened by pollution and its residents have repeatedly raised environmental justice and public health concerns to the Port and San Francisco Planning Department. The Draft SEIR does not adequately describe the major emitting facilities already existing in or near the Project area; this deficiency is found in the Draft SEIR's discussion on land uses in the vicinity (p. 27); air quality impacts (p. 77), and cumulative air quality impacts (pp. 96-98). K-6

The Draft SEIR does discuss, albeit briefly, the proposed expansion of the Southern Energy's Potrero power plant. (pp. 29, 97). It mentions that the expected closing of Hunters Point power plant is contingent upon the City having a reliable source of energy. But the Draft SEIR does not consider the likelihood of both power plants operating, rather than one expanding and the other closing, and fails to analyze the cumulative impacts of the Project if both power plants are operating. Given the current problems with electrical industry deregulation in California, it is reasonable to expect that the California Independent System Operator will not allow the Hunters Point Power Plant to shutdown while there is an "energy crises" and reported shortage of electrical generation resources.

In the air quality analysis, in the section entitled, "Existing Emissions Within Project Vicinity," the Draft SEIR provides only a very brief description of existing emissions and limited the discussion to three sentences:

> "Existing emissions sources within the project vicinity include large stationary sources, such as the Potrero and Hunters Point power plants, and other stationary sources, as well a (sic) mobile sources. The smaller stationary sources in the area, such as paint shops and small boilers, emit quantities of emissions that are substantially less than the mobile sources and the power plants. Mobile sources include autos and trucks traveling on Interstate 280, located approximately one mile west of the project site, and auto and trucks traveling on nearby Third Street and other local streets." Draft SEIR, p. 77.

K-6 CONT.

This discussion does not adequately describe the numerous major pollution sources in the Bayview-Hunters Point community. We have previously informed the Planning Department of the neighborhood pollution sources and public health concerns. In ELJC's earlier comment letter, dated July 12, 1999, submitted for the scoping process for the Southern Waterfront Supplemental EIR, we described the project setting, outlined the environmental justice and public health concerns, and included a list of toxic emission sources (Exhibit B attached thereto).

Some of this information was only briefly mentioned in the Draft SEIR's discussion of sensitive receptors (see Draft SEIR, p.77-78). In the SEIR's discussion of the 1997 hospitalization study conducted by physicians from the San Francisco Department of Public Health and the University of California at San Francisco, the Draft SEIR states, "The study did not evaluate the cause(s) of the observed higher rates of these ailments, and no inferences can be made regarding the relationships between industrial emission, mobile emissions, other sources, and health problems in the area." For the Draft SEIR to claim that "no inferences can be made" between industrial emissions, mobile emissions, and health impacts is not only inaccurate, it minimizes the Project's potential significant environmental and health impacts of the Project on the Bayview-Hunters Point residents. The mischaracterization of the potential health impacts runs counter to the very purpose

of CEQA, which is to inform the public and agency decision makers about the significant impacts of a project. The health concerns of community residents need to be addressed in light of the significant adverse cumulative effects of localized particulate emissions and diesel particulate emissions (see Draft SEIR, p. 96).

Furthermore, this "no inference" statement on p. 78 of the Draft SEIR is inconsistent with public health information which was previously provided to the Planning Department. See ELJC's letter to Port and Planning Department, dated May 1, 1998, submitted in connection with the environmental review of Port leases for Piers 90-92 and Pier 96 (relating to the Norcal Waste System's interim lease), page 6. See also, ELJC's letter to Planning Department, dated July 12, 1999 (comments for Project scoping phase), page 5.

K-6 CONT.

We believe that the Draft SEIR is misleading in its omissions regarding the environmental and public health concerns of the local neighborhood. Without accurately describing the immediate neighborhood of the Project, the Draft SEIR fails to recognize the context and significance of the Project's effects. The SEIR recognizes that the Project will cause significant impacts in traffic and air pollution, and these impacts are not minimized or eliminated by the proposed mitigation measures. The Project will clearly contribute to the disproportionate impacts burdening the Hunters Point community and this implicates Title VI of the Civil Rights Act. The Draft SEIR should carefully analyze the Project's cumulative impacts that would burden the surrounding community and the SEIR's failure to do so undermines the purpose and policies of the CEQA review process. "The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind." CEQA Guideline §15003(g); Bozung v. LAFCO, 13 Cal. 3d 263 (1975).

IV. DRAFT SEIR FAILS TO ADEQUATELY CONSIDER FEASIBLE MITIGATION MEASURES

The mitigation measures identified in this SEIR are inadequate, as they do not address the most severe environmental effects of the Project. Section 15126.4 of the CEQA Guidelines requires EIRs to describe feasible mitigation measures that could minimize significant adverse impacts. The description must identify mitigation measures or alternatives for each significant environmental effect identified in the EIR. CEQA Guidelines Section 15126.4(a)(1). The mitigation measures must be fully enforceable through permit conditions, agreements or other legally-binding instruments. CEQA Guidelines Section 15126.4(a)(2).

K-7

The Project will have significant adverse impacts on regional air quality. For example, the Project's NOx emissions will exceed BAAQMD's daily significance threshold by roughly 25 times in both 2003 and 2015. SEIR, p. 84. Both stationary and mobile sources contribute to the degradation of regional air quality, with the most emissions coming from ship and rail. SEIR p. 84. The only mitigation measures identified in the SEIR for stationary sources are the implementation of BACT technology. However,

BACT technology is not a mitigation measure. The emission reductions resulting from BACT technology is not only required by law, but was already assumed in the SEIR when calculating air quality impacts. Also, there are no mitigation measures explored in the SEIR to reduce pollution from ship and rail. The Port could explore working with its potential tenants to import raw materials on barges using clean-fueled tug boats, or to use low-emissions equipment to transfer aggregate materials at or between facilities.

K-7 CONT.

CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible, and agencies are required to give major consideration to preventing environmental damage. CEQA Guideline § 15021(a)(1). One of the policies governing CEQA is to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible. CEQA Guideline § 15002(a)(3). This Project will have severe impacts on air quality. To comply with CEQA, the adverse effects need to be either mitigated or alternatives need to be adopted.

VI. DRAFT SEIR FAILS TO ADEQUATELY CONSIDER ALTERNATIVES TO THE PROPOSED PROJECT

Section 15126.6 of the CEQA Guidelines requires EIRs to describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Under CEQA, the project proponent must focus on alternatives that reduce the environmental effects to a level of insignificance even if they are more costly or they impede the project's objectives to some degree. CEQA Guidelines Section 15126(d)(3).

In ELJC's letter of July 12, 1999, we stated that CEQA requires a careful examination of alternatives for each site-specific project. This was not done. Instead, the Draft SEIR provided 3 alternatives for the entire Project (a No Project alternative, a Reduced Scale alternative and a Residential Use Future Scenario). ELJC and SAEJ appreciate the Port and Planning Department's consideration of these alternatives, especially the Reduced Scale alternative which would not include several major polluting sources, such as the Mission Valley Rock's proposal for an asphalt plant and the BPA's proposal for future concrete and asphalt plants. However, this range of alternatives is inadequate given the scope and significant impacts associated with several components of the Project. *See* Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners, 18 Cal.App.4th 729 (1993).

K-8

In conclusion, we believe that the Draft SEIR fails to meet several fundamental requirements of CEQA and should be rejected. The Project's components should be carefully re-evaluated and their impacts fully disclosed.

Sincerely,

Anne Eng

Lynne Saxton

LETTER K – ENVIRONMENTAL LAW AND JUSTICE CLINIC, GOLDEN GATE UNIVERSITY LAW SCHOOL

K-1) In the SEIR's near-term (up to 2003) analysis, neither the permitted nor physical capacities of the Industry Group facilities were considered the appropriate measure of total Industry Group production, because an increase in the supply of construction materials is more likely to be a result of, rather than a cause of, increased development activity. That is, the amount of development activity would be expected to generate a demand for concrete and asphalt less than the physical design capacity of the proposed Industry Group facilities. Accordingly, as described in Appendix A of the SEIR, the analysis of aggregate-related impacts is based on an overall production volume that is assumed to be generated by the market for construction materials. In other words, the assumptions underlying the traffic and air quality analyses are less dependent on which Industry Group member imports, produces, or distributes a specific quantity of material than on the total Industry Group "throughput," or quantity of material processed. It was for this reason that, as described in SEIR Appendix A, the SEIR analysis of near-term impacts relied on the consensus of the Industry Group's market projections for ready-mix concrete and asphalt concrete consumption, which is based on existing demand. As stated in Appendix A:

> The Industry Group estimate of the market for ready-mix concrete and asphalt is based on current demand for these construction materials in San Francisco and nearby communities . . . . . It should be noted that the ready-mix concrete industry typically develops forecasts of market demand based on population and that, while economic activity may have short-term effects on production (for example, demand for concrete in San Francisco is relatively high at present due to the large amount of building activity; similarly, demand was relatively low during the early 1990s due to the recession), over time the volume of concrete used is largely a function of the overall growth in population. Therefore, as a largely built out location, San Francisco is considered a relatively "mature" market whose demand for concrete is more stable and somewhat lower, on a per-person basis, than that of a rapidly growing community.

As also stated in Appendix A, the SEIR cumulative analysis (2015) assumed greater throughput, based on the sum of individual Industry Group members' forecasts, even though the total was greater than market conditions might support because these individual forecasts projected that one or more producers would increase their share of the ready-mix or asphalt concrete markets, even though the market demand would not necessarily increase.

Regarding the commenters' suggestion that it was inappropriate to treat several project components as a single project for purposes of CEQA review, as stated in the response to Comment H-10, p. C&R.44, concerning the SEIR's air quality analysis, the aggregate-related Industry Group project components would, to a great extent, constitute a closed system; that is,

aggregate and cement would be imported via ship, truck, or rail by one Industry Group component and then be delivered via truck or conveyor to a second component for processing and then delivery by truck to a user. In addition, given that ready-mix concrete and asphalt concrete are normally produced close to the point of use, owing to the weight and the limited working time of the finished material, the Industry Group members would essentially serve the same market for construction materials. Because of this interrelationship among the aggregate-related entities, analysis of each of them singly would have failed to capture the true impacts resulting from the shipment and transfer of materials between the project components. Furthermore, the SEIR describes both the physical improvements proposed as part of each component and the assumptions regarding production volumes (throughput) on which the traffic and air quality analyses are based, and therefore the SEIR provides a fully adequate project description. The Planning Department made a decision to include the two other (non-aggregate) Industry Group components – Waste Resources Technologies and Coach USA – in the SEIR project description in light of their proposed location in the Southern Waterfront area. Each of these components is similarly described in terms of proposed improvements and traffic assumptions. The final component of Phase I of the project, the Illinois Street Intermodal Bridge, was included in the SEIR because it would be integral to the transportation network that would serve the Industry Group project components and the other maritime and industrial traffic in the Southern Waterfront.

As for Future Port Development (Phase II of the SEIR project), the description is necessarily less detailed. A major component of this phase, the Pier 70 Mixed-Use Opportunity Area, will be the subject of a separate Request for Proposals by the Port in 2001, with appropriate additional CEQA review as required once that component is more fully defined. The other largest component of Phase II, the Pier 90-94 backlands, is almost all designated in the Port's Waterfront Land Use Plan for future maritime uses. Thus, the development assumptions used in the SEIR analyses would entail major changes in the planning framework and in land uses. The Port plans further study to determine whether non-maritime use is feasible on the Pier 90-94 backlands; the SEIR assumed office and/or research and development uses to provide a general understanding of environmental impacts at a very conceptual level, to inform the planning study for this area.

The figures included on page 3 of the comment letter reflect either proposed plant capacities (as given in SEIR Chapter II, Project Description, in the text descriptions of each component) or individual Industry Group projections (as provided in Table A-1 of SEIR Appendix A), but they do not conform with the more important set of numbers that formed the basis for the SEIR analysis, which are shown in Table A-2 of Appendix A. Thus, for example, the production volume cited by the commenters for RMC Pacific, on page 4 of the comment letter, is accounted for as part of the overall production of ready-mix concrete (650,000 cubic yards in the near term, of which half would be produced by RMC Pacific and half by Bode, and 800,000 cubic yards in

the long term, again of which half would be produced by RMC Pacific and half by Bode[7]). For the SEIR analysis, however, the specific production volume by RMC Pacific is less important than the overall Industry Group throughput, and the SEIR acknowledges that production volumes for individual Industry Group components could shift among the components without affecting the overall analysis. Similarly, as stated on SEIR p. 13, if British Pacific Aggregates (BPA; now Hanson Aggregates) were to obtain approval for and begin production of ready-mix concrete or asphalt, the SEIR assumes that such production would result in a decrease in other Industry Group member(s)' production, compared to near-term production volumes assumed in the SEIR:

> Production of ready-mix concrete and/or asphalt by BPA would be contingent on the company capturing a share of the local market for one or both products. As described in Appendix A, this SEIR *does not assume that BPA would engage in production of either product.* (emphasis added) However, as also stated in Appendix A, the net result of BPA producing either or both of these materials would not be an increase in the total volume of concrete or asphalt manufactured within the Southern Waterfront area, but an incremental shift in the location of such production.

As indicated in SEIR Table A-1, British Pacific Aggregates' individual production estimate was included in the total volumes of ready-mix concrete and asphalt concrete included in the long-term (2015) analysis in the SEIR. However, the entire volume of asphalt production was assigned to Mission Valley Rock for purposes of the SEIR analysis because Mission Valley Rock is further advanced in planning its proposed asphalt plant, while BPA (now Hanson Aggregates) is less certain about its proposed asphalt plant. Therefore, the SEIR analysis, which is based on overall throughput, would remain valid if BPA were to obtain approval for concrete or asphalt production.

Most of the specific information that the commenters state on page 4 of their letter is not included in the SEIR is included in Appendix A for the Industry Group as a whole, including throughput volumes, origin of materials. and the means of transportation. Proposed air pollution control equipment is described in SEIR Section III.C, Air Quality (see p. 91), and this section also describes equipment, such as the asphalt drum mixer, where asphalt cement would be mixed with aggregate to create asphalt concrete. Other information, such as the amount and type of (diesel) fuel use, are not specifically provided but are implicit in the calculations of emissions of criteria air pollutants and diesel particulate. A haul truck capacity of 25 tons, and a cement mixer capacity of 9 cubic yards (18 tons), and an asphalt concrete truck capacity of 22 tons were assumed in both the traffic and air quality analyses.

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[7] These volumes are exclusive of the ready-mix concrete production by existing small producers in the project area.

Concerning the Notice of Preparation for the SEIR, the NOP issued by the Planning Department, dated June 12, 1999, includes the following text:

> British Pacific Aggregates: bulk cargo and asphalt batching plant use at a Pier 94-96 location, requiring about 436,000 sf of land.

Although the Mission Valley Rock project component was not described in the NOP as including asphalt production, as described above, the SEIR analyses were based on assumptions of overall Industry Group production for both concrete and asphalt. As with concrete, the SEIR does not assume that British Pacific will produce asphalt; rather the asphalt production is assigned, for analysis purposes, to Mission Valley Rock. As discussed above, production of asphalt by BPA (now Hanson Aggregates) would be contingent on that company capturing a share of the local market, and would not increase overall production in the project area, but rather reallocate the total volume of asphalt produced.

To more clearly link the SEIR production assumptions to lease conditions, the Port has agreed to include the following mitigation measure as part of the project. This measure is added to the end of SEIR p. 147 (and to p. S-31 in the Summary):

C.4A To regulate the production of concrete or asphalt material consistent with the volumes analyzed in the Southern Waterfront SEIR, any lease for concrete or asphalt batching operations on Port property shall include a provision setting forth the maximum production volume allowed under the lease, such that the cumulative total of production volumes of such batching operation leases shall not exceed the volumes assumed and analyzed in the SEIR.

To monitor production volumes that may occur on Port property, the Port shall require as a condition of each lease that each tenant provide annually an audited account of the concrete and/or asphalt production volumes provided by each concrete or asphalt production business. The Port shall incorporate this information in an annual report to the Port Commission.

Should any existing tenants propose to increase production above the amounts stipulated in the lease, such change would require an amendment to the lease, and would be subject to further environmental review by the San Francisco Planning Department's Major Environmental Assessment (MEA) division. In determining whether further environmental impact analysis will be required, MEA will consider the production levels cited in the Port's report and any emission-reducing improvements that may have been incorporated into the on-site operations (stationary sources), and trucks and other vehicles associated with the operations (mobile sources).

K-2) As stated on p. 47 of the SEIR, although a large number of vehicle trips related to the Industry Group project components are currently being made, under existing conditions, to and from other

parts of San Francisco (including those to and from Bode and RMC Pacific), these existing trips were not "backed out" of the traffic analysis because many of these trips originate at the fringe of or outside the study area and thus may not travel through most of the analysis intersections. The result, as stated on SEIR p. 47, is that the traffic analysis is conservative. With regard to the air quality analysis, emissions resulting from existing activities, including traffic to and from the Bode and RMC Pacific sites, were properly discounted from the analysis of regional emissions, because the area of analysis encompasses the entire Bay Area Air Basin. However, for the analysis of local emissions, most existing emissions (except those occurring within three miles of the new sites) were not deducted from the project totals, because, as stated on SEIR p. 81, the relocation of existing facilities would increase emissions at the new locations, even if the effect on regional emissions would be negligible. Regarding the two legal decisions cited by the commenters, neither is applicable to the proposed project: in both cases, the question was whether, for a proposed modification of an approved *but unbuilt* project, only the incremental change need be analyzed. Both cases upheld the use of a Negative Declaration for purposes of environmental review of the incremental change of a project previously approved but not built. Neither of these cases support the notion that only conditions subject to previous CEQA analysis should be included in the existing setting. On the contrary, CEQA Guidelines Section 15125 states, "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published. . . ." Because both the Bode and RMC Pacific facilities are in existence, and were at the time the Notice of Preparation was published, these facilities are properly considered as part of the existing setting, and the discontinuation of operations at these facilities and commencement of operations by Bode and RMC Pacific at new plants within the project area is all properly considered as part of the project analyzed in the SEIR.

K-3) As described in SEIR Appendix A, the Industry Group's market-based consensus forecast was used for the near-term analysis, while the sum of the individual Industry Group members' projections was used in the long-term analysis, resulting in a substantially greater volume of both ready-mix concrete and asphalt concrete being assumed to be produced by 2015. This conservative approach was taken precisely to capture potential worst-case effects, despite information presented by the Industry Group indicating that the SEIR's 2015 production forecasts were unrealistically high.

Regarding the potential for British Pacific Aggregates (now Hanson Aggregates) to produce ready-mix concrete and asphalt concrete, as stated in the response to Comment K-1, above, British Pacific Aggregates' individual production estimate was included in the total volumes of ready-mix concrete and asphalt concrete included in the long-term (2015) analysis in the SEIR, as indicated in Table A-1 of SEIR Appendix A..

Please see also the response to Comment K-1, above.

K-4) Please see the response to Comment K-2, above, concerning traffic from existing facilities, which was not removed from the analysis (with the exception of 84 daily truck trips hauling dredge sand from Pier 92 to Bode and RMC's existing plants on Third Street; see SEIR Tables 2 and 3, pp. 50 and 51).

As stated on SEIR p. 47, the transportation analysis accounts for not only implementation of the Third Street light rail line (with its accompanying changes in lane geometry along Third Street), but also additional background, or cumulative, traffic growth due to the Mission Bay project and redevelopment of Hunters Point shipyard and the larger Bayview-Hunters Point neighborhood. In terms of emissions of trucks, buses, and automobiles, the air quality analysis was derived directly from the traffic analysis, and therefore included the same assumptions regarding cumulative growth.

K-5) The commenters are correct in noting that the near-term (2003) emissions inventory presented in SEIR Table 11 do not assume increased production volumes of ready-mix concrete. However, as described in SEIR Appendix A, an increase is assumed by 2015.

Regarding emissions from the proposed asphalt plant, as stated in Appendix D of the SEIR, emissions factors were taken from the U.S. Environmental Protection Agency publication *Compilation of Air Pollutant Emission Factors* (Fifth Edition), which is commonly referred to as "AP-42." The factor used was 0.0045 pounds of PM-10 emitted per ton of material processed. This is the rate from the 1995 version of AP-42 for "filterable" PM-10, assuming a natural-gas fired drum mixer and the use of a fabric filter, as would be used at the proposed Mission Valley Rock plant.[8,9] A key distinguishing factor between the proposed Mission Valley Rock plant and the existing Berkeley Asphalt plant is that the new plant would employ a counter-flow drum mixer, which, as stated on SEIR p. 95, "prevents direct contact between the material being mixed and the hot exhaust gases in the dryer." The existing Berkeley Asphalt plant is a batch mix plant, which has a different type of mixing process. The comparable AP-42 emissions factor for filterable PM-10 for a batch plant with fabric filter is 0.016 pounds per ton of material processed, or more than 3.5 times the rate for a drum mix plant. This different rate accounts for a substantial portion of the difference in the emissions between the two plants.

In addition, a review of calculations prepared by the Bay Area Air Quality Management District in connection with the permit applications for the expansion of the Berkeley Asphalt plant that is discussed by the commenters indicates that PM-10 emissions were assumed to increase by a

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8 This rate does not include "condensable" PM-10 (particulates that are in gaseous form when they are emitted from the exhaust stack but condense into small particles upon cooling), because actual testing of stack emissions from a similar plant indicates that condensable particulate emissions are negligible.

9 On December 22, 2000, EPA published revised PM-10 emission factors for the drum mixer of an asphalt plant. The new emissions rate of 0.0039 pounds per ton of material processed is lower than the rate used in the SEIR, indicating that the SEIR analysis is conservative.

factor of 7.5, from slightly less than one ton to 7.3 tons, because the calculations assumed maximum hourly production would occur for 10 hours per day, 6 days per week, throughout the year. The net result would be an annual production volume of 1 million tons, or four times the amount that Berkeley Asphalt proposed in its application to the BAAQMD. This would not be realistic. Furthermore, the existing emissions were based on actual then-recent throughput, not the then-permitted 125,000 tons per year. Therefore, the BAAQMD calculations, while intended to demonstrate the maximum potential increase, are not relevant to the SEIR's analysis of potential impacts at the asphalt plant proposed for the Southern Waterfront.

K-6) The SEIR adequately describes both the setting and potential cumulative effects with regard to air quality. Preparation of an inventory of existing emissions (i.e., the number of pounds of various criteria pollutants emitted within a particular area) is beyond the scope of any EIR, and is not necessary in order to evaluate a project's impact on the airshed. As described in the SEIR (pp. 78-79), such evaluation is performed by comparing the *project's* emissions with the significance criteria promulgated by the Bay Area Air Quality Management District of 80 pounds per day or 15 tons per year for reactive organic gases (ROG), nitrogen oxides (NO_x), and respirable particulate matter (PM-10). The SEIR (p. 83) concludes that these criteria would be exceeded on a daily basis in both 2003 and 2015, and that the annual criteria would also be exceeded for ROG and NO_x in each analysis year, and that the project impact would therefore be significant.

However, the commenters' concerns are principally with regard to local impacts from sources in the vicinity of the SEIR project area. The SEIR evaluates local air quality effects for carbon monoxide and, in recognition of the concentration of industrial uses proposed, and the anticipated corresponding concentration of truck traffic, for PM-10 and diesel particulate matter. As stated on SEIR p. 78, "because of the location and concentration of uses proposed by members of the Industry Group and the sensitivity of nearby populations, this SEIR goes well beyond the typical level of air quality analysis in EIRs to address potential health effects of localized air pollution." As described on SEIR p. 91, the local impact analysis involved modeling of pollutant concentrations (i.e., how much PM-10 is contained within a given volume of air) and evaluating the results against health-based standards to determine if emissions generated by the project would result in enough of a concentration of carbon monoxide, PM-10, or diesel particulate matter so as to create concern regarding localized health effects. The SEIR determined that no project-specific significant effect would occur, because concentrations would not exceed the applicable standards (see SEIR Tables 16, 17, and 18, pp. 90, 94, and 95). Note that Table 17 is revised herein and is presented above.

As noted in the SEIR, and remarked upon by the commenters, there are numerous emissions sources in the project area vicinity, many of which were identified in the commenters' letter in response to the SEIR Notice of Preparation (NOP). As characterized in the SEIR, and

corroborated by the list of BAAQMD-permitted facilities submitted with the commenters' NOP response, most potential emissions sources are relatively small facilities, such as dry cleaners, auto body, paint, and repair shops, gasoline stations, and printing shops. The list also includes food and furnishing producers. Most of these sources generate little in the way of particulate matter and, while they may emit other pollutants, there is no reliable and measurable way of adding those emissions to project-generated particulate emissions and producing an intelligible result. Thus, characterizing emissions from all existing sources would require a great effort that would yield limited results, because the majority of sources would have little or no effect on PM 10 or diesel particulate concentrations at locations where project sources (Industry Group components) would have the greatest effect. Nevertheless, in light of existing and potential future particulate emissions from certain key non-project sources, such as increased vehicle and truck traffic and the planned expansion of Southern Energy's Potrero Power Plant, the SEIR did conclude that "cumulative concentrations of PM-10 and diesel particulate experienced locally, while unknown because of the wide array of sources in the existing environment, could exceed significance thresholds . . . [and that, because] the project would add some increment to existing local PM-10 and diesel emissions, . . . these emissions are deemed cumulatively significant, although the project itself would not have a significant effect with regard to local concentrations of PM-10 or diesel particulate" (SEIR pp. 97-98).

Concerning existing and future public health concerns in the project area, it is not the intent of the SEIR authors to minimize concerns in local communities, particularly the Bayview-Hunters Point neighborhood, about local health conditions. It was precisely for this reason that the recent study conducted in the area is described on SEIR pp. 77 and 78. However, after consultation with the San Francisco Department of Public Health, the SEIR authors noted that the 1997 hospitalization study did not attempt to establish any cause-and-effect relationship between emissions sources and hospitalization rates.

K-7) All of the mitigation measures described in the SEIR are fully enforceable, through inclusion in lease documents (or future development agreements) with the Port, through existing permit procedures, or by means of actions that could be taken by the Port or other City agencies.

Concerning ship and rail emissions, as stated in the SEIR on p. 70, there is no local authority to require reductions in ship or rail emissions, which are solely within the purview of the U.S. EPA. It is noted that the EPA plans to propose standards by 2002 limiting the amount of NOx emissions from marine diesel engines in U.S. waters.

K-8) CEQA requires analysis of alternatives that "would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project" (State CEQA Guidelines Sec. 15126.6). The SEIR states, on p. 167:

> San Francisco has a limited supply of industrially zoned land that could accommodate components of the project such as the Industry Group uses, and also has a limited supply of land that can accommodate both marine and rail transport. This supply of land is located entirely within the southeastern quadrant of the City, and thus the [Planning Department and the Port] concluded that even if an alternative site could be identified, its use would not eliminate significant impacts associated with the project. For example, traffic impacts of project uses would likely affect many of the same intersections examined in this SEIR, and particularly those where significant unavoidable effects were identified, because those intersections are along key routes through the southeastern portion of San Francisco. With regard to air quality, the project's significant unmitigable effects would occur with regard to regional air quality, and would therefore be little affected by a shift to other site(s).

As described beginning on SEIR p. 3, the Port of San Francisco's primary objective for the project is "to maintain and expand cargo shipping and maritime businesses at its existing terminals at Piers 80, 90-92, and 94-96 on the north and south sides of Islais Creek east of the existing Third Street Bridge, and the existing ship repair yard at Pier 70." Another objective is construction of a rail and truck access bridge over Islais Creek, between the two cargo terminals, to increase efficiency and marketability of the terminals. Secondary objectives include diversification of marketing efforts to increase cargo terminals usage; increased productivity of Port assets through interim use of maritime expansion land; and development of beneficial non-maritime land uses that are compatible with maritime activities in areas surplus to long-term maritime needs. For the Industry Group, a primary objective is "to meet the continuing demand for construction materials." Other objectives include retention of existing ready-mix concrete production in the City and introduction of asphalt production to meet local demand; retention of uses being displaced by development; facilitate ship-borne import of construction aggregates; co-location of compatible aggregate-related uses; retain and increase employment; and operation of a construction/demolition material recovery facility.

Necessarily, the overriding objectives of maintenance and expansion of cargo shipping can only be achieved in the area from Pier 80 through Piers 94-96, which contains the Port's primary cargo facilities. However, it is also the cargo shipping activity – both Industry Group and other shipping – that would result in the greatest share of significant unavoidable effects – those related to Air Quality. As described in SEIR Chapter V, these project effects are regional, in that they are a result of the amount of each of the three key criteria air pollutants that would be emitted in the Bay Area Air Basin. Locally, the project effect would not be significant, as explained on SEIR pp. 89-96, although the project would contribute to a cumulative significant effect on local air quality. Again, however, it would be shipping that would cause the greatest share of the effect.

Alternative locations for one or more of the aggregate-related Industry Group components could result in localized improvement at certain intersections analyzed in the SEIR. However, the overall number of vehicle trips would not decrease, and truck traffic would likely increase, compared to the project, because there would be an increase in the volume of raw aggregate that would have to be trucked from the Islais Creek area to production facilities – assuming that there would be a shift in the import to San Francisco of these raw aggregates from truck transport to ship transport. As stated on pp. A.2-A.3 of SEIR Appendix A, "This shift is anticipated to be induced by declining reserves in local quarries, and would be facilitated by the proposed waterside locations of the Industry Group members. That is, the proposed project sites were selected, in part, to allow for direct import of sand, gravel, and crushed rock in the future."

The SEIR does include Alternative B, p. 169, which would not include development of any asphalt plants in the project area (because asphalt production would not represent either a relocation of an existing use or a strictly maritime use, even though aggregate would be imported by ship). This alternative also does not include the proposed bus storage and maintenance facility at Pier 96, which would not be a maritime use, although it would be consistent with the Port's objective to increase productivity of its land through interim use. However, because of the maritime nature of many of the project components and of much of the project area, because of the limited supply of large parcels of industrial land, particularly those that can accommodate both marine and rail transport, and because little, if any, reduction in unmitigable effects would be likely, the SEIR does not consider other alternatives that do not include the aggregate-related facilities at their proposed locations within the project area.

The only other significant, unavoidable effects identified in Chapter V of the SEIR – beyond those related to Air Quality – would be degradation in level of service at certain local intersections. However, these impacts would not occur until implementation of Phase II of the project, assumed by 2015. These traffic impacts would be reduced or eliminated if portions of Phase II were to be eliminated from the project. However, as noted in the response to Comment H-1, p. C&R. 38, of the future development assumed in the SEIR, a large portion – that on the Pier 90-94 backlands – was assumed to occur on land currently designated for maritime use. Thus, the development assumptions used in the SEIR transportation analysis would entail major changes in the planning framework and in land uses. The Port plans further study to determine whether non-maritime use is feasible on the Pier 90-94 backlands; the SEIR assumed office and/or research and development uses to provide a general understanding of environmental impacts at a very conceptual level, to inform the planning study for this area.

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FRIENDS OF ISLAIS CREEK
6 Hillview Court, San Francisco 94124

RECEIVED
NOV 8 2000
PLANNING DEPT

To: Hillary Gitelman
Environmental Review
SAN FRANCISCO PLANNING DEPARTMENT
Fax: 415 558 6409

From: Robin Chiang
President
Friends of Islais Creek

Re: **PORT OF SAN FRANCISCO**
NEW BUSINESSES AT CONTAINER FACILITY
NEW ILLINOIS STREET BRIDGE

Dear Ms Gitelman:

Friends of Islais Creek has worked closely and in harmony with BCDC and the Port of San Francisco for nearly 13 years in the vicinity of the Port's Container Facility.

We have worked to bring public access to Islais Creek and to help make the area around it cleaner, safer, and more welcoming.

We celebrate this as one of the few remaining industrial enclaves in the City. While we encourage new people moving to the area we hope they respect the need for long established industries to continue while they remain economically viable.

We support the establishment of new industries on Port properties—some of which have been forced to move from Mission Bay. We believe the aggregation of such uses in this location could realize the benefits to environment, to employment, and to the cost of doing business in the City that have been claimed.

We also support the Port's proposal to build a second bridge over Islais Creek as an extension of Illinois Street. But we hope the Port will respect the fragile and complex industrial aesthetic that we have worked hard to maintain with existing structures and nurture in new projects. We want the new bridge to be visually compatible with the spirit of Islais Creek—especially in view of our work, years ago, to name the 3rd Street bridge after its engineer Lavon Nishkian.

L-1

In addition, we agree with the Coast Guard and Army Corps that the new Illinois Street bridge should not prevent Islais Creek from remaining a navigable waterway—including the west end of the Creek. The need to navigate the Creek may not happen within the next few years, but we feel the new bridge should be designed to accommodate future modification that will make it as easily operable as the existing Nishkian Bridge.

Feel free to call me if you have any questions: 415 995 9870. Thank you.

Sincerely,

LETTER L – FRIENDS OF ISLAIS CREEK

L-1) The comments concern one of the project components, the proposed Illinois Street bridge, and do not address the adequacy or accuracy of the SEIR. For information, it is noted that the SEIR states, on p. 22, that the Port of San Francisco "believes the navigational needs of the west end of Islais Creek are and will continue to be for small vessels."

Golden Gate Audubon Society

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Americans Committed to Conservation • A Chapter of the National Audubon Society

M

November 7, 2000

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CITY & COUNTY OF S.F.
DEPT. OF CITY PLANNING

By Fax

RECEIVED
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PLANNING DEPT

Environmental Review Officer
1660 Mission Street, Suite 500
San Francisco, CA 94103

Re: Comments on: San Francisco Southern Waterfront Draft Supplemental Environmental Impact Report (Case No. 1999.377E)

Gentlemen/Ladies:

Once again, Golden Gate Audubon Society is concerned that the environmental review process for the Waterfront does not adequately address impacts of proposed development on biological resources.

In commenting on the draft EIR for the Waterfront Land Use Plan in 1996, we noted that wildlife and the habitat it requires were given short shrift in those documents. The official response stated in part:

> ... the WLUP EIR is a Program EIR ... and as such is not intended to provide an exhaustive list of non-special-status plant and animal species in the project area, nor is it the intent that the EIR analyze impacts at a project level of detail. Subsequent development proposals ... would be subject to subsequent project-specific environmental review, which could involve, among other issues, further site-specific review of plant and animal species once a particular development proposal were advanced. ... [1997 Final EIR, C&R.96]

M-1

The current SEIR purports to be project-specific for cargo shipping at Piers 80 and 94-96 and Port dredge material handling at Pier 94 -- and presumably for the Industry Group components and the Illinois St. Bridge; any other programs or projects in the study area are said to be "subject to additional project-specific environmental review." [SEIR, S-7]

In Section III.F, on potential impacts on biological resources, the SEIR focuses almost entirely on the proposed Illinois St. Bridge, with a reference to the 1997 Final EIR for information on "other effects" and to its own discussion of storm water runoff.

[SEIR, 136, 141] As to the BPA terminal and the Port's dredge material facility, it merely states that neither "would encroach into the existing wetlands." [SEIR, 141]

Thus, except for the focus on the Illinois St. Bridge, there is still no discussion of "wildlife and the habitat it requires," our expressed concern in 1996. And specifically, there is no real discussion of impacts on the Pier 94 wetlands (at Seawall Lot 352) or on the Piers 90-94 Backlands.

Has there been a delineation of the Pier 94 wetlands, on which the "no encroachment" conclusion is based? As seen in the attached photographs (taken by Alex Schwarz in 1990), the wetland habitat between and adjacent to Piers 92 and 94 is substantial.

The 1997 Final EIR noted that wetlands could be adversely affected by public access, a truism that the SEIR apparently limits to members of the general public. What about intrusions, for example, by BPA employees and contractors? Shouldn't there be buffer zones for protection of the Pier 94 wetlands? and (since the general public is excluded) oversight measures to assure there are in fact no physical intrusions?

What about physical intrusions from shipping for the BPA operations and any future cargo shipping? Would vessels alter the wetlands, either directly or by wake displacement? And what about non-physical intrusions, such as noise and night lighting from adjacent industrial operations? These may have significant impacts on waterbirds using the wetland habitats.

M-1 CONT.

The Waterfront Plan states that "appropriate mitigation measures" would be required if development causes filling of the Pier 94 wetlands. [SEIR 141] Have any such mitigation measures been identified? Of course, the Port may not permit degradation of the wetlands from interim uses merely because it may propose mitigation measures in the future. And there should be provision for reasonable access to the wetlands for research and stewardship purposes.

In fact, there is no survey of biological resources in the Piers 90-94 area (except for the limited focus on the Illinois St. Bridge), and thus no basis for an adequate discussion of impacts of development on those resources. What plant and animal species inhabit the Pier 94 wetlands? The Piers 90-94 Backlands? Nothing in the SEIR or the referenced sections of the 1997 Final EIR answers those questions.

For example, the 1997 Final EIR merely states -- for the entire Waterfront -- that terrestrial vegetation outside wetlands is largely limited to "weeds" on vacant sites and some planted ornamentals. It contains a brief reference to birds -- again along the entire Waterfront -- and appends a list of "typical" birds in its Appendix G. [1997 Final EIR, 244-245]

Terrestrial vegetation in the area south of Islais Creek (both the site mapped as "Pier 90-94 Backlands" in SEIR Figure 2 and the "white" areas north and northeast of it) is not limited to "weeds and ornamentals." Native plants there include toyon (Heteromeles

arbutifolia) and coyote bush (Baccharis pilularis), both of which are important food plants for a number of wildlife species, both vertebrate and invertebrate. Many introduced species also have high value for native wildlife.

We know of two bird species that may be found in the study area that are federal and state species of concern: the Burrowing Owl and the Tricolored Blackbird. Specifically, Burrowing Owls have been seen at the east end of Cesar Chavez St., at Hunters Point Shipyard and at Candlestick Point Park, and vacant land such as the Piers 90-94 Backlands would provide suitable habitat for them.

The Port's dredge material storage facility, as well as future uses of the "Backlands" site, will clearly displace habitat, and that impact should be assessed. If this SEIR is not the appropriate document for such an assessment, please name the documents in which it will be done, and please be sure that the Golden Gate Audubon Society is on the mailing list to receive them.

This project may not only have significant impacts upon wildlife, but also upon the human inhabitants of this section of the City. The siting of two asphalt plants, two or three concrete batching plants, the importation and storage of construction aggregates, a construction materials recycler and a bus yard are all being proposed for the Bayview/Hunters Point area that is already the home to a power plant and the Southeast Sewage Treatment Plant, the Port lands and many other industries such as auto wrecker yards, etc. This EIR should address the issue of whether this community is being presented with an undue share of such potentially air, water and noise polluting industries. Has the EIR considered these impacts from an environmental justice perspective?

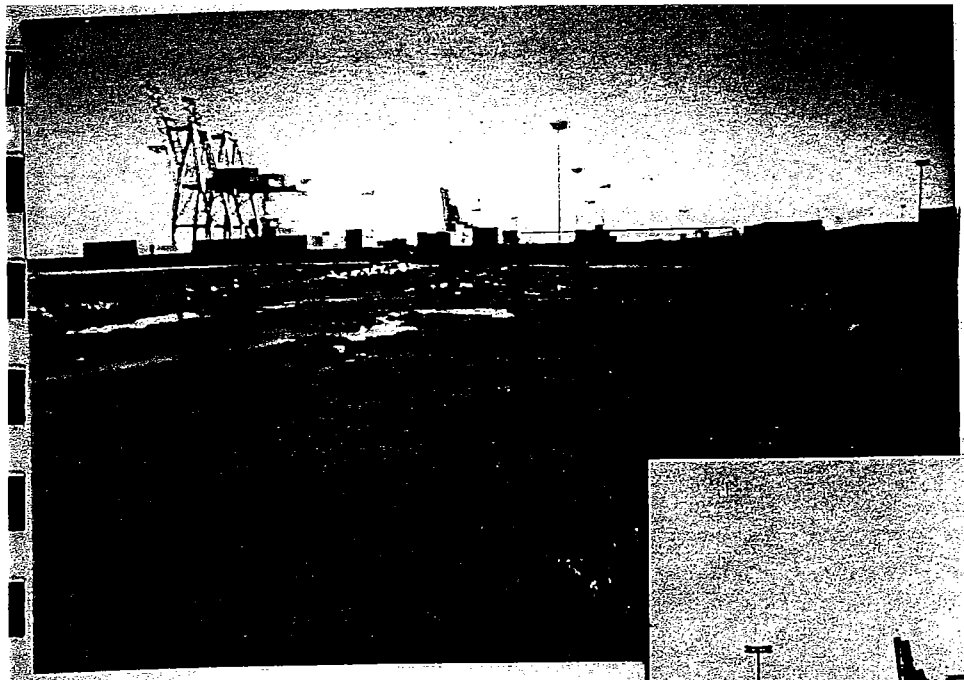
M-1 CONT.

While we appreciate the fact that the storm water runoff will not be injected into the existing combined sewer system, we believe that the proposed treatment of this storm water runoff prior to Bay discharge could be improved. Constructed wetlands can provide significant water quality improvements to storm water runoff and in combination with wetlands designed for habitat can provide dual benefits to the community, clean water and recreational and educational benefits.

In closing we wish to reiterate our great disappointment resulting from the failure of this Draft Supplemental EIR to adequately address wetlands and wildlife issues. The nearly complete lack of attention to these issues makes this a fatally flawed document. We thank you for your attention to our concerns.

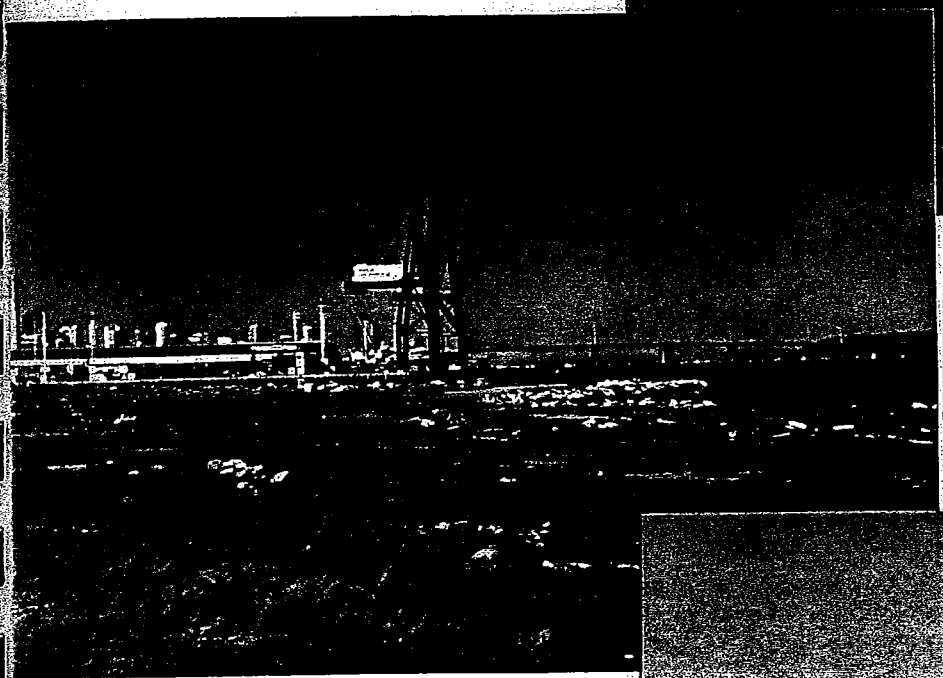
Sincerely yours,

Arthur Feinstein
Executive Director

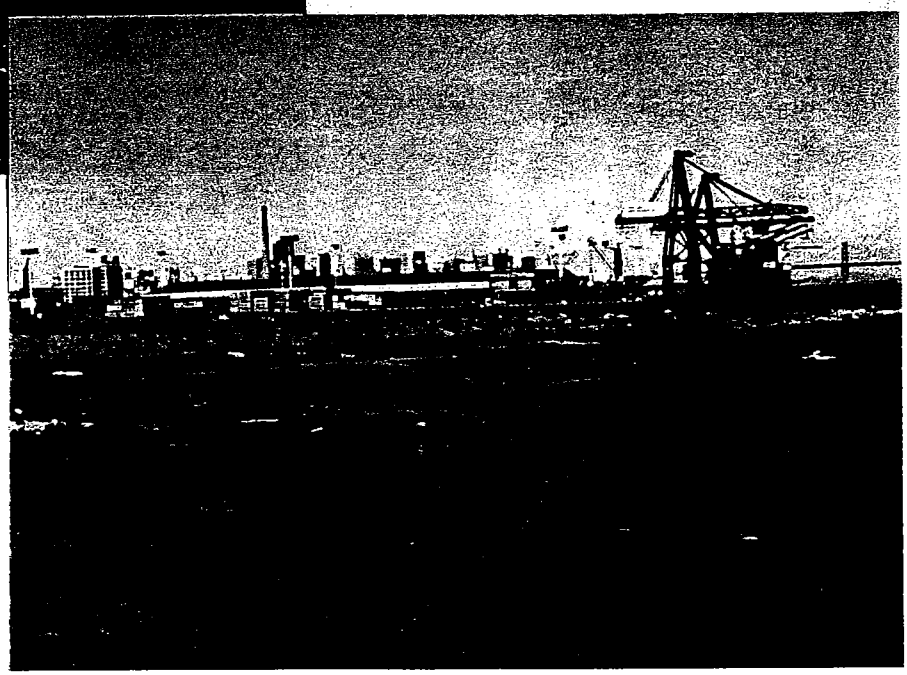


← Pier 92 facing South
low tide.

Pier 92 facing South →
high tide, dike breached.



← Pier 92 facing North
low tide



Pier 92 facing North →
high tide, dike breached.

LETTER M – GOLDEN GATE AUDUBON SOCIETY

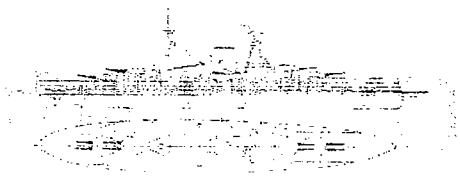
M-1) Please see the response to Comment H-13, p. C&R.45.

As noted in that response, there is an existing fence between the paved area of Pier 94 and the wetlands to the north, thus preventing any encroachment. Maritime activity at Pier 94 would constitute the continuation of ongoing actions, including ship travel and night lighting, which currently exists both north (Pier 80) and south (Piers 94-96) of the Pier 94 wetlands. Therefore, there would be no new effects. Effects of ships' wakes are limited because ships move extremely slowly in immediate vicinity of the piers.

With regard to other existing and planned development in the project area, the SEIR includes cumulative analyses throughout the document. For more information, please see the responses to Comment I-4 (cumulative increases in stormwater flow; p. C&R.64); Comment J-2 (cumulative traffic growth; p. C&R.79); and Comment K-6 (cumulative increases in criteria air pollutants; p. C&R.101).

Effects of stormwater runoff are discussed on SEIR pp. 109-112. Regarding the increase in stormwater runoff, please see the response to Comment Letter I, and in particular, the response to Comment I-1, p. C&R.61.

The SEIR is not flawed with regard to its discussion of biological resources, which are analyzed in Section III.F. As described in that section, the project would have limited effects with regard to biological resources, a conclusion that is reinforced by the Port's commitment to complete a wetlands delineation and biological survey(s) at Pier 94 prior to the implementation of any construction there, as described in the response to Comment H-13, p. C&R.45.



October 25, 2000

Ms. Hillary Gitelman
Environmental Review Officer
Planning Department, City and County of San Francisco
1660 Mission Street
San Francisco, CA 94103-2414

Dear Ms. Gitelman:

This response to the Draft SEIR has been drafted on behalf of the Pier 70 Advisory Group by Toby Levine and John Borg, co-chairs of the group. The Pier 70 Advisory Group is a diverse collection of 25 citizens with varied interests in the future of Pier 70 and the surrounding Central Waterfront and Southern Waterfront districts. The group was appointed by the Port of San Francisco and approved by the Port Commission, in March 2000, to provide community input and help in drafting development guidelines for the Port's 16-acre Pier 70 Opportunity Area. The comments detailed herein are directed on the area of study as a whole. However, because we have spent extensive time studying the Pier 70 area, which is somewhat removed from the bulk of proposed new uses, our comments are most notably directed on impacts to Pier 70, its surrounding area, and its proposed new tenant. We respectfully present these comments for review.

I. BACKGROUND:

The San Francisco Southern Waterfront Draft SEIR, supplements the Waterfront Plan FEIR adopted in June, 1997.

The Draft SEIR addresses the environmental issues that would be generated by the addition of six proposed new industrial tenants to be located in the areas between Piers 70 and Piers 94-96, or along Third and Illinois Streets, between 20th and Cargo Way.

The Draft SEIR includes new mitigations to deal with the proposed new industries and repeats applicable old mitigations found in the Waterfront plan FEIR.

II. BENEFITS OF THE PROJECT:

The Draft SEIR notes a range of benefits to the six proposed new industrial tenants. A densification of industrial activities means that land is not wasted; that lands elsewhere can be freed up for other needed uses. If the property manager (the Port) is willing, and has authority,

the projects can be more closely monitored in terms of all the environmental issues that have been identified and that will emerge. This positive attribute was not mentioned in the Draft SEIR.

III. STRUCTURAL INADEQUACIES OF THE DRAFT SEIR:

1. Current conditions at Pier 70 are not thoroughly covered.

There is minimal discussion of the current conditions at the increasingly congested Pier 70 area — which includes San Francisco Drydock, City Tow, the Moscone Marshalling Yard and the American Industrial Center complex and its wide range of tenants. All of these operations are tightly clustered around Illinois Street between 20th and 22nd, and all of them generate a heavy amount of truck, automobile and pedestrian traffic. Further, Illinois and 20th Streets have been designated by City traffic planners as a main route for vehicles entering and exiting Giants' baseball games and other events at Pacific Bell Park. All of this activity in a very small area underscores the need to set a traffic baseline in order to examine the cumulative impact of the new industry in the Pier 70 area.

The chart which indicates the Traffic Level of Service Results shows that the intersection of 20th and Illinois Streets has a service level of A (p. 53). We question this finding. Businesses in the area have advised our group that when large trade shows are in town at Moscone Center, it occasionally results in complete grid lock along Illinois Street to 20th Street, as dozens of 18 wheelers attempt to enter the Moscone Marshalling yard simultaneously. This level of service needs to be reconfirmed as it belies site experience. N-1

Solution

Provide a thorough verbal and environmental description of the Pier 70 area as it is now in order to provide a more accurate baseline.

2. Traffic counts around Pier 70 appear to be inaccurate.

The chart on p. 53 indicates that the intersection of 20th and Illinois (the entrance to Pier 70) maintains an Level of Service of A. Again, we question this finding. This area might be rated A during weekends or quiet evening hours. However, weekday traffic here is a mess. Business owners in the area, including several who serve on our group, have told us that this is an intersection of considerable vehicular congestion, particularly weekdays between 9am to 5pm, when cars and trucks frequently double-park and traffic is most heavy. This intersection is the

main route for trucks from City Tow, San Francisco Drydock, the Moscone Marshalling Yard, American Industrial Center tenants and other local industries — in addition to standard vehicular traffic. The problem is compounded at this intersection and all along the Illinois Street corridor during periods before and after Giants games and other events at Pacific Bell Park. We fear the congestion will be further complicated with the MUNI Turnaround at 18th and Illinois Streets, and the possible future presence of Waste Resources Technologies and its fleet of trucks at Pier 70.

N-1 CONT.

Solution
Recount the intersection of 20th and Illinois. Expand recount analysis to include the intersections of 18th and Illinois, 19th and Illinois, and Mariposa and Illinois. Recount should include peak daytime hours, Monday through Friday between 8am and 5pm. Study should also provide accurate data for traffic changes when the Marshalling Yard and other Pier 70 and American Industrial Center tenants are active. Finally, recount should examine traffic impacts during baseball games and other events at Pacific Bell Park in order to confirm that the LOS is currently an A.

*

3. Projects that could have significant cumulative impact on the study area are not considered in a qualitative way.
The area of study is experiencing a rapid wave of change and development fueled by the current economic boom and plans to revitalize the Third Street corridor. Many key projects that are known to be happening in the area are not factored into the Draft SEIR, nor commented upon in any qualitative way. Examples include:

•MUNI's approved turnaround on Illinois at 18th. This has the potential to create an untenable bottleneck for trucks and trains.

N-2

•MUNI's approved Metro storage and repair facility on Illinois Street and 25th.

•Southern Energy's proposed new 880-megawatt power plant at pier 72, off Illinois Street near 22nd. This massive project could have considerable impact on local air quality.

•Michael Strausz & Company's proposed 175-unit live/work loft complex on Illinois Street between 23rd to 24th, and other major live/work projects in the area. These projects will increase vehicle, pedestrian, and bicycle traffic in the area.

•MUNI's approved high-capacity Third Street Light Rail line and its impact on truck traffic, particularly along the Illinois Street corridor.

•Designation of Illinois Street as a preferred truck route.

•Reopening of Illinois Street, between 24th and 25th Streets. This will generate additional truck traffic on Illinois.

•Proposed bike lanes on Illinois Street. The North-South corridor needs safe bike lanes. Will increased truck traffic on Illinois cause bike safety hazards? Could it eliminate the possibility of uninterrupted bike lanes along the entire length of Illinois Street just as the MUNI Light Rail Line eliminated the possibility of bike lanes on Third Street?

•Conversion of the American Industrial Center Buildings from industrial and manufacturing uses to much more dense commercial and high tech office uses. This huge building complex provides very few parking spaces for its growing number of tenants. This transformation has caused increasing traffic congestion and parking problems in the vicinity of Pier 70 and in the Dogpatch neighborhood, particularly along Third and Illinois Streets, between Mariposa and 24th Streets.

N-2 CONT

Solution:
Revise Draft SEIR to describe and thoughtfully consider implications of all significant projects that could impact the area of study — particularly in terms of truck and vehicle movement, congestion and air quality. Suggest ways that the negative effects of these projects and the six new industries could be handled in terms of the environmental consequences. If these additional projects change the overall conditions of the study area or alter the projected impacts of the six new industries, consider additional planning and/or mitigation measures as appropriate.

4. Data on environmental hazards seems inadequate.
There is limited in-depth discussion of the environmental hazards created by previous and current industries throughout the area of the SEIR (noise, air, soil, water, etc.). This makes it difficult to consider the additional environmental problems that the six new industries will cause, and then, their accompanying mitigations. (See chart on p. 85 as an example of what is missing in terms of air quality.)

N-3

Solution
Provide pertinent information regarding the current status of the area covered by this SEIR. Background may be obtained from the Waterfront FEIR, as well as current studies being done by the Port on ground water contamination.

N-3 CONT.

5. Waste Resources Technologies planned uses at Pier 70 are not clearly defined.
It is not clear from reading the Draft SEIR whether Waste Resources Technologies plans to truck in and handle hazardous materials — such as asbestos, lead, PCBs, or other dangerous chemicals — at its proposed construction and demolition recycling facility at Pier 70. Further, it is not clear whether or not Waste Resources Technologies plans to operate any other related businesses, such as public recycling facilities for bottles, cans, and scrap metal. There is concern that these type of uses will attract a nuisance of homeless scavengers and dumpster divers to the area. Already, Pier 70 has suffered from unsightly, disorganized and messy junk car operations by City Tow. In general, the community does not want Pier 70 to be used as a "dumping ground." We want to be very clear exactly what Waste Resources Technologies plans for the site.

N-4

Solution:
Amend Draft SEIR to acknowledge whether or not Waste Resources Technologies, or any other proposed tenants, plan to handle hazardous materials within the study area. Note whether Waste Resources Technologies plans to operate any other related businesses that might attract nuisances to the area. These clarifications will enable the Pier 70 Advisory Group to help protect the integrity of Pier 70 and its Opportunity Site, and will allow the community (City, Port, local residents and businesses) to adequately consider any potential health or environmental problems — and the need for possible related mitigation measures.

6. Waste Resources Technologies proposed facility site at Pier 70 has changed.
Waste Resources Technologies is no longer considering building 116 for its proposed construction and demolition recycling facility at Pier 70. It is currently investigating an alternative building and open space adjacent to San Francisco Drydock. Further, a portion of the new proposed site will take up an area previously targeted for a parking lot for workers of San Francisco Drydock.

N-5

Solution:
The Draft SEIR will need to reflect the new site of the proposed Waste Resources Technologies

facility. This would include any alterations planned to the new proposed building, which we understand has previously been identified as being a contributor to a possible National Register Historic District. Further, document should note impacts of new proposed location of WRT facility on San Francisco Drydock and other Pier 70 tenants, and whether or not the new site, which is closer to the Bay, would fall under BCDC jurisdiction.

N-5 CONT.

7. Bicycle and pedestrian impacts are not adequately addressed.

Page 60 of the Draft SEIR notes that most of proposed new projects lie in industrial areas east of Illinois Street that are not conducive to pedestrian traffic, so the new projects would not have a significant impact. Page 61 of the document notes that although the San Francisco Bicycle Plan recommended adding bicycle lanes onto Third Street, the loss of one traffic lane in each direction to provide for Light Rail tracks precluded the creation of much needed bicycle lanes on this important north-south artery. The Draft SEIR further notes that the Department of Parking and Traffic is considering an alternative bicycle route on Illinois Street, which would be a main route for trucks serving the new industries. It concludes that the impact between bicycles and cars would not be significant because bicycle traffic could be accommodated on the "variety of bicycle routes that are available throughout the project area." However, the variety of bicycle routes available are not specifically identified. Further, it should be noted that the fleets of trucks serving the proposed new industries will significantly increase truck traffic along Illinois Street, Third Street, and key east-west arteries. This increase will clearly impact pedestrian and bicycle traffic and safety in areas *surrounding* the proposed project sites, where dense commercial and residential development is taking place at a feverish pace.

N-6

Solution:

Amend the Draft SEIR to specifically identify the bicycle routes available throughout the area, including specifically defined bicycle lanes available on the north-south arteries of Illinois and Third Streets, and any key east-west arteries.

IV. MITIGATIONS:

We commend the authors of the Draft SEIR for some thoughtful proposed mitigation measures. Some of the better mitigation measures include the following:

- Page 145, B.2; Page 147, C.3; Page 149, D.1 and D.2; Page 151, E.2a; Page 152, E.b.

N-7

We respectfully recommend the following additional mitigation measures to minimize the potential adverse impacts of the project:

1. Traffic Congestion & Parking Problems.

We believe that increases in truck and automobile traffic congestion is going to make it difficult for existing and future industries to function in the area of the SEIR. We have concerns that without proper planning, the increased industrial traffic might also conflict and cause problems for other existing and planned uses near the study area, such as commercial enterprises, high tech businesses, non-profit business and arts organizations, live/work lofts, and public open spaces. It is also important to note that parking during peak hours is essentially non-existent. We suggest the following:

a. Consider moving the MUNI turnaround away from 18th and Illinois and incorporate it into the new MUNI Metro storage and repair facility on Illinois Street and 25th, so that it will not effect truck, train, automobile and bicycle movement in the heavily trafficked area of Illinois at 18th and 20th Streets.

N-7 CONT.

b. If moving the MUNI turnaround is not feasible, require MUNI to add a passenger service stop at the turnaround loop on 18th at Illinois. This would provide riders with direct access to the Pier 70 development and open space area.

c. Require that 22nd Street be extended into the back side of Pier 70 through currently inaccessible property leased by City Tow. This would help alleviate congestion along Illinois and at 20th by providing a much needed second access point for traffic to enter and exit Pier 70.

d. Require the development of a realistic truck movement master plan for the Central Waterfront from 16th Street to Cargo Way. This plan should include the impacts of the Third Street Light Rail, existing industries, Pacific Bell Park event traffic, and the six new industries.

*

e. As a condition of issuing permits to large building owners (such as the American Industrial Center) that allow conversion of industrial and manufacturing spaces into more dense commercial and high tech uses, the Planning Department should require that these building owners develop a parking mitigation plan for their surrounding area.

f. If the new proposed location of the Waste Resources Technologies facility would impact existing plans for a parking lot for San Francisco Drydock workers, require that the Port provide a comparable parking site for its workers in a convenient and safe location not planned for Pier 70 public open space or opportunity zone development.

2. Alternative transportation support & safety.

As the Central Waterfront District continues to evolve into a more dense and diverse area for workers and residents, we encourage planning for alternative means of transportation that will decrease traffic and parking congestion and related air quality problems. This would include greater use of options such as MUNI, car pooling, ferry service, bicycling, and walking, particularly in the area of Pier 70. We fear that increases in heavy truck traffic in the area of study, particularly along the Third Street and Illinois Street corridors, will result in accompanying hazards to pedestrians and bicycles. We suggest the following: N-7 CONT

a. The project should expand upon the transportation management plan detailed in the draft SEIR.

b. Require the development of a bicycle and pedestrian plan for the Illinois Street and Third Street corridor, and key east-west streets. This should include safe and convenient bicycle lanes, improved signage, clearly marked lanes, safer pedestrian routes, including paved sidewalks and adequate cross walks.

c. Work with businesses in the area to develop incentive plans that encourage their employees to use alternative means of transportation, such as public transit, car pooling, bicycling, and other solutions.

d. See 1b above regarding requirement of additional MUNI transit stop.

3. Health and environmental issues.

Health and environmental issues are of grave concern to the people of the community covered by this SEIR. The neighboring Hunters Point community has had a well-documented history of health-related problems, such as abnormally high rates of cancer and asthma, that have been linked to chemicals and pollution from industrial operations in their neighborhood. As a result, N-8

Hunters Point recently fought to close down a power plant and residents are rejecting many new heavy industry in their community. In addition to the new industries covered in the Draft SEIR, a significant new Southern Energy power plant project is also being planned for the study area that could have significant impacts on air quality. We must make sure that the same mistakes that have impacted the health and safety of the people of Hunter's Point do not one day impact the people of the Central Waterfront. We suggest the following:

N-8 CONT.

a. Require that the industry group's truck fleets use cleaner burning alternative fuels, such as natural gas, to minimize levels of air pollution and particulates in the area.

b. Require the industry group to monitor air quality within the study area on an ongoing basis, and report its findings to the City and to local community groups regularly to inform them of issues that could impact health and safety.

4. Acknowledge potential land use conflicts, such as noise impacts at Pier 70.
We support the maritime industry and protecting places for other industries in the City. However, a 16-acre portion of Pier 70 is now being planned for new mixed commercial and public uses, and the area surrounding the site is changing with new high tech industries and residential live/work loft projects. For redevelopment of Pier 70 to be as successful, it is critical that blue collar and white collar industries and workers able to occupy the same area compatibly and with limited conflicts. We understand the proposed Waste Resources Technologies facility at Pier 70 may have some noise impacts related to factors such as ongoing fleet traffic, truck safety beepers, dumping of heavy loads, debris processing, general operations, etc. The community must be clear about what types of noise there might be, at what levels, and during what hours.

N-9

a. Require Waste Resources Technologies to work with groups such as the Pier 70 Advisory Group and the Dogpatch Neighborhood Association to assure that noise levels will not cause conflicts with the community and with other local businesses.

b. If necessary, require Waste Resources Technologies to enclose or muffle work areas so that noise levels will be minimized.

(Page 1 of 10)

5. **Industry Group projects would restrict public access to San Francisco's limited waterfront resources**

Under Public Trust guidelines, Port property is required to promote maritime commerce, navigation and fisheries, public access and open space, environmental restoration, and activities which attract public use and enjoyment of the waterfront. All members of the industry group plan to locate non-maritime industrial facilities along much desired waterfront property, rather than at other potential sites further inland. While the proposed project are allowable uses located in sites historically used for industrial purposes, members of the industry group do not meet critical Public Trust criteria for promoting enjoyment of the waterfront. Within the area of study, the cumulative impact of these projects will significantly limit ability for environmental restoration of the waterfront, as well as for public access, open space and activities which attract public use and enjoyment of our limited waterfront resources. Further, there is a general lack of decent public open space in the form of parks and gardens in the area of study, especially in the increasingly densely developed inland areas. We suggest the following:

a. Require the industry group to jointly fund development or maintenance of planned or existing waterfront parks or open space in the area of study. Possible sites include a small waterfront park donated to the City by Sheedy Drayage at the mouth of Warn Water Cove. This park now suffers from vandalism, graffiti and poor maintenance. Other good candidates for industry group support include Islais Landing Park on the south and north banks of Islais Creek, as well as a proposed shipyard park desired by the community as part of the Pier 70 Opportunity Area.

N-10

b. Require the industry group to provide its products or services, at below market rates, for projects related to creating or maintaining parks and open space along the Southern waterfront.

c. Require industry group to help support efforts for the public to access and enjoy the waterfront within the area of study. A possible candidate would be a proposed non-profit boat launch facility for non-motorized water craft benefiting local youths that is being promoted by local kyak enthusiasts. They are considering sites at Pier 70 and at Warm Water Cove.

d. Consider other mitigation measures which will enhance opportunities for public to enjoy waterfront within the area of study.

LETTER N – PIER 70 ADVISORY GROUP

Note to the Reader: Most of the comments in Letter N are the same as or similar to those in Comment Letter J, from the Dogpatch Neighborhood Association, which appears on p. C&R.67 of this document. In these instances, the reader is referred to the applicable response to comments in Letter J.

N-1) Please see the response to Comment J-5.

N-2) Please see the response to Comment J-2.

N-3) Please see the response to Comment J-4.

N-4) Please see the response to Comment J-7.

N-5) Please see the response to Comment J-6.

N-6) Please see the response to Comment J-3.

N-7) Please see the response to Comment J-9. Concerning parking for Waste Resource Technologies (WRT), there is adequate space at Pier 70 for parking for all existing uses plus the new WRT employees.

N-8) Please see the response to Comment J-11.

N-9) Please see the response to Comment J-10.

N-10) Please see the response to Comment J-8.

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Ms. Hillary Gitelman,
Environmental Review Officer
1660 Mission Street, Suite 500
San Francisco, Ca. 94103

Dear Ms. Gitelman

We have had the opportunity to review the Draft Supplemental Environmental Impact Report for the Southern Waterfront that was issued on September 23, 2000. We offer the following comments.

We are aware that planning for the Southern Waterfront is a continuing process involving the city, private industry and the community. Consequently, a variety of scenarios were reviewed when assessing the potential impact of the relocation of industrial businesses to the Southern Waterfront. Alternative C involves a "residential use future scenario". We are compelled to point out our strong belief that residential uses at the Pier 70 area are incompatible with the existing operation of San Francisco Drydock and other industrial uses in the area.

O-1

San Francisco Drydock is the last major ship repair facility operating in San Francisco. We employ over 300 union employees from 10 unions and are currently the Port of San Francisco's largest Maritime tenant. We believe that any large-scale residential uses would be incompatible with one of this city's largest industrial employers and last custodians of our Maritime Heritage.

Thank you for your time and consideration,

Carl Hanson, President & General Manager

San Francisco Drydock

Cc: Douglas Wong, Exec. Director, Port of San Francisco

Peter Dailey, Director of Maritime, Port of San Francisco

Dennis Herrera, ESQ. Kelly, Gill, Sherbourne, & Herrera

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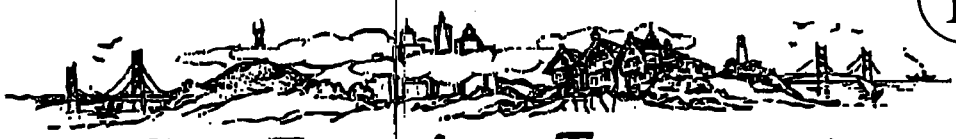
LETTER O – SAN FRANCISCO DRYDOCK

O-1) The comment is noted. The development of residential uses in close proximity to industrial activities, depending on site development and design, could result in compatibility concerns. Accordingly, the analysis of Alternative C, on SEIR p. 173, states that "site specific noise analysis, and potentially analysis of nighttime lighting, would be required to determine whether 24-hour operations at the Pier 70 shipyard could prove annoying to residents at the Mixed-Use Opportunity Area."

P



San Francisco Tomorrow

Since 1970. Working to Protect the Urban Environment

November 10, 2000

Environmental Review Officer
1660 Mission St., Ste 500
San Francisco, CA 94103

Re: Comments on San Francisco Southern Waterfront Draft EIR

Dear Ms. Gitelman:

Thank you for allowing us the opportunity to comment on this document. San Francisco Tomorrow has several concerns about the project analyzed in this document, and would like to have more information about its impacts included in the final draft. We are particularly concerned about the severe unavoidable air quality and transportation impacts on an area whose residents already suffer a disproportionately high number of health problems. We look forward to working with the Port and with your office to improve both the final document and the proposed project.

Open Space. Although the Port has a mandate to improve public access on the waterfront, the project reviewed in this document includes no significant increase in public access and no improvements to existing public open space on Port property. Since this supplemental EIR reviews permanent as well as interim uses, it is appropriate to include some description of prospective open space improvements that could occur over the period studied. Such improvements could include improvements to the Islais Creek open space, Warm Water Cove, and the Pier 92-94 wetlands, and a significant open space on the Pier 94-96 backlands P-1

The only reference to new open space is to the "landscaped open space" (Page S-7) that will be part of the Pier 90-94 backlands development. This description is inadequate. What proportion of the 50-acre site would be open space? What portion of this open space would be programmable and therefore usable by the local community? Are there any planning code recommendations or requirements for open space in a development of this size (1.6million square feet)?

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Environmental Justice. The Planning Department met regularly with the local community in getting input on this draft. Yet there is little acknowledgment in the document of the documented health problems and compromised environment of the residents. Indeed, the language often seems to minimize the impacts of this project on the community. For example

"...maximum 24-hour concentration at Youngblood Coleman Playground would occur on fewer than 20 days per year" (Page S-17). Please consider replacing the underlined words with "up to".

"...winds blowing in the direction of these residences occur only about 18% of the time" (Pages S-18, 95). 18% of 365 equals 65 days. Please consider changing the underlined phrase to "approximately 65 days per year"

"...the maximum 24-hour concentration(of the PM-10 standard) at Youngblood-Coleman Playground would occur on fewer than 25 days per year...". Please consider changing the underlined phrase to up to. P-2

In discussing the significance of odors from the asphalt plant, it is written that The BAAQMD Rules and Regulations provide a regulatory mechanism to remedy odor complaints in the "unlikely" event that they would become frequent. Can you please provide an outline of what the regulatory mechanism would be? And can you please quantify what is meant by "frequent"?

The document refers (on pages 77-78) to the documented health problems of the neighborhoods adjacent to the project, and states that a "detailed study" of the causes of these problems is beyond the scope of the EIR. That is true; but it is a primary responsibility of this document to clearly and accurately outline the current and projected future impacts that could reasonably impact the health of the neighborhood. Specifically, given the known health problems of the area, this document needs to more accurately assess the existence and extent of hazardous soil conditions on the site; and to more accurately monitor the air quality in the adjacent residential neighborhoods that are downwind of the project. P-3

The project description includes no plans for new open space, which could be considered mitigation for some of the negative impacts of the project (traffic, degradation of current open space because of increased air pollution). A community process has identified the Pier 94-96 backlands as an appropriate location for a P-4

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major open space for the community. If a large portion(50%) of this area were to be developed as a park, to what extent would the unavoidable transportation and air quality impacts be lessened? P-4 CONT.

Page 105 lists informal significance criteria for determining whether the project will have a significant effect on hydrology and water quality. The PUC has acknowledged the impact that combined sewage/stormwater overflows(CSOs) have on the Southeast community. In a public process instituted in April of 1999 (Study of Feasible Technologies (SOFT)), the PUC developed a list of "community values " to be used to assess the impact of CSOs on the community. We suggest that these values be included in this document, and that a bullet be added to the significance criteria that could read "negatively impact the quality of life for residents by increasing the number and duration of CSOs and increasing exposure to toxic contamination" P-5

The section on hazardous materials provides an inadequate description of the current setting. The Southeast Alliance for Environmental Justice conducted an inventory of hazardous sites in the area (not including Port property) in 1996(?). Their extensive database search identified over 300 hazardous sites. Given the acknowledged area health concerns and the number of untreated sites in the area, it seems only appropriate that the publicly-held Port property be subjected to a more thorough inspection and review than is given in this draft. At a minimum, a site history for the entire property should be completed, and the results evaluated to gauge the probable location of toxic hot spots, and the possibility that toxic contamination of the soil, groundwater, or air has occurred. P-6

The Islais Creek Rail Bridge is cited as a mitigation for the severe transportation impacts of the project; but it also represents a significant source of emissions, and will route rail service directly through the neighborhood. The document states that rerouting rail traffic will result in a significant improvement to the Mission Bay neighborhood - but at what cost to the existing Southeast neighborhood? That has not been analyzed. The noise impacts of the new rail line on local residents have not been analyzed. . Can a noise section be included in the final draft? P-7

Asphalt Plant.

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The analysis of the impacts of this plant is confusing. On Page S-18, it is written that the BAAQMD recommended buffer distance is 1 mile and acknowledging that residences are located within that 1-mile buffer. But this "buffer" recommendation is then contested with two main points - first, that a "counter-flow drum mixer" will minimize the odors involved, and second, that the prevailing winds would keep the odors away from the affected residences most of the time. Can you please provide more information? First, is there quantifiable data on the relative odor emissions of standard vs. counter-flow drum mixers? Second, what is entailed in the "more detailed odor analysis" sited on Page 95 for sites where the buffer zone is less than 1 mile? And what is the difference between "warranted" rather than "required" in referring to this analysis? What regulatory oversight does the BAAQMD have in such cases? P-8

Islais Creek Rail Bridge

The impacts of the rail bridge on the area seem incomplete. Page 56 cites the bridge as an improvement to the Mission Bay area; but how much will it increase rail traffic in this project area? How will the new track configuration and the increased rail traffic impact the neighborhood? Page 35 states that the greatest source of emissions by 2015 would be ship and rail traffic, but the two are analyzed together in table 12, and represent by far the most serious air quality impact of the project. Since the trains go through the neighborhood, while ships do not, it would make more since from a neighborhood standpoint to analyze them separately. Also, this document cites possible future emission requirements for ships; are there similar foreseeable regulatory changes for rail emissions? P-9

Air Quality

In several places, this document uses the prevailing wind direction as a reason to reduce the significance of the odor and air quality impacts of this document. So it should also be noted that the air quality monitoring station providing the background data used in this document is located at 16th and Arkansas Streets, northwest of the area being studied. That means that the prevailing winds which are so well described on page 64 and in Figure 6 on the facing page actually direct the pollution P-10

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produced in the area *away* from the pollution monitoring station on all but the calmest days. Was air quality data collected at other sites closer to or downwind of the project? If not, how can the current air quality of the affected area be accurately measured? This raises the question of whether the background air quality values are accurate, and thus calls into question the accuracy of the cumulative air quality impacts. P-10 CONT.

This document refers to PM-2.5 monitoring on Page 73, but does not study the impacts. Although long-term monitoring has not been done, the evidence cited here does raise concerns, and the document offers no further information to address those concerns. How often was the national standard exceeded last year at the 16th and Arkansas station? Since this station is located upwind of many of the major pollution sources in the area, the concentrations downwind are certainly higher. The fact that the state has not yet imposed standards does not mean that this is not a significant impact. If data is lacking to make a proper analysis, it must be assumed that the impact is significant. Is it possible to assess the PM-2.5 emissions for the project? If, as is noted here, an implementation plan will be required by 2006, it is within the scope of this document to analyze this impact in greater detail. P-11

Hydrology

The description of water quality conditions (Pages 101-102) is incomplete and misleading. The section begins with a correct statement that water quality data specific to the project area is incomplete; then contradicts that by citing water quality data taken by the San Francisco Estuary Institute at Yerba Buena Island. In fact, this data cannot accurately describe water quality conditions in the project area because it does not measure the water quality at the bayside sewer outflows. The best indication of the compromised water quality in the area is the Regional Water Quality Board (RWQCB) designation of Islais Creek as a Toxic Hot Spot. This is stated here, but is dismissed with the statement that the designation is being contested by PUC staff. Since the PUC is unable to supply data to refute this designation, it is the responsibility of this analysis to assume that the designation of the RWQCB is accurate, and to identify the probably sources, which could include contaminated groundwater and sewage overflows. In addition, it is anticipated that P-12

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future regulations will require San Francisco to reduce the volume and frequency of its combined sewer overflows.

Hazardous Materials

The background of this section is insufficient. The site histories are incomplete, making it impossible to determine the likelihood of finding toxic hot spots or plumes at those sites. No new site assessments were done, even where the site history indicates that hazardous material could be present. The site investigations that have been done indicate the presence of hydrocarbons, volatile organic compounds, and heavy metals. Several sites are subject to remediation orders. Yet no tests were done, no samples taken, to determine the status of the rest of the project area; there is no way to determine from this document whether there are additional areas of concern. The document relies on the implementation of the Maher ordinance to determine and remedy hazardous waste sites. But this ordinance takes effect only if and when 50 cubic yards of soil are removed. This action is insufficient to address the serious and well-founded concerns of the local community. Please complete the site history for the project area, and identify those sites whose history seems to justify additional investigation. P-13

Page 122 cites the presence of hydrocarbons and metal in the groundwater at Pier 92, but states that this is not significant because the groundwater is not used for drinking. What is the likelihood of migration of contaminant through groundwater into the bay?

Page 123 states that the review performed for this EIR did not identify any site assessments or site investigations for Islais Creek. Doesn't the Regional Water Quality Control Board Toxic Sediment Study qualify?

Mitigation

Mitigation measure B.1 seems unworkable. A requirement to simply monitor traffic until it has reached saturation point (LOS E or F) does not address the severe impacts that would persist until mitigation measures took effect. A more P-14

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appropriate trigger would be to take action when 2 or more intersections suffered a degradation of service of 1 grade.

Mitigation measures B.2 and C.4 call for a Transportation Management Plan to reduce single-occupancy vehicle traffic at the Pier 94-96 backlands and at Pier 70. Why is no similar plan considered for the truck traffic generated by the Industry Group? If the plan doesn't include regulation of truck traffic, which represents a quarter of the vehicle trips and a significant amount of project air pollution, it has little chance of being effective. Please consider expanding the scope of the Plan to include regulation of all project traffic, or else consider creating a separate truck traffic management plan. In addition, the membership of the Transportation Management Agency should include City staff (planning and Muni) as well as area residents. P-14 CONT.

A Transportation management plan for truck traffic could include a limit on the amount time that trucks are allowed to idle at the industry group sites. Another mitigation would be to limit hours of operation for Industry Group truck traffic to avoid peak traffic periods.

Would the controls on the asphalt plant in mitigation measure C.2 bring the plant into compliance with BAAQMD recommendations for odor? P-15

Mitigation measure C.3 could potentially be the most valuable mitigation proposed in this document. Since both the project studied and Alternative B have significant unmitigable impacts, this measure must be made effective. It needs to include specific performance standards, implementation schedules and penalties. To what extent do diesel emission need to be reduced in order to reduce their impacts to a less than significant level? This should be a known figure that would increase over the period of the analysis and would allow the Industry Group members to gradually increase the efficiency of their fleet. The Port should be required to include performance standards and a review schedule in their lease with each member of the industry group; failure to meet the standards should be grounds for breaking the lease. P-16

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Mitigation Measure D.3 seems to apply only to those areas that are not currently connected to the City's combined sewer system. It is reasonable to assume that San Francisco will be required to reduce the volume and frequency of CSOs in the foreseeable future. We would therefore ask that this mitigation, to treat stormwater on site, be extended to the entire project, including those sites already connected to the City's combined system. P-17

Mitigation measure E.2a is insufficient. This document should be expanded to include a complete site history for the project area; this history should then be used to identify areas that might contain contaminants. The Industry Group members or the Port should then be required to perform the recommended site investigations. P-18

Among the mitigation measures in section J not considered applicable to this document are the Transit Impact Development Fee, and a possible funding mechanism for Muni (Page 162). Given the extreme transportation impacts of this development, both of these proposals should be listed as options under mitigations B.2 and C.4. P-19

Please consider including as mitigation for the project rail traffic a limit on the hours of rail service. This could include prohibiting rail traffic during the nighttime hours, and could also include limited rail service during peak traffic hours. The first would reduce the noise impacts on the local residents; the second would reduce traffic congestion during the most crowded periods. P-20

Page 137 states that people were seen fishing in Islais Creek; but the stirring of contaminated sediment during dredging for the rail bridge is not identified as a human health hazard and no mitigation is listed. An appropriate mitigation would be to require signage warning the public not to fish in that location for the duration of construction P-21

An appropriate mitigation for air quality and transportation impacts would be to establish a process and standards for hiring community residents to work in the project. This would lead to a reduction of vehicle trips to and from the area. P-22

Alternatives

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Alternative B certainly appears to present a better, but still less than ideal, project for the community. What further reduction in the project would reduce air quality impacts to less than significant levels? What specific reduction in diesel emission (which could be accomplished either by reducing traffic or implementing mitigation measure C.3) would be required to reduce those impacts to insignificance? P-23

We appreciate the opportunity to submit our comments. Please contact us if you wish to discuss them further prior to issuance of the comments and responses.

Sincerely,

Jane Morrison, President
San Francisco Tomorrow
564-14821

Jennifer Clary, Waterfront Chair
981-1405
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LETTER P – SAN FRANCISCO TOMORROW

Note to the Reader: Many of the comments in Letter P are the same as or similar to those in Comment Letter H, from the Alliance for a Clean Waterfront, which appears on p. C&R.32 of this document. In these instances, the reader is referred to the applicable response to comments in Letter H.

P-1) Please see the response to Comment H-1, p. C&R.38, concerning open space in the project area. Concerning Warm Water Cove, it is noted that the Board of Supervisors is considering a proposal for improvements to that park in connection with the possible establishment of an area for off-leash dogs.

P-2) Concerning the suggested edits to the SEIR, please see the response to Comment H-2, p. C&R.39.

Regarding potential odor impacts, please see the response to Comment H-7, p. C&R.41.

P-3) Please see the response to Comment H-3, p. C&R.39.

P-4) As stated in the SEIR, other than the Industry Group project components and the Illinois Street bridge, there are no specific proposals for development on Port lands, including the Pier 90-94 backlands. The SEIR evaluates a reasonably foreseeable development program for development of Port lands by 2015 for purposes of presenting a conservative impact analysis reflecting the community process for the Pier 90-94 backlands that could result in a development program for that area. The program identified in the SEIR is neither approved nor certain to occur. Furthermore, should some area(s) assumed in the SEIR to be developed ultimately be used as open space, it is possible that development elsewhere on Port lands could occur at a greater intensity, such that the future development condition would be similar to that presented in the SEIR. It is very speculative to evaluate various future development scenarios. For information, however, the following is presented. Should 50 percent of the Pier 90-94 backlands be devoted to open space, and assuming that the density of development on the remaining backlands area were not increased to make up for the lesser area to be developed, there could be expected to be a decrease of up to 50 percent in traffic generation from light industry and office / research and development uses at the Pier 90-94 backlands. This would result in a decrease in daily project trip generation of about 14 percent in 2015, and a decrease in p.m. peak-hour project trip generation of about 18 percent. This could result in some improvement in intersection levels of service, compared to those presented in Table 4 of the SEIR. However, certain intersections, such as César Chávez / Third Streets, would still operate at unacceptable levels of service by 2015. Regarding air quality impacts, the SEIR states, on p. 83, that ship and rail traffic would be the greatest contributors to project emissions, and the elimination of light industry and office /

research and development uses at the Pier 90-94 backlands would have little effect on overall project emissions.

P-5) Please see the response to Comment H-4, p. C&R.40.

P-6) Please see the response to Comment H-3, p. C&R.39.

P-7) Please see the response to Comment H-6, p. C&R.41.

P-8) Please see the response to Comment H-7, p. C&R.41.

P-9) Please see the response to Comment H-6, p. C&R.41.

P-10) Please see the response to Comment H-8, p. C&R. 42.

P-11) Please see the response to Comment H-9, p. C&R.43.

P-12) Please see the response to Comment H-11, p. C&R.44, and Comment I-1, p. C&R.60.

P-13) Please see the response to Comment H-12, p. C&R.44.

P-14) Please see the response to Comment H-14, p. C&R.49.

P-15) As stated in the response to Comment H-7, p. C&R.41, the Bay Area Air Quality Management District (BAAQMD) uses a complaint-based mechanism for addressing violations of the District's odor regulations. Upon confirmation of a violation, the BAAQMD can issue an order requiring compliance.

P-16) As stated in the response to Comment P-4, above, the SEIR states (p. 83) that ship and rail traffic would be the greatest contributors to project emissions. Even with truck emissions reduced to zero, ship and rail emissions together would far exceed the BAAQMD (and SEIR) standards of significance of 80 pounds per day and 15 tons per year of reactive organic gases and nitrogen oxides. Therefore, there is no performance standard for truck emissions that, if achieved, would result in project impacts being reduced to a less-than-significant level. As stated in the analysis of local particulate emissions on SEIR pp. 91-95, the project would not result in a significant effect with regard to diesel emissions. The above notwithstanding, the SEIR identifies Mitigation Measure C.3 in order to reduce the project's contribution to the significant cumulative impact in regard to local concentrations of PM-10 and diesel particulate. However, because the contribution of other sources of particulate emissions is not known, it cannot be stated whether there is a particular level of reduction that, if achieved by the project, would eliminate any significant cumulative effects with regard to PM-10 or diesel concentrations. Mitigation Measure C.3, therefore, calls for the maximum feasible reduction in diesel truck emissions with

the intention of reducing local concentrations of PM-10 and diesel particulate to the lowest practicable level.

P-17) The question of overall changes to the City's combined sewer-stormwater system is beyond the scope of this SEIR. The intent of Mitigation Measure D.3 is to ensure that the project would not contribute to any adverse changes, compared to existing conditions, in regard to overflows of the combined system. This is consistent with the requirements of CEQA, which directs that a project be evaluated against existing conditions. Should the City undertake a future program that includes removing stormwater flows that now enter the combined system and redirecting those flows directly to the Bay after treatment, some parts of the project vicinity might be included. For example, some storm drains east of Illinois Street appear, based on field visits, to be connected to the combined system. However, such a program would be subject to separate environmental review.

P-18) The SEIR did not identify any effects related to hazardous materials that could not be mitigated to a less-than-significant level. Please see the response to Comment H-12, p. C&R.44, for additional information.

P-19) Traffic impacts are identified as significant and unavoidable at several intersections in the project area by 2015, given the assumptions for future development of Port lands, including the Pier 90-94 backlands, the Pier 70 mixed-use opportunity area, and others sites. As stated in the SEIR, and reiterated in the response to Comment P-4, above, there are no specific proposals for development on Port lands other than the Industry Group project components and the Illinois Street bridge. The SEIR evaluates a reasonably foreseeable development program for development of Port lands by 2015, but the program identified in the SEIR is neither approved nor certain to occur. Because the SEIR identified no significant effects with regard to transit, expanding the area of the existing Transit Impact Development Fee, which currently applies to the Downtown area (north of China Basin), or implementation of some other project-related funding source for Muni service does not appear warranted as mitigation. However, either or both of these options could be considered as part of the implementation process for Mitigation Measure B.2, SEIR p. 145, and Measure C.4, SEIR p. 147, calling for the Port to develop a Transportation Systems Management Plan for future project proposed at the Pier 70 Mixed-Use Opportunity Area and the Pier 90-94 backlands to reduce transportation and air quality impacts. In addition, the Planning Department is currently studying expansion of the Transit Impact Development Fee (to more land uses and a larger geographic area), and as a policy matter, may recommend expansion to cover Port properties.

P-20) According to Port staff, such a restriction on the hours of rail service would not be feasible because freight rail traffic is already severely constrained by other factors, including an agreement with Caltrain that preclude freight service during certain hours such as commute periods. Further restrictions could therefore threaten the continued viability of the Port's

terminals, given the importance of rail access. (In fact, improvement of rail access is one of the Port's project objectives – for the Illinois Street bridge.) Finally, the Port does not have control over the hours of rail operations, which are governed by the track owner and operator, the Union Pacific Railroad, which has previously indicated its reluctance to accommodate further restrictions on rail traffic.

P-21) As noted in the response to Comment H-14, p. C&R.49, there are existing warning signs posted by the San Francisco Department of Public Health concerning the consumption of fish caught in the Bay.

P-22) The comment is noted. While commute trips would make up a relatively small percentage of project emissions, local residents would travel shorter distances to work at the project area, which would incrementally reduce project-generated emissions of criteria air pollutants.

P-23) Given the magnitude of the project, especially the volume of ship and rail traffic anticipated, including both Industry Group and Port-related ships, there is no possibility of reducing the project effects with regard to regional emissions of reactive organic gases (ROG) or nitrogen oxides (NOx) to a less-than-significant level.

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November 9, 2000

Environmental Review Officer
San Francisco Department of City Planning
30 Van Ness Avenue
San Francisco, CA 94102

Re: San Francisco Southern Waterfront
Draft Supplemental Environmental Impact Report (Case No. 1999.377E)

Dear Review Officer:

I have a few concerns regarding the Draft SEIR, especially with respect to Seawall Lots 352 and 344:

1) The "environmental setting" is incomplete without a map showing the existing uses adjacent to or near the proposed projects. Cumulative impacts cannot be assessed without knowing the locations and activities of large-scale operations already occurring in the area. Specifically, the "Project Components" diagram (Figure 2, page 8) should show the boundaries of the site east of Pier 92 that is currently leased to a sand and gravel operation.

To adequately assess and discuss the impacts of the proposed projects, it would be useful to have the following information indicated on a single map: seawall lot numbers and boundaries; the Bay Trail alignment; areas subject to the Tidelands Trust Act; existing operations in the project area; the location of the wetlands; and the footprints of proposed projects — at least of those for which this purports to be a project-level SEIR.

Q-1

2) Where, precisely, is the Port's proposed Dredge Material Storage Facility proposed to be located. Where is a site map that shows its footprint?

Q-2

3) The statement on page 141 that neither the BPA terminal nor the Port's proposed Dredge Material Storage Facility "would encroach into the existing wetlands" requires further explanation. The Tidewater Sand & Gravel Company's operation has encroached on the wetlands, and illegal dumping by others has occurred over many years. (I complained about it to BCDC in September of 1991.) Notice, for example, the road shown in Attachment A that was allowed to bifurcate wetlands habitat. Given its history of less than exemplary protection of the wetlands, the Port needs to explain how it will prevent access to the wetland by members of the public

Q-3

with pickup truck loads of debris and how it will prevent BPA's current and proposed operations from having negative impacts. How big of a buffer will be established around the wetlands? What mechanism will be used to communicate to the lessee and all of its equipment operators the need to stay out of the buffer zone? What enforcement provisions are included in the lease agreement? And how will the Port guarantee compliance by its own employees working at the proposed Dredge Materials Storage Site?

4) What is the location and extent of the wetlands? The wetlands should be delineated and an upland buffer area designated for permanent protection prior to the permitting of any new uses.

5) The "Baylands Ecosystem Habitat Goals Report" (US EPA and SF Regional Water Quality Control Board, 1999) recommends a buffer of 300 feet around wetlands. What buffer zone is proposed for the wetlands in SWL 352? The Port should be prepared to re-negotiate/reconfigure the area leased to Tidelands' successor to provide a 300-foot buffer between the existing sand & gravel operation and the wetlands.

Q-3 CONT.

6) The DSEIR (page 141) dismisses the potential negative impacts of public access at Pier 98/Heron's Head Park by referring to the posting of signs. As seen in attachments B and C, people continue to walk into the wetlands despite the signs. What means are being considered to keep fisherpeople and others out of sensitive habitat?

7) It is probably true that the industrial nature of the SWL 352 wetlands will result in less negative impact from public access than those at Pier 98, provided that unauthorized vehicles are kept out. But it is essential to provide a safe means of pedestrian access at least for research and stewardship activities, if not for public enjoyment. Will a pedestrian access corridor be provided from Amador Street? If access is to be provided by permission only, what will be the procedure?

8) Where is the wildlife inventory for SWLs 352 and 344? If this document is supposed to serve as a project-level EIR for the proposed Port Dredge Materials Storage Site, it should assess the loss of habitat that the Dredge Facility will destroy. As shown in Attachment D, the vegetation in the area is extensive, and while much of it is non-native, it can still be expected to have value for native wildlife.

9) What coordination is taking place between the Port and the PUC regarding planning for the Southern Waterfront? The PUC's SOFT process (Screening of Feasible Technologies) contemplates environmentally beneficial alternatives for the treatment of wastewater and stormwater including "package" treatment plants and constructed wetlands. What consideration is being given to accommodating such uses on SWL 352?

Q-4

10) What will be the air quality impacts on visitors to Heron's Head Park resulting from the industrial uses proposed in the Southern Waterfront Plan? Q-5

11) The "Plans and Policies" section beginning on page 29 should include mention of the "Sustainability Plan for the City of San Francisco," and should cite in particular the Goals and Objectives related to biodiversity, air and water quality, and environmental justice. Q-6

12) What are the cumulative impacts on herring runs from both the existing and proposed uses near Islais Creek Channel? Attachment E shows the loading dock used by Tidewater Sand & Gravel, now presumably BPA, but the document fails to discuss the impacts of the current loading, unloading, handling and de-watering activities at the site. Q-7

13) The wetlands adjacent to Pier 94, a product of benign neglect and the Bay's remarkable self-restoration capacity, represents the last opportunity to capture the memory of the enormous tidal salt marsh (Attachment F) that once flourished at the mouth of Islais Creek. What consideration is being given to an alternative that includes the enhancement, expansion and permanent protection of the wetlands and the enhancement of the adjacent terrestrial habitat as part of a significant public open space? Q-8

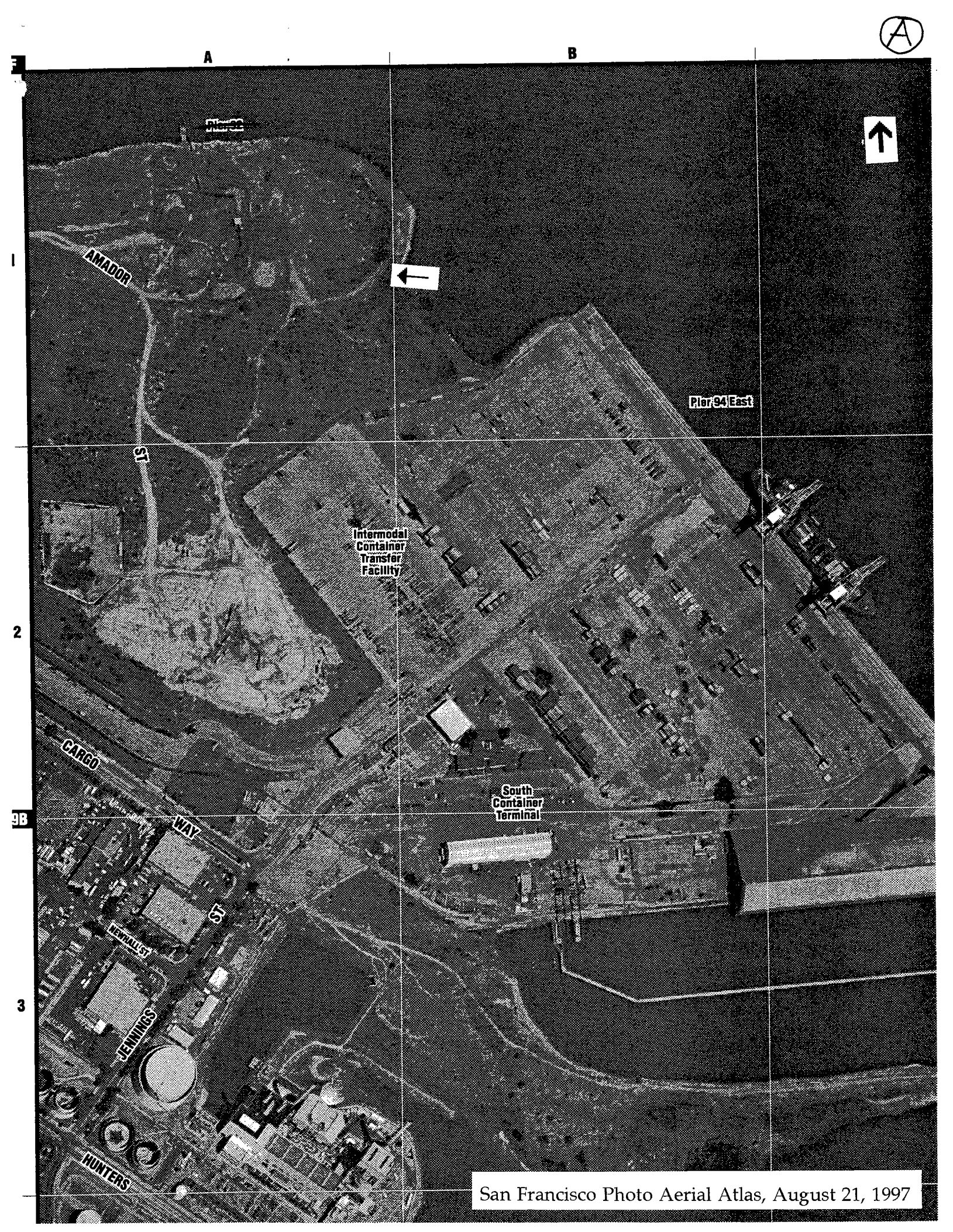
Thank you for the opportunity to comment.

Yours truly,

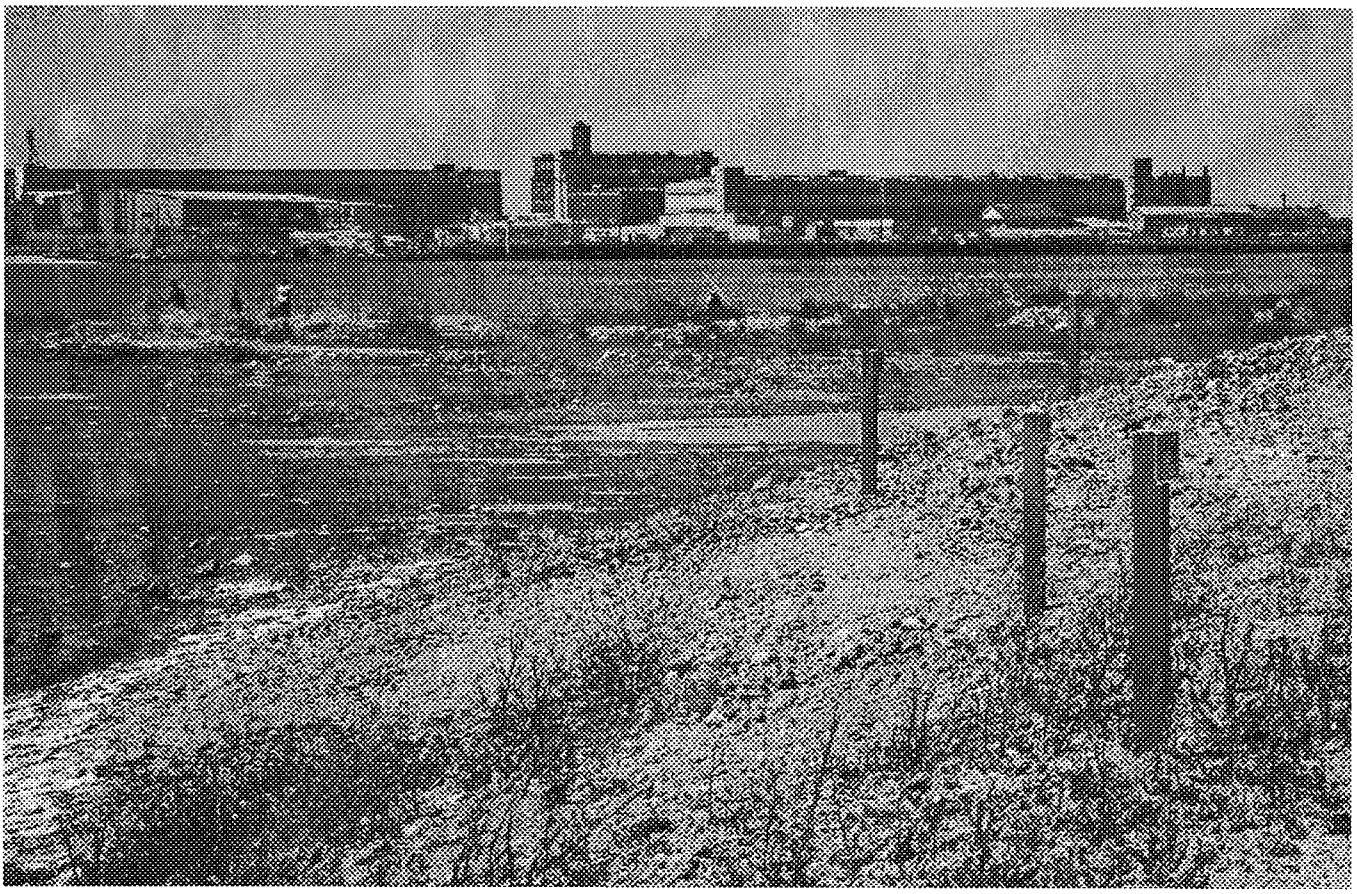
Ruth Gravanis

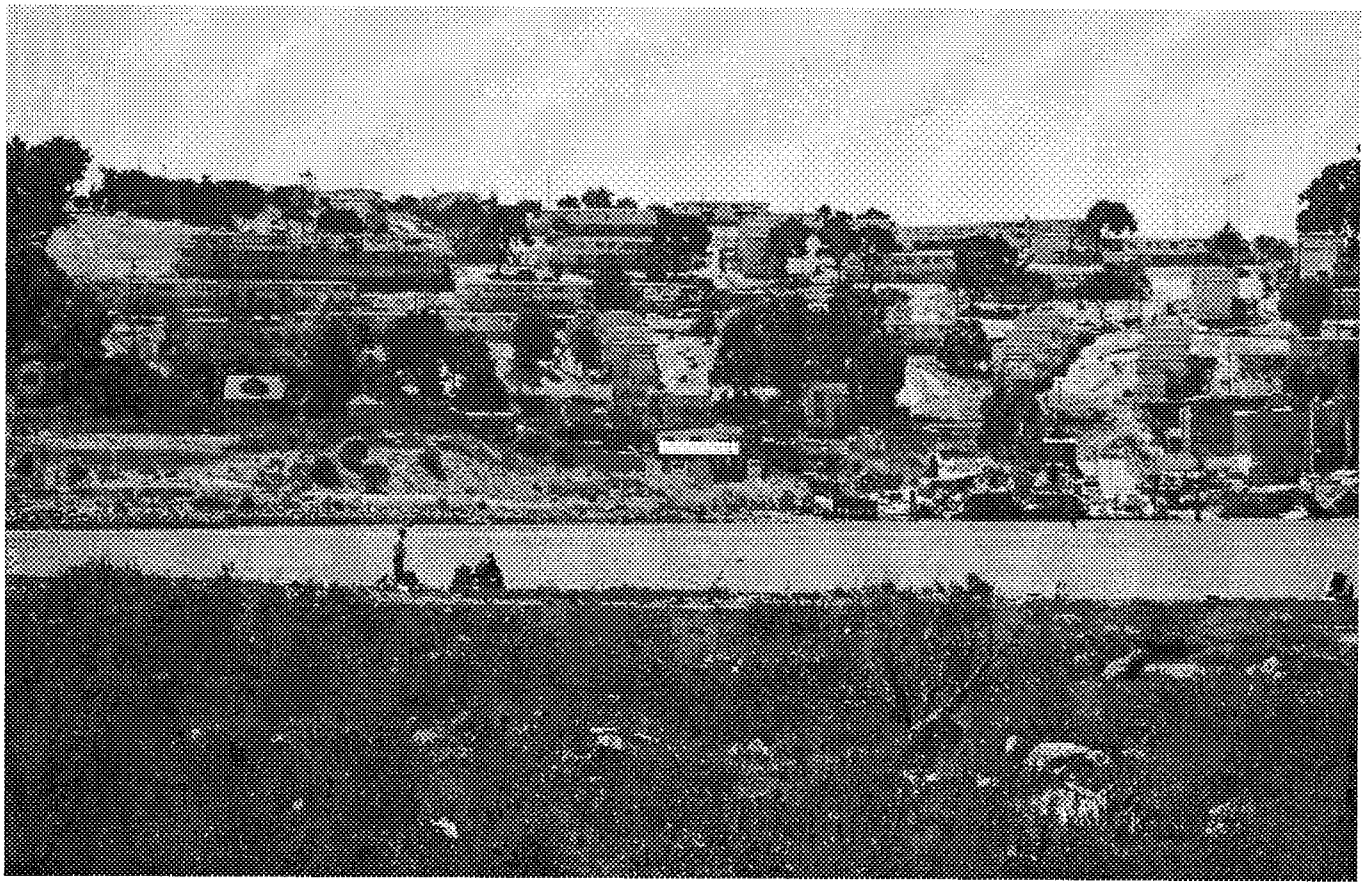
Attachments:

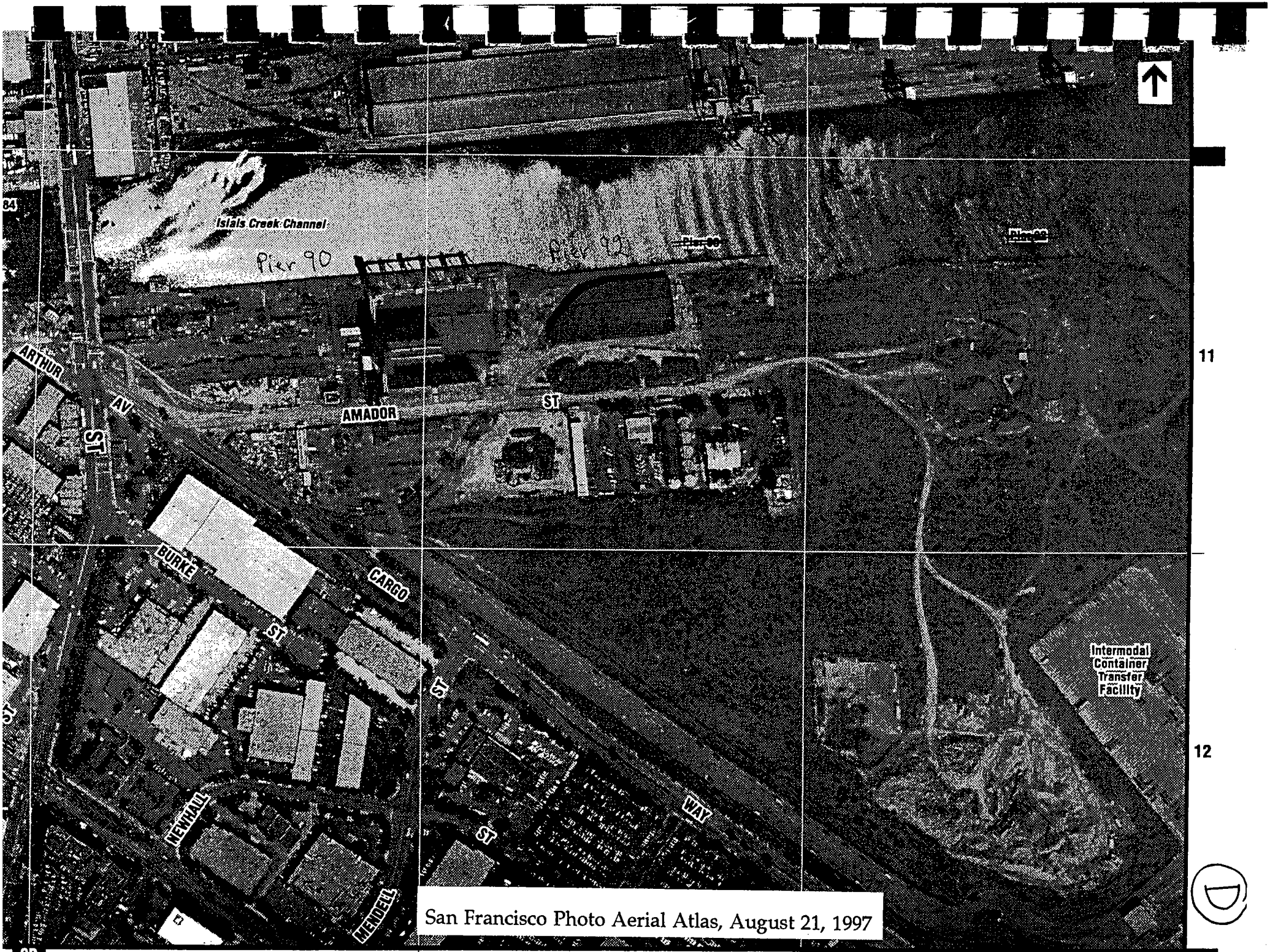
A- Aerial photo showing encroachment on Pier 94 wetlands
B and C- People using Pier 98 wetlands despite signage
D- Aerial photo showing extent of vegetation in SWL 352
E- Loading activity in Islais Creek Channel
F- Historic Islais Creek Marsh, from Nancy Morita's "Wild in the City"



San Francisco Photo Aerial Atlas, August 21, 1997







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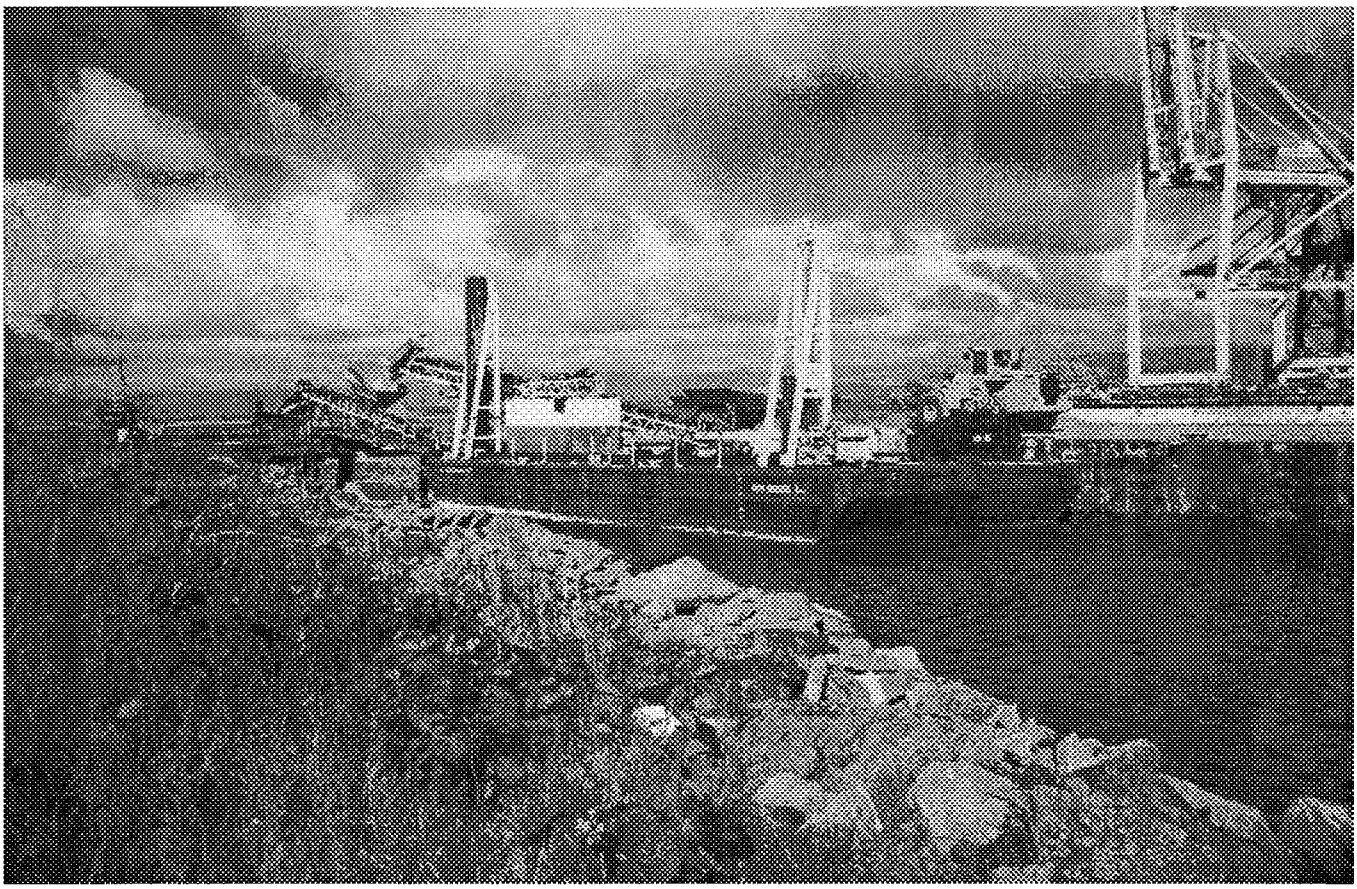

(F)

Nancy Morita
Wild in the City
6 Cypress Road
San Anselmo, CA 94960
1992

LETTER Q – RUTH GRAVANIS

Q-1) As stated on SEIR p. 37, "Mission Valley Rock currently operates a dredge sand processing facility at Pier 92, adjacent to its proposed marine aggregate terminal and asphalt plant." This existing facility occupies the rectangular area at the northeast corner of Pier 92, directly east of the proposed Mission Valley Rock import terminal and north of the proposed Bode cement plant.

As stated on SEIR p. 44, in the project area, the Bay Trail includes Illinois Street between Mariposa and 24th Streets, Third Street south of 24th Street, and Cargo Way.

Generally, all land within Port jurisdiction in the project area (see SEIR Figure 1, SEIR p. 2) – with the exception of the former Western Pacific site and a block within the Pier 70 Mixed-Use Opportunity Area at the southeast corner of 20th and Illinois Streets – was transferred from the State to the San Francisco Port Commission, pursuant to the 1968 Burton Act, to be used for public trust purposes.

Features such as seawall lots and existing land uses, were not shown on SEIR Figures 1 and 2 to avoid presenting so much information as to make the maps unclear. A generalized map of existing land uses is presented in SEIR Figure 4, SEIR p. 26, and provides sufficient information to evaluate proposed land uses in context.

Q-2) The Port has not yet defined the precise location of the proposed dredge material storage site. As stated in the SEIR (p.23), the site would be north of the existing paved pier apron of Pier 94, on unpaved land, and would occupy about five acres (about 222,000 square feet). The site would be upland from the existing wetlands at Pier 94.

Q-3) Please see the response to Comment H-13, p. C&R.45, concerning the Pier 94 wetlands.

As stated on SEIR p. 141, "the Pier 94 wetlands would continue to be located in areas surrounded by industrial uses and therefore would not be subject to public access." The Port has no plans to provide general public access to Pier 94, as the nature of existing and proposed industrial operations there is not and would not be conducive to safety for visitors. However, pedestrian access to allow for wetlands monitoring and research would be provided (see newly added Mitigation Measure F.3, p. C&R.47).

Concerning wetlands at Heron's Head Park (Pier 98), the project would not result in any changes with regard to access to the park, and therefore would not result in any new effects with regard to public access to the wetlands there.

Q-4) Please see the response to Comment H-4, p. C&R.40. Port staff has been involved in the San Francisco PUC's Screening of Feasible Technologies (SOFT) study that is described in

response H-4. However, the study is not complete and no alternative technologies have been identified by the PUC for assessment against the community values criteria. As a result, there is no proposal for wastewater or stormwater treatment facilities on Seawall Lot 352[10] at this time. Should the PUC and the City complete a SOFT study the includes options for Seawall Lot 352, such options might be evaluated in the context of further development planning for the Pier 90-94 backlands, which includes portions of Seawall Lot 352.

Q-5) While Heron's Head Park, (Pier 98) is downwind from several Industry Group project components, visitors spend a limited time at the park, and therefore would be exposed to maximum concentrations of respirable particulate matter (PM-10) and diesel particulate at levels far lower than those identified in Tables 17 and 18, SEIR pp. 94-95, for long-term exposure at other nearby sensitive receptors. Therefore, no significant effects would be anticipated.

Q-6) The following is added to SEIR p. 34, just before the heading "Bay Conservation and Development Commission."

Sustainability Plan

The *Sustainability Plan for the City of San Francisco* was endorsed by the Board of Supervisors on July 21, 1997 (Resolution No. 692-97), as a non-binding guideline for policy and practice in the City and County. The City's Department of the Environment was formed to address sustainability issues, including implementing the Sustainability Plan. The basic goal of the Sustainability Plan is to enable the City and its people to meet its present needs without sacrificing the ability of future generations to meet their own needs. Although there is no specific "land use" topic, a number of Sustainability Plan objectives have land use implications, particularly those related to building design, landscaping, transportation, and neighborhood design. The proposed project would not obviously or substantially conflict with the Sustainability Plan.

Q-7) As stated on SEIR p. 139, project effects on biological resources at Islais Creek would be minor. Dredging for construction of the proposed Illinois Street bridge could adversely affect herring spawning, but this effect could be reduced or eliminated by mitigation identified on p. 153. Because of the limited duration and magnitude of project effects, the project would not contribute in a meaningful way to any other effects related to herring runs.

Q-8) Please see the response to Comment Q-3, above.

[10] Seawall Lot 352 includes Piers 94-96 and the unpaved area between Pier 94 and Islais Creek. A portion of this unpaved area would be the site of the Port's planned expanded dredge material handling site.

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November 7, 2000

Ms. Hillary Gitelman
Environmental Review Officer
Planning Department, City and County of San Francisco
1660 Mission Street
San Francisco, CA 94103-2414

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Re: San Francisco Southern Waterfront Draft SEIR
Planning Department Case No. 1999.377E

Dear Ms. Gitelman:

As a member of the Pier 70 Advisory Committee, I strongly support the response to the Draft SEIR drafted on behalf of the Pier 70 Advisory Group by Toby Levine and John Borg, co-chairs of the group.

In addition, I would like to point out some additional issues that should be more adequately addressed.

1. Hydrology and Water Quality

On page S-21 of the Summary, "(t)his EIR assumes that for the Industry Group Projects neither the Port nor the tenants would construct on-site infrastructure related to stormwater collection, and there would be no new connections to the combined sewer system to capture stormwater runoff...". The Summary further notes that "the increase in direct stormwater flow to the Bay would be approximately 1.4 million gallons per year." This discussion is amplified in Section III D., Impacts. On page 150, Section IV, mitigation measures include Measure D.3, from the 1997 Waterfront Plan FEIR, which states:

> As part of permit and lease requirements for future Port development projects, runoff from stormwater at new or re-developed facilities located outside of the City's combined sewer system shall be, at a minimum, subject to appropriate treatment such as on-site oil/water separators and/or sediment traps, ...so that stormwater runoff is treated prior to discharge and that there is no direct, untreated discharge to the Bay or Islais Creek. Stormwater runoff from future Port development sites shall not be directed to the City's combined system..., and the volume of stormwater flows from the project area to the City's combined system shall remain the same as at present, unless the increased flow to the combined system would result in no additional volume of combined sewer overflows."

R-1

While the Industry Group Projects are considered "interim" uses, they are certainly no more "interim" that the San Francisco Giants parking lots south of Mission Creek on Port and Catellus property. At the very least, the same level of mitigation to reduce polluted stormwater flow into the Bay and/or Islais Creek should be required for this project, since the pollutants likely to be found at industrial sites may be more damaging to the

environment that the pollutants to be found on the Giants parking lots. The Installation Plan for the South of China Basin Parking Lots, prepared for the San Francisco Giants by Rutherford & Chekene (4 June 1999) outlines the Stormwater collection and treatment system used on those parking lots.

Any increase in polluted stormwater flow to the Bay is totally unacceptable. The project should be designed to REDUCE stormwater flow to the Bay, and to clean it up.

R-1 CONT.

2. Reclaimed Water

I can find no reference in this Draft SEIR to the City's Reclaimed Water Use Ordinance (San Francisco Public Works Code, Article 22, Sections 1200-1210, adopted October 28, 1991). Both the size of this project and the significant demand on the part of the Industry Group Projects for non-potable water would appear to demand the use of reclaimed water. The Ordinance, and compliance with it, should be addressed in the SEIR, and the projects should be given a source of reclaimed water (from the Southeast Treatment Plant or elsewhere) as soon as possible to reduce the demand for potable water.

R-2

3. Islais Creek Bridge

I understand that the Islais Creek Bridge is eligible for the National Registry of Historic Places. As such, any interference with its operation as a lift bridge would appear to be illegal. While I applaud the concept of a rail and truck bridge across Islais Creek to reduce traffic on 3rd Street and to eliminate the railroad track connection along 16th Street through Mission Bay, has this National Register status been investigated? A rail/truck bridge that could be opened for vessel traffic would be significantly better than a fixed bridge that could only be opened by a crane.

R-3

Thank you for your consideration of these issues. I will appreciate receiving a copy of the Comments and Responses section of this Draft SEIR, and the final mitigation measures when they are established.

Sincerely yours,

Corinne W. Woods

Corinne W. Woods
(415) 255-7635 (phone/fax)
corinnewoods@compuserve.com (e-mail)

LETTER R – CORRINE W. WOODS

R-1) Mitigation Measure D.3, cited by the commenter, and the other mitigation measures on SEIR pp. 149-150, are intended precisely to ensure that there is no increase in "polluted stormwater" that would flow to San Francisco Bay. This is the reason why treatment of all stormwater would be required prior to discharge to the Bay.

R-2) Please see the response to Comment I-7, p. C&R.65.

R-3) The existing Levon Hagoop Nishkian drawbridge on Third Street over Islais Creek was evaluated as part of the 1998 Historic Property Survey Report for the Third Street Light Rail project. That report determined that the bridge, which had earlier been determined not eligible for the National Register of Historic Places, could be eligible for the National Register, once it reached 50 years of age, as an outstanding example of moderne-style architecture. The State Office of Historic Preservation (OHP) concurred with this determination. Although the bridge is not yet listed in the OHP database, because the bridge reached the 50-year milestone in 2000, OHP now believes that the bridge "appears eligible" for separate listing on the National Register (National Register status code 3S) (Caesar, 2001).

Construction of the proposed new Illinois Street bridge would not result in any impact, whether direct or indirect, on the existing Third Street bridge. As noted on p. 40 of the SEIR, the existing Third Street bridge is raised only about six times per month, including once weekly for testing the mechanism. Although the existing bridge would likely be opened with slightly less frequency than at present, it is anticipated that routine weekly openings would occur to ensure that the mechanism continues to function properly.

REFERENCE – LETTER R

Caesar, Clarence, Historian, State Office of Historic Preservation, personal communication, January 24, 2001.

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

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Gray Davis
Governor

S

December 29, 2000
File No. 2168.03

Ms. Lezley Buford
San Francisco Planning Department
1660 Mission Street, Suite 500
San Francisco, CA 94103

RECEIVED
JAN 10 2001
PLANNING DEPT

Re: Draft Supplemental Environmental Impact Report for San Francisco Southern Waterfront, San Francisco County, SCH# 94123007

Dear Ms. Buford:

We have received the above referenced Draft Supplemental EIR (DSEIR). The Regional Board offers the following comments on this proposal.

This project proposes to develop 1,940,000 square feet of southern San Francisco waterfront for office, commercial and recreational purposes. The proposed developments include devoting a total of 16.4-acres to Bode Gravel and Mission Valley Rock for a ready-mix concrete plant and an asphalt plant, 10-acres to British Pacific Aggregates for the same uses, 2.3-acres to ISG Resources for fly ash storage, and 3.1-acres to RMC Pacific for a ready-mix concrete plant. There will also be 24,000 square feet devoted to construction and demolition debris recycling and 8-acres devoted to Coach USA bus storage. Planned future port development includes cargo shipping, dredge material handling, maritime industry, general industry, office and research and development uses as well as public access and recreation. These additional uses are part of a Phase II component of development. A bridge will also be constructed across the Islais Creek channel connecting Pier 80 with the Port facilities on the south side of Islais Creek. This Illinois Street Intermodal Bridge would be 28-feet wide with a single rail line and one traffic lane in each direction.

Comments and Recommendations

Each component of the proposed development that would disturb more than five acres of land during construction must be covered under the state NPDES General permit for Discharges of Storm Water Associated with Construction Activity (General Permit). This can be accomplished by filing a Notice of Intent with the State Water Resources Control Board, Division of Water Quality. The project proponent must propose and implement adequate stormwater pollution control measures that are consistent with the General Permit and with the recommendations and policies of the local agencies and the Regional Board. S-1

Without appropriate control measures, the project may have significant adverse impacts to water quality. These impacts could result from the discharge of polluted runoff to waters of the State. Erosion may result from construction without proper control practices. The significant increase of impervious surfaces proposed for this project is of particular concern in regards to these matters. Also of concern is the dredging required for the construction for the Illinois Street Bridge.

In order to establish that the project will not have significant adverse effects on water quality and drainage, in addition to the proposed mitigation measures, the final EIR should include:

- A Storm Water Pollution Prevention Plan (SWPPP). A SWPPP is required by the National Pollutant Discharge Elimination System General Permit. The SWPPP should be consistent with the terms of the General Permit, the Manual of Standards for Erosion & Sedimentation Control Measures by the Association of Bay Area Governments (ABAG), policies and recommendations of the local urban runoff program (city and/or county), and the *Staff Recommendations* of the Regional Board. Preparation of a SWPPP should be a condition of development. Implementation of the SWPPP will be enforced during the construction period via appropriate options such as citations, stop work orders, or withholding occupancy permits. The SWPPP must address a plan for the employment of Best Management Practices (BMPs) to control sediment and erosion, both during the construction phase of the project and in the long term. Post-construction BMPs include permanent measures for sediment, erosion, and stormwater pollution capture. The Regional Board Staff have prepared "Directions for preparing a SWPPP," which is available from the Board at (510) 622-2304.

- Specific measures to reduce and treat runoff from graded and paved areas using grassy swales, detention areas, or other means, to be effective for the life of the project. These measurements should be incorporated into the SWPPP as BMPs. These measures will be particularly important on the collective area. These types of measures will help decrease the volume of stormwater runoff flowing directly from the project site to the bay. Although the Industry Group Projects will increase runoff by 1.4 million gallons per year, only 3 percent of the total (p. 106), future Port Developments anticipate a 60 percent increase. Developing treatment and control methods now will be important for maintaining good water quality and reducing runoff flow for these projects as well as those planned for the future. Runoff reduction and treatment methods should be employed throughout the life of the project as well as after project completion. If sediment traps are to be used as a mitigation measure as suggested in D.2 on page 149 of the DSEIR, these traps must

S-1 CONT.

be continually maintained at a frequency appropriate for the retention of satisfactory water quality in Islais Creek and the San Francisco Bay. The effectiveness of these traps and vegetative runoff reduction measures will be particularly important considering that mitigation measure D.3 indicates that runoff will be directed to the Bay rather than the City's combined system.

S-1 CONT.

In addition to stormwater and runoff precautions, the project proponent will also need to comply with Clean Water Act section 401(b) certification procedures as mandated by the Regional Board. Any wetland fill would result in required Clean Water Act Section 401 water quality certification from the Regional Board. The Regional Board adopted U.S. EPA's Section 404(b)(1), "Guidelines for Specification of Disposal Sites for Dredge or Fill Material, " dated December 24, 1980, in its Basin Plan for determining the circumstances under which fill may be permitted. The Section 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the United States, unless a discharge, as proposed, constitutes the least environmentally damaging practicable alternative that will achieve the basic project purpose. For non-water dependent projects, including this project, the Guidelines assume that there are less damaging alternatives, and the applicant must demonstrate to the contrary. The Guidelines sequence the order in which proposals should be approached: 1) Avoid - avoid impacts to waters; 2) Minimize - modify project to minimize impacts to waters; and, 3) Mitigate – once impacts have been fully minimized, compensate for unavoidable impacts to waters. When it is not possible to avoid water bodies, disturbance should be minimized. Mitigation for lost water body acreage and functions through restoration or creation should only be considered after disturbance has been minimized. Where impacts cannot be avoided, adequate mitigation for the loss of water body acreage and functions must be provided.

S-2

Though specific plans for wetland fill were not delineated in the DSEIR, it was mentioned on page 141 that there are wetlands located in the Southern Waterfront. These areas are outside the vicinity of the proposed Illinois Street Bridge, but "wetlands at Pier 98 could be adversely affected by contaminated runoff and by public access." If for any reason filling of the wetlands or waters of the State is deemed unavoidable, adequate mitigation measures compensating for wetland fill will be necessary as part of the final EIR. In addition to maintaining a satisfactory replacement ratio, which is generally delineated as 2:1 replacement, any mitigation measure addressing wetland fill must guarantee the survival of plant cover and ensure that the plant assemblage mirrors the palette and relative percentages of the vegetation of native wetlands of the same kind in the immediate general area of this project. Any such mitigation measure must also provide assurance of the mitigation area's preservation into perpetuity and provide financial assurance of mitigation area's success.

Dredging concerns are also particularly significant as a project component. As stated on page 111 of the DSEIR, the construction of the dredge material handling site at Pier 94 will result in runoff back to the bay and the decant water will require routine testing by the Regional Board. The construction of the Illinois Street Bridge is also of concern with regards to this matter. Construction of the bridge and it's abutments will require dredging that will disrupt bottom sediments causing turbidity and the resettling of fine sediments as noted on page 139. These construction processes will require authorization from the Army Corps of Engineers including compliance with Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. As previously outlined, the project will also require Clean Water Act 401(b)(1) certification by the Regional Board. A Streambed Alteration agreement from the California Department of Fish and Game may also be necessary. In addition to these permitting procedures, some components of the Industry Group Projects may be required to obtain waste discharge requirement permits from the Regional Board. If any of the aforementioned permitting measures are necessary, they should be completed and authorized prior to the commencement of construction. S-3

The Regional Board is unable to offer more specific comment at this time. However, I have attached a copy of our General Comments, which discuss the Regional Board's area of responsibility, and which should help guide in the preparation of further CEQA documentation. Regional Board staff also encourage the lead agency to obtain a copy of "Start at the Source," a design guidance manual for stormwater quality protection from the Bay Area Stormwater Management Agencies Association. This manual can be obtained at most city planning offices, or by contacting the San Francisco Estuary Project at (510) 622-2465. If you have any questions, please contact me at (510) 622-2352, or e-mail sfg@rb2.swrcb.ca.gov.

Sincerely,

Susan Gladstone
Environmental Specialist IV

Enclosure
Cc without enclosure;
State Clearinghouse
Hillary E. Gitelman
John West, Regional Board
Regional Board Planning Division (GC)

LETTER S – CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

S-1) The SEIR discusses each of the permit requirement and runoff control measures noted by the commenter. Construction impacts are described on p. 113, where the text discusses the requirement for compliance with the National Pollutant Discharge Elimination System (NPDES) program, including the requirement for preparation of a Storm Water Pollution Prevention Plan (SWPPP) for construction on sites of more than five acres. In addition, the SEIR includes Mitigation Measure D.1, p. 149, that would require preparation of a SWPPP for smaller sites as well, even though not mandated by the NPDES program. This measure would ensure that construction activities would not result in any significant impacts.

Effects of stormwater runoff during post-construction operation of the project components are discussed on SEIR pp. 109-112.

Regarding the increase in stormwater runoff, please see the response to Comment Letter I, and in particular, the response to Comment I-1, p. C&R.61.

S-2) No filling of wetlands is proposed as part of the project. Existing wetlands are discussed in the SEIR in the context of potential effects from stormwater runoff, which were determined to be less than significant, as stated on p. 141 of the SEIR. Please see also the response to Comment H-13, p. C&R., concerning existing wetlands.

S-3) The commenter notes that the SEIR discusses potential effects due to dredging for the proposed Illinois Street bridge on p. 139, where it is determined that effects would be less than significant because such a small area would be affected. Required approval for the proposed bridge are outlined in the SEIR project description, p. 22, including U.S. Army Corps of Engineers approval under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, Clean Water Act Section 401 certification by the Regional Water Quality Control Board, and a possible Streambed Alteration Permit from the California Department of Fish and Game.

In the case of the proposed dredge material handling site at Pier 94, this would be an expansion of an existing facility and would not result in new dredging. Rather, it would be used to dry material primarily from already-permitted routine maintenance dredging. As stated on SEIR p. 111:

> The Regional Water Quality Control Board (RWQCB) would require routine testing of the decant water to ensure that sediment levels are below accepted criteria, and that the water does not contain chemicals (e.g., heavy metals) or other constituents at levels in excess of regulatory requirements.[SEIR 40] If

[SEIR 40] Although the decant water would be Bay water being returned to the Bay after draining from the dredge material, federal and state regulations preclude discharge of such water if sediment or contaminant levels are excessively high.

contaminant levels were in excess of applicable requirements, the RWQCB would require that the Port treat the decant water prior to discharging it to the Bay. Treatment could involve removal of settled solids, activated charcoal treatment, and other methods. Operation of the dredge material storage facility in compliance with the required discharge permit from the RWQCB would ensure that water quality effects on the Bay would be less than significant.

SECTION D
PUBLIC HEARING COMMENTS AND RESPONSES

This chapter contains a transcript of the public hearing on the Draft SEIR and the responses to each of those comments. Each substantive comment on the Draft SEIR is labeled with a number in the margin and the response to each comment is presented following the commenter's remarks. For purposes of sequential reference with the written comments, these comments are designated as though they were contained in comment letters. Therefore, comments from the first speaker at the public hearing are answered in responses T-1, T-2, etc., from the second commenter, in responses U-1, U-2, and so on. Where responses have resulted in changes to the text of the Draft SEIR, these changes will also appear in the Final SEIR.

Comments

We have a number of concerns about the SEIR, though. And I have distributed to the Commission, and to the Commission Secretary, as well as Ms. Gitelman, our comments.

We do see the benefits of adding the six new industries to that Central Waterfront. The benefits have to do with the densification of the industrial areas. And, by the same token, that frees up land in other areas to be used for other purposes. Which is just exactly what is happening in this particular case – in two or three of the cases. **T-1**

However, because Pier 70, in particular, is a very complex area with many industries already existing – that have certain environmental hazard and problems – adding to it six new industries is a delicate process; one that needs to be analyzed very carefully.

A few of the deficiencies in this particular SEIR have to do with the fact that the picture of the scenes that exists in that particular neighborhood has not been carefully laid or drawn out. So we would like to see some additional commentary in that area. (Toby Levine, Co-Chair, Pier 70 Advisory Board)

Responses to Comments T

T-1) Please see the responses to the Commenter's written comments in Letter N (which responses refer to many of the same comments in Letter J, p. C&R.67).

Comments

I just want to say right off the bat, in speaking with my neighbors, I don't think the folks are quite ready to oppose this thing. And, really, the major reasons for that is, I don't think any of us really want to be considered NIMBYs and just saying, push this stuff out somewhere else. There are some serious concerns that we do have with this project the way it is.

Before I begin, I want to give you some points that I hope that you can remember in evaluating this – some points that you can remember in evaluating this Environmental Impact Report, and in evaluating this project. **U-1**

First of all, a good chunk of this thing is at the gateway to the Bayview-Hunters Point community along Third Street. The neighborhood has been going through its own internal planning process with the redevelopment agency, and it would seem kind of counterproductive to concentrate an intense amount of unsightly and polluting industry right at the neighborhood's entryway, as the City is probably going to be doing a pretty significant investment in the neighborhood.

Some other things you should remember: This is near existing open space. The Port of San Francisco spent several million dollars to put together a nice wetlands restoration project, where a lot of young people go to learn about the bay, and learn about the wildlife. And, again, a project of this sort of magnitude, without proper mitigations, is really likely to impact the quality of the education that they receive, and possibly even harm their health. **U-2**

Some other things is that this is also near housing, and what may be potential housing. As you know, things have been spreading out into the southeast section. I understand that just south of the Potrero Power Plant, there's been a proposal to put some housing and, again, at Pier 70 as well. So, again, you are going to be sticking people on top of heavily polluting industry, at least the way this thing is designed right now. **U-3**

Some of the problems that we saw was – and I was just looking through the Environmental Impact Report – over two thousand tons a day of additional air pollution. Bayview-Hunters Point, I think, as many of you know, has an acknowledged respiratory problem throughout the neighborhood. I mean, it's been said that up to 30 percent of the school kids in the neighborhood have asthma. So, again, think about putting in two thousand tons of particulate matter into the air every day in a neighborhood that is already impacted, and I think you have a very, very serious problem. And I think there's going to be a serious amount of opposition to this thing. **U-4**

Some mitigations that I think that could be looked at – and I'm running out of time, so I'll go quickly – one is, improve the aesthetics at the gateway. Make sure that this thing doesn't serve as just this ugly entrance into the neighborhood. Make sure that you do a lot to eliminate the boat- and the rail-caused air pollution, which is going to be a really big – (Alex Lantsberg) **U-5**

Response to Comment U

U-1) The commenter is referring to the ongoing Bayview-Hunters Point Redevelopment Study which, as noted on p. 29 of the SEIR, includes the southern portion of the project area analyzed in the SEIR within the redevelopment survey area. To date, proposals for industrial uses, open space,

and urban design "gateway" improvements have been discussed for this area, although there is no redevelopment plan that has been released.

U-2) The new open space at Heron's Head Park (Pier 98) is discussed in several locations in the SEIR, including Section III.A, Land Use, Section III.C, Air Quality, Section III.D, Hydrology and Water Quality, and Section III.F, Biological Resources. No significant effects on this open space were identified. Please see also the responses to Comments H-7, p. C&R.41, Q-3, p. C&R.144, and Q-5, p. C&R.145.

U-3 The SEIR does not evaluate any residential development as part of the project. Alternative C, SEIR p. 172, assumes residential development at the Pier 70 Mixed-Use Opportunity Area, which is north of the Potrero Power Plant.

U-4) The SEIR contains a detailed analysis of potential air quality impacts in Section III.C.

U-5) None of the components that would occur in Phase I of the project analyzed in the SEIR would be readily visible from Third Street, with the exception of the Illinois Street bridge and the ISG Resources reuse of the existing grain silos for storage of fly ash. Even Phase II projects – which are not yet defined – such as development of the Pier 70 Mixed-Use Opportunity Area or of the Pier 90-94 backlands, would not necessarily result in adverse visual effects. Visual impacts of those later components would be considered by Port staff and the Port Commission once actual designs were proposed. Therefore, the project would not result in any significant adverse visual impacts.

Please also see the responses to the Commenter's written comments in Letter H, p. 32.

Comments

I'm against [the project] because the southeast section of San Francisco, where it takes a lot of the burden – a lot of the factories which are in San Francisco – in our area the asthma rate is two times higher than anywhere in California. So putting more plans like these – facilities in our area would just add on to an already bad situation.

Bayview-Hunters Point is one of the worst-case scenarios for San Francisco. We have 325 toxic sites, the biggest station in our community is a power plant, which is less than like a mile from the proposed plant. So it is going to be adding on to an already bad situation.

And so I'm pretty sure everybody here is educated, and knows if you put more pollutants into the area, it's not going to do any more better to the community. And we understand that this area is industrial as well as residential. So people do live in this area. The Section 8 housing and the projects are relatively close to this area as well. **V-1**

And from the redevelopment of the shipyard in our area, we have trucks coming in constantly. We have hundreds of trucks, literally hundreds of trucks driving back and forth through this community. From this facility we're going to have more trucks coming into our area. And, like I said before, the asthma rate is really significant in this area. So we really don't like this.

We have a lot of youth going against this power plant. We did a letter-writing campaign. And unfortunately the youth can't come today because it's during school, but a lot of the youth are against this as well.

So, as the program has been going, it has asked the people their opinions. And majority of you are against it. And it's pro redevelopment as well. We want this so we can redevelop the area. Once, again, in our area, our concerns are more gentrification. And also if you have this area, this site, this factory in our area, it's going to promote that as well, and have new people move in. And it won't bring many jobs. The jobs are mostly technical to our area. And our area is – the majority is low income, so this won't really benefit our community too much. It is going to cause more harm to our community than it will benefit. (Juan Barragan)

Response to Comment V

V-1) The commenter's opposition to the project is noted. The comments do not address the adequacy or accuracy of the SEIR. However, the comments will be considered by the Port Commission in its consideration of the proposed leases for the Industry Group components.

Comments

Heron's Head Park is a wetland restoration project very similar to Crissy Field in a lot of ways. And I really feel that as a neighbor to Pier 92 and 94, and I really feel if you are going to put asphalt plants next to Crissy Field in the Presidio, it just would not go over well. I think that the citizens of Bayview-Hunters Point deserve clean air; clean, open water; open space.

And one of the big concerns that I have is that at Heron's Head we find about 80 species of birds every year using the site. If I'm at the site – pretty much which I am every day as the head naturalist – if I don't see these birds, I get concerned. I go to Pier 94, which also has a very small wetland, and 9 out of 10 times I see a bird there that I haven't seen at our site.

The Port Authority of San Francisco has spent millions of dollars to improve Pier 98 and make it an open space. A critical open space, when you look at the amount of open space on the east side of this town. You look at the west side of town from Port Funston to pretty much the Golden Gate Bridge, it is all protected federal wildlife areas. **W-1**

East side of town has nothing other than India Basin right now. And I think it's a really, really bad idea to increase air pollution, possible water pollution, increase wake traffic from the boats that will be coming into Pier 92 and 94. It's just not ecologically a sound idea to spend millions of dollars in restoring these areas, and then put something right next door to it.

Of the hundreds of school kids that visit my site each year, they are very excited to have something like this in their neighborhood. It doesn't exist anywhere on the southeast side of town. And they deserve open space that is protected, and taken care of, and not threatened by further industry. I really feel that a lot of the prosperity of this City has been on the back of the Bayview-Hunters Point community taking an overburden of industrial usage in an area that is populated by 30,000 people, with about a third of the population being youth. I would hope that you guys take these factors into consideration, and realize that two more asphalt plants is not what we need. We should be looking to restore Pier 94, which is a salt marsh. Salt marshes cost lots of money. We're spending millions of dollars to create them throughout the entire Bay Area. You have one at Pier 94. And this the development is definitely going to definitely, definitely ecologically affect it. (Patrick Maury Rump)

Response to Comment W

W-1) The commenter's opposition to the project is noted. However, the comments will be considered by the Port Commission in its consideration of the proposed leases for the Industry Group components.

Concerning Heron's Head Park at Pier 98, please see the responses to Comments H-7, p. C&R.41, Q-3, p. C&R.144, and Q-5, p. C&R.145. Concerning Pier 94, please see the response to Comment H-13, p. C&R.45.

Comments

I can see several of our staff members came out today to speak on this issue, because we have been very concerned about it for a long time. As Patrick explained, we take about a thousand students a year out to Heron's Head Park, otherwise known as Pier 98.

A lot of the schools on the southeast side of town have been marginalized from environmental education and outdoor science activities because there was no place for students to go and study. And now they are using Heron's Head Park.

When we shared the proposed plan with some of these schools, everybody was alarmed about it. We have over 150 letters from students – middle school and high school students – who are opposed to the project.

I will be submitting them to your Commission. We have already given them to Kimberly Brandon at the Port. And I also agree with the fact that there's already a natural salt marsh occurring on the site, so it makes sense to continue to develop that site as a wetland project. There are many wetlands' project proposed for the southeast side of town. That is not one of them. That should be looked into. So there needs to be further studies into other ways of utilizing this site. **X-1**

Finally, I just would like to say that I have talked to people who are supportive of this project. And when they say that, they say, Well, I know it's going to pollute the air; and I know it's going to bring even more trucks into the neighborhood; and I know it could damage the wetlands of Heron's Head; and, yes, it is another factory right next to the PG&E Power Plant; but, you know, we have all this development happening in San Francisco, and we really need these asphalt plants.

And my response to that has been the same every time, which is that we have a beautiful city right now that we built without these two asphalt plants. So why do we need them now? If the answer is because we have so much development booming right now that we need to build more factories of pollutive industries, and put them in an already extremely polluted neighborhood like Bayview-Hunters Point, then I think we really need to slow down and revisit this progress.

Because for San Francisco to continue to be the jewel of a city that it is, we need to make a sustainable city. And putting these kinds of industries in such . . . in a city that so many people are moving to, just doesn't make any sense. So I really encourage all of you to revisit this proposal. Look into other ways of utilizing the site that will be less pollutive, and going for a minimum environmental impact at Piers 92 and 94. (Dana Lanza, Nursing for Environmental Justice)

Response to Comment X

X-1) The commenter's opposition to the project is noted. The comments do not address the adequacy or accuracy of the SEIR. However, the comments will be considered by the Port Commission in its consideration of the proposed leases for the Industry Group components.

Comments

I'm going to be making some very general comments today, and will follow up with more detailed information later on in our written comments. Some of the concerns that we have with the Supplement EIR is well, first of all, under CEQA, you need to have enough information in the EIR so that you can have informed comments and decisions. And this EIR does lack a lot of that information. For example, there's two asphalt companies that are possibly coming into the area, and there's no kinds of set controls over the amount of asphalt that they may be producing, and the levels of the information on how much pollution is going to be put into the air is based on market demand. Well, we also don't have any kind of information about what kind of analysis was brought into what that market demand is. I mean, there may be some more you know, another stadium being built in this city. You know, we just don't have that kind of information, and we need that to be able to have some good, solid comments on what's going to be going on here.

Another issue that we're concerned with is a lack of mitigation. Also under CEQA there needs to be mitigation factors and alternatives not only need to be looked at, they need to be adopted. You'll find that there's going to be significant impacts in terms of pollution here. And we need to bring that down. We need to bring down the amount of pollution that's going to be affecting this community. **Y-1**

And insufficient information and inadequate mitigation are not only promised under CEQA, but, you know, particularly within this community that has already been inundated with pollution, I mean, they are bearing the burden disproportionately in this area than the rest of the city, and it needs to be cut down and brought down to a minimum. (Lynne Saxton, Environmental Law and Justice Clinic, representing Southeast Alliance for Environmental Justice)

Response to Comment Y

Y-1) Please see the responses to specific comments from the Environmental Law and Justice Clinic at Golden Gate University, which appear in Comment Letter K on p. C&R.84.

Comments

I have a concern about the health of the residents, and the fact that there is a lot of health issues, and there is a lot of pollution in that area. And I just want to go on record as saying I have some serious concerns about furthering that. Increasing it. (Roslyn Baltimore, Planning Commissioner) **Z-1**

Response to Comment Z

Z-1) The comment is noted. Documented health problems in the Bayview-Hunters Point neighborhood are included in the SEIR on pp. 77 and 78, where a recent study conducted in the area is described. In part because of those concerns, as stated on SEIR p. 78, "this SEIR goes well beyond the typical level of air quality analysis in EIRs to address potential health effects of localized air pollution." As described on SEIR p. 91, the local impact analysis involved modeling of pollutant concentrations (i.e., how much PM-10 is contained within a given volume of air) and evaluating the results against health-based standards to determine if emissions

generated by the project would result in enough of a concentration of carbon monoxide, PM-10, or diesel particulate matter so as to create concern regarding localized health effects.

The SEIR determined that no project-specific localized significant effect would occur, because concentrations would not exceed the applicable standards (see SEIR Tables 16, 17, and 18, pp. 90, 94, and 95). In regard to cumulative impacts, in light of existing and potential future particulate emissions from certain key non-project sources, such as increased vehicle and truck traffic and the planned expansion of Southern Energy's Potrero Power Plant, the SEIR did conclude that "cumulative concentrations of PM-10 and diesel particulate experienced locally, while unknown because of the wide array of sources in the existing environment, could exceed significance thresholds . . . [and that, because] the project would add some increment to existing local PM-10 and diesel emissions, . . . these emissions are deemed cumulatively significant, although the project itself would not have a significant effect with regard to local concentrations of PM-10 or diesel particulate" (SEIR pp. 97-98).

As a policy matter, decision-makers will have to weigh these findings against the Port's and the Industry Group's objectives and the potential project benefits.

SECTION E

STAFF-INITIATED TEXT CHANGES

On SEIR p. 51, footnote g in Table 3 is revised as follows to correct an editorial error (new language is underlined; deleted language is indicated with ~~strikethrough~~ text):

g ~~2005~~ 2015 employee trips include visitor trips for future port development.

On SEIR p. 100, the last full sentence of the last partial paragraph is revised as follows to correct an editorial error (new language is underlined; deleted language is indicated with ~~strikethrough~~ text):

> Under the base case, which essentially represents existing conditions, the PUC estimated that a total of 31.1 billion ~~million~~ gallons per year of stormwater and wastewater enter the Bayside portion of the city's combined sewer system – essentially the eastern 60 percent of the City.

Note that the correct figure of approximately 31.1 billion gallons per year (expressed as 31,113 million gallons per year) is used in Table 20 on SEIR p. 110.

On SEIR p. 106, the second sentence of the third full paragraph is revised as follows to correct the text description of the calculations in Appendix E (new language is underlined; deleted language is indicated with ~~strikethrough~~ text):

> This would increase runoff from the Industry Group sites by about ~~3~~ 12 percent; the overall increase from all project component sites would be 3 percent.

The same revision as above is made to the Summary, on p. S-21.

On SEIR p. 109, the third sentence of the first paragraph to correct the text description of the calculations in Appendix E (new language is underlined):

> This would represent an estimated ~~60~~ 35 percent increase in surface water runoff from stormwater in the area occupied by the future Port development sites, based on rainfall,

runoff and land use assumptions developed for the PUC's Bayside Cumulative Impact Analysis (San Francisco Public Utilities Commission, 1998).

The same revision as above is made to the Summary, on p. S-22.

On SEIR p. 109, the following text is added to the second-to-last sentence of the first paragraph to correct the text description of the calculations in Appendix E (new language is underlined):

> The estimated increase in runoff volumes would be about 12.5 million gallons per year, a 26-percent increase over existing runoff from the area occupied all project components combined. Together with Phase I components, the increase would be about 13.9 million gallons per year, or 29 percent more than existing runoff from all project component sites.

A similar revision as above is made to the Summary, on p. S-22, as follows:

> The estimated increase in runoff volumes would be about 12.5 million gallons per year, a 26-percent increase over existing runoff from all project component sites. Together with Phase I components, the increase would be 29 percent.

CHAPTER IX
APPENDICES

APPENDIX A: Assumptions for Production of Construction Aggregates

APPENDIX B: Land Use

APPENDIX C: Transportation

APPENDIX D: Air Quality

APPENDIX E: Hydrology and Water Quality

APPENDIX F: Hazardous Materials

APPENDIX A

ASSUMPTIONS FOR PRODUCTION OF CONSTRUCTION AGGREGATES

As described in the project description of this report, several of the Industry Group project components are designed to respond to anticipated demand for construction materials – specifically, ready-mix concrete and asphalt. Estimates of such demand, developed by the project sponsors (Industry Group), provide the basis for the magnitude of facilities and operations that would result from these project components. Two separate approaches were used to estimate the volume of ready-mix concrete and asphalt expected to be produced by the Industry Group facilities proposed for the Southern Waterfront. In one case, firms proposing to produce concrete and asphalt provided individual projections for their firms' future production volume. Separately, the five Industry Group members in the business of producing and/or importing construction-related aggregate materials jointly provided a consensus estimate of existing and near-term market demand for ready-mix concrete and asphalt, as well as of the likely sources of raw materials for the production of these materials.[1]

Table A-1 compares the individual production forecasts to the consensus market demand for both ready-mix concrete and asphalt. As shown in Table A-1, these individual forecasts, taken together, are greater than the overall market estimates, which is not surprising in that each producer would attempt to gain the greatest possible market share. Furthermore, the forecasts and projections discussed herein do not account for production by other, non-Industry Group producers, and are therefore somewhat conservative, because the numbers in this section assume that the Industry Group would meet the entire demand for concrete and asphalt in the San Francisco market. Therefore, actual Industry Group production may be lower than the volumes described in this SEIR.[2]

Planning Department and Port staff, along with the EIR consultants, reviewed current production volumes by local concrete-producing members of the Industry Group (Bode Gravel Company and RMC Pacific Materials), along with the estimates and forecasts provided by the Industry Group, and determined that the production assumptions in this SEIR should be based on the Industry Group

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1 The market for ready-mix concrete and asphalt (also known as asphaltic concrete) is geographically limited because the weight of the finished product results in relatively high transportation costs over long distances. This is particularly true for concrete, which contains a large amount of water. Therefore, the market for ready-mix concrete produced in San Francisco is normally limited to the City itself and northern areas of San Mateo County. Asphalt, which is not currently produced in San Francisco (except for a small amount produced for City use by a Department of Public Works facility). is currently brought to San Francisco from Berkeley and northern San Mateo County plants.

2 Note also that there are existing ready-mix concrete producers in San Francisco and surrounding communities, which meet some of the market demand; that is, the Industry Group ready-mix producers, which currently compete against these other suppliers, do not currently and would not in the future be expected to capture 100 percent of the ready-mix concrete market.

TABLE A-1
ANNUAL PRODUCTION PROJECTIONS FOR CONCRETE AND ASPHALT

CONCRETE PRODUCER	ANNUAL PRODUCTION (CU. YD.)[1]
Bode Gravel	500,000
British Pacific Aggregates[2]	150,000
RMC Pacific	200,000
TOTAL	850,000
Market Projection	650,000

ASPHALT PRODUCER	ANNUAL PRODUCTION (TONS)
Mission Valley Rock	400,000
British Pacific Aggregates[2]	150,000
TOTAL	550,000
Market Projection	400,000

1 One cubic yard of concrete weighs approximately two tons (NRMCA, 1999).

2 As noted in the text, British Pacific Aggregates (BPA) is not assumed in this SEIR analysis to produce concrete or asphalt. To the extent that BPA were to engage in such production, effects would be "shifted" slightly in location but would not be materially different than production impacts occurring at nearby producers.

SOURCE: Industry Group projections

consensus market estimate for the near-term analysis (i.e., existing-plus-Industry Group and Phase I scenarios), given the Industry Group members' knowledge of market conditions. The Department and the Port also determined that the sum of the individual Industry Group members' production projections – even if somewhat greater than market conditions might support – should be the basis for the longer-range (cumulative) impacts analysis of 2015 conditions to provide for an outside estimate of future conditions. Thus, the analysis of Phase I conditions is based on overall annual production by the Industry Group members of 650,000 cubic yards of ready-mix concrete and 400,000 tons of asphalt, while the analysis of Phase II conditions assumes 850,000 cubic yards of concrete and 550,000 tons of asphalt.

Also included in the assumptions is a shift in the source of some of the sand, gravel, and crushed rock ("aggregates") used in the production of concrete and asphalt from primarily local sources (mostly quarries near Pleasanton) from where material is brought in by truck, to sources in the Pacific Northwest and Canada from where material would be brought in by ship. This shift is anticipated to be induced by declining reserves in local quarries, and would be facilitated by the proposed waterside locations of the

Industry Group members. That is, the proposed project sites were selected, in part, to allow for direct import of sand, gravel, and crushed rock in the future.[3]

The Industry Group estimate of the market for ready-mix concrete and asphalt is based on current demand for these construction materials in San Francisco and nearby communities (see note 1, p. A-1). Table A-2 sets forth the assumptions used in determining the concrete and asphalt production. It should be noted that the ready-mix concrete industry typically develops forecasts of market demand based on population and that, while economic activity may have short-term effects on production (for example, demand for concrete in San Francisco is relatively high at present due to the large amount of building activity; similarly, demand was relatively low during the early 1990s due to the recession), over time the volume of concrete used is largely a function of the overall growth in population. Therefore, as a largely built out location, San Francisco is considered a relatively "mature" market whose demand for concrete is more stable and somewhat lower, on a per-person basis, than that of a rapidly growing community. As can be seen in Table A-2, the existing demand for concrete and asphalt is assumed to continue unchanged in the near term at 650,000 cubic yards and 400,000 tons, respectively, and to increase in the longer term (2015).

Because the Industry Group members provided varying individual forecasts of their ability to capture market share, Planning and Port staff, in consultation with the Industry Group and the EIR consultants, determined that for purposes of analysis, the production of ready-mix concrete under future conditions would be assumed to be evenly divided between the two local concrete-producing members of the Industry Group, Bode Gravel Company and RMC Pacific Materials, both of which are currently located on Third Street within the Mission Bay project area, at 16th and Mariposa Streets, respectively. This assumption would result in an equal split in ready-mix concrete production north and south of Islais Creek, as the Bode facility would be located at Pier 92, on the south side of the creek, and the RMC Pacific plant would be located at Pier 80, on the north side. As noted above, there are other concrete producers in San Francisco – currently operating on Port land in the Southern Waterfront both north and south of Islais Creek– that are not part of the Industry Group. However, Bode and RMC are the two largest producers in San Francisco, and assigning the entire production volume assumed in this EIR to them is a reasonable, if conservative, assumption. To the extent that other existing concrete producers continue to capture a share of the ready-mix market, or even increase their share, the production estimates stated herein may be overstated.

Another member of the Industry Group, British Pacific Aggregates (BPA), has indicated potential future plans to produce ready-mix concrete, at Pier 94, as noted in Table A-1. This operation is proposed in conjunction with BPA's proposal to import aggregate (sand and gravel) by ship from British Columbia.

[3] The shift towards ship-borne import of aggregates from outside the Bay Area is generally consistent with information developed by the California Division of Mines and Geology in "Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region," by S. Kohler-Antablin, 1996. Open File Report 96-03.

TABLE A-2
ASSUMPTIONS USED IN PROJECTIONS FOR CONCRETE AND ASPHALT PRODUCTION

PARAMETER	EXISTING CONDITIONS[1] VOLUME	PCT.[3]	SHORT-RANGE FUTURE[1] VOLUME	PCT.[3]	LONG-RANGE FUTURE[2] (2015) VOLUME	PCT.[3]
Concrete						
Total Production	650,000 cu. yds.		650,000 cu. yds.		850,000 cu. yds.	
Inputs (mode):						
Cement (truck)[4]	183,300 tons	100%	108,980 tons	75%	143,820 tons	75%
Cement (rail)[4]	-0-	-0-	36,660 tons	25%	47,940 tons	25%
Sand & Gravel (truck)[5]	755,000 tons	100%	377,500 tons	50%	211,000 tons	20%
Sand & Gravel (ship)[6]	-0-	-0-	377,500 tons	50%	844,000 tons	80%
Dredge Sand[7]	220,000 tons		220,000 tons		220,000 tons	
Fly Ash[8]	-0-		36,660 tons		47,940 tons	
Asphalt						
Total Production[9]	400,000 tons		400,000 tons		550,000 tons	
Inputs:						
Asphalt Cement	-0-		20,000 tons		27,500 tons	
Crushed Rock (ship)[10]	-0-		380,000 tons		522,500 tons	

[1] Industry Group consensus market estimate.
[2] Sum of Industry Group individual production projections.
[3] Percentage of input material delivered by each mode (e.g., truck and ship), where more than one mode is forecast.
[4] Cement delivered from Port of Redwood City.
[5] Trucked-in sand and gravel from local quarries, primarily in Pleasanton-Sunol area.
[6] Sand and gravel to be delivered by ship from Pacific Northwest and British Columbia.
[7] Dredge sand is from San Francisco Bay; this ongoing operation would continue at same production level.
[8] Fly ash is a powdery material captured from the exhaust gas of coal-fired power plants. It is used in place of some of the Portland cement in concrete manufacturing to help bind the sand and aggregate in the concrete. Some fly ash is currently used in local concrete production; it is assumed to replace 20% of cement in future production.
[9] Asphalt is not currently produced in San Francisco; 400,000-ton production is from East Bay and Peninsula.
[10] Crushed Rock to be delivered by ship from Pacific Northwest and British Columbia.

SOURCE: Industry Group projections

However, in discussions between Planning and Port staff and the Industry Group, it became clear that BPA's primary objective is the importation of aggregate, and that production of ready-mix, if it were to occur, would be an added operation that would result in decreased production of ready-mix concrete by one or more other producers. That is, demand for ready-mix concrete would not change because of the entry of an additional producer to the market. Therefore, this SEIR assumes that BPA would merely import aggregate for sale to other producers of concrete. If BPA were to begin production of ready-mix in the future, it can be assumed that there would be a shift in volume from either Bode or RMC Pacific

(or one of the other, smaller existing producers), with only incremental changes in traffic and air quality impacts, because of the relative proximity of all the potential ready-mix concrete plant locations.

As for asphalt, the entire Industry Group output was assumed to be produced by Mission Valley Rock's proposed plant at Pier 92. Again, British Pacific Aggregates has noted a potential future intention to produce asphalt at Pier 94. Such an occurrence would be expected to result in a shift of asphalt production from Pier 92 to Pier 94, with little or no change in impacts, because the two facilities would be very near one and other.

APPENDIX B
LAND USE

The following table and figure from the Waterfront Land Use Plan identify acceptable land uses in the project area.

The Southern Waterfront Acceptable Land Use Table (1, 2, 3,4)

Key

A = Acceptable Use
E/I = Existing Use/May Continue As Interim Use
X = Accessory Use

	Maritime Uses (5)											Open Spaces/Public Access		Residential Uses	Commercial Uses												Other Uses					
	Cargo Shipping	Fishing Industry	Ferry and Excursion Boats	Historic Ships	Maritime Office	Maritime Support Services	Passenger Cruise Ships	Recreational Boating and Water Use	Ship Repair	Temporary and Ceremonial Berthing	Water Taxis	Open Space	Public Access	Residential	Artists/Designers	Assembly and Entertainment	General Office	Hotels	Museums	Parking	Retail (includes restaurants)	Recreational Enterprises	Visitor Services	Warehousing/Storage	Wholesale Trade/Promotion Center	Academic Institutions	Community Facilities	General Industry	Power Plant	Sports Facilities	Transportation Services
Pier 70 Mixed Use Opportunity Area (portion of Piers 68 and SWL 349)	A			A	A	A		A			A	A	A			A	A		A	X	A	A		A	A	A	A	A			
Pier 70 Maritime Area (Pier 70, portion of Pier 68 and SWL 349)	A			A	A	A			A	A					E/I	E/I	E/I							E/I		A		E/I			
Warm Water Cove / Pier 72								A				A	A								X										
Western Pacific Mixed Use Opportunity Area	A				A	A							A		A		A			A	A			A	A			A			
Pier 80	A				A	A				A							E/I				X			E/I				E/I			
Seawall Lot 354, 354.1, Pier 84	A					A							A	A										A				A			
Islais Creek	A			A		A		A				A	A																		
Pier 90-92 and portion of SWL 344	A		A		A	A				A	A													E/I			A	E/I			
SWL 344.1,Cargo Way Mixed Use Opportunity Area (portion of SWL 344)	A				A	A						A	A				A			A	A			A	A		A	A	A		
Pier 94-96 Maritime Area (SWL 352 and portion of SWL 344)	A				A	A				A		E/I*									X										
Intermodel Container Transfer Facility	A				A	A																		E/I				E/I			
Pier 98												A	A							X			A								
India Basin (paper streets)												A	A																		
AB 4827, Parcels 1 & 2																												A			
AB 4845, Parcel 2																								A				A			
AB 4852, Parcel 1																				A				A				A			
AB 4917, Parcel 2																				A				A				A			
AB 4935, Parcel 2																				A				A				A			

Table Notes

1 This table focuses primarily on acceptable long-term uses for the sites described. The Draft Plan also allows other interim uses on Port property, which uses are not identified in this table. See Chapter 3 for a description of interim use policies.

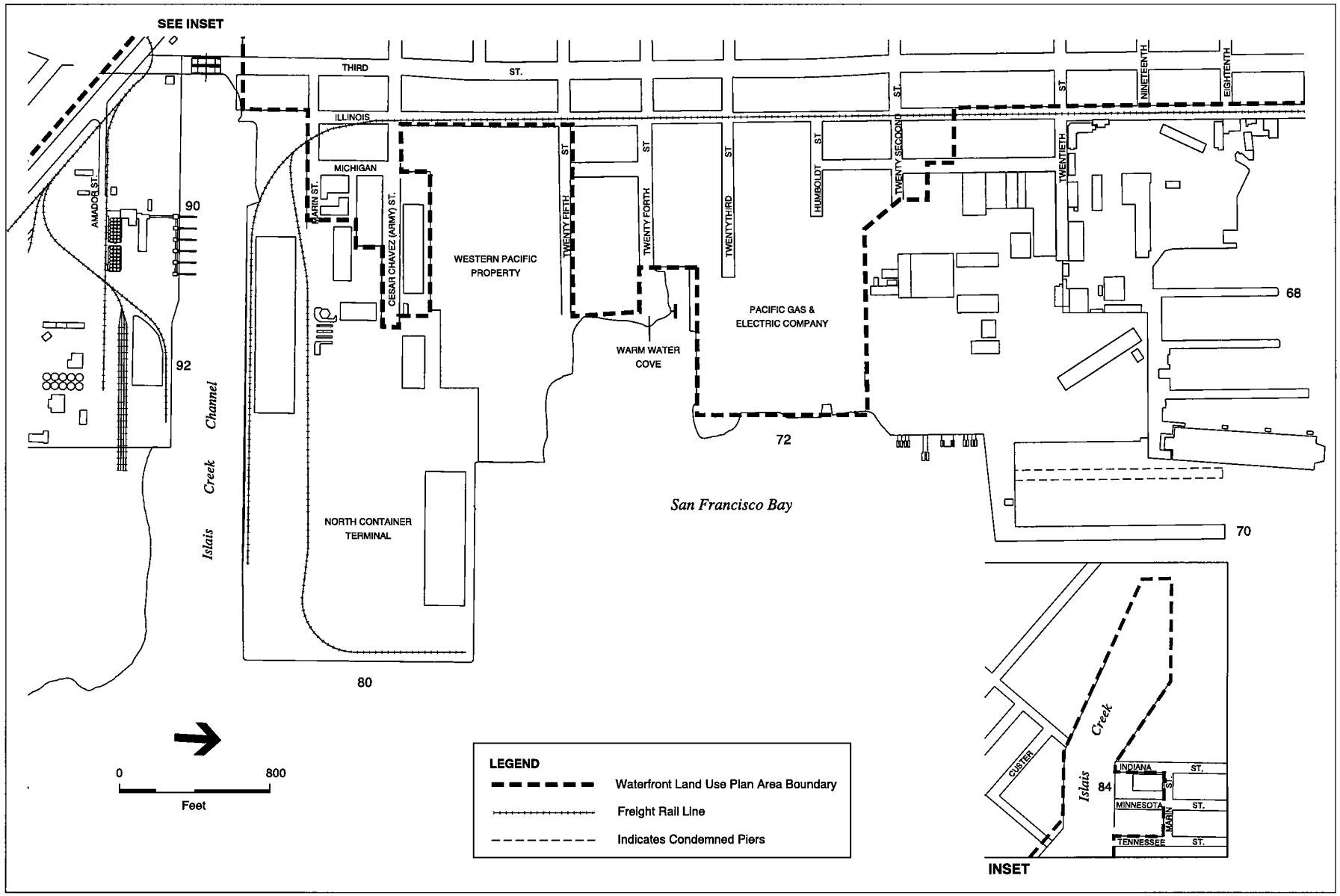
2 Refer to Chapter 3 and Chapter 4 for General Land Use Policies and specific Development Standards which apply to the acceptable uses and sites identified in this table.

3 Definitions of land uses are included in Appendix C, Glossary of Terms.

4 Uses are subject to further review for compliance with the Public Trust, BCDC and Planning Commission policies, which will vary depending on factors specific to the use proposal such as pier condition, extend of proposed repairs, and/or whether the use is propsoed within a National Register historic resource. (See Chapters 3 and 5 for further discussion of waterfront regulations.)

5 The table identifies acceptable maritime and maritime support activities best suited for the sites in this area. However, the Port Commission retains the authority to use Port sites for any maritime uses.

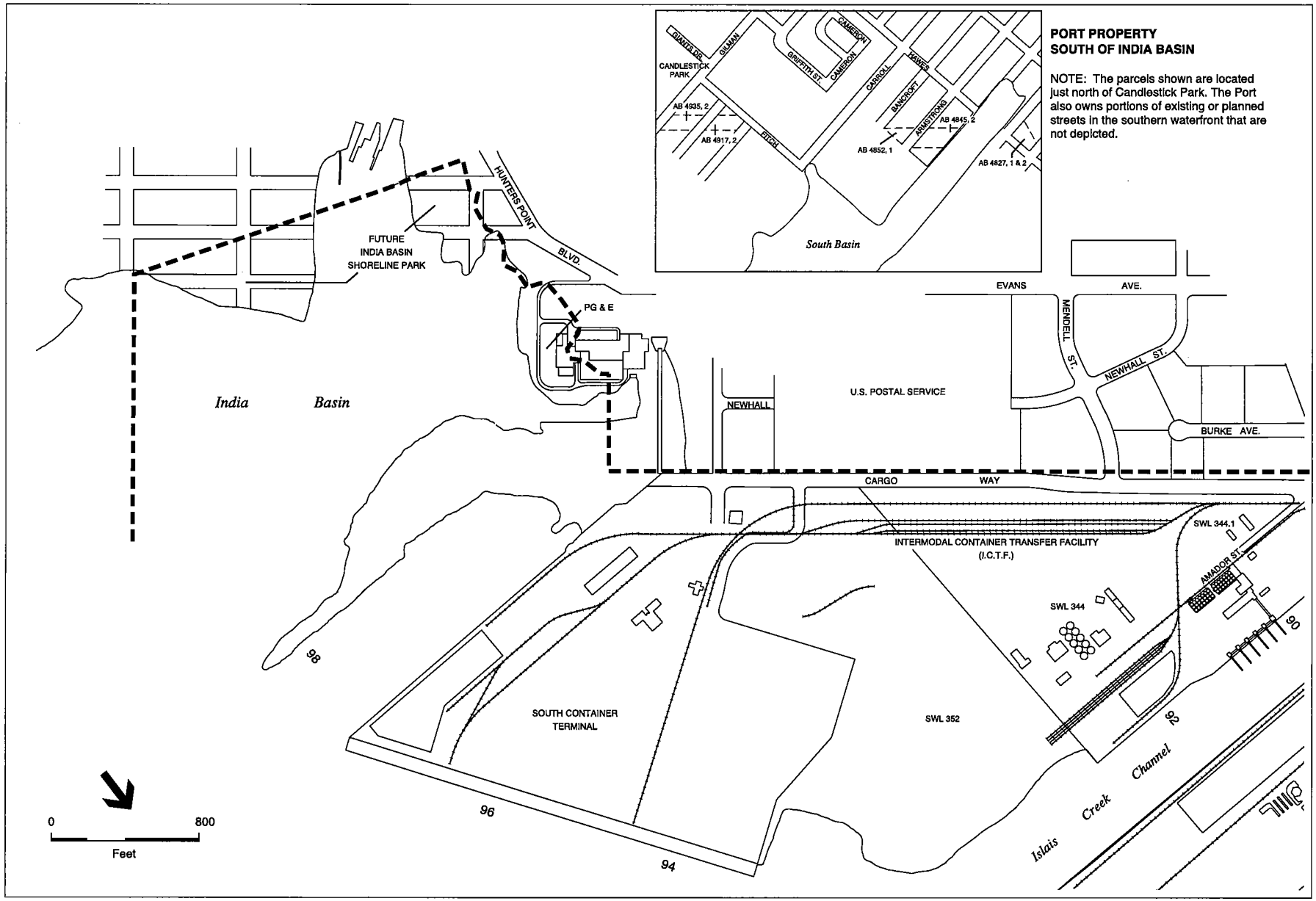
* There is an emerging wetlands area near Pier 94. If maritime expansion in this area or other circumstances necessitate filling of the wetlands, appropriate mitigation will be implemented pursuant to all applicable environmental regulations.



SOURCE: Waterfront Land Use Plan EIR

1999.377E: Southern Waterfront SEIR (ESA 990267) ■

Figure B-1a
Southern Waterfront Subarea
(Northern Portion)



SOURCE: Waterfront Land Use Plan EIR

999.377E: Southern Waterfront SEIR (ESA 990267) ■

Waterfront Land Use Plan Area Boundary

SWL Seawall Lot

Freight Rail Line

Figure B-1b
Southern Waterfront Subarea
(Southern Portion)

APPENDIX C

TRANSPORTATION

TABLE C-1
VEHICULAR LEVELS OF SERVICE AT SIGNALIZED INTERSECTIONS

Level of Service	Typical Operating Characteristics	Average Stopped Delay /a/
A	Level of Service A describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay. The traffic operation can generally be described as excellent.	0.0 - 5.0
B	Level of Service B describes operations with low delay. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average delay. The traffic operation can generally be described as very good.	5.1 - 15.0
C	Level of Service C describes operations with moderate delays. These higher delays may result from fair progression and/or longer cycle lengths. Vehicles occasionally may have to wait more than one red traffic signal indication. The number of vehicles stopping is substantial at this level, although many still pass through the intersection without stopping. The traffic operation can generally be described as good.	15.1 - 25.0
D	Level of Service D describes operations with moderately high delays. Congestion is more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume/capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Some vehicles have to wait more than one red traffic signal phase. The traffic operation can generally be described as fair.	25.1 - 40.0
E	Level of Service E describes operations at the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume/capacity ratios. Vehicles may be delayed through several signal cycles. The traffic operation can generally be described as poor.	40.1 - 60.0
F	Level of Service F describes operations with delay unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume/capacity ratios below 1.00 with many vehicles having to wait more than one red traffic signal indicator. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	60.0+

/a/ Level of Service criteria are stated in seconds for a 15-minute analysis period.

SOURCE: Environmental Science Associates, Inc. from *Highway Capacity Manual*, Special Report 209, Transportation Research Board, 1985 (Updated 1994).

TABLE C-2
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS, WITH CONTROL ON MINOR STREET ONLY

Level of Service	Typical Operating Characteristics	Average Stopped Delay (Seconds per Vehicle)
A	Level of Service A describes a condition where the approach to an intersection appears quite open and turning movements are made easily. Little or no delay is experienced. The traffic operation can generally be described as excellent.	≤ 5
B	Level of Service B describes a condition where one or more critical movement approach to an intersection is occasionally fully used and short delays may be encountered. The traffic operation can generally be described as very good.	> 5 and ≤ 10
C	Level of Service C describes a condition where one or more critical movement approach to an intersection is often fully used and queuing may occur. The traffic operation can generally be described as good with average traffic delays.	> 10 and ≤ 20
D	Level of Service D describes a condition of increasing restriction and fewer gaps in the major street traffic flow, causing substantial delays and queues of vehicles on critical movement approaches to the intersection during short times within the peak period. The expected delay for minor street traffic is long; however, traffic operation can generally be described as fair.	> 20 and ≤ 30
E	Level of Service E describes the condition at which capacity of particular critical movement(s) is reached. It represents the most vehicles that any particular critical movement can accommodate; however, overall intersection operations may continue to operate at acceptable levels of service. At capacity there may be long queues of vehicles waiting up-stream of the critical movement, these vehicles may experience very long delays and potentially interfere with major street traffic flows. The traffic operation can generally be described as poor.	> 30 and ≤ 45
F	Level of Service F represents a jammed condition. Insufficient gaps restrict the movement of vehicles out of one or more critical movement to the intersection. Extremely long delays occur, and drivers may select less than usual gaps, potentially affecting other traffic movements on the intersection. In such cases, safety may be a problem. This condition usually warrants improvement to the intersection.	> 45

SOURCE: Environmental Science Associates, Inc. from *Highway Capacity Manual,* Special Report 209, Transportation Research Board, updated October 1994.

TABLE C-3
LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS WITH STOP-SIGN CONTROL ON ALL APPROACHES

Average Stopped Delay in Seconds per Vehicle	Level-of-service
< 5	A
5 to 10	B
10 to 20	C
20 to 30	D
30 to 45	E
> 45	F

SOURCE: Transportation Research Board, *Transportation Research Circular 373, Interim Materials on Unsignalized Intersection Capacity*, 1991.

ROADWAY CHANGES DUE TO THIRD STREET LIGHT RAIL PROJECT

As noted in the report text, the Third Street Light Rail Extension project will extend Muni Metro light rail service from the Caltrain Station at Fourth and Townsend Streets along Third Street to Visitacion Valley. This so-called Initial Operating Segment is anticipated to be operational by 2004; a future Central Subway is planned to extend the Third Street line beneath Market Street and into Chinatown, although funding for this portion of the project has not yet been identified.

In the Southern Waterfront area, the light rail trains will operated in a dedicated center median of Third Street, meaning that the rail project will eliminate one existing travel lane in each direction on Third Street. The resulting configuration will include one rail track and two vehicle lanes in each direction, with a parking lane on either side, except between César Chávez Street and Cargo Way, where parking is not permitted. On-street parking will also be eliminated on both sides of Third Street where station platforms will be constructed. In the project area, stations will be constructed at Mariposa Street, 20th Street, 23rd Street, César Chávez Street, and Evans Avenue. As part of the light rail project, the configuration of traffic lanes will be changed at several of the intersections analyzed in this SEIR. Those changes will include:

Third / Mariposa Streets. In addition to one lane being removed in each direction of Third Street for the light rail tracks, exclusive left-turn lanes will be created both northbound and southbound on Third Street. With elimination of parking on Third Street at the intersection approaches, two lanes will remain in each direction to accommodate through traffic. Westbound traffic on Mariposa Street will have three lanes (one left-turn, one through, and one right-turn), compared to a single lane at present.

Third / 25th Streets. In addition to one lane being removed in each direction of Third Street for the light rail tracks, exclusive left-turn lanes will be created both northbound and southbound on Third Street. With elimination of parking on Third Street at the intersection approaches, two lanes will remain in each direction to accommodate through traffic (with one through lane shared by right turns).

Third / César Chávez Streets. As at other intersections on Third Street, one lane will be removed in each direction of Third Street for the light rail tracks; existing exclusive left-turn lanes will remain on northbound and southbound on Third Street, and two lanes will remain in each direction to accommodate through traffic (with one through lane shared by right turns). Also, an existing eastbound shared left-through lane will be converted to a second exclusive left-turn lane, leaving one through lane and one right-turn lane. There will be no parking on Third Street at the intersection approaches.

Third Street / Cargo Way. On Third Street, one existing southbound through lane and an existing northbound left-turn lane for will be removed the light rail tracks; an existing exclusive left-turn lane will remain on southbound Third Street, eliminating parking on the northbound approach on Third Street. Two lanes will remain in each direction to accommodate through traffic (with one through lane shared by right turns).

Third Street / Evans Avenue. One lane will be removed in each direction of Third Street for the light rail tracks; existing exclusive left-turn lanes will remain on northbound and southbound on Third Street, and two lanes will remain in each direction to accommodate through traffic (with one through lane shared by right turns). In addition, a second eastbound through lane will be added on Evans Avenue. There will be no parking on the Third Street approaches to the intersection.

The Third Street Light Rail Extension will also include a loop track at Third and Eighteenth Streets that will allow light rail vehicles to turn around and head back north on Third Street after passing through the Mission Bay area. The loop track will extend east to Illinois Street and south to 19th or 20th Streets. Also part of the Third Street light rail project will be a light rail vehicle storage and maintenance facility at the Western Pacific site at 25th and Illinois Streets.

APPENDIX D
AIR QUALITY

EMISSIONS AND DISPERSION MODELING

EMISSIONS

Emissions from stationary and mobile sources related to the project were calculated for two future years, 2003 and 2015. Stationary sources include units that will process and handle aggregate, asphalt, and other construction related materials. To calculate these emissions, emission factors reported in the EPA document AP-42 were applied to expected throughput for the two future years. Emissions from vehicles (autos, trucks, and buses) related to the project were calculated using the ARB emissions model EMFAC7G. For marine vessels, emission factors were based on emissions reported in the Booz Allen study on marine emissions. Tables D-1 and D-2 show detailed net emissions changes (maximum daily and annual) for the region. The tables show that emissions from ships are the major contributors. Most of these emissions occur when the ships are in cruise mode travelling as far as 20 miles from shore. Because most of these emission sources are large distances and spread out, they will have little or no effect on air quality near the projects site.

Emissions that can impact PM-10 and diesel particulate were estimated for the stationary sources and for mobile sources serving the facilities up to 1.5 miles from the project site. These emissions were used in the dispersion modeling to estimate concentrations in the local neighborhood. Tables D-3 and D-4 show detailed breakdowns of the emissions for the stationary sources and for local traffic mobile sources.

DISPERSION MODELING

Impacts on air quality at sensitive receptors in the local area were calculated using the ISC3 dispersion model. Separate model runs were used to determine concentrations of respirable particulate matter (PM-10) and diesel particulate matter. The modeling for diesel particulate assumed a truck fleet mix averaging seven years, with the oldest truck being 14 years old.

Emissions reported in Tables D-3 and D-4 were input to the model along with one year of hourly meteorological data measured at the Potrero Power Plant, located within the project area. Mobile sources (train, truck and buses) were treated as a series of volume sources, simulating line sources on roadways to and from the facilities. Table D-5 shows the maximum 24-hour average PM-10 contribution at offsite sensitive receptors for the years 2003 and 2015, along with a breakdown of the contributions to the maximum concentration.

Table D-1
Total Net Emissions (lbs/day) for the airshed

Operator	Source	Net increase in emissions over 2000 Year 2003 (lbs/day) CO	ROG	NOx	SO2	PM-10 comb.	PM-10 dust	Net increase in emissions over 2000 Year 2015 (lbs/day) CO	ROG	NOx	SO2	PM-10 comb.	PM-10 dust
Bode Gravel	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.66
	Commuter Trips	5.20	0.94	0.23	0.00	0.00	0.04	1.73	0.33	0.12	0.00	0.00	0.04
	Subtotal:	5.2	0.9	0.2	0.0	0.0	0.0	1.7	0.3	0.1	0.0	0.0	3.7
Mission Valley Rock	Stationary Sources	107.52	97.92	57.60	6.34	0.00	10.78	147.84	134.64	79.20	8.71	0.00	14.82
	Commuter Trips	2.60	0.47	0.11	0.00	0.00	0.02	0.87	0.17	0.06	0.00	0.00	0.02
	Subtotal:	110.1	98.4	57.7	6.3	0.0	10.8	148.7	134.8	79.3	8.7	0.0	14.8
Import Rock	Stationary Sources	0.00	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00	0.00	5.45
	Subtotal:	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	5.5
BP Aggregates	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	1.83
	Commuter Trips	7.81	1.42	0.34	0.00	0.00	0.05	2.60	0.50	0.18	0.00	0.00	0.05
	Subtotal:	7.8	1.4	0.3	0.0	0.0	1.0	2.6	0.5	0.2	0.0	0.0	1.9
ISG Resources	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.31
	Commuter Trips	7.81	1.42	0.34	0.00	0.00	0.05	2.60	0.50	0.18	0.00	0.00	0.05
	Subtotal:	7.8	1.4	0.3	0.0	0.0	0.3	2.6	0.5	0.2	0.0	0.0	0.4
RMC Pacific	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.66
	Commuter Trips	7.81	1.42	0.34	0.00	0.00	0.05	2.60	0.50	0.18	0.00	0.00	0.05
	Subtotal:	7.8	1.4	0.3	0.0	0.0	0.1	2.6	0.5	0.2	0.0	0.0	3.7
	Truck/Bus emissions	-219.7	-23.5	-158.5	0.0	-7.4	-9.3	-212.6	-20.1	-137.0	0.0	-5.7	-8.6
	Train emissions	234.3	53.3	388.3	0.0	22.1	0.0	80.7	17.5	287.7	0.0	9.8	0.0
	Marine emissions	232.8	83.7	838.9	0.0	28.7	0.0	232.8	83.7	838.9	0.0	28.7	0.0
	Aggregate Ind. Subtotal	**386.1**	**217.1**	**1127.7**	**6.3**	**43.4**	**5.5**	**259.1**	**217.7**	**1069.6**	**8.7**	**32.9**	**21.4**
Non-aggregate industries													
Waste Management	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commuter Trips	8.33	1.51	0.36	0.00	0.00	0.06	2.77	0.53	0.20	0.00	0.00	0.06
	Subtotal:	8.3	1.5	0.4	0.0	0.0	0.1	2.8	0.5	0.2	0.0	0.0	0.1
Coach USA	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commuter Trips	52.04	9.44	2.28	0.00	0.02	0.36	17.32	3.30	1.22	0.00	0.02	0.36
	Subtotal:	52.0	9.4	2.3	0.0	0.0	0.4	17.3	3.3	1.2	0.0	0.0	0.4
	Non-aggregate subtotal	**60.4**	**11.0**	**2.6**	**0.0**	**0.0**	**0.4**	**20.1**	**3.8**	**1.4**	**0.0**	**0.0**	**0.4**
	PROJECT TOTAL	**446.4**	**228.1**	**1130.4**	**6.3**	**43.5**	**5.9**	**279.2**	**221.5**	**1071.0**	**8.7**	**32.9**	**21.8**
Port Activity	Ships	228.6	83.7	811.4	0.0	27.6	0.0	228.6	83.7	811.4	0.0	27.6	0.0
	Trucks	40.5	4.8	32.5	0.0	1.4	1.8	215.4	22.9	154.6	0.0	5.8	9.2
	Port subtotal	**269.1**	**88.5**	**843.9**	**0.0**	**29.0**	**1.8**	**444.0**	**106.6**	**966.0**	**0.0**	**33.4**	**9.2**
PROJECT + PORT	**GRAND TOTAL**	**715.5**	**316.5**	**1974.2**	**6.3**	**72.4**	**7.7**	**723.2**	**328.1**	**2037.0**	**8.7**	**66.3**	**30.9**

Table D-2
Total Net Emissions (tons/yr) for the airshed

Operator	Source	Net increase in emissions over 2000 Year 2003 (tons/year) CO	ROG	NOx	SO2	PM-10 comb.	PM-10 dust	Net increase in emissions over 2000 Year 2015 (tons/year) CO	ROG	NOx	SO2	PM-10 comb.	PM-10 dust
Bode Gravel	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	Commuter Trips	0.81	0.15	0.04	0.00	0.00	0.01	0.27	0.05	0.02	0.00	0.00	0.01
	Subtotal:	0.8	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.1
Mission Valley Rock	Stationary Sources	11.22	10.22	6.01	0.66	0.00	1.12	15.43	14.05	8.27	0.91	0.00	1.55
	Commuter Trips	0.41	0.07	0.02	0.00	0.00	0.00	0.14	0.03	0.01	0.00	0.00	0.00
	Subtotal:	11.6	10.3	6.0	0.7	0.0	1.1	15.6	14.1	8.3	0.9	0.0	1.5
Import Rock	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.57
	Subtotal:	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.6
BP Aggregates	Stationary Sources	0.0	0.0	0.0	0.0	0.0	0.1	0.00	0.00	0.00	0.00	0.00	0.19
	Commuter Trips	1.22	0.22	0.05	0.00	0.00	0.01	0.41	0.08	0.03	0.00	0.00	0.01
	Subtotal:	1.2	0.2	0.1	0.0	0.0	0.1	0.4	0.1	0.0	0.0	0.0	0.2
ISG Resources	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.03
	Commuter Trips	1.22	0.22	0.05	0.00	0.00	0.01	0.41	0.08	0.03	0.00	0.00	0.01
	Subtotal:	1.2	0.2	0.1	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0
RMC Pacific	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	Commuter Trips	1.02	0.18	0.04	0.00	0.00	0.01	0.34	0.06	0.02	0.00	0.00	0.01
	Subtotal:	1.0	0.2	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.1
	Truck/Bus emissions	-23.0	-2.5	-16.6	0.0	-0.8	-1.0	-22.2	-2.1	-14.3	0.0	-0.6	-0.9
	Train emissions	3.6	1.1	13.0	0.0	0.7	0.0	3.5	0.8	12.5	0.0	0.4	0.0
	Marine emissions	3.4	1.3	12.1	0.0	0.4	0.0	6.1	2.3	21.4	0.0	0.7	0.0
	Aggregate Ind. Subtotal	**-0.1**	**11.0**	**14.8**	**0.7**	**0.4**	**0.6**	**4.4**	**15.3**	**28.0**	**0.9**	**0.6**	**1.7**
Non-aggregate industries													
Waste Management	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commuter Trips	1.30	0.24	0.06	0.00	0.00	0.01	0.43	0.08	0.03	0.00	0.00	0.01
	Subtotal:	1.3	0.2	0.1	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0
Coach USA	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commuter Trips	8.14	1.48	0.36	0.00	0.00	0.06	2.71	0.52	0.19	0.00	0.00	0.06
	Subtotal:	8.1	1.5	0.4	0.0	0.0	0.1	2.7	0.5	0.2	0.0	0.0	0.1
	Non-aggregate subtotal	**9.4**	**1.7**	**0.4**	**0.0**	**0.0**	**0.1**	**3.1**	**0.6**	**0.2**	**0.0**	**0.0**	**0.1**
	PROJECT TOTAL	**9.4**	**12.7**	**15.2**	**0.7**	**0.4**	**0.6**	**7.5**	**15.9**	**28.3**	**0.9**	**0.6**	**1.7**
Port Activity	Ships	14.13	5.34	49.38	0.00	1.70	0.00	39.02	14.76	136.42	0.00	4.71	0.00
	Trucks	5.07	0.60	4.07	0.00	0.17	0.23	26.98	2.87	19.37	0.00	0.73	1.15
	Port subtotal	**19.2**	**5.9**	**53.4**	**0.0**	**1.9**	**0.2**	**66.0**	**17.6**	**155.8**	**0.0**	**5.4**	**1.1**
PROJECT + PORT	**GRAND TOTAL:**	**28.6**	**18.7**	**68.6**	**0.7**	**2.3**	**0.9**	**73.5**	**33.5**	**184.0**	**0.9**	**6.0**	**2.9**

Table D-3
Total Net Emissions (lbs/day) for the 1.5-mile region of influence around the project

Operator	Source	Net increase in emissions over 2000 Year 2003 Daily (lbs/day) CO	ROG	NOx	SO2	PM-10 comb.	PM-10 dust	Net increase in emissions over 2000 Year 2015 Daily (lbs/day) CO	ROG	NOx	SO2	PM-10 comb.	PM-10 dust
Bode Gravel	Stationary Sources	0.00	0.00	0.00	0.00	0.00	3.88	0.00	0.00	0.00	0.00	0.00	5.07
	Commuter Trips	5.20	0.94	0.23	0.00	0.00	0.04	1.73	0.33	0.12	0.00	0.00	0.04
	Subtotal:	5.2	0.9	0.2	0.0	0.0	3.9	1.7	0.3	0.1	0.0	0.0	5.1
Mission Valley Rock	Stationary Sources	107.52	97.92	57.60	6.34	0.00	10.78	147.84	134.64	79.20	8.71	0.00	14.82
	Commuter Trips	2.60	0.47	0.11	0.00	0.00	0.02	0.87	0.17	0.06	0.00	0.00	0.02
	Subtotal:	110.1	98.4	57.7	6.3	0.0	10.8	148.7	134.8	79.3	8.7	0.0	14.8
Import Rock	Stationary Sources	0.00	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00	0.00	5.45
	Subtotal:	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	5.5
BP Aggregates	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	1.83
	Commuter Trips	7.81	1.42	0.34	0.00	0.00	0.05	2.60	0.50	0.18	0.00	0.00	0.05
	Subtotal:	7.8	1.4	0.3	0.0	0.0	1.0	2.6	0.5	0.2	0.0	0.0	1.9
ISG Resources	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.31
	Commuter Trips	7.81	1.42	0.34	0.00	0.00	0.05	2.60	0.50	0.18	0.00	0.00	0.05
	Subtotal:	7.8	1.4	0.3	0.0	0.0	0.3	2.6	0.5	0.2	0.0	0.0	0.4
RMC Pacific	Stationary Sources	0.00	0.00	0.00	0.00	0.00	3.88	0.00	0.00	0.00	0.00	0.00	5.07
	Commuter Trips	7.81	1.42	0.34	0.00	0.00	0.05	2.60	0.50	0.18	0.00	0.00	0.05
	Subtotal:	7.8	1.4	0.3	0.0	0.0	3.9	2.6	0.5	0.2	0.0	0.0	5.1
	Truck/Bus emissions	27.3	5.4	37.5	0.0	0.9	1.6	39.8	6.4	42.3	0.0	1.1	2.1
	Train emissions	29.0	13.9	127.8	0.0	6.3	0.0	27.9	7.0	94.1	0.0	2.8	0.0
	Marine emissions	108.9	64.7	277.9	0.5	13.3	0.0	108.9	64.7	277.9	0.5	13.3	0.0
	Aggregate Ind. Subtotal	**303.9**	**187.6**	**502.1**	**6.8**	**20.6**	**24.1**	**334.7**	**214.7**	**494.3**	**9.2**	**17.2**	**34.9**
Non-aggregate industries													
Waste Management	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commuter Trips	8.33	1.51	0.36	0.00	0.00	0.06	2.77	0.53	0.20	0.00	0.00	0.06
	Subtotal:	8.3	1.5	0.4	0.0	0.0	0.1	2.8	0.5	0.2	0.0	0.0	0.1
Coach USA	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commuter Trips	52.04	9.44	2.28	0.00	0.02	0.36	17.32	3.30	1.22	0.00	0.02	0.36
	Subtotal:	52.0	9.4	2.3	0.0	0.0	0.4	17.3	3.3	1.2	0.0	0.0	0.4
	Non-aggregate subtotal	**60.4**	**11.0**	**2.6**	**0.0**	**0.0**	**0.4**	**20.1**	**3.8**	**1.4**	**0.0**	**0.0**	**0.4**
	PROJECT TOTAL	**364.3**	**198.6**	**504.8**	**6.8**	**20.6**	**24.6**	**354.8**	**218.6**	**495.7**	**9.2**	**17.2**	**35.3**
Port Activity	Ships	107.5	64.7	268.7	0.0	13.0	0.0	107.5	64.7	268.7	0.0	13.0	0.0
	Trucks	41.4	4.9	33.2	0.0	1.4	1.8	59.1	6.3	42.4	0.0	1.6	2.5
	Port subtotal	**148.8**	**69.6**	**301.9**	**0.0**	**14.4**	**1.8**	**166.6**	**71.0**	**311.2**	**0.0**	**14.5**	**2.5**
PROJECT + PORT	**GRAND TOTAL**	**513.1**	**268.2**	**806.7**	**6.8**	**34.9**	**26.4**	**521.4**	**289.6**	**806.9**	**9.2**	**31.8**	**37.8**

Table D-4
Total Net Emissions (tons/yr) for the 1.5-mile radius region of influence around the project

Operator	Source	Net increase in emissions over 2000 Year 2003 Annual (tons/yr)						Net increase in emissions over 2000 Year 2015 Annual (tons/yr)					
		CO	ROG	NOx	SO2	PM-10 comb.	PM-10 dust	CO	ROG	NOx	SO2	PM-10 comb.	PM-10 dust
Bode Gravel	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.54
	Commuter Trips	0.81	0.15	0.04	0.00	0.00	0.01	0.27	0.05	0.02	0.00	0.00	0.01
	Subtotal:	0.8	0.1	0.0	0.0	0.0	0.4	0.3	0.1	0.0	0.0	0.0	0.5
Mission Valley Rock	Stationary Sources	11.22	10.22	6.01	0.66	0.00	1.12	15.43	14.05	8.27	0.91	0.00	1.55
	Commuter Trips	0.41	0.07	0.02	0.00	0.00	0.00	0.14	0.03	0.01	0.00	0.00	0.00
	Subtotal:	11.6	10.3	6.0	0.7	0.0	1.1	15.6	14.1	8.3	0.9	0.0	1.5
Import Rock	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.57
	Subtotal:	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.6
BP Aggregates	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.19
	Commuter Trips	1.22	0.22	0.05	0.00	0.00	0.01	0.41	0.08	0.03	0.00	0.00	0.01
	Subtotal:	1.2	0.2	0.1	0.0	0.0	0.1	0.4	0.1	0.0	0.0	0.0	0.2
ISG Resources	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.03
	Commuter Trips	1.22	0.22	0.05	0.00	0.00	0.01	0.41	0.08	0.03	0.00	0.00	0.01
	Subtotal:	1.2	0.2	0.1	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0
RMC Pacific	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.54
	Commuter Trips	1.02	0.18	0.04	0.00	0.00	0.01	0.34	0.06	0.02	0.00	0.00	0.01
	Subtotal:	1.0	0.2	0.0	0.0	0.0	0.4	0.3	0.1	0.0	0.0	0.0	0.5
	Truck/Bus emissions	2.8	0.6	3.9	0.0	0.1	0.2	4.2	0.7	4.4	0.0	0.1	0.2
	Train emissions	1.0	0.5	4.3	0.0	0.2	0.0	1.22	0.30	4.10	0.00	0.12	0.00
	Marine emissions	1.5	0.9	3.9	0.0	0.2	0.0	2.76	1.65	6.99	0.01	0.34	0.00
	Aggregate Ind. Subtotal	**21.3**	**13.0**	**18.4**	**0.7**	**0.5**	**2.5**	**25.1**	**17.0**	**23.9**	**0.9**	**0.6**	**3.7**
Non-aggregate industries													
Waste Management	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commuter Trips	1.30	0.24	0.06	0.00	0.00	0.01	0.43	0.08	0.03	0.00	0.00	0.01
	Subtotal:	1.3	0.2	0.1	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0
Coach USA	Stationary Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commuter Trips	8.14	1.48	0.36	0.00	0.00	0.06	2.71	0.52	0.19	0.00	0.00	0.06
	Subtotal:	8.1	1.5	0.4	0.0	0.0	0.1	2.7	0.5	0.2	0.0	0.0	0.1
	Non-aggregate subtotal	**9.4**	**1.7**	**0.4**	**0.0**	**0.0**	**0.1**	**3.1**	**0.6**	**0.2**	**0.0**	**0.0**	**0.1**
	PROJECT TOTAL	**30.7**	**14.7**	**18.8**	**0.7**	**0.5**	**2.6**	**28.3**	**17.6**	**24.1**	**0.9**	**0.6**	**3.7**
Port Activity	Ships	6.45	3.89	16.11	0.00	0.78	0.00	17.82	10.75	44.52	0.00	2.15	0.00
	Trucks	2.49	0.29	2.00	0.00	0.08	0.11	4.60	0.49	3.30	0.00	0.12	0.20
	Port subtotal	**8.9**	**4.2**	**18.1**	**0.0**	**0.9**	**0.1**	**22.4**	**11.2**	**47.8**	**0.0**	**2.3**	**0.2**
PROJECT + PORT	**GRAND TOTAL:**	**39.7**	**18.9**	**36.9**	**0.7**	**1.4**	**2.7**	**50.7**	**28.8**	**71.9**	**0.9**	**2.8**	**3.9**

Table D-6 shows the maximum annual average PM-10 concentration contributed by the project (2003 and 2015) along with a breakdown of the contributions. Table D-7 shows the maximum incremental cancer risk from diesel particulate emissions for 2003 and 2015. The risks were estimated assuming the ARB recommended unit risk value for diesel particulate of $3x10^{-4}$ multiplied by the maximum annual average concentration from diesel exhaust.

As stated in Section III.C, Air Quality, the significance criterion used in this SEIR to evaluate cancer risk is an incremental risk of 10 in 1 million (10 additional cancer cases per million persons over a lifetime (70-year) exposure, or a 1 in 100,000 chance of a single individual developing cancer, beyond the pre-existing risk) as the significance threshold, based on the BAAQMD's procedure for permitting of stationary sources, which typically uses 10 in 1 million as the standard below which individual projects may be permitted. That is, the BAAQMD normally will grant a permit for a project that will generate an excess cancer risk of less than 10 additional cancer cases per million persons. The 10 in 1 million level has also been established by the California Air Pollution Control Officers Association as a significant risk threshold when carrying out health risk assessments under the Air Toxics Hot Spots Regulation (AB2588). Any facility that exceeds the 10 in 1 million risk threshold must notify the public of its incremental risk.

It is important to note that the SEIR's finding of a maximum incremental cancer risk in 2015 of 9 in 1 million does not mean that 9 additional cases of cancer would result. This is because each location (each sensitive receptor modeled) has a different incremental risk, with the risk of project sources contributing to an increased number of cancer cases decreasing over distance from the project area. In addition, many times fewer than 1 million persons would be exposed over a full 70-year lifetime at any given receptor. For example, the population of the entire Bayview-Hunters Point neighborhood in 1990 was approximately 28,250; the number of persons living in close proximity to any specific receptor is much lower than that.

It is also true, however, that the cancer risk from multiple sources of toxic air contaminants, some existing, some part of the proposed project, and some future unrelated sources, is higher than the project's incremental contribution to risk. As stated in Section III.C, the California Air Resources Board estimates the statewide cancer risk due to essentially all toxic air contaminants at 758 in 1 million, of which 540 in 1 million is due to exposure to diesel exhaust. Although the project would generate an incremental maximum cancer risk of less than 10 in 1 million, the project would contribute to a cumulative cancer risk from toxic air contaminants.

TABLE D-5
24-HOUR AVERAGE FOR TOTAL PM-10 FOR PORT AND INDUSTRY GROUP PROJECTS

Highest 24 hr total PM10 concentration in 2003 and 2015 is at the Youngblood Coleman Playground. Contributions of the various sources to the highest 24 hr average is shown below.

Year 2003	Concentration ($\mu g/m^3$)	Year 2015	Concentration ($\mu g/m^3$)
Industry + Port	1.16	Industry + Port	1.55
Industry only	1.13	Industry only	1.51
Mission Valley Rock	0.53	Mission Valley Rock	0.81
Bode Gravel	0.25	Bode Gravel	0.32
RMC Pacific	0.16	RMC Pacific	0.21
Marine Emissions	0.07	Marine Emissions	0.07
Train Emissions	0.06	Port trucks	0.04
Port trucks	0.03	Industry trucks/buses	0.03
Industry trucks/buses	0.03	Train Emissions	0.03
Commuter Emissions	0.02	Commuter Emissions	0.02
ISG Resources	0.01	ISG Resources	0.02
BP Aggregates	0.00	BP Aggregates	0.00

SOURCE: Environmental Science Associates

TABLE D-6
ANNUAL TOTAL PM-10 AVERAGE FOR PORT AND INDUSTRY GROUP PROJECTS

Highest annual average total PM10 concentration in 2003 and 2015 is at the Youngblood Coleman Playground. Playground. Contributions of the various sources to the highest annual average is shown below.

Year 2003	Concentration ($\mu g/m^3$)	Year 2015	Concentration ($\mu g/m^3$)
Industry + Port	0.09	Industry + Port	0.12
Industry only	0.08	Industry only	0.10
Mission Valley Rock	0.03	Mission Valley Rock	0.04
Commuter Emissions	0.02	Commuter Emissions	0.02
Industry trucks/buses	0.01	RMC Pacific	0.01
RMC Pacific	0.01	Industry trucks/buses	0.01
Port trucks	0.01	Port trucks	0.01
Train Emissions	0.01	Bode Gravel	0.01
Bode Gravel	0.01	Train Emissions	0.00
Marine - Port total	0.00	Marine - Port total	0.00
Marine - Industry total	0.00	Marine - Industry total	0.00
ISG Resources	0.00	ISG Resources	0.00
BP Aggregates	0.00	BP Aggregates	0.00

SOURCE: Environmental Science Associates

TABLE D-7
ANNUAL DIESEL PARTICULATE AVERAGE FOR PORT AND INDUSTRY GROUP PROJECTS

Highest annual average diesel particulate concentration in 2003 and 2015 is at the Youngblood Coleman Playground. Contributions of the various sources to the highest annual average is shown below.

Year 2003	Diesel Risk (per million)	Year 2015	Diesel Risk (per million)
Industry + Port	7.48	Industry + Port	8.96
Industry only	5.10	Industry only	4.75
Industry trucks/buses	2.29	Port trucks	2.84
Port trucks	1.79	Industry trucks/buses	2.56
Train Emissions	2.23	Marine - Port total	1.38
Marine - Port total	0.60	*Port ships - Pier 96*	0.84
Port ships - Pier 80	*0.54*	*Port ships - Pier 80*	0.54
Port ships - Pier 96	*0.05*	Train Emissions	1.28
Marine - Industry total	0.30	Marine - Industry total	0.63
Industry ships - Pier 90	*0.28*	*Industry ships - Pier 90*	0.58
Industry ships - Pier 80	*0.01*	*Industry ships - Pier 80*	0.02
Industry ships - Pier 94	*0.01*	*Industry ships - Pier 94*	0.02
Industry barges - Pier 92	*0.01*	*Industry barges - Pier 92*	0.01
Commuter Emissions	0.28	Commuter Emissions	0.28

SOURCE: Environmental Science Associates

APPENDIX E

HYDROLOGY AND WATER QUALITY

RUNOFF CALCULATIONS

See Bayside Cumulative Impact Analysis, February 1998, by HydroConsult Engineers. Rainfall Adjustment and Runoff Coefficient from Table A1, Islais Creek Area. Unadjusted rainfall from Table A3.

Assumptions:

Area, A (acres)	131.26	Rainfall	
Area (sq.ft)	5,717,750	inches/yr (unadjusted)	20.23
		Adjusted rainfall	22.25
Runoff Coefficient, c		ft/yr	1.85
Existing, from Table A1	0.603		
Proposed, paved	0.95	Flow, Q = c x i x A	

Existing

Q, existing: (.603) x (1.85) x

5,717,750	6,393,663.81 (ft3) / yr
	47,830,998.96 gal /yr
	131,043.83 gal / day

Proposed Project - Industry Group

new impervious, acres	6.65
new impervious, sq ft	289,660
Q, proposed: (.95) x (1.85) x	
289,660	6,580,055 (ft3) / yr
+ (.603) x (1.85) x	49,225,391 gal /yr
5,428,090	134,864 gal / day
Increase	1,394,392 gal /yr
	3,820 gal / day
% Increase	3%

Proposed Project - Port Development

new impervious, acres	59.53
new impervious, sq ft	2,593,080
Q, proposed: (.95) x (1.85) x	
2,593,080	8,062,266 (ft3) / yr
+ (.603) x (1.85) x	60,313,809 gal /yr
3,124,670	165,243 gal / day
Increase	12,482,810 gal /yr
	34,199 gal / day
% Increase	26%

Proposed Project - Total

new impervious, acres	66.18
new impervious, sq ft	2,882,740
Q, proposed: (.95) x (1.85) x	
2,882,740	8,248,657 (ft3) / yr
+ (.603) x (1.85) x	61,708,201 gal /yr
2,835,010	169,064 gal / day
Increase	13,877,203 gal /yr
	38,020 gal / day
% Increase	29%

WASTEWATER CALCULATIONS (PHASE II)

Use	Size (sq. ft.)	Water Use Rate		Water Demand	Wastewater Generation
Office / R&D	1,610,000	102.5	gal/1,000 sq.ft.	165,025 gallons/day	148,523 gallons/day
Retail	100,000	95	gal/1,000 sq.ft.	9,500 gallons/day	8,550 gallons/day
Light Industry	650,000	150	gal/1,000 sq.ft.	97,500 gallons/day	87,750 gallons/day
Maritime Industry	200,000	150	gal/1,000 sq.ft.	30,000 gallons/day	27,000 gallons/day
General Industry	200,000	150	gal/1,000 sq.ft.	30,000 gallons/day	27,000 gallons/day
Total				332,025 gallons/day	298,823 gallons/day

Office / R&D rate is average of R&D rate from Mission Bay SEIR (150 g/ksf) and Metcalf & Eddy, *Wastewater Engineering,* office rate (55 g/ksf, assuming 275 sq. ft. per employee).
Retail rate from Mission Bay SEIR.
All Industry Categories use R&D rate.

Citywide wastewater generation	84,000,000 gallons/day
Percent of Citywide generation	0.36%
Southeast Plan treatment	67,000,000 gallons/day
Percent of Citywide generation	0.45%
Annual project wastewater generation	109,070,213 gallons/year

APPENDIX F
HAZARDOUS MATERIALS

HAZARDOUS MATERIALS-RELATED CONDITIONS IN PROJECT AREA

A database search was conducted to identify permitted hazardous materials usage and environmental cases within and adjacent to each of the proposed project sites. This appendix also presents a summary of the agency lists that were reviewed. The date of each agency list reviewed is identified in Table F-1. A list of those sites identified by the database search within or adjacent to a proposed project sites is included in Table F-2. Results of the database search, as well as information compiled in a review of Port records and those of the Department of Public Works and Department of Public Health and in site reconnaissance, are presented here.

Industry Group Sites

Pier 92 - Bode Gravel and Mission Valley Rock

An Environmental Site Assessment was conducted for Pier 92 in support of the planned Bode Gravel operations (Treadwell & Rollo, 1999). This assessment provided a summary of historic land uses within the area that would be occupied by Bode Gravel and presented the results of a soil investigation conducted to comply with Article 22A. The information presented in this section is from this Environmental Site Assessment. An environmental assessment has not been conducted for the portion of Pier 92 where the Mission Valley Rock facilities are proposed. It is assumed that, based on historic land uses reported for the Bode Gravel site, that conditions encountered would be similar to those identified within the Bode Gravel site.

Previous Land Uses

The western portion of Pier 92 was used for fish canneries and reduction plants from about 1950 to 1966. Two fuel oil tanks and two above-ground fuel tanks were associated with these uses. These facilities were removed sometime before 1968, although several railroad spurs remain. No other land uses that would have involved the use of hazardous materials were specifically identified in the assessment. Historic land uses in the area surrounding Pier 92 were similar, including fish canneries and rendering plants. Machine shops and fuel storage tanks were previously noted on adjacent properties. This pier was also previously used by Bay Area Tank and Marine, a soil treatment facility.

Site Investigations

A soil investigation was conducted in the western portion of Pier 92 in 1999 to comply with the requirements of Article 22A. This investigation evaluated soil quality in the upper four feet of soil in the vicinity of locations where soil would be excavated for construction of the proposed Bode Gravel

facilities and in the locations of the previous fuel storage tanks (Treadwell & Rollo, 1999). Laboratory analysis of these samples indicates that soil to be excavated could be classified as a hazardous waste on the basis of total and soluble lead concentrations. In addition, soil from one location contained total zinc at a concentration greater than the total threshold limit concentration.[4] The concentration of total recoverable petroleum hydrocarbons in the soil samples ranged from not detected to 770 milligrams per kilogram. Volatile organic compounds including acetone, methylene chloride, carbon disulfide, chloroform, toluene, ethylbenzene, and xylenes were identified at concentrations below their respective preliminary remediation goals for industrial land use, meaning that no remediation of these compounds would be required prior to reoccupation of the site for industrial uses.

Groundwater samples from two borings contained total petroleum hydrocarbons as gasoline, diesel, and motor oil at a maximum concentration of 84 milligrams per liter. In addition, cadmium, chromium, nickel, and zinc were identified in the groundwater samples. The concentrations of cadmium and chromium exceeded the California Maximum Contaminant Level for public drinking water although the groundwater in this area is not used as a drinking water supply.

Stockpiled Soil

There is currently 15,000 cubic yards of soil stockpiled at Pier 92 on the north side of Amador Street. Approximately 7,000 cubic yards of the soil was left at the site in the early 1990's by a previous soil treatment facility that has ceased operation. Based on sampling conducted in 1997, approximately 1,000 cubic yards of this soil would be considered a California hazardous waste on the basis of lead, chromium, and nickel concentrations. The remaining 6,000 cubic yards of soil would be considered a non-hazardous waste. In 1999, approximately 8,000 cubic yards of soil was placed on top of the older pile by the Port of San Francisco; this soil was from the adjacent Pier 94. On the basis of sampling conducted in 1999, this recently added 8,000 cubic yards of soil would be considered a California hazardous waste on the basis of soluble lead concentrations (Treadwell & Rollo, 2000a). During a site reconnaissance in February 2000 two abandoned drums were noted adjacent to the stockpiles (Orion, 2000).Environmental Cases

The Darling International facility (formerly Royal Tallow & Soap Company) is located at 429 Amador Street, across the street from Pier 92. Royal Tallow & Soap Company is listed as a small quantity hazardous waste generator under RCRA (VISTA Information Solutions, 2000). This site also previously used three underground storage tanks, which were removed in 1991. Groundwater samples from wells installed when the tanks were removed contained toluene and xylenes at a maximum concentration of 8.8 milligrams per liter. Agency closure of this fuel leak case was granted in 1994 (Treadwell & Rollo, 1999).

A 1,000-gallon fuel oil tank was removed from the existing Mission Valley Rock site in April 1998. At the time that the UST was removed, fuel oil was observed floating on rain water that had entered the excavation and soil from around the tank was visibly oil stained. Part of the stained soil was removed from the excavation; total petroleum hydrocarbons as diesel was detected at 5,100 milligram per kilogram and up to 1 milligram per kilogram of benzene, toluene, ethylbenzene, and xylenes were

[4] A waste is considered hazardous on the basis of toxicity if it contains the specified substance at a concentration greater than the regulatory levels specified in Title 22 of the California Code of Regulations, Section 66261.24(a)(2). These regulatory levels include the Total Threshold Limit Concentration (TTLC) and the Soluble Threshold Limit Concentration (STLC).

detected in the soil sample from this excavated area. A soil sample was not collected from the other end of the UST excavation because the soil at that end was reportedly "obviously contaminated". Total petroleum hydrocarbons as diesel was detected in the stockpiled soil from the excavation at 710 milligram per kilogram and low levels of toluene and xylenes were also detected. The UST excavation was lined with visqueen and the stockpiled soil was placed back in the excavation (Camp Dresser & McKee, 1998). The San Francisco Department of Public Health has required additional action regarding this UST, although no further action has been taken as of May 2000.

Hazardous Building Materials

The existing Bode Gravel facility at 3rd and 16th Streets would be dismantled and the existing building at the Mission Valley Rock site could be renovated as part of the proposed project. Depending on the age of these buildings, they could potentially contain hazardous materials such as lead-based paint and asbestos-containing materials.

Pier 94 - British Pacific Aggregates

Solid Waste Landfill

Pier 94 is an approximately 96-acre partially paved site created by placement of inert and non-inert fill material to construct a marine shipping terminal. The fill is composed of a variety of materials including clayey soil and rock fragments, construction waste mixed with soil, dredge spoil, and miscellaneous refuse. A variety of earthen materials and debris (approximately 75 percent fine to medium grained sand with concrete, asphalt and metal debris, and household garbage) was placed over the site after fill placement ceased. Groundwater at Pier 94 is monitored in accordance with Closure Order No. 87-061 from the Regional Water Quality Control Board (Port of San Francisco, 1997a).

Only a 14-acre section of Pier 94 is subject to the closure requirements of Order No. 87-061. In 1991, a preliminary closure plan was submitted to the Regional Water Quality Control Board addressing the following for closure of this section: reconstruction and grading, final cover, precipitation and drainage control, shoreline stabilization, geotechnical stability, and settlement.

The Port has not received comments from the Regional Water Quality Control Board on this plan. The designs, grading plans, material and construction specifications, schedules and cost estimates would all need to be substantially revised prior to submitting the final closure plan for Regional Water Quality Control Board approval (Port of San Francisco, 1997b). Various options are under consideration for closure of the landfill (Tetra Tech, 1997) and selection of the appropriate option could depend on the intended reuse of the site. The Port is currently compiling and reviewing groundwater monitoring data for the landfill to further assess closure requirements as required by the Regional Water Quality Control Board (Port of San Francisco, 2000a).

The paved portion of Pier 94 is located outside of the portion of the landfill subject to closure requirements and the planned British Pacific Aggregate facilities are located on this paved portion area.

Pier 90 – ISG Resources

Previous Land Uses

The existing grain silos at Pier 90 formerly stored grain that was brought in by rail and then loaded from the silos onto ships for export. These operations were discontinued following the 1989 Loma Prieta earthquake.

Site Investigations

A limited Phase I environmental site assessment was conducted for Pier 90 in November 1989. As part of this assessment, samples of sediments were collected from the storm drains and a pipe vault. Only low levels of benzene, toluene, ethylbenzene and xylenes were identified in these samples; the likely source was considered to be surface spills from vehicles. It was determined through conversations with PG&E that the two transformers at the site did not contain PCBs (Crosby & Overton, 1989). Abandoned wastes have also been identified at Pier 90 (Port of San Francisco, undated).

Hazardous Building Materials

The existing grain silos and associated control buildings at Pier 90 would be reused as part of the proposed project, requiring some renovations. Hazardous building materials could potentially be present within the silos although a survey has not been completed to establish whether hazardous building materials are present.

Pier 80 – RMC Pacific

The review performed for this EIR did not identify any site assessments or site investigations performed for Pier 80 in the area planned for RMC Pacific. This portion of Pier 80 is currently used for the storage of large steel pipes and beams and is currently paved. A railroad track traverses the site.

Identified Environmental Cases

There have been five environmental cases identified in the vicinity of Pier 80 including (VISTA Information Solutions, 2000):

- **Imperial Drayage, 715 Cesar Chavez Street**, was identified as a CERCLIS site on the basis of above-ground storage of drums. However, this site was recommended for no further action.
- **The Port of San Francisco, 501 Army (Cesar Chavez) Street.** Two underground storage tanks were removed from Pier 80 on July 21, 1987. Soil and groundwater sampled from beneath the tanks contained petroleum hydrocarbons. The excavation for one tank was lined with plastic and excavated soil was replaced directly into both tank excavations (Port of San Francisco, 1996). The location of these former tanks is within the gated area of Pier 80, outside of the area planned for use by RMC Pacific.
- **F.J. Burns Draying, 640 Army (Cesar Chavez) Street.** A leak of gasoline from an underground storage tank was reported at this site in 1999. The database review indicates that no remedial action has been taken.
- **Habenicht Howlett, 888 Marin Street.** A leak of gasoline from an underground storage tank was reported at this site in 1987. The database review indicates that this case was closed in 1992.

- **Loomis Armored, 1060 Marin Street.** A leak of diesel from an underground storage tank was reported at this site in 1989. The database review indicates that this site was closed in 1995.

Hazardous Building Materials

The existing RMC plant at 3rd and Mariposa Streets would be dismantled. This building was constructed in the 1970s and on the basis of its age, could potentially contain hazardous materials such as lead-based paint and asbestos-containing materials.

Pier 70 – Waste Management

This portion of Pier 70 includes Building 6. The review performed for this EIR did not identify any site assessments or site investigations performed specifically for this building although it is located in an area that has been used for heavy industrial purposes, including the storage of petroleum products, since 1895. The building is currently vacant and dilapidated. A sign on the outside wall indicates that it was previously occupied by Pacific Coast Steel Corporation. On the basis of the age and condition of the building, hazardous building materials are likely present. On the basis of historic industrial land uses, soil and/or groundwater contamination is suspected in the vicinity of this building.

Pier 96 – Coach USA

The review performed for this EIR did not identify any site assessments or site investigations performed for Pier 96. Abandoned wastes have been identified at Pier 96 (Port of San Francisco, undated). The existing building within this site would be renovated as part of the proposed project. Depending on the date of construction, hazardous building materials could be present within the building although a survey has not been conducted to establish whether hazardous building materials are present.

Environmental Cases

The database review identified a leaking underground storage tank site at Blakeway Metal Works, across Cargo Way from Pier 96 at 101 Cargo Way. Information available from the database review indicates that a leak of gasoline occurred from an underground storage tank at this site in 1996 and only soil was affected. Soil was excavated and disposed of and the case was closed in 1996. Two spills were reported in the ERNS database at Pier 96 (VISTA Information Solutions, 2000).

Potential Future Port Development Sites

Pier 70

Pier 70 and surrounding areas contain a solid waste landfill and numerous dilapidated old buildings. Previous land uses and underground storage tanks within this area have affected soil and/or groundwater quality. In addition, there are several existing land uses that involve the use of hazardous materials. A police impound yard currently at the pier contains numerous junked cars that could leak oils and fuels and subsequently affect soil quality.

Solid Waste Landfill

Pier 70 contains a three-acre solid waste disposal site that includes four shipyard slips. The site was constructed of demolition debris from previously existing structures mixed with earthen material.

Deposition of fill material was completed, and the site was capped with asphalt in 1971. Groundwater at the site was previously monitored in compliance with Closure Order 87-060 (Port of San Francisco, 1997a). On the basis of groundwater monitoring results, the waste discharge requirements for the solid waste disposal site were rescinded by Order No. 00-030 in April of 2000. This new order stated that available data for the solid waste disposal site indicates that the waste material does not pose a threat to water quality and does not require additional characterization or management as a landfill. (RWQCB, 2000) Abandoned wastes have been identified at the Pier 70 landfill (Port of San Francisco, undated).

Permitted Hazardous Waste Handling and Underground Storage Tanks

Bethlehem Steel Corporation, Todd Shipyard Corporation, the Port of San Francisco, and Convoy Company are all identified as existing or former RCRA permitted hazardous waste generators at Pier 70. The database review indicates that Todd Shipyard Corporation received a RCRA violation in 1984. The type of violation was not specified. There are also underground storage tanks registered with the State of California (VISTA Information Solutions, 2000). Bethlehem Steel Corporation, Todd Shipyard Corporation, and Convoy Co. are no longer in business at Pier 70.

Historic Land Uses

A site history has not been specifically prepared for all of Pier 70. Much of the information provided in the phase I report for the mixed use opportunity area provides information regarding other areas of the Pier (Tetra Tech, 1998). On the basis of this assessment, several above-ground storage tanks have been historically been located within the Pier 70 area including:

- A 7,500 gallon diesel fuel tank,
- A 100 gallon lubricating oil tank,
- A 4,000 barrel fuel oil tank (1951), and
- Two tanks of unidentified volume (1977).

The phase I report prepared for this area stated that the number and location of above-ground tanks varied over time. In 1995, the above-ground storage tanks were no longer visible in aerial photographs reviewed.

On the basis of historic land uses and sampling performed, hazardous materials are suspected at Pier 70 as follows (Tetra Tech, 1998):

- Soil in the vicinity of Building 6 was reported to contain copper, lead, zinc, and PNAs. Additional sampling was recommended and there were plans to clean the inside of Building 6. There were indications that hazardous waste may have been left in Building 6;
- Building 12 may contain concentrations of lead and cadmium;
- There are reported releases of heavy metals from former site activities to areas south of the mixed use opportunity area; and
- There were reported spills of hazardous materials in the old Convoy Company facility in 1987. The DTSC recommended catch basins beneath drums used for oils, hydraulic fluids, and antifreeze.

Documentation reviewed did not show the location of this facility, but it is estimated to be to the east of Building 113.

Environmental Cases

Southwest Marine was identified as a CERCLIS site on the basis of a preliminary assessment performed for the site. The database review indicates that no further remedial action is planned for this site. This site is currently operated as San Francisco Dry Dock which is identified in the TRIS database. The San Francisco Port Commission was identified as a leaking underground storage tank site in the CORTESE database, however this site was not identified in the LUST database. Two spills were reported in the ERNS database at Pier 70.

The Southern Company Potrero Power Plant (recently acquired from PG&E) is adjacent to the south side of Pier 70. This site has permitted underground and above-ground storage tanks, is a RCRA permitted generator of hazardous wastes, and is identified as an environmental case in several databases. Soil contamination has been documented at this site and free product has been observed on the groundwater. This is also the site of a previous coal gasification plant. Soil or groundwater containing hazardous materials from this site could affect construction projects within Pier 70.

Underground Storage Tank Removals

Tanks 104 and 105. Two fuel oil underground storage tanks (nos. 104 and 105) were removed from the east of Building 113 in 1988. Two soil samples and one water sample were taken from the tank excavation at the time of the tank removal. Soil samples from this tank excavation did not contain detectable levels of total petroleum hydrocarbons as oil, although oil and grease was identified at up to 46,020 milligrams per kilogram. The groundwater sample did not contain detectable levels of total petroleum hydrocarbons as oil. Approximately 1/8 inch of free product was identified on the groundwater surface. Excavated soil and some imported fill were replaced in both excavations (Port of San Francisco, 1996).

Soil and groundwater quality in the vicinity of the former underground storage tanks was evaluated in 1997. The results of the investigation indicate that residual concentrations of total petroleum hydrocarbons as diesel and motor oil remain in the soil. A groundwater sample from a temporary groundwater monitoring well contained total petroleum hydrocarbons as gasoline and diesel at 430 and 41,000 micrograms per liter, respectively, and trace concentrations of toluene and xylenes. On the basis of these results and the belief that the total petroleum hydrocarbon concentrations in the groundwater will decrease naturally through time (via natural attenuation), the Port of San Francisco has requested site closure from the San Francisco Department of Public Health, Local Oversight Program (Tetra Tech, 1998). **Tanks 3 and 4.** The Port removed one gasoline and one diesel underground storage tank from further east of Building 113 in 1990. Soil samples from these excavations contained total petroleum hydrocarbons as gasoline and diesel at up to 710 and 5,600 milligrams per kilogram, respectively, and benzene, toluene, ethylbenzene, and xylenes at up to 2,690 milligrams per kilogram. Groundwater from the tank excavations contained total petroleum hydrocarbons as gasoline and diesel at up to 2,700 and 1,600,000 micrograms per liter, respectively, and benzene, toluene, ethylbenzene, and xylenes at up to 152 micrograms per liter. These tanks were located within the backfill of a storm/sanitary sewer. On the basis of this, the San Francisco Department of Public Works agreed to re-excavate the contaminated soil

during construction of a new sewer line although documentation of this agreement and final disposition of the soil was not found (Tetra Tech, 1998).

Building 117. Available records indicate that four underground storage tanks have been removed or abandoned near Building 117 although the documentation is poor. Apparently one 5,000-gallon and one 2,500-gallon underground storage tank were removed from this site in 1990. Inspector's notes indicate that odor and discoloring were noted in the soil and a sheen was observed on the groundwater in the excavations. Available records also indicate that in 1992 a contractor filed an application to abandon one 2,160-gallon and one 576-gallon underground storage tank (referred to as sumps) by filling them with sand (Tetra Tech, 1998).

Hazardous Building Materials

The vacant buildings within Pier 70 are in a generally dilapidated condition. Based on their age, they would likely contain hazardous building materials. There are electrical transformers remaining at Pier 70 with PCB containing oil (Tetra Tech, 1998). These transformers are surveyed and retrofitted on a project specific basis and it would be necessary to conduct a survey of any buildings planned for demolition or renovation to determine if any PCB containing electrical equipment remains within a specific building. During a 1997 investigation, an oily substance on the wood floor of the machine shop in Building 113 was sampled. Analysis of the sample indicated that the substance was likely creosote. The consultant analyzing the data concluded that the creosote likely seeped out of the ends of the wood floor in the machine shop and recommended capping or removing the contaminated portion of the floor to prevent human contact (Tetra Tech, 1998).

Pier 70 Mixed Use Opportunity Area

This portion of Pier 70 has been used for heavy industrial purposes since at least the 1890s. Most of the buildings at the site are currently vacant although San Francisco Dry Dock, a maritime facility that maintains and repairs large ships and freighters, uses some of the area for storage and a yard. This facility was formerly run by Southwest Marine.

Historic Land Uses

Historic uses of this area between the late 1890s and 1986 which may have involved the use of hazardous materials include: ship building companies (Union Iron Works, Bethlehem Steel, and Todd Shipyards); metal foundries; galvanizing shops; machinery warehouses; plating shops; machine shops; power houses; boiler shops; a transformer and compressor house; dry docks; planing mills; flange shops; press rooms; and lumber and iron yards (Tetra Tech, 1998). In addition, a coke pile was observed within this area in 1900 and a pile was observed east of the area in 1914. Railroad spurs have historically crossed the site.

B & C Metals formerly operated in the northwest corner of Pier 70. In 1996, vessels were dismantled on the northern concrete-paved boat ramp in Slip No. 4, adjacent to B&C Metals. Equipment, metal debris, and stained soil were observed on the northern ramp where dismantling took place. The soil on the northern boat ramp was identified as a hazardous waste on the basis of lead concentrations and in November 1996 all of the soil from the northern ramp as well as the adjacent southern ramp was removed

and legally disposed of at an off-site disposal facility. At total of 31 tons of soil were removed (Port of San Francisco, 2000c).

B&C Metals used many hazardous materials including lubricating oils and flammable gasses, but documentation from 1997 indicates that B & C did not register them or comply with hazardous materials storage regulations. In addition, some vessels accepted at the facility contained asbestos containing materials and lead based paint although the employees were not trained to identify and manage these materials. In 1997 five vessels were stored at Pier 70 and three of these vessels contained asbestos containing materials and lead-based paint (Tetra Tech, 1998). The Port reports that four of these vessels have been removed and the one that remains is not believed to contain asbestos (Port of San Francisco, 2000b). Activities at the former B&C Metals facility could have affected soil and/or groundwater quality within the Mixed Use Opportunity Area.

San Francisco Petroleum Co., a bulk petroleum handling facility, is located across Third Street to the west. There are four above-ground storage tanks at this facility with dispensers and numerous 55-gallon drums were observed at the site in 1998 (Tetra Tech, 1998). This site is not identified as an environmental case in any of the databases reviewed (VISTA Information Solutions, 2000). However, such plants are commonly associated with soil or groundwater contamination.

Environmental Cases

A leak of diesel from an underground storage tank was reported at 680 Illinois Street in 1990. The database review reports that this was a soil only case and no remedial action was taken. The case was closed in 1992 (VISTA Information Solutions, 2000).

Underground Storage Tank Removals

One fuel oil underground storage tank was removed from near Building 101 in 1988. Two soil samples and one water sample were taken from the tank excavation at the time of the tank removal. Total petroleum hydrocarbons as oil was identified at up to 3,200 milligrams per kilogram and oil and grease was identified at up to 4,045 milligram per kilogram in the soil samples from the second tank excavation. The water sample from within the vault for this underground storage tank contained 16,000 milligrams per liter of total petroleum hydrocarbons as oil. Excavated soil and some imported fill were replaced in both excavations (Port of San Francisco, 1996).

Soil and groundwater quality in the vicinity of the former underground storage tank was evaluated in 1997. The results of the investigation indicate that only trace concentrations remain near the tank excavation. A groundwater sample from a temporary groundwater monitoring well contained total petroleum hydrocarbons as diesel at 1,100 micrograms per liter. On the basis of these results and the belief that the total petroleum hydrocarbon concentrations in the groundwater will decrease naturally through time (via natural attenuation), the Port of San Francisco has requested site closure from the San Francisco Department of Public Health, Local Oversight Program (Tetra Tech, 1998). In 1991, the Port removed two underground storage tanks from the northwest corner of this area of Pier 70, south of the former location of B & C Metals. The final confirmation soil sample from this underground storage tank excavation did not contain detectable levels of total petroleum hydrocarbons. Soil from the excavation

was transported to a bioremediation facility and the excavation was backfilled with native soil and clean quarry backfill (Tetra Tech, 1998).

Site Investigations

Illegal storage of hazardous materials was noted in Building 6 in 1983 including 80 drums of solid waste (two containing asbestos containing materials) and 200 drums of solvent and caustic materials. Many drums reportedly leaked. The soil investigation for this site identified metals, priority pollutants, and polychlorinated biphenyls. A site cleanup including soil excavation and building decontamination was completed under oversight of the Department of Health Services (Geo/Resource Consultants, 1990).

In 1990, four borings were installed within Pier 70 in support of construction of sewer improvements for the San Francisco Clean Water Program's Mariposa Facilities. Soil samples from these borings contained detectable levels of methylene chloride and total petroleum hydrocarbons at up to 790 milligrams per kilogram. Copper and lead exceeded the TTLC and mercury and nickel exceeded 10 times the STLC in several of the soil samples analyzed (ERM-West, 1990).

During installation of the clean water collection system at Pier 70, samples of groundwater and excavated soil were analyzed. The excavated soil contained copper and lead in excess of the TTLC and nickel and mercury at levels more than 10 times the STLC. Asbestos was identified at up to 5.8 percent in the soil samples; total recoverable petroleum hydrocarbons were identified at up to 600 milligrams per kilogram; total petroleum hydrocarbons as diesel was identified at up to 570 milligrams per kilogram; and trace levels of polynuclear aromatic hydrocarbons were identified. Groundwater samples from the excavation contained detectable levels of total recoverable petroleum hydrocarbons, total petroleum hydrocarbons as diesel, and oil and grease. At the time of this sampling, the oil and grease concentration detected in the groundwater was 193 milligrams per liter of which 180 milligrams per liter was of petroleum origin. This concentration was greater than the permitted local sewer discharge limitations and treatment of the water prior to discharge was recommended (San Francisco Department of Public Works, 1991).

Abandoned Hazardous Materials

Approximately 10 gallons of lubricating oil were identified in the basement of Building 101 and one 55-gallon drum of lubricating oil (non-PCB-containing) were identified in Building 102 (Tetra Tech, 1998). Based on the heavy industrial use of buildings in this area, it is likely that additional abandoned hazardous materials could be identified.

Hazardous Building Materials

The vacant buildings within the area are in a generally dilapidated condition. They were constructed prior to 1950 and on the basis of their age, would likely contain hazardous building materials. In 1998, a survey was conducted to identify asbestos containing materials and lead-based paint in Buildings 36, 40, 101, 102, 104, and 109. The survey identified asbestos containing materials in all of the buildings surveyed and lead based paint in Buildings 101, 102, and 104. In addition, other buildings contained paint with lead levels below 1 milligram per cubic centimeter which is the level used by the U.S. Department of Housing and Urban Development for the identification of lead based paint (SCA Environmental, Inc., 1998). There are electrical transformers remaining at Pier 70 with PCB containing

oil and in 1998 there was a notice posted at the entrance to Building 102 stating that there is PCB-containing electrical equipment in the building (Tetra Tech, 1998). These transformers are surveyed and retrofitted on a project specific basis and it would be necessary to conduct a survey of any buildings planned for demolition or renovation to determine if any PCB containing electrical equipment remains within a specific building.

Western Pacific Property

Previous Land Uses

The Western Pacific Army Street site encompasses 39 acres of which 9 are tidelands. The only known use of this site has been for railroad purposes and the facilities that have been located within this site include an engine house/maintenance building, lubrication/fueling area, scale pit/pier demolition area, and storage area. In 1935, there were four above-ground storage tanks observed at the site (Dame & Moore, 1989).

Site Investigations

During site investigations conducted at this site, lead and arsenic were identified in the soil at concentrations exceeding the total threshold limit concentration; polynuclear aromatic hydrocarbons were detected in soil samples from throughout the site at a the maximum total concentration of 7,889 milligrams per kilogram; and total recoverable petroleum hydrocarbons were identified in the soil at concentrations in excess of 1,000 milligrams per kilogram. Petroleum products, polynuclear aromatic hydrocarbons and metals were identified in the soil, and the groundwater was found to be affected by petroleum products, polynuclear aromatic hydrocarbons, volatile organic compounds, and lead. In addition, the off-shore sediments were found to contain polynuclear aromatic hydrocarbons and metals. Creosote treated wood and wood fragments were buried in the fill soils in the northeast portion of the site (Dames & Moore, 1989).

In accordance with a request from the Regional Water Quality Control Board, a site remediation was conducted in 1993 and 1994 which involved capping the site to reduce the potential for infiltration and runoff. As part of this remediation, the following activities were conducted (Levine-Fricke, 1994):

- Regrading of the shoreline slope;
- Placing a geotextile fabric to inhibit migration of fines to the bay;
- Installing riprap slope protection;
- Constructing a 10-foot wide gravel sediment trap behind the riprap;
- Regrading a 50-foot wide strip behind the sediment trap;
- Placing a geotextile on the subgrade and paving over the geotextile; and
- Constructing an 80-foot wide gravel transition zone behind the paved area.

The San Francisco Municipal Railway plans to use the western portion of this property for a light rail vehicle maintenance and operations facility and has conducted a Site Characterization/Corrective Measures study to comply with Article 22A. The Port is currently reviewing the data for the eastern portion of the site planned for Port use, and is conducting a risk assessment for various reuse scenarios.

The choice of uses would depend partially on the results of the risk assessment (Port of San Francisco, 2000a). The database review identified this site in the North Bay County Toxic List, but no further information was available (VISTA Information Solutions, 2000).

Pier 90 to 94 Backlands

The review performed for this EIR did not identify any site assessments or site investigations performed for the Pier 90 to 94 backlands. A portion of the backlands being considered for development overlap the regulated portion of the landfill at Pier 94 (described under British Pacific Aggregates, above). Current activities at this site include Specialty Crushing, Tide Water Sand and Gravel (Hanson Aggregates), and the Port of San Francisco Marine Terminal. Specialty Crushing and Tide Water Sand and Gravel is currently located over the regulated portion of the landfill. Abandoned wastes have been identified at Pier 96 (Port of San Francisco, undated).

Previous Land Uses

A temporary soil treatment facility was operated by the San Francisco Department of Public Works at Pier 94. Abandoned wastes have been identified at Pier 94 (Port of San Francisco, undated).

HAZARDOUS SUBSTANCES REGULATORY FRAMEWORK

Hazardous materials and hazardous wastes are extensively regulated by various federal, state, regional, and local regulations, with the major objective of protecting public health and the environment. The major regulations are presented below.

FEDERAL REGULATIONS

The U.S. Environmental Protection Agency (U.S. EPA) is the lead agency responsible for enforcing federal regulations that affect public health or the environment. The primary federal laws and regulations include: the Resource Conservation and Recovery Act of 1974 (RCRA); the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA); and the Superfund Act and Reauthorization Act of 1986 (SARA). Federal statutes pertaining to hazardous materials and wastes are contained in the Code of Federal Regulations (40 CFR).

RCRA was enacted in 1974 to provide a general framework for the national hazardous waste management system, including the determination of whether hazardous wastes are being generated, techniques for tracking wastes to eventual disposal, and the design and permitting of hazardous waste management facilities. The Hazardous and Solid Waste Amendment was enacted in 1984 to better address hazardous waste; this amendment began the process of eliminating land disposal as the principal hazardous waste disposal method. Other specific areas covered by the amendment include regulation of carcinogens, listing and delisting of hazardous wastes, permitting for hazardous waste facilities, and leaking underground storage tanks.

CERCLA, also known as Superfund, was enacted in 1980 to ensure that a source of funds was available to clean up abandoned hazardous waste sites, compensate victims, address releases of hazardous materials, and establish liability standards for responsible parties. SARA amended CERCLA in 1986 to

TABLE F-1
SUMMARY OF DATABASES REVIEWED FOR EACH CONSTRUCTION SITE

NAME OF LIST	Responsible Agency	Acronym	Date of List
National Priority List	USEPA	NPL	Nov. 1999
Comprehensive Environmental Response, Compensation, and Liability Information System	USEPA	CERCLIS	Oct. 1999
CalCERCLIS	USEPA	CalCERCLIS	June 1995
CERCLIS- FRAP	USEPA	NFRAP	Oct. 1999
Toxic Release Inventory System	USEPA	TRIS	Jan. 1998
Emergency Response Notification System	USCG	ERNS	Aug. 1999
RCRA Facilities	USEPA	RCRA-TSD	Sept. 1999
RCRA Large Quantity Generator	USEPA	RCRA-LgGen	Sept. 1999
RCRA Small Quantity Generator	USEPA	RCRA-SmGen	Sept. 1999
RCRA Enforcement Actions	USEPA	RCRA Viols/Enf	Sept. 1999
RCRA Corrective Action Sites	USEPA	CORRACTS	Sept. 1999
Annual Work Plan	DTSC	SPL	July 1999
Cal Sites	DTSC	SCL	July 1999
Deed Restrictions Properties Report	DHS	Deed Restrictions	Apr. 1994
Leaking Underground Storage Tanks	RWQCB	LUST Reg2	Sept. 1999
LUST Information System	Cal EPA	LUST	Oct. 1999
North and South Bay SLIC List	RWQCB	LUST	July 1998
Waste Management Unit Discharge Systems	RWQCB	WMUDS	Feb. 1999
North Bay County Toxic List	RWQCB	North Bay	Apr. 1994
Hazardous Waste Substance Site List	Office of Planning and Research	CORTESE	Apr. 1998
Solid Waste Information System	CA IWMB	SWLF	Nov. 1999
Summary of Toxic Pits Clean Up Facilities	WQCB	Toxic Pits	Feb. 1995
Underground Storage Tank Registrations Database	SWRCB	UST	Jan. 1994
San Francisco Current Active UST List	SFDPH	UST	Sep. 1999
Aboveground Storage Tank Database	SWRCB	AST	Dec. 1998
Water Wells	USGS	Water Wells	Mar. 1998

TABLE F-2
ENVIRONMENTAL CASES AND PERMITTED HAZARDOUS MATERIALS SITES IDENTIFIED BY DATABASE REVIEW

Site No.	Pier	Site Name	Site Address		CERCLIS NFRAP	TRIS	ERNS	RCRA SmGen	RCRA LgGen	RCRA viols/ enf	CORR-ACTS	SCL	LUST	North Bay	CORTESE	SWLF	UST	AST
11A	PGE	PGE Gas Plant		23rd and Maryland St.	X							X			X			
11A	PGE	Potrero Power Plant	1201	Illinois Ave.	X		X		X	X	X	X	X		X		X	X
33	70	Southwest Marine		20th and Illinois St.	X		X											
33	70	Bethlehem Steel Corporation		20th and Illinois St.				X										
33	70	Todd Shipyard Corporation	900	Illinois St.					X	X							X	
40	70	Port of San Francisco		Pier 70					X									
40	70	Convoy Co.		Pier 70				X										
40	70	1X San Francisco Bar Pilot		Pier 70								X					X	
40	70	San Francisco Port Commission	1	Pier 70											X		X	
-	70	San Francisco Dry Dock		Foot of 20th Street		X												
-	70	Maritime Administration		Foot of 20th Street			X											
2	Union Pacific	Union Pacific Realty/Santa Fe		Army St.										X				
8	80	Ship USS Wilson DDG7						X										
8	80	Ship USS McCormick DDG8						X										
2	80	SF Port	501	Army St.									X		X			
2	80	Metropolitan Calif Stevedore	501	Army St.			X	X										
2	80	Unknown	501	Army St.			X											
2	80	California Stevedore Ballast	501	Army St.													X	
2	80	F.J. Burns Draying	640	Army St.									X				X	
2	80	Imperial Drayage Co., Inc.	715	Army St.	X													
3A	80	Habenicht Howlett	888	Marin St.									X				X	
3B	80	Former Loomis Armored	1060	Marin St.									X				X	
5C	80	Sheedy Drayage Co.	1215	Michigan St.													X	
5C	80	Mercantile Freight Service	1215	Michigan St.													X	
5C	80	Sheedy Drayage Co.	1275	Michigan St.													X	
10	92	Del Monte Royal Tallow Co.	429	Amador St.				X									X	
10	92		429	Amador St.									X					
31	94	SF Pier 94		Pier 94														X
43A	96	Blakeway Metal Works, Inc.	101	Cargo Way									X					
43A	96	Bonelli Enterprises	101	Cargo Way													X	

TABLE F-2 (cont'd.)
ENVIRONMENTAL CASES AND PERMITTED HAZARDOUS MATERIALS SITES IDENTIFIED BY DATABASE REVIEW

Site No.	Pier	Site Name	Site Address	CERCLIS NFRAP	TRIS	ERNS	RCRA SmGen	RCRA LgGen	RCRA viols/ enf	CORR-ACTS	SCL	LUST	North Bay	CORTESE	SWLF	UST	AST
-	96	Unknown	Cargo Way and Jennings Sts.			X											
-	96	SPRR	Pier 96			X											
10	90,92	Islais Creek Area	Between Cargo Way and Amador St.	X													
6A	80,90,92	Islais Creek Area	East side of bay	X													
-	80,90,92	Unknown	Islais Creek Channel			X											
-	90,92	San Francisco Public Works	North bank of Islais Creek			X											

Abbreviations:

CERCLIS NFRAP= Comprehensive Environmental Response, Compensation, and Liability Information System
ERNS = Emergency Response Notification System
RCRASmGen = RCRA Permitted Small Quantity Generator
RCRALgGen = RCRA Permitted Large Quantity Generator
RCRA viols/enf = Facility cited with RCRA violation within last 10 years
CORRACTS = RCRA Corrective Action Site
SCL = Calsites Database
LUST = Leaking Underground Storage Tank Database
North Bay = North Bay County Toxic List
CORTESE = compilation of sites identified on numerous lists
SWLF = Solid Waste Information System
UST = Underground Storage Tank Registrations Database
AST = Aboveground Storage Tank Database

Notes: See text for an explanation of each database identified.

Source: Orion Environmental Associates; VISTA Information Solutions, 2000.

increase the Superfund budget, modify contaminated site clean up criteria and schedules, and revise settlement procedures. SARA also provides a regulatory program and fund for underground storage tank cleanups and Emergency Planning and Community Right- to- Know Program (EPCRA).

Title 40 of the Code of Federal Regulations, Section 112 also contains requirements for above ground storage of petroleum products. In accordance with these regulations, a petroleum tank of greater than 660 gallons or aggregate storage of over 1,320 gallons, which could reasonably discharge to a navigable water, is required to have a Spill Control and Countermeasure Plan (EPA Region IX, San Francisco, has taken a conservative stance, that virtually any large oil spill in California will enter federally regulated waters). The plan would include appropriate spill containment or equipment used to divert spills from sensitive areas, a discussion of facility specific requirements for the storage system, inspections and a record keeping system, security for the system, and personnel training.

The federally published lists of sites which trace the status of suspected hazardous materials sites or identify sites permitted to generate hazardous wastes include:

- The National Priority List (NPL), which prioritizes sites with significant risk to human health and the environment;
- The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), which tracks contaminated properties identified under CERCLA and SARA;
- The CalCERCLIS database containing utility descriptions for California CERCLIS sites;
- The CERCLIS-NFRAP database which lists sites where, following an initial investigation, no contamination was found, contamination was removed quickly, or the contamination was not serious enough to require Federal Superfund action or NPL consideration;
- The toxic chemical release inventory which identifies sites which have reported a chemical release to the air, water, or land as required by Title III of the Superfund Amendments and Reauthorization Act of 1986 (TRIS);
- The Emergency Response Notification System (ERNS) which identifies spills of oil or hazardous substances reported pursuant to Section 103 of CERCLA as amended, Section 311 of the Clean Water Act, and sections 300.51 and 300.65 of the National Oil and Hazardous Substances Contingency Plan;
- RCRA Information System which includes facilities permitted to handle hazardous wastes under RCRA including treatment, storage, and disposal facilities (RCRA - TSD); large quantity generators which report generation of greater than 1000 kilogram/month of non-acutely hazardous waste or 1 kilogram/month of acutely hazardous waste (RCRA-LgGen); small quantity generators which report generation of less than 1000 kilogram/month of non-acutely hazardous waste or 1 kilogram/month of acutely hazardous waste (RCRA-SmGen); and facilities which have been cited by the US EPA for RCRA violations at least once since 1980 (RCRA Viols/Enf); and

- Resource Conservation and Recovery Act (RCRA) Corrective Action Sites (CORRACTS). This list, maintained by the US EPA sites includes RCRA permitted facilities that are undergoing corrective action. A corrective action order is issued pursuant to RCRA Section 3008(h), when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility's boundary and can be required regardless of when the release occurred, even if it predates RCRA.

STATE AND REGIONAL REGULATIONS

The USEPA has delegated much of its regulatory authority to the individual states. The Department of Toxic Substance Control (DTSC) of the California Environmental Protection Agency (Cal EPA), formerly a division of the Department of Health Services, enforces hazardous materials and waste regulations in California, in conjunction with the USEPA. The DTSC is responsible for regulating the management of hazardous substances including the remediation of sites contaminated by hazardous substances. California hazardous materials laws incorporated federal standards, but are often stricter than federal laws. The primary state laws include: the California Hazardous Waste Control Law (HWCL), the state equivalent of RCRA; and the Carpenter-Presley-Tanner Hazardous Substance Account Act (HSAA), the state equivalent of CERCLA. State hazardous materials and waste laws are contained in the California Code of Regulations, Titles 22 and 26.

The HWCL, enacted in 1972 and administered by the DTSC, is the basic hazardous waste statute in California and has been amended several times to address current needs, including bringing the state law and regulations into conformance with federal laws. This act implements the RCRA cradle-to-grave waste management system in California, but is more stringent in its regulation of non-RCRA wastes, spent lubricating oil, small quantity generators, transportation and permitting requirements, as well as penalties for violations. The HWCL also exceeds federal requirements by mandating the recycling of certain wastes, requiring certain generators to document a hazardous waste source reduction plan, requiring permitting for federally exempt treatment of hazardous wastes by generators, and stricter regulation of hazardous waste facilities.

The HSAA, enacted in 1981, addresses similar concerns as CERCLA. The primary difference is in how liability is assigned for a site with more than one responsible party. This is important for petroleum clean up sites because federal law is usually used to force responsible party cleanups; state law is used for petroleum cleanup sites which are CERCLA exempt.

Other relevant state statutes include:

- The Toxic Pit Cleanup Act of 1984 and the Toxic Injection Well Act of 1985 which were established to provide a regulatory framework for open pits or injection wells as a means of hazardous waste or disposal;

- The Hazardous Waste Management Act of 1986 which coordinates the state's implementation of federal landfill bans and authorizes landfill bans for non-RCRA hazardous wastes;

- The Aboveground Petroleum Storage Act of 1989 which requires the owner or operator of aboveground petroleum storage tanks to file a storage statement with the State Water Resources Control Board (SWRCB) if tank storage exceeds 10,000 gallons and holds petroleum or petroleum product which is liquid at ambient temperatures. In addition, the tank or tanks must be registered if they are subject to federal requirements; this potentially expands the requirement for a storage statement to any tank over 660 gallons or aggregate storage of 1,320 gallons;

- The Hazardous Waste Source Reduction and Management Act which required large quantity generators to document hazardous wastes being generated and to prepare a documented waste reduction plan beginning in 1991;

- The Hazardous Waste Treatment Permitting Reform Act of 1992 which required a permit for any hazardous waste treatment by a generator beginning on April 1, 1993. This statute established a new tiered permitting program whereby on-site treatment facilities are permitted or authorized to operate subject to different levels of regulatory requirements depending on the nature and size of the treatment activity. Amendments to this statute adopted in 1993-96 have enacted certain exemptions and modified compliance requirements.; and

- The Hazardous Waste Management Reform Act of 1995 which required the DTSC to revise its regulations to more closely conform to federal hazardous waste identification criteria and essentially eliminate land disposal restrictions for California-only hazardous wastes among other major changes. However, many of these changes have been deferred to a DTSC advisory committee for further study and are not expected to be implemented for several years, and in certain cases, not at all.

The published lists of sites, which trace remediation progress within the state, include:

- The Annual Work Plan, formerly known as the Bond Expenditure Plan (SPL), which is a site-specific expenditure plan for the appropriation of California Hazardous Substance Cleanup Bond Act of 1984 funds. This list is no longer updated;

- Cal Sites (SCL), which was previously referred to as the Abandoned Sites Program Information System (ASPIS), and identifies potential hazardous waste sites, which are then screened by the DTSC. Sites on this list which are designated for no further action by the DTSC were not identified by the database review;

The California Department of Health Services- Land Use and Air Assessment agency also maintains the Deed Restriction Properties Report which lists sites that have entered voluntary deed restrictions. These restrictions are agreements with owners of property who propose building residences, schools, hospitals, or day care centers on property that is on or within 2,000 feet of a significant disposal of hazardous waste.

The Regional Water Quality Control Board (RWQCB) is authorized by the State Water Resources Control Board to enforce provisions of the Porter - Cologne Water Quality Control Act of 1969. This act gives the RWQCB authority to require groundwater investigations when the quality of groundwater or

surface waters of the state is threatened, and to require remediation of the site, if necessary. Both of these agencies are part of the Cal EPA.

The RWQCB maintains the following lists identifying hazardous waste sites that were reviewed:

- The Leaking Underground Storage Tanks list (LUST or LUST Reg2) and LUST Information System, which track remediation status of known leaking underground tanks;
- The North Bay Spill, Leak, Investigations, and Cleanups list (LUST) which include various hazardous waste sites within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board and Central Valley Regional Water Quality Control Board;
- The Waste Management Unit Discharge System (WMUDS) list of sites which tracks waste management units. The list contains sites identified on the Toxic Pits List, which is required by the Toxic Pits Cleanup Act (Katz Bill), and places relatively strict limitations on the discharge of hazardous wastes into surface impoundments, toxic ponds, pits and lagoons (the RWQCB is required to inspect all surface impoundments annually). The WMUDS list also identifies sites targeted by the Solid Waste Assessment Program where there is a possible risk of solid waste disposal sites (landfills) discharging hazardous wastes, threatening either water or air quality;
- The North Bay County Toxic List –Region #2 Surface Spills (North Bay) tracks additional sites under the jurisdiction of the Regional Water Quality Control Board.

The Bay Area Air Quality Management District (BAAQMD) may impose specific requirements on remediation activities to protect ambient air quality from dust or other airborne contaminants.

The California Governor's Office of Planning and Research annually publishes a listing of potential and confirmed hazardous waste sites throughout the State of California (CORTESE). This database includes input from many state databases.

The California Integrated Waste Management Board maintains a list of active, inactive or closed solid waste disposal sites and transfer facilities, as legislated under the Solid Waste Management and Resource Recovery Act of 1972. The list is referred to as the Solid Waste Information System (SWLF). The Water Quality Control Board maintains the Summary of Toxic Pits Clean Up Facilities (Toxic Pits).

The SWRCB also requires registration of above ground storage tanks subject to Federal regulations and permitting of all underground storage tanks (USTs) containing hazardous substances. The California laws regulating USTs are primarily found in the Health and Safety Code; combined with regulations adopted by the State Water Board, these laws comprise the requirements of the state UST program. The laws contain requirements for UST permitting, construction, installation, leak detection monitoring, repairs and upgrades, corrective actions and closures. In accordance with state laws, counties are required to implement a UST program and in some cases, the county requirements are more stringent than those of the State. Cities are also given the option to implement a UST program. The Regional Water Quality Control Board may also oversee corrective actions. Permitted above- and underground

storage tanks were identified in the Aboveground Storage Tank Database and Underground Storage Tank Registration Database (AST and UST).

The United States Geologic Survey maintains the USGS Water Wells database (Water Wells) which contains information for over 100,000 wells and other sources of groundwater which the USGS has studied, used, or otherwise had reason to document through the course of research.

LOCAL REGULATIONS

In accordance with Senate Bill 1082 (Health and Safety Code 25404), administration and enforcement of major environmental programs was transferred to local agencies as Certified Unified Program Agencies (CUPAs) beginning in 1996. The purpose of this legislation was to simplify environmental reporting by streamlining the number of regulatory agency contacts a facility must maintain and requiring the use of more standardized forms and reports. In the City and County of San Francisco, the Department of Public Health is the administering agency for CUPA program. As the CUPA, this agency is responsible for the following environmental programs:

- Hazardous Materials Business Plans;
- Risk Management Prevention Program for Acutely Hazardous Materials;
- Uniform Fire Code - Article 80, 103 b and c of the 1991 Fire Code (Hazardous Materials);
- Underground Storage Tanks;
- Aboveground Storage Tanks; and
- Hazardous Waste On-Site Treatment by Generators.

As part of the UST program, the Public Health Department is responsible for issuing operating and closure permits for USTs and overseeing such tasks as UST design plans, construction, monitoring, leak reporting and UST closure. This agency also oversees remediation of contaminated soil and groundwater at leaking underground storage tank sites in coordination with Cal EPA.

The San Francisco Fire Department (SFFD), Bureau of Fire Prevention and Investigation, conducts inspections of underground storage tank installations and has permit authority over the storage of flammable liquids. The SFFD also maintains documentation of known above-ground storage tanks.

HAZARDOUS MATERIALS MANAGEMENT

HAZARDOUS MATERIALS BUSINESS PLANS AND INVENTORIES

California requires submission of a Business Plan to the local administering agency for businesses that handle hazardous materials over certain threshold quantities. This document is used by the city and county for chemical emergency planning. The Business Plan includes an inventory of hazardous

materials used at the site. However, the state definition of a hazardous material includes many chemicals that are common and not very hazardous. The Business Plan is required to include:

- specific details on the business, such as name and address;
- an inventory of hazardous materials used and stored;
- a site and facility layout;
- emergency response procedures;
- procedures for immediate notification of the administering agency in the event of an emergency;
- evacuation plans in the event of an emergency;
- a description of the training employees have received in the evacuation and safety procedures; and
- identification of local emergency medical assistance.

HAZARDOUS MATERIALS WORKER SAFETY REQUIREMENTS

The Federal Occupational Safety and Health Administration (Fed/OSHA) and the California Safety and Health Administration (Cal/OSHA) are the agencies responsible for assuring worker safety in the handling and use of chemicals in the workplace. The federal regulations pertaining to worker safety are contained in the Code of Federal Regulations, Title 29 (29 CFR) as authorized in the Occupational Safety and Health Act of 1970. They provide standards for safe workplaces and work practices, including standards relating to hazardous materials handling. In California, Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations; Cal/OSHA standards are generally more stringent than federal regulations.

The state regulations concerning the use of hazardous materials in the workplace are included in Title 8 of the California Code of Regulations, which contain requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA also enforces hazard communication program regulations, which contain worker safety training and hazard information requirements, such as procedures for identifying and labeling hazardous substances, communicating hazard information relating to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites.

HAZARDOUS BUILDING MATERIALS

BACKGROUND

Up until the 1970's, asbestos has been used as a common building material, including use as insulation material, shingles and siding, roofing felt, floor tiles, brake linings, and acoustical ceiling material.

Asbestos is a known carcinogen, and the primary pathway of exposure is through inhalation; if asbestos is present in "friable" (easily crumbled) form, then asbestos fibers can be inhaled. Depending on the conditions of the building materials, there is a potential for airborne asbestos fibers to be present in many of the existing structures in the project area.

PCBs were commonly manufactured and used in the United States between 1929 and 1977 for uses such as electrical transformers and capacitors and fluorescent light ballasts. It is a highly toxic group of substances that remains persistent in the environment, accumulates in biological systems, interferes with reproduction and acts as an immuno-suppressant. Under the Toxic Substances Control Act, Congress specifically regulated the use of PCBs. The manufacture, processing, and commercial distribution or use of any PCB was prohibited in January 1978, except when contained in a totally enclosed manner. As of January 1979, the manufacture of PCBs was banned, while the distribution of PCBs in commerce was banned in July 1979. However, utilities and other owners of PCB-filled electric transformers and capacitors were allowed to maintain the equipment for its working life, if it did not leak. The EPA Spill Cleanup Policy dictates that spills of materials containing PCBs at concentrations of 50 parts per million (ppm) or greater be cleaned up within 48 hours after the spill. If the transformer has leaked, the oil is tested to determine the level of PCB and the subsequent cleanup requirements.

New transformers (installed after 1983) contain a nameplate that specifies the PCB content level, which is less than one part per million. If the public wants to have a transformer tested, there is a charge for the test, which varies on the size of the shutdown and the size of the transformer. If the transformer exceeds a PCB concentration of 50 ppm, the fee is refunded.

Most fluorescent light ballasts manufactured prior to 1978 contain approximately 0.5 ounces of PCBs in a small capacitor; although, the quantity can be up to two ounces. In 1978, the U.S. EPA estimated that there were approximately 850 million of these capacitors in use in the United States. Disposal of more than one pound of PCBs, or approximately 16 capacitors, to a landfill would require notification of the U.S. EPA under CERCLA. Ballasts manufactured after January 1, 1978 do not contain PCBs and should be labeled as such on the ballast.

Spent fluorescent light tubes commonly contain mercury vapors at levels high enough to be considered a hazardous waste under California law; depending on the levels of mercury present, the light tubes may also be classified as hazardous under federal law.

Lead-based paint was commonly used prior to 1960 and these paints are likely present in buildings constructed prior to 1960. Lead is toxic to humans, particularly young children, and can cause a range of human health effects depending on the level of exposure. When adhered to the surface of the material they are painted to, lead-based paints pose little health risk. Where the paint is delaminated or chipping, the paint can cause a potential threat to the health of young children or other building occupants who may ingest the paint. Lead dust could also present public health risks during demolition of a structure with lead-based paint. Lead-based paint that has separated from a structure may also contaminate nearby soil.

ASBESTOS CONTAINING MATERIALS REGULATIONS

Where demolition or renovation work will involve 100 square feet or more of asbestos-containing materials, the State law requires that the contractor be certified and that certain procedures be followed.[5] Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition permits until an applicant has demonstrated compliance notification requirements under applicable Federal regulations regarding hazardous air pollutants, including asbestos.

The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work.

Notification includes:

- The names and addresses of operations and persons responsible;
- Description and location of the structure to be demolished/altered including size, age and prior use, and the approximate amount of friable asbestos;
- Scheduled starting and completion dates of demolition or abatement;
- Nature of planned work and methods to be employed;
- Procedures to be employed to meet BAAQMD requirements; and
- The name and location of the waste disposal site to be used.

The BAAQMD randomly inspects asbestos removal operations. In addition, the BAAQMD will inspect any removal operation for which a complaint has been received.

The local office of the State Occupational Safety and Health Administration (Cal/OSHA) must be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow state regulations contained in 8CCR1529 and 8CCR341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento. The contractor and hauler of the material is required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it.

[5] Assembly Bill 2040, Asbestos 1985, Added Section 24223 and Chapter 25 to Division 20 of the Health and Safety Code.

According to the BAAQMD Regulation 11, Rule 2, if a structure is to be demolished, friable and potentially friable asbestos must be removed and disposed of properly. Workers and the public could become exposed to asbestos fibers, as they become airborne during removal.[6]

The local office of Cal/OSHA must be notified of asbestos abatement to be carried out. Asbestos contractors must follow the State regulations contained in Title 8 of the California Code of Regulations, Sections 1529 and 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos-containing materials. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. Pursuant to California law, the required permit would not be issued until the applicant has complied with the notice requirements above as well as requirements for proper waste disposal (described below).

LEAD BASED PAINT REGULATIONS

In accordance with regulatory guidance, lead-based paint waste that has been separated from building materials (such as delaminated or chipping paint) must be evaluated separately from other building materials for waste disposal purposes during building demolition. Accordingly, any chipping or delaminated paint would need to be removed before any renovation or demolition activities. Depending on the level of lead identified in the paint, it may require disposal as a hazardous waste. Building materials which still have the paint adhered to them may generally be disposed of as regular construction debris, regardless of the lead level in the paint.

The Lead in Construction Standard contained in Title 29 of the Code of Federal Regulations, Section 1926.62 applies to the removal of chipping or delaminated lead-based paint. In accordance with this standard, it will be necessary for workers to wear respiratory protection until the work is completed or until an employee exposure assessment can demonstrate that air lead levels during scraping are below the permissible exposure limit (PEL). Other applicable requirements of the standard include worker awareness training, use of protective clothing, provisions for change areas and hand washing facilities, biological monitoring, and development of a site specific compliance program. California regulations (Title 8 of the California Code of Regulations, Section 1532.1) relating to the abatement of lead-based paint are similar to the Federal regulations.

Chapter 36 of the San Francisco Building Code establishes requirements for property owners and contractors who engage in activities within San Francisco that remove or disturb lead-based paint on the exteriors of buildings and steel structures. The ordinance contains performance standards, including establishment of containment barriers that are at least as effective at protecting human health and the environment as those in the most recent *Guidelines for Evaluation and control of Lead-Based Paint Hazards* promulgated by the U.S. Department of Housing and Urban Development. Any building completed prior to 1978 would be presumed to have been painted with lead paint unless proven otherwise.

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[6] Bay Area Air Quality Management District, Rules and Regulations, Regulation 11, Rule 2, *Asbestos Demolition, Renovation and Manufacturing*, adopted May 1981.

Specific elements of this ordinance, implemented and enforced by the San Francisco Department of Building Inspection, include a requirement for a containment barrier around any work involving lead paint. For activities involving abrasive blasting, hydroblasting, scraping, or sanding of lead- painted exterior surfaces a HEPA vacuum may be required. Burning, torching, or similar activities are prohibited. Following completion of work involving lead paint, all visible lead paint contaminants must be removed from the work site.

In addition, the ordinance requires the following notification requirements when the total area of lead paint to be disturbed or removed exceeds 10 square feet:

- Notification of the DBI by the owner or contractor the nature and location of the work, prior to starting work,;
- A posted sign at all work sites where containment is required stating that lead work is in progress and that public access is prohibited;
- A posted sign at sites where lead paint is being disturbed and lead dust or soil testing indicates the presence of contaminated soil or dust. The sign would indicate the presence of the contamination identified.

POLYCHLORINATED BIPHENYLS (PCBS)

The *Code of Federal Regulations*, Title 40, contains the Toxic Substances Control Act regulations. This Act restricts the use and storage of PCB-containing transformers (defined as those containing at least 500 parts per million PCBs). The EPA also requires that all PCB-containing transformers be registered with fire protection personnel, whether in use or in storage, and that they be inspected every three months. If a leak is found, it must be contained to prevent release and exposure, and then be eliminated.

WASTE DISPOSAL REGULATIONS

All California landfills have been segregated by regulatory authority into the categories of Class I, Class II and Class III facilities. Class I facilities can accept hazardous wastes with chemical levels below the federal land disposal restriction (land ban) treatment standards. Class II and III facilities can accept non-hazardous wastes that meet acceptance criteria determined by the State for organic and inorganic compounds; each landfill has individual acceptance criteria.

The disposal of soil is regulated by the RWQCB and will be predicated on the concentrations of the chemical constituents that are present. Soil with total petroleum hydrocarbon or organic compound concentrations above the detection limit must be disposed of at an appropriately landfill facility or treated to reduce the levels of chemicals in the soil; the concentration of the compounds present will determine the appropriate type of disposal facility. In general, soil with total petroleum hydrocarbon levels up to 100 milligrams per kilogram can be disposed of at a Class III disposal facility. If the concentration is between 100 and 1,000 milligrams per kilogram and be disposed of at a Class II disposal facility and if the concentration is greater than 1,000 milligrams per kilogram, Class I disposal would be required.

The disposal alternative is also predicated on the total and soluble concentrations of metals. Soil with total metal concentrations that are above the Total Threshold Limit Concentration (TTLC) and soluble metal concentrations that are above the Soluble Threshold Limit Concentration (STLC) must be disposed of at a Class I disposal facility or treated.[7] The Class II and III landfills in the Bay Area have acceptance criteria for lead that are lower than the STLC.

Soil with no concentrations of organic chemicals above detection limit and total and soluble metal concentrations that are below the TTLC and STLC may be used on-site or transported off-site as unrestricted waste.

Lead-based paint would be considered a hazardous waste because the total lead concentration would be greater than the TTLC of 1,000 milligrams per kilogram. It would be necessary to dispose of the paint at a Class I facility.

The California Department of Toxic Substances Control has classified friable, finely divided and powdered wastes containing greater than one- percent asbestos as a hazardous waste.[8] A friable waste can be reduced to powder or dust under hand pressure when dry. Non-friable asbestos-containing wastes are not considered hazardous and are not subject to regulation under Title 22, Division 4.5 of the California Code of Regulations. The management of these wastes would still be subject to any requirements or restrictions, which may be imposed by other regulatory agencies. The State standard for classification of asbestos wastes is contained in Section 66261.24 of Title 22 of the California Code of Regulations. Asbestos is not currently regulated as a hazardous waste under the RCRA; because of this it is considered a non-RCRA waste. Asbestos wastes, totaling more than 50 pounds, must be transported by a registered waste hauler to an approved treatment, storage or disposal facility.

Wastes containing asbestos may be disposed of at any landfill, which has waste discharge requirements issued by the RWQCB, which allow disposal of asbestos-containing materials, provided that the wastes are handled and disposed of in accordance with the Toxic Substances Control Act, the Clean Air Act's National emission Standards for Hazardous Air Pollutants, and Title 22 of the Code of California

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[7] The total threshold limit concentration (TTLC) and the soluble threshold limit concentration (STLC) are criteria used for waste classification purposes. If the waste contains a total concentration of a constituent and a concentration greater than the TTLC, it is considered a hazardous waste. If the total concentration is greater than ten times the STLC, then it would be necessary to perform a waste extraction test to determine the soluble concentration. If the soluble concentration is greater than the STLC, the waste would be considered hazardous. The waste extraction test involves a ten times dilution of the sample; because of this, it would be impossible for the soluble concentration to exceed the STLC unless the total concentration exceeded ten times the STLC.

[8] California Department of Toxic Substances Control, *Fact Sheet, Asbestos Handling, Transport and Disposal*, October 1993.

Regulations (Division 4.5). The Department of Toxic Substances Control also has treatment standards for asbestos-containing wastes, which require submittal of a notification and certification form to the land disposal facility as well as wetting and containment of the asbestos-containing materials.

The owner of properties where hazardous waste are produced or abatement would occur must have a Hazardous Waste Generator Number assigned by and Registered with, the California Department of Toxic Substances Control in Sacramento. The contractor and hauler of the material are required to file a Hazardous Waste Manifest, which details the hauling of the material from the site and the disposal of the material.

CHAPTER X

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