# **APPENDIX I**

# 2002 MITIGATION MONITORING AND REPORTING PROGRAM

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#### 2. DETAILED MITIGATION DESCRIPTIONS 1

- 2 The text of this chapter provides detail of each mitigation measure, and is a companion to the 3 MMRP table that comprises Chapter 1 of this document.
- 4 The following text is presented by environmental factor. Each section presents the mitigation for 5 impacts affecting that particular environmental factor. For each mitigation measure, the following 6 information is provided:
- 7 the mitigation measure as stated in the MMRP Table in Chapter 1; •
- 8 the impacts the measure mitigates; and •
- 9 a more detailed description of each mitigation measure, where necessary.
- 10 In the detailed discussion of mitigation measures, the work "should" or "may" indicates a 11 preference or option for action, but not a requirement. The word "shall" indicates a required 12 element of the mitigation measure.
- 13 As noted in the Introduction and in footnote a in Chapter 1, the two Mitigation Measures 14 highlighted in gray (Mitigation 4.1-1 and Mitigation 4.6-13) do not apply to the Reuse Plan.

#### 2.1 PLANS AND POLICIES 15

- 16 Mitigation 4.1-1: Amend the Bay and Seaport plans to eliminate, where necessary, Port Priority Use designations within the 16<sup>th</sup>/Wood sub-district. 17
- 18 This measure applies to Impact 4.1-2.
- 19 When plans for the Port's 15 acres of AMS uses are finalized, the City and Port shall make 20 application to BCDC to amend the plans to remove Port Priority designation from some or all of 21 the 16<sup>th</sup>/Wood sub-district. The City and Port shall demonstrate to BCDC that 2020 throughput 22 projections can be achieved without use of this area for Port Priority uses.
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#### 2.2 LAND USE 25

- 26 Mitigation 4.2-1: The City shall ensure that Gateway development area redevelopment 27 activities adjacent to Port of Oakland industrial maritime facilities are designed to minimize any 28 land use incompatibilities to the extent feasible.
- 29 This measure applies to Impact 4.2-1.
- 30 Design of Gateway development area activities adjacent to Port activities at New Berth 21 shall be designed to avoid or minimize land use incompatibilities through such measures as, the 31

placement of least sensitive elements (such as parking, waste collection, storage, etc.) toward
 Port facilities. The City shall take compatibility of uses into consideration during planning and
 design review.

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5 **Mitigation 4.2-2:** If any land use incompatibility is subsequently identified, the Port of Oakland 6 shall use its best efforts, consistent with meeting cargo throughput demand, to locate maritime 7 activities that could result in land use incompatibilities as far away from the property boundary 8 as feasible.

9 This measure applies to Impact 4.2-1.

10 The Port of Oakland shall design its New Berth 21 facility to avoid or minimize land use 11 incompatibilities by locating to the extent feasible the most noisy, most polluting, and least 12 attractive of its elements away from the Gateway/Port development area boundary.

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Mitigation 4.2-3: Mitigation 4.2-3: The City and Port shall coordinate to implement Mitigation
 Measures 4.2-1 and 4.2-2. The City and Port shall cooperatively coordinate regarding the types
 of land uses to be developed at the coterminous boundary of their respective jurisdictions.

- 17 This measure applies to Impact 4.2-1.
- 18 The City and Port shall cooperatively coordinate regarding the types of land uses to be 19 developed at the coterminous boundary of their respective jurisdictions.

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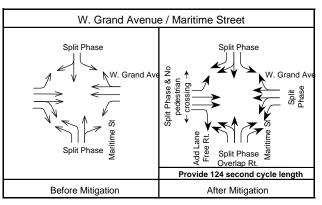
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## 22 2.3 TRANSPORTATION AND TRAFFIC

23 West Mitigation 4.3-1: Grand 24 Avenue/Maritime Street. As part of the design 25 for the realignment of Maritime Street, project 26 area developers shall fund on a fair-share basis modifications Grand 27 to the West 28 Avenue/Maritime Street intersection.

29This measure applies to Impact 4.3-1 and30Cumulative Impact 5.3-1.

The following modifications shall be made at
the West Grand Avenue/Maritime Street
intersection:



1. Revise northbound Maritime Street lanes to provide:

1	a. 1 left turn lane
2	b. 1 combination left-through lane
3	c. 2 right turn lanes with overlap signal phasing (green arrow)
4	2. Revise southbound Maritime Street (formerly Wake Avenue) lanes to provide:
5	a. 1 left turn lane
6	b. 1 combination through-right lane
7	c. 1 right-turn lane
8	3. Revise eastbound West Grand Avenue exit ramp to provide:
9	a. 1 left turn lane
10	b. 2 through lanes
11 12	<ul> <li>c. 1 right turn lane with a receiving third southbound lane south of the intersection (free right)</li> </ul>
13	4. Revise westbound West Grand Avenue to provide:
14	a. 1 left turn lane
15	b. 1 combination left-through lane
16	c. 1 combination through-right lane
17 18	5. Provide split signal phasing for east and westbound traffic movements on West Grand Avenue
19	6. Increase the traffic signal cycle length to 124 seconds.
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21 22 23	<b>Mitigation 4.3-2:</b> <i>West Grand Avenue/I-880 Frontage Road.</i> Project area developers shall fund, on a fair share basis, modifications to the West Grand Avenue/I-880 Frontage Road intersection.
24	This measure applies to Impact 4.3-1 and Cumulative Impact 5.3-1.
25 26 27	The following modifications shall be made at the West Grand Avenue/I-880 Frontage Road intersection:
28 29	1. Revise the northbound Frontage Road lanes to provide:
30	a. 1 left-turn lane
31	b. 1 combination left-through lane
32	c. 1 combination through-right lane Before Mitigation (Existing) After Mitigation
	Before Mitigation (Existing) After Mitigation

1	d. 1 right-turn lane			
2	2. Revise the southbound I-80 East Ramp lanes to provide:			
3	a. 1 left-turn lane			
4	b. 1 through lane			
5	c. 1 right-turn lane with overlap signal phasing (green arrow)			
6	3. Revise the eastbound West Grand Avenue lanes to provide:			
7	a. 2 left-turn lanes			
8	b. 1 through lane			
9	c. 1 combination through-right lane			
10	4. Revise the westbound West Grand Avenue lanes to provide:			
11	a. 2 left-through lanes			
12	b. 1 through lane			
13	c. 1 combination through-right lane			
14	d. 1 right-turn lane			
15	5. Increase the traffic signal cycle length to 124 seconds.			
16	* * *			
17 18 19	<b>Mitigation 4.3-3:</b> 7 <sup>th</sup> /Maritime Street. As part of the design for the realignment of Maritime Street, project area developers shall fund on a fair-share basis modifications to the 7th/Maritime Street intersection.			
20	This measure applies to Impact 4.3-1 and Cumulative Impact 5.3-1.			
21	The following modifications shall be made at the			
22	7 <sup>th</sup> /Maritime Street intersection:			
23 24	1. Revise the southbound Maritime Street lanes			
25	a. 1 left-turn lane $3 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + $			
26	b. 1 combination left-through lane			
27	c. 1 combination through-right lane			
28 29	2. Revise the westbound 7 <sup>th</sup> Street lanes to provide:			
30	a. 2 left-turn lanes			
31	b. 2 through lanes			

- c. 1 right-turn lane with overlap signal phasing (green arrow)
- 3. Provide split signal phasing for the north and southbound traffic movements on Middle Harbor Road.

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5 **Mitigation 4.3-4:** The City and Port, in consultation with transit agencies, shall jointly create and 6 maintain a transit access plan(s) for the redevelopment project area designed to reduce 7 demand for single-occupant, peak hour trips, and to increase access to transit opportunities. 8 Major project area developers shall fund on a fair share basis the plan(s).

9 This measure applies to Impact 4.3-2 and Cumulative Impact 5.3-2.

10 The Transit Access Plan shall be funded on a fair-share basis by major project area developers, 11 defined as developers of more than 20,000 square feet of employment-generating space, or 12 developers who would generate more than 100 job opportunities.

The City shall establish a Transportation Enhancement Association or other similar funding mechanism whereby developers will contribute their fair share to the Transit Access Plan. The plan shall include transportation demand management strategies designed to reduce peak hour trip generation, including but not limited to the following:

- Fund a transit coordinator to assist employers and employees in the project area;
- Transit user subsidies including the bulk purchase of transit passes;
- Implementation of a parking cash-out program. A parking cash-out program is an employerfunded program in which an employer offers to provide a cash allowance to an employee equivalent to the parking subsidy that the employer would otherwise pay to provide the employee with a parking space. The ACCMA estimates that such programs reduce employee commute traffic by five percent from previous non-monetary incentive-based programs and reduced parking utilization by an estimated three percent;
- Flex-time schedules;
- Telecommuting;
- Utilization of site design standards that would benefit transit, pedestrians, and bicyclists;
- Preferential parking for carpools and vanpools;
- Rideshare matching programs;
- Guaranteed Ride Home program (provides carpool and vanpool participants with a vehicle in an emergency or if they cannot leave at their usual times; and
- Funding for City and/or Port monitoring of the programs.

The plan shall include strategies designed to promote transit use and increase availability of transit opportunities within the project area, including, but not limited to the following:

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- Coordination with AC Transit to provide expanded bus service with no greater than 30 minute peak commute hour headways to major employment centers.
- Coordination with BART to provide shuttle service with no greater than 15 minute peak commute hour headways between the West Oakland BART station and major employment centers
- Provision of employer incentives to use alternative transit modes, such as "Flash" passes or transit reimbursements
- 8 These measures shall be coordinated with BAAQMD and CAP Transportation Control Measures
  9 (TCMs) implemented under Mitigation Measure 4.4-5.
- 10 The Transit Access Plan shall be funded at a level that would enable the goal of a 15 percent 11 reduction in single-occupancy, peak hour ridership.

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- Mitigation 4.3-5: Redevelopment elements shall be designed in accordance with standard
   design practice and shall be subject to review and approval of the City or Port design engineer.
- 15 This measure applies to Impact 4.3-3 and Cumulative Impact 5.3-3.
- 16 Through design review, the City and/or Port, as applicable, shall ensure the design of roadways, 17 bicycle and pedestrian facilities, parking lots, and other transportation features comply with 18 design standards and disallow design proposals that likely to result in traffic hazards. Any 19 mitigation or redevelopment features that may directly affect Caltrans facilities shall be 20 submitted for review by that agency.
- 21 \*\*\*
- Mitigation 4.3-6: The Port shall fund signage designating through transport truck prohibitions
   through the interior of the Gateway development area.
- 24 This measure applies to Impact 4.3-3 and Cumulative Impact 5.3-3.
- 25 Realigned Maritime Street (the "loop road") would be designed and constructed for use by heavy trucks destined to and from the Port area. An internal Gateway development area access 26 27 road will connect realigned Maritime Street to existing Maritime Street and could potentially 28 provide a shortcut to West Grand Avenue for truck operators. To reduce the use of this road as 29 a shortcut, the Port shall fund signage that shall be installed to clearly notify truck operators that 30 through traffic is prohibited along the access road and existing Maritime Street. Should truck 31 operators not comply, the Port shall continue to fund, and may also increase funding for an enforcement program to ensure compliance, particularly after the new streets are opened to 32 33 traffic.

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- Mitigation 4.3-7: The City and the Port shall continue and shall work together to create a truck
   management plan designed to reduce the effects of transport trucks on local streets. The City
   and Port shall fund on a fair share basis, implementation of this plan.
- 4 This measure applies to Impact 4.3-3 and Cumulative Impact 5.3-3.
- 5 The truck management plan may include, and is not limited to, the following elements:
- 6 Analyze truck traffic in West Oakland;
  - Traffic calming strategies on streets not designated as truck routes designed to discourage truck through travel;
- 9 Truck driver education programs;
- Expanded signage, including truck prohibitions on streets not designated as truck routes;
- Traffic signal timing improvements;
- Explore the feasibility of truck access to Frontage Road;
- Roadway and terminal gate design elements to prevent truck queues from impeding the
   flow of traffic on public streets; and
- Continue Port funding of two police officers to enforce truck traffic prohibitions on local streets.
- 17 \*\*\*
- Mitigation 4.3-8: Provide an emergency service program and emergency evacuation plan using
   waterborne vessels.
- 20 This measure applies to Impact 4.3-4 and Cumulative Impact 5.3-4.

The City shall provide emergency access to the OARB sub-district by vessel. The area is currently served by fire boat out of the Jack London Square Fire Station. The City may elect to equip that fire boat with first response medical emergency personnel as well as limited hazardous materials response personnel and equipment (see also Mitigation Measure 4.9-1). Major developers shall fund these improvements on a fair share basis.

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- 27 **Mitigation 4.3-9:** Redevelopment plans shall conform to City of Oakland or Port development 28 standards with facilities that support transportation alternatives to the single-occupant 29 automobile.
- 30 This measure applies to Impact 4.3-5.

- Facilities that support transportation alternatives to the single-occupant automobile may include,
   and are not limited to, bus turnouts, bicycle racks, on-site showers, on-site lockers, and
   pedestrian and bicycle ways.
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5 **Mitigation 4.3-10:** The number of parking spaces provided in the project area shall comply with 6 City Code or Port requirements, and/or with recommendations of a developer funded parking 7 demand analysis.

8 This measure applies to Impact 4.3-6 and Cumulative Impact 5.3-5.

9 Through project review, the City and/or Port shall ensure an adequate supply of parking spaces 10 will be provided. Major redevelopment project area developers shall fund on a fair share basis a 11 project area-wide, or potentially a sub-area specific parking demand study that shall take into 12 consideration the TDM programs and policies developed through Mitigation Measure 4.3-4.

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Mitigation 4.3-11: During both construction and operation, the Port shall provide truck parking
 within the Port development area or Maritime sub-district, at a reasonable cost to truck
 operators and provide advance information to operators where the parking is located.

17 This measure applies to Impact 4.3-6 and Cumulative Impact 5.3-5.

18 The Port shall continue its current program of providing sufficient facilities for independent truck 19 operators parking outside the marine terminal gates and outside the West Oakland community. 20 It is important to maintain accessible areas for use by truckers at the Port during construction as 21 well as after redevelopment to minimize impacts on adjacent neighborhoods.

- The Port currently provides subsidized parking to independent truck owner/operators to reduce tractor and trailer parking in West Oakland. Truck parking space is leased at a cost of \$50 per chassis and \$75 per truck-trailer combination per month. The Port also provides advance information to truck operators regarding locations available for independent truck operator parking during development of permanent ancillary maritime support facilities. This measure requires the Port maintain such programs at a reasonable cost to independent truck operators so they will be encouraged to use on-site Port-area parking facilities.
- 29 \*\*\*
- Mitigation 4.3-12: The City and Port shall provide detailed information regarding redevelopment to BART to enable BART to conduct a comprehensive fare gate capacity assessment at the West Oakland BART station. Pending the results of this assessment, the City and the Port may need to participate in funding the cost of adding one or more fare gates at the West Oakland BART station.
- 35 This measure applies to Impact 4.3-9 and Cumulative Impact 5.3-8.

BART staff's preliminary assessment is that no new fare gates would be required, but the City and Port should coordinate with BART to confirm this is the case. Uncongested fare gates are required to encourage BART ridership.

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5 **Mitigation 4.3-13:** Prior to commencing hazardous materials or hazardous waste remediation, 6 demolition, or construction activities, a Traffic Control Plan (TCP) shall be implemented to 7 control peak hours trips to the extent feasible, assure the safety on the street system and 8 assure that transportation activities are protective of human health, safety, and the environment.

- 9 This measure applies to Impact 4.3-11.
- 10 Construction and remediation TCPs shall be designed and implemented to reduce to the 11 maximum feasible extent traffic and safety impacts to regional and local roadways.
- 12 The TCP shall address items including but not limited to: truck routes, street closures, parking 13 for workers and staff, access to the project area and land closures or parking restrictions that 14 may require coordination with and/or approval by the City, the Port and/or Caltrans. The TCP 15 shall be submitted to the City Traffic Engineering and Planning divisions or the Port, as 16 appropriate, for review and approval prior to the issuance of any building, demolition or grading 17 permits. The City and the Port shall coordinate their respective approvals to maximize the 18 effectiveness of the TCP measures. DTSC would have ongoing authority under its Remedial 19 Action Plan/Remedial Monitoring Plan oversight and the Hazardous Substances Account Act to 20 regulate remediation transportation activities, which must be protective of human health, safety 21 and the environment.
- 22 Remediation and demolition/construction traffic shall be restricted to designated truck routes 23 within the City, and the TCP shall include a signage program for all truck routes serving the site 24 during remediation or demolition/construction. A signage program details the location and type 25 of truck route signs that would be installed during remediation and demolition/construction to 26 direct trucks to and from the project area. Truck access points for entry and exit should be 27 included in the TCP. In addition, as determined by City of Port staff, the developer shall be 28 responsible for repairing any damage to the pavement that is caused by remediation or 29 demolition/construction vehicles for restoring pavement to pre-construction conditions.
- Remediation and demolition/construction-related trips will be restricted to daytime hours, unless
   expressly permitted by the City or the Port, and to the extent feasible, trips will be minimized
   during the a.m. and p.m. peak hours.
- The TCP shall identify locations for construction/remediation staging. Remediation staging areas are anticipated to be located near construction areas, since remediation will be largely coordinated with redevelopment. In addition, the TCP shall identify and provide off-street parking for remediation and demolition/construction staff to the extent possible throughout all phases of redevelopment. If there is insufficient parking available within walking distance of the site for workers, the developer shall provide a shuttle bus or other appropriate system to transfer workers between the satellite parking areas and remediation or demolition/construction site.

1 The TCP shall also include measures to control dust, requirements to cover all loads to control 2 odors, and provisions for emergency response procedures, health and safety driver education, 3 and accident notification.

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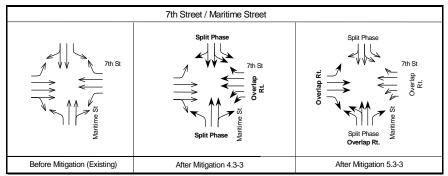
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Mitigation 5.3-1: 7th/Maritime Street. Project area developers shall fund a fair share of 5 additional modifications at the 7<sup>th</sup> /Maritime Street intersection.

Improvements for cumulative effects shall include the following:

- 1. Revise the northbound Maritime Street lanes to provide:
  - a. 1 left-turn lane
  - b. 1 combination leftthrough lane
  - c. 1 through lane
  - d. 1 right-turn lane with overlap signal phasing (green arrow)



- 2. Revise the eastbound 7<sup>th</sup> Street lanes to provide:
  - d. 1 left-turn lane
  - e. 2 through lanes
  - 1 right-turn lane with overlap signal phasing (green arrow) f.
    - \* \* \*

Mitigation 5.3-2: 7th Street/I-880 Northbound Ramps. Project area developers shall fund a fair

share of modifications at the 7<sup>th</sup> Street/I-880 Northbound ramp.

26 Improvements for cumulative effects shall include 27 the following:

- 1. Revise the northbound I-880 ramp lanes to provide:
  - a. 1 left-turn lane
  - b. 1 combination left-through lane
  - c. 1 through-right lane

7th Street / I-880 Northbound Ramp 7th St Before Mitigation (Existing) After Mitigation

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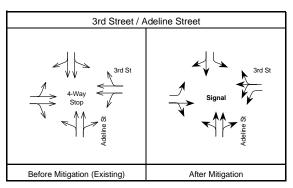
- Mitigation 5.3-3: 3<sup>rd</sup>/Adeline Street. Project area developers shall fund a fair share of the modifications at the 3<sup>rd</sup>/Adeline Street intersection. 2
  - Improvements for cumulative effects shall include the following:
    - 1. Convert the traffic signal that is currently functioning as a flashing beacon to a fully operational traffic signal.
      - 2. Provide permitted phasing for the northbound Adeline Street left-turning movement.
    - 3. Revise the southbound Adeline Street lanes to provide:
      - a. 1 left-turn lane
      - b. 1 combination through right-lane lane
    - 4. Revise the eastbound 3<sup>rd</sup> Street lanes to provide:
      - a. 1 left-turn lane
      - b. 1 combination through-right lane
    - 5. Revise the westbound 3<sup>rd</sup> Street lanes to provide:
      - a. 1 left-turn lane
      - b. 1 combination left-through-right lane
- \* \* \*

Mitigation 5.3-4: 3rd/Market Street. Project area developers shall fund a fair share of 21 modifications at the 3<sup>rd</sup>/Market Street intersection. 22 3rd Street / Market Street

23 Improvements for cumulative effects shall include 24 the following:

- 1. Install 4-way stop sign control.
- 2. Revise the westbound 3rd Street lanes to provide:
  - a. 1 combination left-through lane
  - b. 1 right-turn lane

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Before Mitigation (Existing)

After Mitigation

1 **Mitigation 5.3-5:** *12<sup>th</sup> /Brush Street.* Project area developers shall fund a fair share of 2 modifications to the 12<sup>th</sup>/Brush Street intersection to increase the signal cycle length to 102 3 seconds.

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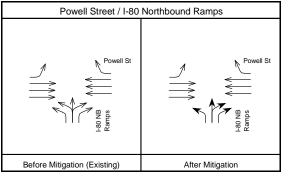
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5 Mitigation 5.3-6: *Powell Street/I-80 Northbound Ramps.* Project area developers shall fund a

6 fair share of modifications at the Powell Street/I-807 northbound ramps intersection.

8 Improvements for cumulative effects shall include9 the following:

- 1. Revise the northbound I-80 ramp lanes to provide:
  - a. 1 left-turn lane
  - b. 1 combination through-right lane
  - c. 1 right-turn lane



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- Mitigation 5.3-7: The City and Port shall cooperatively develop a program that combines
   multiple strategic objectives and implementation tools designed to reduce cumulative truck
   parking and other AMS impacts.
- 19 This program should consider strategies that may include, but should not be limited to the 20 following:
  - Pursue truck traffic mitigation steps, information strategies, and rail intermodal strategies.
- Identify potential land swaps and utilize additional small parcels of land in the vicinity of
   the port, especially for truck parking and support services.
- Prioritize the use of harbor-area land for core services, maximize the efficient use of harbor-area land and facilities, and reduce the impacts in adjacent neighborhoods.
- Promote intensive land use (doing more with less) and extended terminal gate hours.
- Actively encourage relocation of selected services to other Oakland, East Bay, or
   Northern California (Hinterland Loop) locations.
- Develop multi-user facilities in Oakland or in corridor locations (e.g., Richmond and San
   Leandro) for both core and non-core services.

# 1 Implementation of such a program may take many years, and the success of the program 2 cannot be ascertained at this time. Therefore, this cumulative impact remains significant and 3 unavoidable.

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5 **Mitigation 5.3-8:** The City and Port shall work with BART <u>and AC Transit</u> to ensure adequate 6 BART train <u>and AC Transit</u> capacity will be available for riders to and from the redevelopment 7 project area, and possibly fund, on a fair share basis, BART train <u>and AC Transit</u> capacity 8 improvements.

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#### 11 2.4 AIR QUALITY

- Mitigation 4.4-1: Contractors shall implement all BAAQMD "Basic" and "Optional" PM<sub>10</sub> (fugitive dust) control measures at all sites, and all "Enhanced" control measures at sites greater than four acres.
- 15 This measure applies to Impact 4.4-1 and Cumulative Impact 5.4-1.
- 16 The following BAAQMD fugitive dust control measures shall be implemented as indicated at 17 construction sites, and shall be enforced through contract specifications.

		DAAGinD Tug	jitive Dust Control Measures
Control Measure	BAAQMD Category	Emission Source Controlled	Measure
1	Basic	Land	Water all active construction areas at least twice daily
2	Basic	Trucks	Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 fee of freeboard.
3	Basic	Land	Pave, apply water 3 times daily, or apply (nontoxic) soi stabilizers on all unpaved access roads, parking areas and staging areas, at construction sites.
4	Basic	Land	Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
5	Basic	Streets	Sweep streets daily (with water sweepers) if visible soi material is carried onto adjacent public streets.
6	Enhanced	Land	Hydroseed or apply (nontoxic) soil stabilizers to inactiv construction areas (previously graded areas inactive for 10 days or more).

		BAAQMD Fug	itive Dust Control Measures
Control Measure	BAAQMD Category	Emission Source Controlled	Measure
7	Enhanced	Stockpiles	Enclose, cover, water twice daily or apply (nontoxic) soil binders to exposed stockpiles (dirt, sand, etc.)
8	Enhanced	Streets	Limit traffic speeds on unpaved roads to 15 mph.
9	Enhanced	Land	Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
10	Enhanced	Land	Replant vegetation in disturbed areas as quickly as possible.
11	Optional	Land	Limit the area subject to excavation, grading, and other construction activity at any one time.
12	Optional	Land	Suspend excavation and grading activity when sustained <sup>a</sup> wind speeds exceed 25 mph.
13	Optional	Trucks	Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.

**Source:** BAAQMD, 1996 as revised through 1999. Table 2.

**Note:** <sup>a</sup> Modified as per the Berths 55-58 EIR.

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1 **Mitigation 4.4-2:** Contractors shall implement exhaust control measures at all construction 2 sites.

This measure applies to Impact 4.4-2 and Cumulative Impact 5.4-1.

Exhaust control measures shall be implemented where feasible at each construction site, and may include, but not be limited to the following:

Exhaust Control Measures		
Measure		
Prohibit truck idling in excess of 2 minutes		
Use electricity from power poles rather than generators		
Limit the size of construction equipment engines to the minimum practical size		
Configure construction equipment with two to four degree engine timing retard or pre- combustion chamber engines		
Install high pressure injectors on diesel construction equipment		
Install soot traps		

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Exhaust Control Measures		
Control Measure	Measure	
7	Install catalytic oxidizers	
8	Minimize concurrent operation of vehicles	
9	If they are available in the air basin, purchase emission offsets if ROG or $NO_x$ emissions from construction where emissions exceed 6 tons/quarter	

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**Mitigation 4.4-3:** The Port shall develop and implement a criteria pollutant reduction program aimed at reducing or off-setting Port-related emissions in West Oakland from its maritime and rail operations to less than significant levels, consistent with applicable federal, state and local air quality standards. The program shall be sufficiently funded to strive to reduce and/or off-set emissions from redevelopment related contributors contributions to local West Oakland air quality, and shall continually reexamine potential reductions toward achieving less than significant impacts as new technologies emerge. The adopted program shall define measurable reductions within specific time periods. to the maximum extent feasible.

9 This measure applies to Impact 4.4-3 and Cumulative Impact 5.4-1.

10 This program shall be periodically reviewed and updated every one to three years, 11 corresponding to regular updates of the CAP. The review and update shall include, and not be 12 limited to, an assessment of any potential new strategies, a reassessment of funding 13 requirements, technical feasibility, and cost benefit assumptions. Periodic updates shall be 14 submitted to the City/Port Liaison Committee or its equivalent.

- The pollutant reduction program shall give priority to emission reduction strategies that address PM<sub>10</sub> emissions, but shall also provide for reductions in NO<sub>x</sub> and ROG emissions. The emission reduction program shall include a list of potential emission reduction strategies. Strategies that shall be included in the program and implemented over the buildout period include:
- The Port shall expand its existing cargo handling equipment re-powering and retrofitting
   program (part of the Berths 55-58 Project air quality mitigation program) to include
   marine and rail terminal yard equipment added or relocated as part of redevelopment
   build-out.
- The Port shall extend its grant program (part of the Berths 55-58 Project air quality mitigation program) to provide financial incentives to tugboat operators at New Berth 21 and other Port facilities to implement emission reduction control measures or to replace tugboat engines to low NO<sub>x</sub> technology.
- The Port shall require rail terminal operators to use switch engines at the New
   Intermodal Facility that comply with federal air emission regulations for diesel operated

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- locomotives as set forth in federal air regulations. In addition, the rail terminal operator and the Port are to exchange information with the goal of investigating options to accelerate compliance with Tier 0, 1 and 2 requirements of the federal regulations.
- The Port shall not preclude in its design of the New Intermodal Facility the installation of
   an alternative fueling station and shall to the extent feasible accommodate such a fueling
   station.
  - The Port shall encourage ships to implement source control technologies when in the port area (such as reduced hoteling).
- 9 Other strategies to be included in the Port criteria pollutant reduction program when technically 10 and economically feasible, include:
  - Inclusion of an alternative fueling facility at the New Intermodal Facility.
- 12 **\* \* \***
- Mitigation 4.4-4: The City and the Port shall jointly create, maintain and fund on a fair share basis, a truck diesel emission reduction program. The program shall be sufficiently funded to strive to reduce and/or off-set-redevelopment related contributions to local West Oakland diesel emissions to less than significant levels, consistent with applicable federal, state and local air quality standards. The adopted program shall define measurable reduction within specific time periods. to the maximum extent feasible.
- 19 This measure applies to Impact 4.4-3 and Cumulative Impact 5.4-1.
- This program shall be periodically reviewed and updated every one to three years, corresponding to regular updates of the CAP. The review and update shall include, and not be limited to, an assessment of any potential new strategies, a reassessment of funding requirements, technical feasibility, and cost benefit assumptions. Periodic updates shall be submitted to the City/Port Liaison Committee or its equivalent.
- The diesel emissions reduction program shall include a list of potential emission reduction strategies that shall include on-site Port improvements and/or practices; loan, grant or incentivebased programs; and on-going studies.
- 28 Strategies that shall be included in the diesel emissions reduction program and implemented 29 over the build-out period include the following:
- 30 1. On-site Port improvements.
  - Configure truck parking in the Port to minimize traffic interference and reduce idling times.
  - Allow easy access to a truck parking facility at the Port 24-hours a day.

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- Synchronize traffic lights in the Port area to reduce congestion (requires coordination with the City).
- 2. City/Port loan or grant/incentive programs for local businesses or entities.
  - Provide incentives for re-powering, retrofitting, electrifying, or switching to alternative fuels to local businesses, franchises or truck fleets operating in West Oakland. Such businesses may include, for example, locally owned and operated trucking operations, refuse and recycling collection vehicles, school buses, Port and/or City fleet vehicles, and US Mail trucks.

9 Other strategies to be included in the diesel emissions reduction program to be examined and 10 incorporate when technically and economically feasible, include the following:

- 11 1. On-site Port improvements.
  - Allow trucks using alternative fuels to the head of queues or have separate gate entrances.
- 14 2. On-going studies.
  - Explore methods to minimize truck idling times at the Port.
  - Explore and encourage the use of alternative fuels for Port marine, rail and truck operations.
- Propose and fund a random roadside heavy duty diesel vehicle (HDDV)
   emissions testing program and an HDDV repair subsidy program.
- 20 3. City/Port loan or grant/incentive programs for local businesses or entities.
- Provide subsidies, training programs and/or voucher programs for local West
   Oakland businesses to conduct timing retard, compressions changes and other
   adjustments to diesel engines to reduce emissions.
- Install oxidative catalyst and particulate traps on diesel engines with low NOx,
   alternatively fueled or electrified engines.

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  - Mitigation 4.4-5: Major developers shall fund on a fair share basis BAAQMD-recommended
     feasible Transportation Control Measures (TCMs) for reducing vehicle emissions from
     commercial, institutional, and industrial operations, as well as all CAP TCMs the BAAQMD has
     identified as appropriate for local implementation.
  - 31 This measure applies to Impact 4.4-4 and Cumulative Impact 5.4-1.

Each major developer of a subsequent redevelopment activity shall fund its fair share toward
 some or all of the following TCMs:

Control	
Measure	Measure
1	Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc. Improve transit bus service to the area.
2	Design and locate buildings to facilitate transit access, e.g., locate building entrances near transit stops, eliminate building setbacks, etc.
3	Provide and make public transit convenient for 16 <sup>th</sup> and Wood sub-district residents and tenants
4	Encourage OARB sub-district tenants to use car pools, vanpools, and public transit by providing incentives.
5	Provide a shuttle to and from the West Oakland BART station
6	Provide on-site shops and services for employees, such as cafeteria, bank, dry cleaners, convenience market, etc.
7	Provide on-site child care, or contribute to off-site child care within walking distance.
8	Establish mid-day shuttle service from worksite to food service establishments/commercial areas.
9	Provide preferential parking for carpool and vanpool vehicles
10	Implement parking fees for single occupancy vehicle commuters.
11	Provide secure, weather-protected bicycle parking for employees.
12	Provide safe, direct access for bicyclists to adjacent bicycle routes.
13	Provide showers and lockers for employees bicycling or walking to work.
14	Provide direct, safe, attractive pedestrian access from project to transit stops and adjacent development.
15	Provide neighborhood-serving shops and services within or adjacent to the 16 <sup>th</sup> and Wood sub-district.

**Source:** BAAQMD 1996, as amended through 1999. Based on Table 15: "Mitigation Measures for Reducing Moto Vehicle Emissions from Commercial, Institutional, and Industrial Projects."

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Each major developer of a subsequent redevelopment activity shall also fund its fair share of the following CAP TCMs, which the BAAQMD has identified as appropriate for local implementation, with redevelopment-specific modifications:

CAP TCMs	Description		
1. Support Voluntary Employer-Based Trip Reduction Programs	The City and Port will explore ways to promote transit use and support employer-based trip reduction programs through development incentives such as density bonuses, reduced parking requirements, incentives for permanent bicycle facilities, etc.		
	The City will encourage development of transit transfer stations near employment concentrations in the Gateway development area and 16 <sup>th</sup> /Wood sub-district.		
9. Improve Bicycle Access and Facilities	Redevelopment includes extensive multi-use trails serving as both "spine" thoroughfares and "spurs" connecting main trails to the Oakland waterfront.		
	The City and Port will encourage employers and developers to provide permanent bicycle facilities.		
12. Improve Arterial Traffic Management	Maritime Street and other roadways in the project area will include facilities to encourage bicycling and walking.		
	Roadways and intersections will be designed to operate at City-standard LOS, to facilitate traffic flow and avoid unnecessary queuing.		
15. Local Clean Air plans, Policies and Programs	Redevelopment as presented in Chapter 3: Description, and including mitigation measures described in Chapter 4: Setting and Baseline, Impacts, and Mitigation, incorporates land uses such as live/work, and measures intended to reduce the number and length of single-occupant automobile trips.		
17. Conduct Demonstration Projects	The City will encourage through development incentives demonstration projects for fleet electrification or alternative fueling. In addition, the Port will not preclude alternative fueling in its design of rail facilities.		
19. Pedestrian Travel	OARB and Maritime sub-districts will include multi-use trails to encourage safe pedestrian travel.		
20. Promote Traffic Calming Measures	Redevelopment will include traffic calming measures to the extent appropriate, consistent with the General Plan and sound traffic management of the project area.		
Source: BAAQMD CEQA Guidelines, revised 1999 Table 5.			

These TCMs shall be coordinated with transportation demand management (TDM) measures implemented under Mitigation Measure 4.3-4.

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Mitigation 4.4-6: Title 24 of the Uniform Building Code (UBC) requires that new construction
 include energy-conserving fixtures and designs. Additionally, the City and Port shall implement
 sustainable development policies and strategies related to new development design and
 construction.

- 1 This measure applies to Impact 4.4-5.
- Implementation of UBC requirements would reduce the need for space and water heating thatwould emit pollutants.
- 4 City and Port policies and strategies shall be conditioned for all new development within the 5 redevelopment project area. Specific examples may include, and are not limited to the following:
- Wood fire heating shall be prohibited in new live/work development.
  - Where siting allows and where feasible, buildings shall be oriented to take advantage of passive and active climate control designs.
  - To the maximum extent feasible, central water heating systems shall be installed.

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- 11 **Mitigation Measure 5.4-1:** The City and the Port shall encourage, lobby, and potentially 12 participate in emission reduction demonstration projects that promote technological advances in 13 improving air quality.
- 14 Such encouragement, lobbying, and participation may include the following:
  - Retrofitting locomotive engines to meet current federal standards.
  - Using reduced sulfur fuels in ships while the ships are in the San Francisco Bay.
  - Treating NO<sub>x</sub> with selective catalytic reductions.
  - Implementing random roadside emissions tests and develop a system of fines for trucks not in compliance with emission regulations.

\* \*

- Establishing emissions-based berthing fees.
- Buying relatively old, highly polluting cars to take them off the road.

Although these programs may assist in advancing emission reduction technologies or implementing emission reduction methods, the incremental contribution of the redevelopment program would remain cumulative considerable, and the cumulative impact on air quality remains significant and unavoidable.

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- 28 2.5 NOISE

29 **Mitigation 4.5-1:** Developers and/or contractors shall develop and implement redevelopment-30 specific noise reduction plans.

31 This measure applies to Impact 4.5-1 and Cumulative Impact 5.5-1.

1 This measure shall be enforced via contract specifications. The measure as written is intended 2 to effectively limit construction noise, while allowing the sponsors of redevelopment activities 3 and their contractors flexibility in controlling site-specific noise.

4 Each developer and/or contractor should be contractually required to demonstrate knowledge of 5 the Oakland Noise Ordinance, and to construct in a manner whereby noise levels do not exceed 6 significance criteria. Contractors may elect any combination of legal, non-polluting methods to 7 maintain or reduce noise to thresholds levels or lower, as long as those methods do not result in 8 other significant environmental impacts or create a substantial public nuisance. The developer 9 and/or contractor shall perform a site-specific acoustical analysis, and, if necessary, shall 10 develop and implement a noise reduction plan subject to review and approval by the City or 11 Port. The plan for attenuating these noises shall include some or all of the following measures, 12 as appropriate and feasible, and shall be implemented prior to any required activities.

#### 13 Schedule

- Schedule operation of one piece of equipment that generates extreme levels of noise at a time.
- Schedule activities that generate low and moderate levels of noise during weekend or
   evening hours.
- Standard construction activities shall be limited to between 7:00 a.m. and 7:00 p.m.
   Monday through Friday. No construction activities shall be allowed on weekends until
   after the building is enclosed without prior authorization of the Building Services and
   Planning Divisions of the Community and Economic Development Agency, or unless
   expressly permitted or modified by the provisions of a building and/or grading permit.

# Pile Driving and/or Other Activities that Generate Extreme Levels of Noise for Noise Levels Greater than 90 dBA

- Pile-driving and/or other activities that generate noise above 90 dBA shall be limited to
   between 8:00 a.m. and 4:00 p.m., Monday through Friday, with no activity generating
   extreme levels of noise permitted between 12:30 and 1:30 p.m. No construction activities
   that generate extreme levels of noise shall be allowed on Saturdays, Sundays, or
   holidays unless expressly permitted or modified by the provisions of a building and/or
   grading permit.
- Install engine and pneumatic exhaust controls as necessary to ensure exhaust noise
   from pile driver engines are minimized. Such controls can reduce noise levels by 6 dBA
   L<sub>eq</sub>.
- Employ sonic or vibratory pile drivers (sonic pile drivers are only effective in some soils).
   Such drivers may reduce maximum noise levels by as much as 12 dBA (L<sub>max</sub>). In some cases however (*e.g.*, sheet pile driving) vibratory pile drivers may generate more noise than impact pile drivers/methods. The specific circumstances should be evaluated.

1 Tie rubber aprons lined with absorptive material around sheetpile. • 2 Hydraulically drive piles. • 3 Pre-drill pile holes. • 4 Erect temporary plywood noise barriers around the entire construction site. • 5 Use noise control blankets on the building structure as it is erected to reduce noise 6 emission from the site. 7 Evaluate the feasibility of noise control at the receivers by temporarily improving the • 8 noise reduction capability of adjacent buildings. 9 Monitor the effectiveness of noise attenuation measures by taking noise measurements. 10 **Other Equipment, Methods** 11 A pre-construction meeting shall be held with the job inspectors and the general • 12 contractor/on-site project manager to confirm that noise mitigation and practices are 13 completed prior to the issuance of a building permit (including construction hours, neighborhood notification, posted signs, etc.). 14 15 All construction equipment, fixed and mobile, and motor-vehicles shall be properly • maintained to minimize noise generation. This would include maintaining equipment 16 17 silencers, shields, and mufflers in proper operating order. "Quiet package" or "hush" 18 equipment, which is readily available for such equipment as trailer-mounted 19 compressors, welders, etc. shall be used. All equipment shall be operated in the quietest 20 manner practicable. 21 Equipment and trucks used for construction shall use best available noise control • 22 techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible). 23 24 Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for • 25 construction shall be hydraulically or electrically powered wherever possible to avoid 26 noise associated with compressed-air exhaust from pneumatically powered tools. 27 However, where use of pneumatic tools is unavoidable, an exhaust muffler on the 28 compressed-air exhaust should be used; this muffler can lower noise levels from the 29 exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used 30 where feasible, which could achieve a reduction of 5 dBA. Quieter procedures should be 31 used, such as drills rather than impact equipment, where practicable.

1 Stationary noise sources should be located as far from sensitive receptors as possible. • 2 and they should be muffled and enclosed within temporary sheds, or insulation barriers, 3 or other measures should be incorporated to the extent feasible. 4 Material stockpiles and/or vehicle staging areas should be located as far as practicable • 5 from dwellings. 6 Public address systems would be designed and to minimize "spill over" of sound onto • 7 adjacent properties. 8 Physical barriers/screens (e.g., along fence lines) may be used to attenuate noise. • 9 Project workers exposed to noise levels above 80 dBA would be provided personal • protective equipment for hearing protection (i.e., ear plugs and/or muffs). 10 11 Areas where noise levels are routinely expected to exceed 80 dBA would be clearly • posted "Hearing Protection Required in this Area." 12 13 A process with the following components shall be established for responding to and • 14 tracking complaints pertaining to construction noise: 15 A procedure for notifying City Building Division staff and Oakland Police . Department; 16 17 A list of telephone numbers (during regular construction hours and off-hours); • 18 A plan for posting signs on-site pertaining to complaint procedures, permitted • 19 construction days and hours, day and evening contact telephone numbers for the 20 job site and day and evening contact telephone numbers for the City in the event 21 of a problem; 22 Designation of a construction complaint manager for the project who will respond • 23 to and track complaints; and 24 Notification of neighbors within 300 feet of the project construction area at least 25 30 days in advance of construction activities. 26 \* \* \* 27 \*

## 28 2.6 CULTURAL RESOURCES

29 **Mitigation 4.6-1:** Should previously unidentified cultural resources be encountered during 30 redevelopment, work in that vicinity shall stop immediately, until an assessment of the finds can

- be made by an archaeologist. If the resource is found to be significant under CEQA, an
   appropriate mitigation plan must be developed.
- 3 This measure applies to Impact 4.6-1.

4 The City and/or Port of Oakland, or its developer will retain an archaeologist, upon any 5 unanticipated discovery. The archaeologist will prepare a preliminary evaluation to assess the 6 archaeological sensitivity of the specific site(s) under consideration and will recommend actions 7 to protect archaeological resources. If the archaeologist's evaluation indicates a more detailed 8 site assessment is warranted, an archaeologist shall initiate a testing program. The 9 archaeologist will prepare a report determining the potential significance of the find and 10 recommend measures to minimize potential effects on archaeological resources; measures 11 might include a site security program, additional on-site investigations, or documentation, 12 preservation, and recovery of cultural material.

- If, after testing, the archaeologist determines that the discovery is not significant as defined in
   CEQA, no further investigations or precautions are necessary to safeguard the find. The
   archaeologist will prepare a final report to be sent to the responsible agency, the Oakland
   Landmarks Advisory Board, and the California Historical Resources Information System
   Northwest Information Center.
- 18 If, after testing, the archaeologist determines that the discovery is significant as defined in 19 CEQA, ground-disturbing activities in the immediate vicinity of the discovery will remain 20 suspended until an appropriate plan can be agreed upon and implemented. If further 21 investigations or precautions are necessary or appropriate, City and/or Port of Oakland and the 22 archaeologist will jointly determine what additional procedures are necessary to protect the 23 resource and/or mitigate any significant impacts. Additional measures might include a redesign 24 of the project, data recovery excavations, or a program to monitor all site excavation, during 25 which the archaeologist will record observations in a permanent log. The archaeologist will 26 prepare a final report to be sent to the responsible agency, the Oakland Landmarks Advisory 27 Board, and the California Historical Resources Information System Northwest Information 28 Center.
- 29 Should any human remains be encountered, work in the vicinity shall halt and the County 30 Coroner notified immediately. If the remains are determined to be Native American, the coroner 31 will contact the California Native American Heritage Commission (NAHC) pursuant to 32 subdivision (c) of Section 7050.5 of the Health and Safety Code. The NAHC in Sacramento will 33 identify a Most Likely Descendant (MLD) pursuant to subdivision (a) of Section 5097.98 of the 34 Public Resources Code. The City and/or Port of Oakland and the contracted archaeologist will consult with the MLD. The MLD may, with the permission of the owner of the land, or his or her 35 36 authorized representative, inspect the site of the discovery of the Native American remains and 37 may recommend to the owner or the person responsible for the excavation work means for 38 treating or disposing, with appropriate dignity, the human remains and any associated grave 39 goods. The descendents shall complete their inspection and make their recommendation within

1 24 hours of their notification by the Native American Heritage Commission. The 2 recommendation may include the scientific removal and nondestructive analysis of human 3 remains and items associated with Native American burials. Work may not commence until the 4 coroner's approval has been received.

# 5 **\*\*\***

Mitigation 4.6-2: The City, Port and OARB sub-district developers shall fund on a fair-share
 basis development of a commemoration site, including preparation of a Master Plan for such a
 site, at a public place located within the Gateway development area.. The City shall ensure that
 the scale and scope of the commemoration site reflects the actual loss of historic resources.

10 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.

Land shall be set aside for development of a commemoration site at a publicly accessible place located within the Gateway development area (potentially the Gateway Park at the Bay Bridge touchdown peninsula). The commemoration site should include relocated physical elements of the OARB Historic District, along with appropriate monument(s) to memorialize the contributions of civilians and the military in the Bay Area to all wars.

- An appropriate location shall be set-aside for development of a commemoration site. The commemoration site shall be at a publicly accessible place. It may be located within or adjacent to any historic district contributor buildings that are preserved on a permanent basis (see Mitigation Measure 4.6-16). If that is not feasible, another potential location is within or near to the Gateway Park.
- A design plan for the commemoration site shall be prepared, and shall include the design of monuments and the selection of appropriate relocated physical elements from the OARB, potentially including relocated structures or portions of structures to be included in the site. The City and the Port shall identify structures and/or portions of structures to be preserved or moved to the commemoration site prior to demolition.
- The master planning process should involve the City and the Port, the public and interested historical and veterans groups, historic experts, and other public agencies.
- Implementation of the commemoration site master plan may be phased along with the
   timing of new development.
- The master plan shall include an endowment to be funded by the City and the Port, or
   their designee, for on-going maintenance and replacement and may also include curator
   costs associated with commemoration site and with trail signage, exhibits, and design
   elements as described below.

- The City and the Port shall develop an ongoing outreach program informing the public of
   the importance of the OARB to the community and the region, and of the existence of
   the commemorative site.
- 4 \*\*\*
- 5 **Mitigation 4.6-3:** The City shall ensure the commemoration site is linked to the Gateway Park 6 and the Bay Trail via a public access trail.
- 7 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.

8 Within the Gateway development area, this trail may be located along the shoreline. Beyond the 9 Gateway, the trail would follow the new alignment of Maritime Street, connecting to 7<sup>th</sup> Street, 10 which connects to the Port's Middle Harbor Shoreline Park and other existing and planned trail 11 segments.

- The design and development of this on-site trail shall include a series of interpretive panels, exhibits and design elements that communicate the scope and historical significance of Base activities and their impact on the community throughout the life of the Base.
- A brochure shall be developed and made available describing the history of the Army
   Base that could be used as a self-guided tour, related to the interpretive panels and
   exhibits described above.
- 19 **\* \* \***
- 20 **Mitigation 4.6-4:** The City, Port and OARB sub-district developers shall fund on a fair-share 21 basis collection and preservation of oral histories from OARB military and civilian staff.
- 22 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.
- Oral histories shall be collected from OARB staff working at the Base from the 1940s through
   Base closure. Implementation of this measure should begin as soon as possible. The scope of
   this measure should include the following:
- professional quality publication of a master catalog of the interviews;
- a summary report made available at the Oakland Museum, Port Archives, the Oakland
   History room, and the UC Berkeley Regional Oral History Office at the Bancroft Library;
  - publication of copies of audio CD's or other stable recording medium, and the summary report for sale to the public, and
- all interviews shall be transcribed and saved in a long-term, archive-stable medium.

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- 1 **Mitigation 4.6-5:** The City, Port, and OARB sub-district developers shall fund on a fair share 2 basis collaboration with "military.com" or a similar military history web site.
- 3 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.
  - The parties shall fund development of an interactive web page to be provided to military.com or other web-based organization where former military personnel can be connected to the OARB documentation.
- A list of list of draftees/enlistees processed through the OARB during WWII and the
   Korean and Vietnam wars may be an element of such a site.
- 9 \*\*\*

10 **Mitigation 4.6-6:** The City, Port, and OARB sub-district developers shall fund on a fair share 11 basis distribution of copies of the complete OARB HABS/HAER documentation prepared by the 12 Army to: Oakland History Room, Oakland Public Library; Bancroft Library, University of 13 California; and Port of Oakland Archives for the purpose of added public access to these 14 records.

15 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.

The Army has produced set of documentation for the structures within the OARB Historic 16 17 District. These documents were prepared for the Historic American Building Survey and Historic 18 American Engineering Record as part of their Section 106 responsibilities to preserve the 19 historical significance of the OARB. These documents are currently available to the public, but 20 are not widely distributed. This mitigation measure will ensure that the documents are widely 21 distributed and made available to a larger audience interested in the history of the Base. It will 22 also offset (but not substantially reduce or avoid) the modification and/or destruction of many of 23 the historic buildings on the base, preserve their images, and provide a description of their 24 function and role to the interested public. If such a summary does not exist, the City, Port, and 25 OARB sub-district developers shall also fund on a fair share basis preparation of an introductory 26 summary to provide greater context and interpretation of the contents of these documents.

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Mitigation 4.6-7: If determined of significant historical educational value by the Oakland
 Landmarks Preservation Advisory Board and the Oakland Heritage Alliance, the City, Port, and
 OARB sub-district developers shall fund on a fair share basis distribution of copies of "A Job
 Well Done" documentary video published by the Army.

32 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.

The Army has produced a television broadcast–quality video documentary that describes the mission and historical significance of the OARB. This documentary is not widely distributed, and has not been viewed by the Oakland Landmarks Preservation Advisory Board or the Oakland Heritage Alliance. This documentary is currently available to the public, but is not widely 1 distributed. This mitigation measure will ensure that the documentary is widely distributed and 2 made available to a larger audience interested in the history of the Base. It will also offset the 3 modification and/or destruction of many of the historic buildings on the base, preserve their 4 images, and provide a description of their function and role to the interested public. Copies of 5 the video shall be distributed to: the Oakland History Room, Oakland Public Library, Bancroft 6 Library, University of California; the Port of Oakland Archives; local public schools and libraries; 7 and local public broadcasting stations. Funding shall also be used to copy this video onto more 8 permanent archive-stable medium such as a CD.

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10 **Mitigation 4.6-8:** The City, Port, and OARB sub-district developers shall fund on a fair share 11 basis preservation and long-term curation of murals from OARB Building No. 1, and OBRA shall 12 either donate the murals to the Oakland Museum of California, or provide a permanent location 13 elsewhere.

14 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.

15 A mural commemorating the military transportation function of the Base is currently in storage at the OARB. Preservation through stabilization, conservation, and display will ensure this mural is 16 17 preserved for future generations. This artwork is a unique historical document that evokes the 18 historical importance of the Base, and commemorates the contributions of the U.S. military to 19 Oakland and the nation at large. The mural shall be preserved in a publicly-accessible location, 20 which may include the Gateway Park, a building within the Gateway development area, Middle 21 Harbor Shoreline Park, the military charter school, or the Oakland Museum. This measure 22 should include funding for long-term curation to standards approved by a qualified art historian.

23 \*\*\*

Mitigation 4.6-9: The City, Port, and OARB sub-district developers shall fund on a fair share
 basis a program to salvage as whole timber posts, beams, trusses and siding of warehouses to
 be deconstructed. These materials shall be used on site if deconstruction is the only option.
 Reuse of a warehouse building or part of a warehouse building at its current location, or
 relocated to another Gateway location is preferable. demolished to the maximum extent
 feasible.

- 30 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.
- To the extent feasible, these materials shall be used in whole, on site, in the construction of new buildings within the Gateway development area. Special consideration shall be given to the use of these materials at the commemoration site through the site's Master Planning effort
- If on-site reuse is found infeasible, opportunities shall be sought for reuse of these materials in
   other East Bay Area construction, or be sold into the recycled construction materials market.
   Landfill disposal of salvageable construction material from contributing historic structures shall

- be prohibited by contract specification. Salvage and reuse requirements shall be enforced via
   contract specification.
- 3 Salvage operations shall employ members of local job-training bridge programs (Youth 4 Employment Program, Joint Apprenticeship Training Committee, Homeless Collaborative) or 5 other similar organizations, if feasible, to provide construction-training opportunities to Oakland 6 residents.
- Salvage and reuse of the timber from these structures will help to reduce the impacts on the
  environment and save this ecologically and historically valuable material for reuse in the local
  community.
- 10 \*\*\*
- 11 **Mitigation 4.6-10:** The City, Port, and OARB sub-district developers shall fund on a fair share 12 basis production of a brochure describing history and architectural history of the OARB.
- 13 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.
- The brochure shall be distributed to local libraries and schools, and be made available to
   the public at select pick-up and drop-off locations along the Bay Trail to be used for self guided tours.
- This brochure shall build upon the previously completed historical documentation
   produced by the Port of Oakland, the Navy, and the Army for previous projects and on
   the original research completed for preparation of the Historical Resource
   Documentation Program and book.
- This brochure shall will document the history of the redevelopment area and provide 22 references to where more detailed information about the Base may be found.
- 23 \*\*\*

Mitigation 4.6-11: The City, Port, and OARB sub-district developers shall fund on a fair share basis acquisition of copies of construction documentation and photographs of historic buildings currently in the OARB files and transfer the copies to the Oakland History Room files and Port historic archives, including funding to cover costs of archiving and cataloging these materials, as well as curator costs at the Oakland History Room. While select photos and information may be exhibited at the commemoration site, the Oakland History Room is the most appropriate location for this archive.

31 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.

The Army has amassed a collection of historical photographs, engineering records, and administrative records related to the OARB. This collection is currently not available to the public at large. This mitigation measure will ensure that the collection is made available to a larger audience interested in the history of the Base. It will also offset the modification and/or

- destruction of many of the historic buildings on the Base, preserve their images, and provide a
   description of their function and role to the interested public.
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#### 4 Mitigation 4.6-12: NOTE: THIS MEASURE WAS ELIMINATED.

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6 **Mitigation 4.6-13:** Prior to major renovation of a historically significant structure, the 7 redeveloper of the SPRR Station and 16<sup>th</sup> Street Tower shall ensure that historically significant 8 artifacts and features, if present, are retained and protected in place if feasible. If retention and 9 protection is found Infeasible, such artifacts and features shall be recorded and deposited with 10 the appropriate museum. Renovation of the exterior of a historic structure shall be consistent 11 with the Secretary's of Interior's Standards.

#### 12 This measure applies to Impact 4.6-4.

- The SPRR (Amtrak) Station and 16<sup>th</sup> Street Tower have interior and exterior architectural elements that help to make it eligible to the NRHP. The Secretary of Interior, through the National Park Service, has published guidelines for renovation and redevelopment of historic structures. By implementing this mitigation measure, and requiring that contractors conform to the Secretary of Interior's Standards for Historic Preservation Studies, the architectural elements and features which contribute to these historic resources' eligibility will be preserved.
- 19 **\* \* \***

Measure 4.6-14: No demolition or deconstruction of contributing structures to the OARB
 Historic District shall occur until necessary. <u>All efforts shall be made to retain as much of</u>
 <u>Building 1 as possible while still achieving remediation goals.</u>

23 This measure applies to Impacts 4.6-2, 4.6-3, 4.11-2 and Cumulative Impact 5.6-1.

Demolition or deconstruction of contributing structures to the OARB Historic District necessary for the protection of public health and safety, particularly as related to the remediation of hazardous materials and hazardous wastes within the OARB, may be initiated at any such time as determined necessary by the lead agency undertaking such remediation activity. The potential for partial removal of structures (<u>particularly Building 1</u>) where remediation activity will not require the total demolition of the historic district contributor building shall be considered. The totality of costs involved in partial building salvage shall be included in this consideration.

Demolition or deconstruction of contributing structures to the OARB Historic District necessary for Port redevelopment as described in Chapter 3, Description shall not occur until such time as the Port has approved a final development plan for the relevant new facility or facilities. Buildings affected by this measure include Buildings No. 88, 90, 99, 802 through 807, the easterly portion of 808, 991, and Wharves 6 and 6½. The potential for partial removal of structures where Port redevelopment will not require the total demolition of the historic district contributor building shall be considered, specifically including, but not limited to the westerly
 portion of Building 808.

3 Demolition or deconstruction of contributing structures to the OARB Historic District necessary 4 for redevelopment activity within the Gateway development area (except as necessary for the 5 protection of public health and safety, including hazardous material or waste remediation) shall 6 not occur until such time as actual development projects are proposed and permits for their 7 construction have been approved. No such permits shall be approved until such development 8 projects can demonstrate that they have considered adaptive reuse of historic structures, but 9 that adaptive reuse is found to be infeasible. OBRA and/or any developer shall make a pro-10 active, good faith effort to incorporate preservation of some of the following buildings - 4,60,85, 11 the westerly portion of 808, 812, 821,822, and 823 - in a location proximate to the final 12 alignment of the Bay Trail. The consideration of adaptive reuse, including reuse as a 13 commemoration site, shall be a required component of subsequent land use approvals, such as 14 PUD, design review or conditional use permits. To be considered as a commemoration site, the 15 adaptive reuse opportunity would need to include an interpretive center, museum or other 16 similar, publicly accessible use, and would need to serve as a repository for historically valuable 17 artifacts, documents and accounts. No additional CEQA review shall be required for these 18 subsequent applications unless the statutory requirements for subsequent environmental review 19 are triggered.

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21 **Measure 4.6-15.** As part of the deconstruction and salvaging requirements for demolition of any 22 contributing structure within the OARB Historic District (see Mitigation Measure 4.6-9), specific 23 architectural elements, building components or fixtures should be salvaged. A professional 24 architectural preservationist shall determine which, if any of such elements, components or 25 fixtures should be retained.

26 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.

27 \*\*\*

28 Mitigation 4.6-16: The City, Port, and OARB sub-district developers shall fund on a fair share 29 basis preparation of an Historical Resource Documentation Program. This program shall consist 30 of a coordinated effort of primary research and documentation, with a substantial scholarly input 31 and publicly available products. The first product of this program shall include a coordinated 32 effort to conduct the research, writing, photo documentation, assembly and publication efforts 33 needed to prepare a comprehensive book on the history of the Oakland Army Base. The book 34 shall document the important contribution the Base has had to the U.S. military, to Oakland and 35 to the nation at large.

36 This measure applies to Impacts 4.6-2 and 4.6-3 and Cumulative Impact 5.6-1.

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- The research and documentation needed to prepare this book should provide the basis and background for coordinated subsequent documentary mitigation such as the brochure, interpretation exhibits along the Bay Trail, the web site and others.
- Primary source material such as construction documents, photographs from World War
   II films, the 1946 volume "Gateway to Victory," and oral accounts should be considered
   for publication or re-publication within this book.
- An author, or authors, with appropriate experience and qualifications should prepare the
   book. The author shall consult with the Bancroft Library, the Oakland History Room, U.S.
   Army Center for Military History, the National Archives, University of California Press,
   and historical societies as appropriate.
- Copies of the book shall be provided to East Bay public libraries, and other educational
   institutions.

13 **\* \* \*** 14 **\*** 

## 15 **2.7 HAZARDOUS MATERIALS/HAZARDOUS WASTES**

- 16 **Mitigation 4.7-1:** For use of hazardous materials within ¼ mile of an existing or proposed 17 school, business operators shall prepare Business Plan, update annually, and keep on file with 18 the Oakland Fire Department.
- 19 This measure applies to Impact 4.7-2.
- A business plan details the types and quantities of chemicals stored at a given location, the storage location and types of storage containers, and the emergency response equipment available at the property (*e.g.*, location of fire extinguishers and fire hydrants). It also provides a map showing the location of all of these items as well as major utilities (*e.g.*, water, electricity).
- 24 \*\*\*
- Mitigation 4.7-2: For use of AHMs within ¼ mile of an existing or proposed school, in addition
   to a Business Plan, business operators shall prepare, implement, and update a Risk
   Management and Prevention Plan (RMPP) on at least an annual basis.
- 28 This measure applies to Impact 4.7-2.

An RMPP is a plan to address the risks of accidental release of acutely hazardous chemicals present at a site. The plan inventories the chemicals that exceed aggregate amounts above a regulatory threshold and develops measures to ensure that that there is an adequate safety program to prevent their release. The RMPP is submitted to the local oversight agency and then

- goes through a public review process prior to approval by the agency. It is kept on file with
   Oakland Fire Department.
- 3

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#### 4 Contaminated Soil and Groundwater

5 **Mitigation 4.7-3:** Implement RAP/RMP as approved by DTSC, and if future use proposals 6 include uses not identified in the Reuse Plan and incorporated into the RAP/RMP or if future 7 amendments to the remediation requirements are proposed, obtain DTSC and, as required, City 8 approval.

- 9 This measure applies to Impacts 4.7-4, 4.7-5 and Cumulative Impact 5.7-1.
- 10 \*\*\*

11 **Mitigation 4.7-4:** For the project areas not covered by the DTSC-approved RAP/RMP, 12 investigate potentially contaminated sites; if contamination is found, assess potential risks to 13 human health and the environment, prepare and implement a clean up plan for DTSC or 14 RWQCB approval, prepare and implement a Risk Management Plan and prepare and 15 implement a Site Health and Safety Plan prior to commencing work.

16 This measure applies to Impact 4.7-4, 4.7-5 and Cumulative Impact 5.7-1.

17 Since implementation of the RAP/RMP approved by DTSC is proposed as part of the project for the OARB, and the RAP/RMP requires remediation to be fully protective of human health and 18 19 the environment for the proposed future uses of the OARB, no further mitigation is required for 20 the OARB unless either (1) future use proposals include those that were not identified in the 21 Reuse Plan and incorporated into the RAP/RMP or (2) future amendments are proposed to the 22 remediation requirements included in the approved RAP/RMP. In either of these two 23 circumstances, required remediation includes obtaining the DTSC and, as required, City 24 approval, for proposed changes in full conformance with applicable legal requirements including 25 but not limited to the HSAA and CEQA.

26 Specific contaminants and concentrations may vary across the redevelopment project area. 27 Nevertheless, the types of impacts expected, and therefore, the general response actions and 28 approaches to mitigation would be consistent throughout the redevelopment project area. With 29 respect to the OARB and as described in greater detail above, the process across the redevelopment project area would mirror the RAP/RMP process that is already underway at the 30 OARB. With respect to the OARB sub-district, pursuant to HSAA Chapter 6.8, the OBRA has 31 32 proposed a RAP/RMP. The OBRA's remedial goal is to remediate soil and groundwater 33 contamination consistent with the City of Oakland ULR Program 10<sup>-5</sup> remedy with appropriate 34 land use restrictions. This RAP/RMP must be approved by DTSC, which has the legal discretion 35 to impose remedies falling within the  $10^{-4}$  and  $10^{-6}$  risk range.

For the other sub-districts and areas not included in the DTSC-approved RAP/RMP, prior to beginning redevelopment-related activities, potentially affected areas shall be investigated, potentially including additional studies or site characterization activities, as required by the regulatory agencies (DTSC or RWQCB). Once contaminated areas are identified, potential human health risks from contaminants of concern based upon realistic future land use shall be assessed, health risk-based and environmental risk-based cleanup goals shall be established, and a determination regarding the need for additional site assessment work shall be made.

- 8 The potential risks associated with affected areas shall be assessed in accordance with 9 regulatory agency guidance and approvals and may result in remediation requirements. Such 10 cleanup plans shall address each area where soil or groundwater is contaminated above ULR 11 goals could be encountered during redevelopment. The clean up plan, the names of which vary 12 based on the type and source of contamination and the legal framework for the particular 13 oversight agency, shall specify measures to be taken to protect workers and the public from 14 exposure to potential contamination and certify that the proposed remediation measures, 15 including removal, disposal, stabilization and/or institutional controls are protective of human 16 health and the environment and implemented in accordance with federal, state and local 17 requirements. Additionally, a Risk Management Plan may be required by the oversight agency 18 to address site redevelopment activities and operations and provide an enforcement structure to 19 be in place during and post-construction. Finally, a Site Health and Safety Plan shall be 20 prepared in accordance with the OSHA and Cal/OSHA regulations. Off-hauling of contamination 21 shall comply with applicable laws, and construction hours shall be limited as provided for in 22 Mitigation Measure 4.5-1 in order to prevent night-time glare. Additionally, potential odor impact 23 measures, and dust or other nuisance conditions from remediation-related truck traffic is 24 provided for in Mitigation Measure 4.3-13, and safety concerns are addressed in Mitigation 25 Measure 4.9-3.
- 26

\* \* \*

Mitigation 4.7-5: For the project areas not covered by the DTSC-approved RAP/RMP,
 remediate soil and groundwater contamination consistent with the City of Oakland ULR Program
 and/or other applicable laws and regulations.

- 30 This measure, as well as Measures 4.7-3 and 4.7-4, applies to Impact 4.7-5.
- 31 The City of Oakland ULR Program has determined that reducing the target risk level to  $1 \times 10^{-5}$ 32 for commercial or industrial land uses in combination with appropriate institutional controls would reduce the risk to future residents, employees, and visitors to less than significant. Within 33 34 the OARB area covered by the DTSC-approved RAP/RMP, implementation will result in 35 avoidance of any potentially significant impact to future commercial/industrial/maritime/utility 36 workers, and site visitors. Moreover, the measures required for the areas not covered by the 37 DTSC-approved RAP/RMP, (Measure 4.7-4) would evaluate and control potential human health 38 risks form contaminants of concern in the redevelopment project area and will sufficiently 39 address this potential impact. In addition, Mitigation Measures 4.14-1 and 4.14-2, which prohibit 40 the installation of groundwater wells for any purpose other than construction de-watering and

- remediation and require that even for construction de-watering and remediation use of those
   wells be minimized, will reduce the potential for contaminants to migrate to other underlying
   groundwater aquifers, thus lessening the impact to future residents, employees and visitors to
   less than significant.
- 5 **\*\*\***

### 6 **Regulated Building Materials**

- Mitigation 4.7-6: Buildings and structures constructed prior to 1978 slated for demolition or renovation that have not previously been evaluated for the presence of LBP shall be sampled to determine whether LBP is present in painted surfaces, and the safety precautions and work practices as specified in government regulations shall be followed during demolition.
- 11 This measure applies to Impact 4.7-6 and Cumulative Impact 5.7-1.
- 12 **\*\*\***
- Mitigation 4.7-7: Buildings, structures and utilities that have not been surveyed for ACM, shall
   be surveyed to determine whether ACM is present prior to demolition or renovation, and the
   safety precautions and work practices as specified in government regulations shall be followed
   during demolition.
- 17 This measure applies to Impact 4.7-6 and Cumulative Impact 5.7-1.
- 18 \*\*\*
- Mitigation 4.7-8: Buildings and structures proposed for demolition or renovation shall be
   surveyed for PBC-impacted building materials, and the safety precautions and work practices as
   specified in government regulations shall be followed during demolition.
- 22 This measure applies to Impact 4.7-6 and Cumulative Impact 5.7-1.
- 23 \*\*\*
- Mitigation 4.7-9: For ASTs/USTs on the OARB, implement the RAP/RMP, which incorporates
   the steps enumerated in Measure 4.7-10 below.
- 26 This measure applies to Impact 4.7-7 and Cumulative Impact 5.7-1.
- 27 \*\*\*
- 28 **Mitigation 4.7-10:** For the remainder of the redevelopment project area (non-OARB areas), if 29 an AST or UST is encountered, it would be closed in place or removed and the soil would be 30 tested and remediated, if necessary, pursuant to regulatory approvals and oversight.
- 31 This measure applies to Impact 4.7-7 and Cumulative Impact 5.7-1.

1 Both ASTs and USTs are known to have been present on the OARB and in the redevelopment 2 project area generally. Many have been removed from the OARB and the redevelopment 3 project area, but others may remain. For the OARB, implementation of the RAP/RMP would 4 address the risk of exposure to a tank that is unexpectedly encountered, disturbed or damaged 5 during construction. For the remainder of the redevelopment project area, if an AST or UST is 6 discovered during construction activities, it would be closed in place or removed according to 7 the guidelines of the DTSC, RWQCB and CUPA. Like the RAP/RMP for the OARB, such 8 requirements include removing and properly disposing of any remaining hazardous materials in 9 the tank, having the tank removal supervised by regulatory agencies, testing the soil under the tank for contamination, recycling or disposing of the discarded tank and filing a tank removal 10 11 closure report.

## 12 \*\*\*

Mitigation 4.7-11: For LBP-impacted ground on the OARB, implementation of a RAP/RMP to be approved by DTSC as part of the project will result in avoidance of this potentially significant impact. For the remainder of the redevelopment project area, sampling shall be performed on soil or paved areas around buildings that are known or suspected to have LBP, and the safety precautions and work practices specified in government regulations shall be followed.

- 18 This measure applies to Impact 4.7-8 and Cumulative Impact 5.7-1.
- 19 **\* \* \***
- 20 **Mitigation 4.7-12:** The condition of identified ACM shall be assessed annually, and prior to 21 reuse of a building known to contain ACM.

22 This measure applies to Impact 4.7-10.

23 \* \* \*

24 **Mitigation 4.7-13:** No future tenancies shall be authorized at the OARB for use categories that 25 are inconsistent with the Reuse Plan without an updated environmental analysis and DTSC 26 approval as provided for in the RAP/RMP.

27 This measure applies to Impact 4.7-10.

28 For the OARB, baseline environmental analyses have been completed to support current 29 interim uses of existing structures, including numerous commercial, trucking, warehouse and 30 other tenants, the Oakland Military Institute, and transitional housing used for formerly-31 incarcerated women and their families and for various homeless service providers including an 32 overnight shelter. Other environmental hazards may also be encountered by future interim 33 occupants of existing OARB structures, and completion of a baseline environmental evaluation 34 to identify and abate such hazards prior to occupancy by tenants will mitigate such hazards. 35 Interim occupancy by future tenants who may propose land uses which are inconsistent with the 36 Reuse Plan, and thus may not have been considered in the DTSC-approved RAP/RMP, shall

- occur only after DTSC approval as provided for in the RAP/RMP in order to assure that such
   future non-conforming tenants are protected from other environmental hazards. As stated
   above, for the remainder of the redevelopment project area, any building that has not been
   surveyed for ACM but potentially contains ACM shall be surveyed to determine whether ACM is
   present prior to demolition, renovation or reuse.
- 6 \*\*\*
- Mitigation 4.7-14: For the remainder of the redevelopment project area (non-OARB areas), any
   building that has not been surveyed for ACM but potentially contains ACM shall be surveyed to
   determine whether ACM is present prior to demolition, renovation or reuse.
- 10 This measure applies to Impact 4.7-10 and Cumulative Impact 5.7-1.
- 11 \*\*\*

12 **Mitigation 4.7-15:** Known PCB transformers or PCB-contaminated transformers at the OARB 13 shall be removed, monitored and/or maintained in accordance with applicable laws and 14 regulations.

- 15 This measure applies to Impact 4.7-11 and Cumulative Impact 5.7-1.
- 16 In addition, surface and subsurface contamination from any PCB equipment that remains in use 17 should be investigated and remediated in compliance with all applicable laws and regulations.
- 18 \*\*\*

19 **Mitigation 4.7-16:** Oil-filled electrical equipment in the redevelopment project area that has not 20 been surveyed shall be investigated prior to the equipment being taken out of service to 21 determine whether PCBs are present.

22 This measure applies to Impact 4.7-11 and Cumulative Impact 5.7-1.

Equipment found to contain PCBs should be part of an ongoing monitoring program. Surface and subsurface contamination from any PCB equipment shall be investigated and remediated in compliance with applicable laws and regulations.

- 26 \* \* \*
- 27 **Mitigation 4.7-17:** PCB-containing or PCB-contaminated equipment taken out of service shall 28 be handled and disposed in compliance with applicable laws and regulations.
- 29 This measure applies to Impact 4.7-11 and Cumulative Impact 5.7-1.
- Equipment filled with dialectic fluid (oil) including transformers, ballast, etc. containing more than
  5 ppm PCBs is considered a hazardous waste in California.
- 32 **\* \* \*** 33 **\***

## 1 2.8 PUBLIC SERVICES AND UTILITIES

- 2 **Mitigation 4.9-1.** The City and Port shall cooperatively investigate the need for, and if required 3 shall fund on a fair-share basis, development and operation of increased firefighting and 4 medical emergency response services via fireboat to serve the OARB sub-district.
- 5 This measure applies to Impact 4.9-1 and Cumulative Impact 5.9-1, as well as Impact 4.3-4.
- 6 The City and Port of Oakland will each contribute a fair share toward cooperatively investigating 7 the need for increased firefighting and emergency response services to serve the 8 redevelopment area west of I-880. This investigation shall include consultation with the OES 9 and OFD. Should this investigation conclude, based on detailed redevelopment design, that 10 increased fireboat services are required, the Port and the City shall each fund its fair share to 11 equip and staff fireboat-based services in the OARB sub-district. In addition, as subsequent redevelopment activities occur, the City and Port shall be allowed to develop fee formulae (to 12 13 recoup initial investment from future development or tenants), as well as a long-term cost-14 sharing formula (to equitably distribute the cost of continuing operations).
- 15 The fire facility will be constructed after basic underground infrastructure is constructed, and 16 before any people-attracting subsequent redevelopment activities begin operations.
- 17 \*\*\*
- 18 **Mitigation 4.9-2:** The Port and City shall work with OES to ensure changes in local area 19 circulation are reflected in the revised Response Concept.
- 20 This measure applies to Impact 4.9-6.
- The Port and City would provide information to the OES to facilitate that agency's accurate revision of its Response Concept and Annex H. In particular, the City and Port would provide OES information regarding new and proposed project area development, intensification and changes in land uses, realignment of area roadways, and construction of new local circulation facilities.
- 25 \*\*\*
- 26 **Mitigation 4.9-3:** The Port and City shall require developers within their respective jurisdictions 27 to notify OES of their plans in advance of construction or remediation activities.
- 28 This measure applies to Impact 4.9-6.
- Each developer proposing construction in the redevelopment project area would be required to notify OES prior to initiation of construction, so that OES may plan emergency access and egress taking into consideration possible conflicts or interference during the construction phase. The developer would also be required to notify OES once construction is complete.
- 33 \*\*\*
- 34 **Mitigation 4.9-4:** Individual actions with landscaping requirements of one or more acres shall 35 plumb landscape areas for irrigation with recycled water.

- 1 This measure applies to Impact 4.9-8 and Cumulative Impact 5.9-5.
- As subsequent redevelopment activities are designed, the City and Port would require that activities of a certain magnitude shall include a reclaimed landscaping irrigation system. The City and Port would make this a condition of approval for private actions that require such approval, and would include reclaimed landscape water systems in the design of their own public projects.
- 6 **\* \* \***

Mitigation 4.9-5: Individual buildings with gross floor area exceeding 10,000 square feet shall
 install dual plumbing for both potable and recycled water, unless determined to be infeasible by
 the approving agency (City or Port).

10 This measure applies to Impact 4.9-8 and Cumulative Impact 5.9-5.

Any major subsequent redevelopment activity that includes total usable floor area within or more building of 10,000 square feet or more would be required to provide a dual plumbing system one for potable water, and one for reclaimed water. Reclaimed water may be used for certain industrial uses, and for landscape irrigation, toilet flushing, and other appropriate purposes.

- 15 **\* \* \***
- 16 **Mitigation 4.9-6:** Site design shall facilitate use of recycled water, and shall comply with 17 requirements of CCR Title 22 regarding prohibitions of site run-off to surface waters.
- 18 This measure applies to Impact 4.9-8 and Cumulative Impact 5.9-5.

When subsequent redevelopment activities are required to include reclaimed water in their
 design, the City and Port would ensure that requirements of Title 22 intended to protect the
 environment are reflected in that design, including prohibitions against run-off to surface waters.
 The City, Port, and proponents of subsequent redevelopment activities should coordinate these
 efforts with the reclaimed water supplier, EBMUD.

- 24 \*\*\*
- 25 **Mitigation: 4.9-7:** To the maximum extent feasible, the City and Port shall jointly participate in a 26 deconstruction program to capture materials and recycle them into the construction market.
- 27 This measure applies to Impact 4.9-10 and Cumulative Impact 5.9-7.
- 28 Substantial quantities of construction debris would be generated by the removal of structures at 29 the OARB, in both the Gateway and Port development areas. Some of the buildings span both 30 development areas, and coordination between the Port and City is critical in reducing the 31 amount of solid waste disposal that occurs in this sub-district. The City and Port would jointly 32 plan, implement, and operate a program whereby buildings would be deconstructed, rather than 33 demolished, and the resulting material would be recycled to the construction market as practicable. Material for recycling may include, and is not limited to, timbers and siding, ceramic 34 35 fixtures, metal, and copper wiring. The City and Port may elect to partner with local job-training

- bridge programs to provide construction training opportunities to Oakland residents through their
   deconstruction program.
- 3

\* \* \*

4 **Mitigation 4.9-8:** Concrete and asphalt removed during demolition/construction shall be 5 crushed on site or at a near site location, and reused in redevelopment or recycled to the 6 construction market.

- 7 This measure applies to Impact 4.9-10 and Cumulative Impact 5.9-7.
- Foundation and paving removal would generate substantial debris, and the City and Port would
  ensure these materials are crushed and recycled. As a first preference, these materials should
  be re-used on-site; as a second preference, they would be sold to the construction market. The
  City and Port would make every effort practicable to avoid disposal to landfill of this material.
- 12 This mitigation measure may itself result in impacts to the environment relative to noise and air 13 quality. These impacts are discussed in Sections 4.4: Air Quality, and 4.15: Noise.
- 14 \*\*\*

Mitigation 4.9-9: The City and Port shall require developers to submit a plan that
 demonstrates a good faith effort to divert at least 50 percent of the operations phase solid waste
 from landfill disposal.

18 This measure applies to Impact 4.9-10 and Cumulative Impact 5.9-7.

19 Each project sponsor of a redevelopment activity or subsequent redevelopment activity would 20 be required to submit to the City or Port (depending on the location of the activity) a source 21 reduction/waste diversion plan specifying how the activity will reduce solid waste disposal by 50 22 percent. The sponsor would be responsible for development and implementation of its plan, and 23 for reporting its progress and success rate to the Port or City. Should the source 24 reduction/diversion plan program not meet its stated goal, the sponsor would modify the plan 25 until the desired level of reduction/diversion is achieved. While each plan would be specific, the 26 following general topics should be addressed:

- Goals.
- Key personnel.
- Quantification of waste.
- Identification of waste materials.
- Program elements.
- Monitoring requirements and performance standards.
- 33 Reporting.

1

\* \* \*

2 **Mitigation 4.9-10:** The Port and City of Oakland shall work cooperatively to develop an 3 ongoing joint program to identify and evaluate impacted local roadways and identify required 4 maintenance/repair activities. The agencies will fund needed repairs and maintenance on a fair-5 share basis.

6 This measure applies to Impact 4.9-12.

7 The City and Port would work in good faith to develop a program whereby they cooperatively 8 identify roadways for inclusion to a joint maintenance program, establish protocols for evaluating 9 local roadway conditions, and establish a fair-share funding mechanism. Once established, the 10 program would be jointly and cooperatively administered by the City and Port, who would 11 determine when and where maintenance and repairs are required, as well as their nature and 12 extent.

13 **\* \* \*** 14 **\*** 

# 15 2.9 AESTHETICS

Mitigation 4.11-1: New lighting shall be designed to minimize off-site light spillage; "stadium"
 style lighting shall be prohibited.

18 This measure applies to Impact 4.11-3.

Modern security lighting is available that directs light toward a specific site, and substantially reduces spillage of light onto adjacent properties. The City and the Port shall require the use of such directional lighting as a condition of approval for redevelopment projects throughout the project area. In no case shall the City nor the Port allow the use of stadium-style lighting, which directs light outward across a broad area.

- 24 \*\*\*
- 25 **Mitigation 4.11-2:** At or near the boundary of the proposed Gateway Park, new lighting shall be 26 shielded to prevent light spillage into natural areas.
- 27 This measure applies to Impact 4.11-3 and Impact 4.12-2.
- In natural areas that may provide habitat, light scatter shall be further reduced or eliminated
   through the use of shields, which physically prohibit the scatter of light. With the advise of
   resource agencies, the City shall require such shields at specific locations, such as the Gateway
   Park.

32 \*\*\*

33 **Mitigation 4.11-3:** New active or passive solar systems within or adjacent to the project area 34 shall be set back from the property line a minimum of 25 feet. 1 This measure applies to Impact 4.11-4.

Through design review, the City shall ensure that proposed solar systems are not located in a manner that would unduly restrict design of future development. Such conflicts are to be resolved in design review. If the proposed solar system cannot be designed to accommodate adjacent actions, it shall be disallowed.

6 **\*\*\*** 

Mitigation 4.11-4: New construction within the Gateway development area adjacent to a parcel
 containing permitted or existing active or passive solar systems shall demonstrate through
 design review that the proposed structures shall not substantially impair operation of existing
 solar systems.

11 This measure applies to Impact 4.11-4.

12 Through design review, the City shall ensure that the effectiveness an operation of existing or 13 permitted active or passive solar systems shall not be substantially impaired. The design of the 14 subsequent proposed structures shall be modified so as not to have such an adverse effect.

- 15 **\* \* \***
- 16 **Mitigation 4.11-5:** The City and Port shall coordinate with respect to the design of new, 17 permanent buildings constructed along the Port/Gateway boundary to minimize conflicts over 18 solar access.
- 19 This measure applies to Impact 4.11-4.
- The City and Port shall coordinate with one another regarding design of subsequent redevelopment activities within their respective jurisdictions that may affect operation of solar installations in the other's jurisdiction.
- 23 \*\*\*

24 **Mitigation 4.11-6:** New construction adjacent to a public park or open space shall demonstrate 25 through design review that development shall not substantially impair enjoyment of the public 26 utilizing the space.

27 This measure applies to Impact 4.11-5.

Through design review, the City shall ensure that new building or landscaping shall not shade existing or proposed parks or open spaces in a manner that would make these public spaces substantially less useful or enjoyable to the public. The City may require specific building placement, tiered roofs, or other means of reducing shadow effects on public opens spaces. It is not the intent of this measure to completely eliminate shade in these areas, but to reduce shade to the maximum extent feasible.

> \* \* \* \*

34

1	2.10	BIOLOGICAL RESOURCES
2		Mitigation 4.12-1: NOTE: THIS MEASURE WAS ELIMINATED.
3		* * *
4		Mitigation 4.12-2: NOTE: THIS MEASURE WAS ELIMINATED.
5		* * *
6		Mitigation 4.12-3: NOTE: THIS MEASURE WAS ELIMINATED.
7		* * *
8 9		<b>Mitigation 4.12-4:</b> Contractors, developers, the Port, and EBRPD shall comply with all permit conditions from the Corps, RWQCB, USFWS/NMFS, BCDC, and CDFG for fill.
10		This impact applies to Impact 4.12-3 and Cumulative Impacts 5.12-1 and 5.12-2.
11 12		Contractors and developers shall comply with all conditions of approval imposed by regulatory agencies. This measure shall be enforced on Contractors by contract specifications.
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> <li>23</li> <li>24</li> <li>25</li> <li>26</li> <li>27</li> <li>28</li> </ol>		Regarding Port mitigation for fill of New Berth 21, regulatory agencies (Corps, BCDC, RWQCB) usually require mitigation for placement of fill in San Francisco Bay to compensate for the loss of aquatic resources. Ideally, mitigation should replace those resources that will be lost or diminished by the placement of the fill, and should not create additional negative impacts. In this case, the resources that will be lost by placement of fill are approximately 27 net acres of deep subtidal (-42 ft. MLLW) open water, soft bottom estuarine, and pile supported wharf habitats. Because excavation of sediments elsewhere in the Bay may result in additional adverse aquatic impacts, replacement of these habitats in-kind and near the site of impact may be difficult. Moreover, excavation of existing land along the Bay shoreline may be problematic, because shoreline areas are either highly developed, already support valuable habitat that pursuant to existing policies should not be disturbed or destroyed, or are proposed for wetland restoration. For these reasons, agencies may wish to consider other types of habitat mitigation, including "out-of-kind" and "off-site". A similar approach has been adopted by BCDC for subtidal impacts from the replacement of the eastern span of the San Francisco-Oakland Bay Bridge <sup>1</sup> . Agency-required mitigation may consist of, and would not be limited to, a combination of the following activities:
29		• removal of creosote piles from the Bay;
30 31		<ul> <li>establishment of new eelgrass in the Bay (this may require placement of fill and/or other physical modifications);</li> </ul>
32		<ul> <li>creation of new hard-bottom reef substrate in the Bay;</li> </ul>

<sup>&</sup>lt;sup>1</sup> BCDC Staff recommendations for permit application 8-01, October 30, 2001.

4

5

- placement of new hard substrate in the Bay suitable for herring spawning;
- seasonal and/or tidal wetland restoration around Bay margins, or contribution of funding
   to another agency exclusively for that purpose; and/or
  - other aquatic habitat enhancement measures, or contribution of funding to another exclusively for that purpose.

6 The exact type, magnitude, and location of mitigation shall be determined when site-specific 7 design is developed. In general, the following guidelines shall be used to determine suitability of 8 the mitigation proposal. The mitigation should:

- replace as closely as possible the habitat resources lost;
- be as close to the impact site as possible; and
- be similar in size to the impact area.

12 If the mitigation is completed coincident with or subsequent to the habitat impacts, the mitigation 13 area should be larger than if the mitigation is completed prior to the habitat impacts to 14 compensate for temporal habitat losses.

- 15 **\* \* \***
- 16 **Mitigation 4.12-5:** A qualified observer shall be present on site during all in-water construction 17 activities near potential herring spawning areas between December 1 and March 1.
- 18 This measure applies to Impact 4.12-4 and Cumulative Impact 5.12-1.
- 19 This measure shall be enforced via contract specifications. The observer shall have the 20 authority to redirect, but not to stop work.
- 21 \*\*\*
- 22 **Mitigation 4.12-6:** If spawning is observed, in-water construction activities shall be redirected 23 for 200 meters around the spawning area for two weeks.
- 24 This measure applies to Impact 4.12-4 and Cumulative Impact 5.12-1.
- Work may resume in the spawning area after two weeks, providing additional spawning does not occur. This measure shall be enforced via contract specifications.
- 27 \*\*\*

28 **Mitigation 4.12-7:** Application for a tree preservation/tree removal permit from the City of 29 Oakland for all protected trees shall comply with the Tree Ordinance, which includes 30 replacement of native trees at a minimum of a 1:1 ratio. The Port is not subject to the City's 31 ordinance, but shall replace native trees at a minimum ratio of 1:1.

- 1 This measure applies to Impact 4.12-6.
- A City tree permit requires a map of the affected trees and submission of development plans. <u>Unless certain exceptions are met, any native tree</u> removed in the project requires at least a 1:1 mitigation. In addition to the ordinance requirements, development of the area shall result in landscaping of the area, and shall create a beneficial aesthetic effect. <u>Although the Port is not</u> <u>subject to the City's ordinance, it shall replace native trees at a minimum ratio of 1:1.</u>
- 7 \*\*\*

8 **Mitigation 4.12-8:** Trees shall be removed between September 1 and January 31 to avoid the 9 nesting season (February 1 to August 31). Alternatively, field surveys shall be conducted no 10 earlier than 45 days and no later than 20 days prior to the removal of any trees during the 11 nesting/breeding season of bird species potentially nesting on the site to determine whether 12 birds are present.

- 13 This measure applies to Impact 4.12-7 and Cumulative Impact 5.12-1.
- 14 **\* \* \***
- Mitigation 4.12-9: Construction shall not occur within 150 feet of an active nest until the nest is
   vacated or the juveniles have fledged.
- 17 This measure applies to Impact 4.12-7 and Cumulative Impact 5.12-1.
- 18 In the event that an active nest is discovered in the areas to be disturbed or in other habitats 19 within 150 feet of construction boundaries, clearing and construction within 150 feet shall be 20 postponed until the nest is vacated and juveniles have fledged (approximately 3 to 4 weeks for 21 small passerines), as determined by the biologist, and there is no evidence of second nesting 22 attempts. Nests located near existing haul roads shall not require a 150-foot buffer zone.
- This mitigation will prevent the take of any special-status birds or nests during construction within the redevelopment area. Special-status birds include those birds protected by the Migratory Bird Species Act.

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- Mitigation 4.12-10: The Port shall continue to enforce its tariff requirements regarding ballast
   water and if the State law sunsets, shall implement the remainder of its ballast water ordinance,
   as it may be amended from time to time.
- 30 This measure applies to impact 4.12-8 and Cumulative Impacts 5.12-1 and 5.12-3.

31 Item No. 02215 of the Port's tariff (its operating rules and regulations) defines the Port's Ballast 32 Water Management Program. Among other things, the Port's program compiles information 33 regarding the ballasting behavior of carriers calling at the Port of Oakland. This information is 34 expected to be valuable in crafting durable solutions to the problems ballast water-borne 35 invasive species pose to the ecology of the Bay, and to invasive species issues elsewhere. This mitigation measure would continue the Port's program through the build-out year of this project,
 or 2020, or until required by regulatory permit conditions, whichever is later. Should portions of
 the Port's program be redundant to federal, state, or regional programs, or be pre-empted by
 such programs, the Port will continue to operate those non-pre-empted portions of its program
 that provide information not obtained through other programs.

# 6 **\*\*\***

- 7 Mitigation 4.12-11: The Port shall continue to develop and implement a carrier ballast water
   8 education program.
- 9 This measure applies to Impact 4.12-8 and Cumulative Impacts 5.12-1 and 5.12-3.
- Either by itself or by participating in programs by others, *e.g.*, Sea Grant, the Port shall create a program to educate ocean carriers regarding the potential harm of ballasting activities. The program shall at a minimum, include the following elements:
- Educate carriers to all applicable regulations and guidelines.
  - Inform carriers of the benefits of ships constructed with internal ballast water transfer systems. These systems allow ballast water to be shifted internally from tank to tank, minimizing or eliminating the need for discharge of ballast water when ships are at berth
    - Encourage carriers to purchase internally-ballasting vessels when they place orders for new ships.
      - Educate carriers regarding potential benefits of reducing ballast water discharges, even if ballast water has already been exchanged in the open ocean.
- 21 \*\*\*
- Mitigation 4.12-12: The Port shall support international and United States efforts to adopt uniform international or national standards to avoid introduction of exotic species through shipping activities.
- 25 This measure applies to Impact 4.12-8 and Cumulative Impacts 5.12-1 and 5.12-3.
- The Port shall provide in-kind (personnel) support to assist international and U.S. entities to develop and adopt a uniform set of standards to reduce the risk of invasive species. In order to achieve optimal environmental success and to maintain a competitive market between ports, it is important that such standards be effective and uniformly applied.
- 30 \*\*\*
- 31 **Mitigation 4.12-13:** Contractors and developers shall comply with all conditions imposed by 32 the RWQCB for fill of wetlands.
- 33 This measure applies to Impact 4.12-9 and Cumulative Impact 5.12-2.
- The RWQCB may issue waste discharge requirements or a conditioned waiver of such requirements for fill of these wetlands. In either case, the developer responsible for the wetlands

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fill (City, Port or private), as well as that developer's contractor, shall comply with the conditions
 imposed. The developer shall impose any relevant conditions on their contractor via contract
 specifications.

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- 6 2.11 GEOLOGY, SEISMICITY, AND SOILS
- Mitigation 4.13-1: Redevelopment elements shall be designed in accordance with criteria
   established by the UBC, soil investigation and construction requirements established in the
   Oakland General Plan, the Bay Conservation and Development Commission Safety of Fill
   Policy, and wharf design criteria established by the Port or City of Oakland (depending the
   location of the wharf).
- 12 This measure applies to Impacts 4.13-1, 4.13-2, 4.13-3, and 4.13-5, and to Cumulative Impact 13 5.13-1.
- 14 The UBC requires structures in the San Francisco Bay Area to be designed to withstand a 15 ground acceleration of 0.4 g. A licensed engineer should monitor construction activities to 16 ensure that the design and construction criteria are followed.
- 17 The Health and Safety element of the Oakland General Plan requires a soils and geologic report 18 be submitted to the Department of Public Works (DPW) prior to the issuance of any building 19 permit. The Oakland General Plan also requires all structures of three or more stories to be 20 supported on pile foundations that penetrate Bay Mud deposits, and to be anchored in firm, non-21 compressible materials unless geotechnical findings indicate a more appropriate design. The 22 General Plan also provides for the identification and evaluation of existing structural hazards 23 and abatement of those hazards to acceptable levels of risk.
- To comply with the BCDC safety of fill policy, the plans and specifications for the placement of Bay fill will be submitted to the BCDC Engineering Criteria Review Board for review and approval.
- The Port of Oakland has developed wharf design criteria to be used in the design, construction, reconstruction, and repairs of existing and future wharf structures, except in the event that current engineering practice requires adjustments or modification of the wharf design criteria. All construction associated with New Berth 21 must adhere to the wharf design criteria established by the Port of Oakland. A licensed engineer should monitor construction activities to ensure that the design and construction criteria are followed.
- 32 The City shall adopt wharf design criteria and apply them to any wharf in the City's jurisdiction.
- 33 \*\*\*
- 34 Mitigation 4.13-2: Redevelopment elements shall be designed and constructed in accordance
   35 with requirements of a site-specific geotechnical evaluation.

- 1 This measure applies to Impacts 4.13-1, 4.13-2, 4.13-3, 4.13-5, and 4.13-6, and to Cumulative 2 Impact 5.13-1.
- 3 Site-specific geotechnical, soils, and foundation investigation reports shall be prepared by a 4 licensed geotechnical or soil engineer experienced in construction methods on fill materials in 5 an active seismic area. The reports shall provide site-specific construction methods and 6 recommendations regarding grading activities, fill placement, compaction, foundation 7 construction, drainage control (both surface and subsurface), and seismic safety. Designers and 8 contractors shall comply with recommendations in the reports. A licensed geotechnical or soil 9 engineer shall monitor earthwork and construction activities to ensure that recommended site-10 specific construction methods are followed.
- 11 The Oakland General Plan requires all structures of three or more stories to be supported on 12 pile foundations that penetrate Bay Mud deposits and to be anchored in firm, non-compressible 13 materials unless geotechnical findings indicate a more appropriate design. The General Plan 14 also provides for the identification and evaluation of existing structural hazards and abatement 15 of those hazards to acceptable levels of risk.
- 16 \*\*\*
- Mitigation 4.13-3: Prior to ground-disturbing activities, the contractor shall develop and
   implement a Regional Water Quality Control Board-acceptable Stormwater Pollution Prevention
   Plan (SWPPP) that includes erosion control measures.
- 20 This measure applies to Impact 4.13-4.
- 21 The contractor shall prepare and implement a site-specific SWPPP that is acceptable to the 22 RWQCB, Region 2. The contractor shall submit the SWPPP to the City or Port for review, and 23 shall keep a copy of the SWPPP at the construction site. While erosion control measures 24 included in the plan will be site-specific, they must be effective at prevention of accelerated 25 erosion by the following: minimizing the length of time soils are exposed; reducing total area of 26 exposed soil during the rainy season; protecting critical areas (the Bay); and monitoring before 27 and after each rain storm to assess control measure effectiveness. SWPPP erosion control 28 measures may include, and are not limited to, the following:
- Schedule construction to occur during dry season
- Avoid run-on (divert run-off from up-slope sites so it does not enter construction zone)
- Preserve existing vegetation
- 32 Seed and mulch, or hydromulch
- 33 Control dust
- Use blankets, geotextiles, and fiber rolls

- 1 Install tire washers at exits
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3 **Mitigation 4.13-4:** The project applicant shall thoroughly review available building and 4 environmental records.

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5 This measure applies to Impact 4.13-6.

6 The City and Port shall keep a record of, and the designer shall review, available plans, and 7 facility, building, and environmental records in order to identify underground utilities and 8 facilities, so that these may be either avoided or incorporated into design as relevant.

9 \*\*\*

10 **Mitigation 4.13-5:** The developer shall perform due diligence, including without limitation, 11 retaining the services of subsurface utility locators and other technical experts prior to any 12 ground-disturbing activities.

13 This measure applies to Impact 4.13-6.

The contractor shall utilize Underground Service Alert or other subsurface utility locators to identify and avoid underground utilities and facilities during construction of redevelopment elements. The contractor shall keep a record of its contacts regarding underground features, and shall make these records available to the City or Port upon request. This condition shall be enforced through contract specification.

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#### 21 2.12 GROUNDWATER

22 **Mitigation 4.14-1**: Installation of groundwater extraction wells into the shallow water-bearing 23 zone or Merritt Sand aquifer for any purpose other than construction de-watering and 24 remediation, including monitoring, shall be prohibited.

25 This measure applies to Impact 4.14-1 and Cumulative Impact 5.14-1.

26 Implementation of this measure would prevent saltwater from being drawn into the aquifer and 27 potentially causing fresh water to become brackish or saline. Limiting extraction of shallow 28 groundwater and groundwater from the Merritt Sand unit will prevent potential impacts to 29 existing study area groundwater resources.

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31 **Mitigation 4.14-2**: Extraction of groundwater for construction de-watering or remediation, 32 including monitoring, shall be minimized where practicable; if extraction will penetrate into the

- deeper aquifers, than a study shall be conducted to determine whether contaminants of concern
   could migrate into the aquifer; if so, extraction shall be prohibited in that location.
- 3 This measure applies to Impact 4.14-2 and Cumulative Impact 5.14-1.

Implementation of this measure would prevent unnecessary extraction of groundwater and
prohibit its extraction where contaminants of concern could migrate into deeper aquifers;
therefore it will help avoid or reduce the potential migration of contaminants. The City and Port
shall ensure that groundwater extraction, other than for remediation or construction dewatering,
is minimized where practicable in the redevelopment project area.

9 **\* \* \*** 10 **\*** 

#### 11 2.13 SURFACE WATER

Mitigation 4.15-1: Prior to in-water construction, the contractor shall prepare a water quality
 protection plan acceptable to the RWQCB, including site-specific best management practices
 for protection of Bay waters, and shall implement this plan during construction.

- 15 This measure applies to Impact 4.15-1 and Cumulative Impact 5.15-1.
- 16 BMPs to effectively control turbidity and/or contaminant suspension and migration would be site-17 specific. They may include, and are not limited to, the following:
- Use environmental or clamshell dredges or hydraulic cutterhead dredges designed to reduce release of solids.
- Reduce or eliminate overflow of decant water from barges used to transport material.
- Use silt curtains or other specialized equipment to reduce dispersion of material during dredging and filling operations.
- 23 \*\*\*
- 24 **Mitigation 4.15-2:** Contractors and developers shall comply with all permit conditions from the 25 Corps, RWQCB and BCDC.
- 26 This measure applies to Impact 4.15-1 and Cumulative Impact 5.15-1.
- 27 This measure shall be enforced on Contractors by contract specifications.
- 28 \*\*\*

- 1 **Mitigation 4.15-3:** Prior to ground-disturbing activities, the contractor shall develop and 2 implement a Stormwater Pollution Prevention Plan to be reviewed by the City or the Port, 3 including erosion and sediment control measures.
- 4 This measure applies to Impact 4.15-2 and Cumulative Impact 5.15-1.

5 All construction activities shall be undertaken in accordance with requirements of the National 6 Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges 7 Associated with Construction Activity (General Permit). The General Permit requires that all 8 dischargers develop and implement a SWPPP that specifies BMPs that would prevent 9 construction pollutants from contacting stormwater with the intent of keeping products of erosion 10 from moving off site into receiving waters.

- 11 The contractor shall prepare and implement a site-specific SWPPP. The SWPPP shall be 12 reviewed by either the City or Port, and shall be available for review by the RWQCB. While 13 erosion/sediment/pollution control measures included in the plan would be site-specific, they 14 must be effective at prevention of accelerated erosion by the following: minimizing the length of 15 time soils are exposed; reducing total area of exposed soil during the rainy season; protecting 16 critical areas (the Bay); and monitoring before and after each rain storm to assess control 17 measure effectiveness. BASMAA's Start at the Source-Design Guidance for Stormwater 18 Quality Protection, 1999 edition, is a helpful reference for developing appropriate BMPs. 19 SWPPP erosion and sediment control measures may include, and are not limited to, the 20 following:
- 21 <u>Le</u>Schedule construction to occur during dry season;
- 22 <u>2.•</u> Avoid run-on (divert run-off from up-slope sites so it does not enter construction zone);
- 23 <u>3.</u> Preserve existing vegetation;
- 24 <u>4.•</u> Seed and mulch, or hydromulch;
- 25 <u>5.</u> Dust control;
- 26 <u>6.</u>Blankets, geotextiles, fiber rolls; and
- 27 <u>7.•</u> Tire washers at exits.
- Additional SWPPP sediment control measures may include, and are not limited to, the following:
- Stabilize the construction entrance;
- 30 Silt fencing;
- Temporary straw bale dike;
- Sand/gravel bag;

- 1 Brush/rock filter: •
- 2 Inlet protection; •
  - Catch basin inlet filter: and •
- 4 Sediment basin or trap. •

SWPPP pollution control measures generally are "good housekeeping" BMPs, and may include, and are not limited to, establishing practices and protocols for the following:

- 7 Solid and demolition waste management; •
- 8 Hazardous materials and waste management; •
- 9 Spill prevention and control; •
- 10 Vehicle and equipment maintenance;
- 11 Covered materials storage;
- 12 • Handling and disposal of concrete/cement;
- 13 Pavement construction management; •
- 14 Contaminated soil and water management; and •
- 15 Sanitary/septic waste management. •
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Mitigation 4.15-4: Prior to construction or remediation, the contractor shall develop and 17 18 implement a Stormwater Pollution Prevention Plan, including protocols for determining the 19 quality and disposition of construction water which includes shallow groundwater encountered 20 during construction/remediation; depending on the results of the testing, contaminated water 21 shall be disposed of via standards of the applicable regulatory agency (RWQCB, DTSC, or 22 EBMUD), as appropriate. In addition, the contractor shall comply with the requirements of 23 NPDES Permit Nos. CAG912002 and CAG912003 if appropriate.

24 This measure applies to Impact 4.15-3 and Cumulative Impact 5.15-2.

25 The contractor's SWPPP shall include a RWQCB-acceptable protocol and BMPs for handling 26 construction water. The SWPPP shall include methods for visual inspection, triggers for 27 laboratory testing, and appropriate use/disposal of the water. The contractor must also determine if NPDES Permit Nos. CAG912002 and CAG912003 are relevant to the site. If they 28 29 are, an NOI must be filed, and the related Self-Monitoring Plan must be complied with.

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- 1 **Mitigation 4.15-5:** Post-construction controls of stormwater shall be incorporated into the 2 design of new redevelopment elements to reduce pollutant loads.
- 3 This measure applies to Impact 4.15-4 and Cumulative Impact 5.15-2.

NPDES permitting requires that BMPs to control post-construction stormwater be implemented
to the maximum extent practicable. Analysis of anticipated runoff volumes and potential effects
to receiving water quality from stormwater shall be made for specific redevelopment elements,
and site-specific BMPs shall be incorporated into design. BMPs shall be incorporated such that
runoff volume from 85 percent of average annual rainfall at a development site is pre-treated
prior to its discharge from that site, or a pre-treated volume in compliance with RWQCB policy in
effect at the time of design.

- 11 Non-structural BMPs may include and are not limited to good housekeeping and other source 12 control measures, such as the following:
- Stencil catch basins and inlets to inform the public they are connected to the Bay;
- Sweep streets on a regular schedule;
- Use and dispose of paints, solvents, pesticides, and other chemicals properly;
- Keep debris bins covered; and
- Clean storm drain catch basins and properly dispose of sediment.

18 Structural BMPs may include and are not limited to the following:

- Minimize impervious areas directly connected to storm sewers;
- Include drainage system elements in design as appropriate such as:
  - infiltration basins
    - detention/retention basins
  - vegetated swales (biofilters)
  - curb/drop inlet protection.
- 25 **\* \* \***
- 26 **Mitigation 4.15-6:** Site-specific design and best management practices shall be implemented to 27 prevent runoff of recycled water to receiving waters.
- 28 This measure applies to Impact 4.15-5.
- 29 Design of subsequent redevelopment activities shall ensure recycled water does not leave the 30 site and enter receiving waters. Best management practices shall be implemented to prevent

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runoff of recycled water. These BMPs may be either structural or non-structural in nature and
 may include but are not limited to the following:

- Preventing recycled water from escaping designated use areas through the use of:
  - berms
  - detention/retention basins
  - vegetated swales (biofilters)
- Not allowing recycled water to be applied to irrigation areas when soils are saturated.
  - Plumbing portions of irrigation systems adjacent to receiving waters with potable water.
- 9 \*\*\*
- Mitigation 4.15-7: New development shall conform with policies of the City of Oakland's
   Comprehensive Plan Environmental Health Hazards Element regarding flood protection.
- 12 This measure applies to Impact 4.15-6.

The Hazards Element includes development controls that place the burden of demonstrating flood safety upon the individual developer. In addition, the Hazards Element includes policies regarding support of flood control and management programs of other agencies, maintenance of the natural character of creeks to the maximum extent possible, and City participation in the federal Flood Insurance Program.

- 18 **\* \* \***
- 19 **Mitigation 4.15-8:** The City and the Port shall complete flood hazard mapping in the project 20 area, where necessary and applicable, to delineate 100- and 500-year flood hazard zones.
- 21 This measure applies to Impact 4.15-6.

The City and Port shall determine with the appropriate federal agencies (FEMA, Corps) the necessity and process for mapping flood hazard zones within the non-mapped portions of the project area. If necessary and applicable, the City and/or Port shall cause a flood hazard delineation for the 100-year and 500-year flood hazard zones to be prepared, which would submit the delineation to the Corps for verification. Once verified, the delineation would be submitted to FEMA, for inclusion to the Flood Insurance Program.

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