

1 **4.9 PUBLIC SERVICES AND UTILITIES**

2 Public services include those services addressing community needs, and are usually provided  
3 by local or regional government, although the government may privatize these services. Public  
4 services include fire and emergency response, police protection, schools, libraries, and solid  
5 waste recycling, hauling, and disposal.<sup>1</sup> In addition, hospitals, which serve community need,  
6 may be publicly or privately operated, and are included in the discussion of public services.  
7 Utilities may be privately or publicly owned and operated, and include wastewater collection,  
8 transport, treatment, and discharge; stormwater collection, transport, possibly treatment, and  
9 discharge; water treatment and supply; telecommunications, and power (gas and electricity).

10 Redevelopment would result in substantial benefits to all utility systems and would eliminate or  
11 minimize leakage problems associated with aging water, stormwater, and sanitary sewerage  
12 systems. With implementation of measures recommended in this section, the potentially  
13 significant and significant impacts would be mitigated to a level that is less than significant.

14 **4.9.1 Study Area**

15 The study area for utilities and public services is the approximately 1,800 redevelopment project  
16 area, and the service areas of public service providers and utilities that service the  
17 redevelopment project area.

18 **4.9.2 Regulatory Setting**

19 **Federal**

20 **Public Services: Emergency Response.** The Federal Emergency Management Agency  
21 (FEMA) is an independent agency of the federal government, established in 1979 via executive  
22 order. FEMA’s mission is as follows:

23 *to reduce loss of life and property and protect our nation's critical infrastructure*  
24 *from all types of hazards through a risk-based, emergency management program*  
25 *of preparedness, response and recovery.*

26 FEMA provides direction and assistance to state and local governments, but does not regulate  
27 approaches to emergency planning or response.

28 **Utilities: Water.** The objective of the Clean Water Act (CWA, 33 United States Code [USC]  
29 §§ 1251 *et seq.*) is “to restore and maintain the chemical, physical, and biological integrity of the  
30 Nation’s waters . . .” and it requires states to establish water quality standards to protect  
31 designated uses for all waters of the nation. In practice, implementation of many aspects of the  
32 CWA under the United States Environmental Protection Agency (EPA) has been delegated to

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<sup>1</sup> Note that public parks are discussed in Section 4.10: Recreation and Public Access.

1 the states. This includes regulation of discharges from private industry and public facilities, such  
2 as wastewater treatment plants.

3 The Safe Drinking Water Act (SDWA, 42 USC §§ 300f *et seq.*) is the primary federal law  
4 regulating drinking water quality; it establishes standards intended to protect public health,  
5 safety, and welfare. The EPA implements the SDWA, which delegates its authority under the  
6 SDWA to the states.

7 **State**

8 **Public Services: Emergency Response.** California Government Code Section 8607(a)  
9 authorizes establishment of the Standardized Emergency Management System (SEMS). Title  
10 19, Division 2, Chapter 1 of the California Code of Regulations (CCR, §§ 2400-2540) defines  
11 SEMS, including its purpose, scope, structure, and applicability. SEMS is intended to  
12 standardize response to emergencies involving multiple jurisdictions or multiple agencies. Local  
13 government must use SEMS in order to be eligible for state funding of response-related  
14 personnel costs occurring in response to an emergency incident.

15 **Public Services: Solid Waste.** The California Integrated Waste Management Board (IWMB) is  
16 responsible for achieving a 50 percent diversion of waste from landfills by 2000. The IWMB  
17 works directly with local agencies and businesses to reduce waste at the source, and  
18 encourage recycling.

19 **Utilities: Water Supply.** The California Urban Water Management Planning Act, Division 6,  
20 Part 2.6 of the California Water Code, requires that an understanding of urban water demands  
21 and efficient use of water are to be actively pursued by water suppliers. Section 10610.4 of the  
22 Act requires water suppliers to actively pursue efficient use of available water supplies, and  
23 Section 10620 establishes the requirement for every urban water supplier to prepare and adopt  
24 an urban water management plan (UWMP). Each UWMP must do the following:

- 25
- 26 • describe the suppliers' services area;
  - 27 • identify and quantify (to the extent practicable) existing and planned water sources;
  - 28 • describe the reliability of water supplies;
  - 29 • describe opportunities for exchanges or transfers of water;
  - 30 • quantify past, current, and projected water use; and
  - 31 • describe and evaluate the supplier's water demand management measures.

32 These plans are updated every five years.

33 Senate Bill 610 recently amended the California Environmental Quality Act (CEQA, PRC  
34 §§ 21000 *et seq.*) to require that projects of a certain magnitude or greater, (i.e., 500 unit-plus-  
residential development or hotel; 500,000 square feet or more of commercial space or shopping

center; 650,000 square feet or more of industrial park) to comply with Section 10910 of the California Water Code, which requires an assessment of water supply.

The requirements for contents of the water supply assessment are found at California Water Code Section 10910, and include an identification of any existing water supply entitlements, water rights, or water service contracts and a description of the quantities of water received in prior years by the public water system.

If no water has been received in prior years by the public water system under the existing water supply entitlements, water rights, or water service contracts, the public water system, the assessment must also include an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water.

Government Code Sections 65601 through 65607, Water Reuse, codify the Recycled Water in Landscaping Act, which requires municipalities to adopt an ordinance requiring use of recycled water for landscaping uses where recycled water of appropriate quality is made available by the water purveyor. In January 2002, The Oakland City Council adopted the Water Reuse Ordinance (adding new §16.08.303(l) to the City's Subdivision Ordinance), which applies to development meeting all of the following criteria:

- The site is located within an ordinance-designated Water Reuse Area.
- The development requires land subdivision of five or more parcels.
- New water hook-ups from the East Bay Municipal Utility District (EBMUD) are required.
- Development includes common, or shared, areas that will be plumbed.

The City's ordinance identifies the entire redevelopment project area as located within a Water Reuse Area (City of Oakland 2001, 2002).

The Port of Oakland is currently in the process of developing a ordinance functionally equivalent to the City's (Port of Oakland 2002).

**Utilities: Water Quality.** The Porter-Cologne Water Quality Control Act (Division 87 of the California Water Code §§ 13000 *et seq.*; California Code of Regulations [CCR] Title 23, Subchapter 15) provides the basis for water quality regulation within California. This act establishes the authority of the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The study area is located within the jurisdiction of the San Francisco Bay Region RWQCB (Region 2), which conducts planning, permitting, and enforcement activities under the Act. The Act also authorizes waste discharge requirements for municipal wastewater treatment facilities through the National Pollution Discharge Elimination System (NPDES) program. The RWQCB grants and administers NPDES permits under a provision of the Act, which established effluent limitations and water quality requirements for wastewater plant discharges. In 2000, the SWRCB began to more stringently

1 evaluate the RWQCBs' effectiveness in controlling urban runoff. In turn, the RWQCBs began to  
2 require new construction to include "post-construction controls" in project design. Such controls  
3 may be implemented via a variety of techniques intended to provide primary treatment of  
4 stormwater prior to its discharge to the storm sewer system.

5 The Department of Health Services (DHS) regulates drinking water and implements the Safe  
6 Drinking Water Act. The DHS oversees public water systems. California's regulations for  
7 domestic water quality and monitoring, including primary and secondary drinking water  
8 standards, are contained in Title 22, Division 4, Chapter 15 of the California Code of  
9 Regulations (also Health and Safety Code).

10 The state requires that public water systems meet two groups of water quality standards:  
11 primary and secondary drinking water standards. Primary drinking water standards, known as  
12 Maximum Contaminant Levels (MCLs), are legally enforceable standards that regulate  
13 contaminants which could threaten public health. Secondary drinking water standards are used  
14 to regulate contaminants that affect the taste, odor, and appearance of water, and are  
15 enforceable for new potable water sources.

16 The California RWQCB, San Francisco Bay Region, has established water quality objectives to  
17 define the level of water quality to be maintained for designated beneficial uses. Water  
18 designated for use as domestic or municipal supply shall not contain concentrations of  
19 constituents in excess of the limits specified in Title 22 of the California Code of Regulations.  
20 The RWQCB has proposed to de-designate groundwater in the project area as a potential  
21 source of municipal drinking water.

22 **Utilities: Telecommunications and Power.** The California Public Utilities Commission (CPUC)  
23 regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit,  
24 and passenger transportation companies. It is the responsibility of the CPUC to: assure  
25 California utility customers safe, reliable utility service at reasonable rates; protect utility  
26 customers from fraud; and promote a healthy California economy. The Public Utilities Code,  
27 adopted by the Legislature, defines the jurisdiction of the California Public Utilities Commission  
28 (CPUC 2001).

29 **Local**

30 The Land Use and Transportation Element (LUTE) of the *Oakland General Plan* describes  
31 Oakland services and some utilities, identifies providers, and presents an outlook on the long-  
32 term provision of services. The General Plan does not include specific goals or policies  
33 regarding service systems or utilities relevant to the redevelopment program.

34 The Environmental Services Division of the Oakland Public Works Agency manages the  
35 Oakland Recycles Program. This program provides information and guidance to residents,  
36 businesses, schools, and contractors regarding source reduction and recycling.

1 **4.9.3 Regional Setting**

2 The region under consideration is the City of Oakland. The following discussion is based on  
3 information from the LUTE and other sources.

4 **Public Services**

5 **Fire, Hazardous Materials Incident Response.** The Oakland Fire Department (OFD) provides  
6 fire and local emergency response (rescue, hazardous materials [“hazmat”] response, and first  
7 responder emergency medical services) throughout the City. Three battalions and 26 fire  
8 stations serve the City. Each is equipped and staffed for fire suppression and first responder  
9 hazmat response; one station is staffed and equipped with hazmat experts; most stations are  
10 also equipped and staffed for emergency medical response (see below). The OFD is budgeted  
11 to have 492 full-time firefighters (131 on duty at any given time), and 67 support staff. The OFD  
12 goal is to respond to fires within seven to nine (7 to 9) minutes (OFD 2002).

13 **Emergency Response.** The OFD Office of Emergency Services (OES) is responsible for  
14 coordination of response to a wide-spread emergency. The OES prepares, maintains, and  
15 updates the City’s Response Concept, a written plan that describes how OES intends to  
16 respond to widespread incidents (OFD 2002). The Response Concept, prepared in accordance  
17 with state requirements under the Standardized Emergency Management System (SEMS),  
18 describes the structure and role of the City’s emergency management organization. The  
19 Response Concept is the emergency response plan for the City, and addresses the following  
20 topics:

- 21 • Mutual aid to and from nearby jurisdictions to provide available emergency resources
- 22 • Public information (media coordination)
- 23 • Coordination of advanced warning information
- 24 • Authority to respond
- 25 • Coordination of state and local/regional emergency operations centers
- 26 • Emergency operations
- 27 • State and federal coordination
- 28 • Recovery response

29 Annex H of the Response Concept includes policies and procedures for the evacuation or  
30 dispersal of people from threatened or hazardous areas during a natural disaster. Annex H  
31 includes maps of routes that would serve as the main entry to the area by emergency response  
32 personnel, as well as the main exit from the area for evacuees. These routes and emergency  
33 response staging areas are depicted on Figure 4.9-1. Industrialized land along both sides of  
34 Maritime Street are identified as staging areas, and West Grand Avenue and 7<sup>th</sup> Streets as first  
35

- 1           Insert
- 2           Figure 4.9-1   First Responder/Evacuation Routes and Staging Areas
- 3

1 responder/evacuation routes. The Response Concept and Annex H are currently under  
2 revisions, and that revision can accommodate changes to the area proposed by redevelopment  
3 (OFD 2002a).

4 The Response Concept is a blueprint for management of and coordination during an emergency  
5 event and its recovery. So-called “annexes” to the Response Concept include specific “on the  
6 ground” information, such as emergency response routes and evacuation routes. The Response  
7 Concept and its annexes are currently in revision, and are expected to be updated to reflect the  
8 redevelopment program (OFD 2002a).

9 **Medical Response.** Recently, medical response capabilities have been augmented as each  
10 emergency responder unit has Emergency Medical Technician (EMT) training and can provide  
11 Basic Life Support (BLS) services. The Alameda County Medical Services District contracts with  
12 American Medical Response Ambulance Company and OFD to respond to medical  
13 emergencies. In 1999, the OFD initiated a city-wide program of advanced life support paramedic  
14 training for OFD personnel, including 960 hours of classroom, hospital, and field instruction. In  
15 addition, the OFD has hired 93 licensed paramedics, all of whom have firefighter training.  
16 Currently, 21 of 26 fire companies are staffed with licensed paramedic personnel. Paramedic  
17 implementation will conclude by 2003.

18 **Police Protection.** The Oakland Police Department (OPD) provides police services throughout  
19 the City. OPD has an authorized staffing of 748 sworn officers, 426 support staff, and 25  
20 reserve officers.

21 OPD operates from the downtown station at 455 7<sup>th</sup> Street and the Eastmont Substation at 73<sup>rd</sup>  
22 and Bancroft avenues. Officers patrol three areas, each commanded by a Captain of Police.  
23 Each area has two Police Service Areas (PSAs), except the North and West Oakland Area  
24 which has three PSAs. A Lieutenant of Police commands each PSA.

25 On each of three daily watches an officer is assigned to each of 35 police beats. All PSAs are  
26 patrolled 24 hours per day, with officers working 10-hour overlapping shifts (“watches”). The 3<sup>rd</sup>  
27 watch and 1<sup>st</sup> watch officer overlap from 9:00 p.m. to 2:00 am.

28 In addition, OPD operates a police boat from Fire Station No. 2 at 100 Jack London Square.  
29 Two reserve officers maintain this boat and patrol the Oakland Harbor area. The boat is  
30 primarily used to enforce boating laws, and to maintain a police presence in the Inner Harbor  
31 from the Park Street Bridge to Outer Harbor (OPD 2001 a, b).

32 The OPD receives approximately 74,000 emergency calls per month; the priority of each call is  
33 classified according to a four-level system. While OPD does not officially document its response  
34 time, priority calls are dispatched within one minute of receiving the call (OPD 2001c).

35 **Schools.** The Oakland Unified School District (OUSD) manages and operates 80 elementary,  
36 middle, and high schools in Oakland, serving more than 53,000 students (OUSD 2001).

1       **Libraries.** The City of Oakland Public Library is a department of the City's Life Enrichment  
2       Agency. It serves Oakland via a bookmobile serving more than 60 locations, as well as multiple  
3       permanent locations: the Main Library on 14<sup>th</sup> Street, 15 neighborhood branches, and the  
4       Second Start Adult Literacy Program on 15<sup>th</sup> Street. The Oakland Library serves an estimated  
5       population of approximately 421,000 (Oakland Public Library 2000).

6       **Solid Waste.** In 2000, the City disposed of approximately 423,000 tons of solid waste at several  
7       landfills (IWMB 2001). The City estimates the sources of solid waste as follows:

- 8       • Residences           30 percent
- 9       • Commercial         40 percent
- 10      • Industry             30 percent

11       Waste Management of Alameda County collects most solid waste generated within the City, and  
12       transports it to the Davis Street transfer station in San Leandro, which accepts wastes of the  
13       following types: construction/demolition, green materials, mixed municipal, tires, and wood mill.  
14       From the transfer station, approximately 76 percent by weight of the City's disposed waste is  
15       hailed to the Altamont landfill, located in eastern Alameda County, which accepts a wide variety  
16       of waste types, including asbestos-containing wastes. Contractors haul most construction and  
17       demolition debris either to recycling facilities, or to the Vasco Road landfill north of Livermore.

18       The California IWMB reports the Davis Street transfer station is permitted for a peak throughput  
19       of 5,000 tons per day (tpd), and in 2000 operated at approximately 3,800 tpd, or about 76  
20       percent of its permitted throughput. Altamont landfill is permitted for a peak throughput of 11,150  
21       tpd, and in 2000 operated at approximately 4,090 tpd, or about 37 percent of its permitted  
22       throughput (IWMB 2001). It currently has 58.9 million cubic yards of capacity, estimated to be  
23       sufficient through year 2008 (IWMB 2001; City of Oakland 1998). Vasco Road landfill is  
24       permitted for a peak throughput of 2,518 tpd, and operates at approximately 2,503 tpd, or about  
25       99 percent of its permitted throughput (IWMB 2001). It currently has 31.9 million cubic yards of  
26       capacity, estimated to be sufficient through year 2014 (IWMB 2001; City of Oakland 1998).

27       From 1995 through 2000, the years for which records are available, Oakland has increased the  
28       percentage of waste recycled from 27 to 50 percent (City of Oakland Public Works Agency  
29       2001). These estimates are similar to those of the IWMB.

30       **Hospitals.** Oakland is served by the following major hospitals:

- 31       • Children's Hospital, 747 52<sup>nd</sup> Street, Oakland;
- 32       • Alameda County Medical Center, Highland Hospital Campus, 1411 East 31<sup>st</sup> Street,  
33       Oakland;
- 34       • Kaiser Permanente Medical Center, 280 West MacArthur Boulevard, Oakland;
- 35       • Summit Medical Center, 350 Hawthorne Avenue, Oakland; and

- Alta Bates Medical Center, 2450 Ashby Avenue, Berkeley (serves North Oakland).

## **Utilities**

**Wastewater.** Generally, the City of Oakland provides city-wide sewage collection services, and the East Bay Municipal Utility District (EBMUD), a publicly-owned utility, provides sewage transport (large-diameter and interceptor-level pipeline), treatment, and discharge services. The Oakland Public Works Department provides sewage collection services for approximately 39 square miles within the city. According to the LUTE, within the region, the City owns, operates, and maintains five pump stations, and approximately 4.5 million linear feet of pipeline ranging in size from 6 inches to 72 inches in diameter. The Oakland sewage collection system discharges to EBMUD's sewer interceptor system, comprising approximately 29 miles of large-diameter pipeline, ranging in size from 9 to 12 feet in diameter.

The EBMUD interceptor system transports sewage to that utility's Main Wastewater Treatment Facility (WWTF), located in northwest Oakland immediately south of the I-80/I-880/I-580 interchange (the MacArthur maze). The Main WWTF treats domestic, commercial, and industrial wastewater, and currently experiences an annual average flow of approximately 80 million gallons per day (mgd). The WWTF can provide secondary treatment for a maximum flow of 168 mgd, and primary treatment for up to 320 mgd; storage basins provide plant capacity for a short-term hydraulic peak of 415 mgd. Treated effluent is discharged from the WWTF to San Francisco Bay south of the Bay Bridge approximately one mile from the east Bay shoreline via a 102-inch-diameter deep-water outfall pipeline (EBMUD 2001a). EBMUD discharges in compliance with conditions of permits granted the District by the RWQCB under the National Pollutant Discharge Elimination System (NPDES) Program.

**Stormwater.** The Oakland Public Works Department operates and maintains approximately 300 miles of stormwater collection and transport pipelines ranging in size from 6 inches to 9 feet in diameter. The storm sewer pipelines are primarily reinforced concrete. The system includes approximately 9,400 inlets and 5,850 manholes. The City's stormwater system discharges to facilities owned and maintained by the Alameda County Flood Control and Water Conservation District (ACFCD), a department within the Alameda County Public Works Agency. In Oakland, ACFCD system facilities include channels, pipelines, dams, erosion control devices, pump stations, and other miscellaneous facilities, such as tide gates. The Oakland Public Works Department maintains a list of problems related to inadequate storm drainage system-wide and is currently conducting a study to assess these problems and recommend improvements.

**Potable and Reclaimed Water.** EBMUD serves Oakland with potable and reclaimed water from its Orinda Water Treatment Plant and its Main WWTF, respectively. In order to minimize treatment while protecting public health, it is the policy of EBMUD to provide drinking water from the highest quality source available; that source is currently the Mokelumne River. Pursuant to the requirements of the Urban Water Management Act, EBMUD prepared and adopted UWMPs in 1985, 1991, 1996, and 2001. The current plan states that total service area customer demand in 2000 was 230 mgd, and when adjusted for conservation and the use of reclaimed water, net

1 customer demand was 216 mgd. The UWMP projects that 2020 service area net customer  
2 demand will be 229 mgd (EBMUD 2000).

3 In 1993, EBMUD completed an extensive examination and analysis of its Water Supply  
4 Management Program (WSMP), that addresses EBMUD's ability to reliably serve its current and  
5 future customers through year 2020. Results of the WSMP supply and demand analysis match  
6 results of alternative analysis for the UWMP with a high level of confidence. The WSMP  
7 analysis indicates that with aggressive conservation and reclamation, EBMUD can meet its  
8 obligation to serve its current and future customers in normal rainfall years. However, in years of  
9 drought, even with aggressive conservation and reclamation coupled with 25 percent rationing  
10 throughout the service area, EBMUD predicts a shortfall in excess of 62 mgd. For more than 30  
11 years, EBMUD has pursued a supplemental source of high-quality raw water from the American  
12 River. However, due to long-term strong political and environmental opposition to this plan,  
13 EBMUD recently entered into an agreement with the County of Sacramento and the U.S.  
14 Bureau of Reclamation to access the Sacramento River as the source of supplemental EBMUD  
15 water supplies (EBMUD 2001b).

16 EBMUD projects that in 2020, customers will use 14 mgd (9 billion gallons per year) of  
17 reclaimed water for landscape irrigation and for some industrial and commercial uses. Because  
18 the supply of EBMUD reclaimed water far exceeds demand, in times of drought, reclaimed  
19 water provides a much more stable source of water, not subject to rationing (EBMUD 1999a, b).  
20 EBMUD policy and regulations may require its customers and applicants to use recycled water  
21 when such water is of adequate quality and quantity, available at a reasonable cost, not  
22 detrimental to public health, and not injurious to plant, fish, or wildlife (EBMUD 1999c).

23 **Power.** Pacific Gas & Electric (PG&E) Company, a private investor-owned utility, distributes  
24 natural gas and generates and distributes electricity to nearly all areas of the City. Restructuring  
25 and deregulation of California's electric industry, combined with unanticipated growth and lack  
26 of new generation facilities, has resulted in instability of electric supply. This instability is  
27 reflected in the bankruptcy of PG&E in April 2001. It has also resulted in rolling black-outs,  
28 events during which power is cut to specific areas for several hours at a time to reduce demand  
29 on the electric grid system. Such measures can be expected to continue during periods of peak  
30 demand until sufficient generation facilities are operational, in 2002 or 2003.

#### 31 **4.9.4 Local Setting**

32 The analysis of impacts to potable water use/supply, energy consumption, and school  
33 attendance use an alternative baseline for only the OARB portion of the project area. For these  
34 factors, both the current environmental setting, and the environmental baseline in 1995 are  
35 described. For remaining factors, current setting information is provided.

1       **Public Services**

2       **Fire and Emergency Response.** Fire Stations No. 2 and No. 3 provide fire protection, hazmat  
3       response, and emergency response services to the study area. The OFD expects both stations  
4       to be staffed by licensed paramedic personnel by the end of 2002 (OFD 2001c). In addition,  
5       Station No. 2, at 100 Jack London Square (immediately east of the study area at the base of the  
6       Franklin Delano Roosevelt pier) is staffed 24 hours per day by one officer and three fire-fighters.  
7       It has one engine and one boat for fire suppression.

8       Station No. 3, at 1445 14<sup>th</sup> Street (approximately five blocks east of the study area) is staffed 24  
9       hours per day by two officers and six firefighters. It has one engine and one truck for fire  
10      suppression, and houses OFD's primary hazmat response team, which provides the first  
11      response to major spills or releases of hazardous materials throughout the OFD service area  
12      (OFD 2001b).

13      The OFD paramedic training facility is an interim use located in OARB Building No. 590.

14      **Police Protection.** The study area is located within Oakland Police Department (OPD) Beats  
15      No. 02Y, No. 05Y, and No. 01X. The OPD provides police services to the Maritime and  
16      16<sup>th</sup>/Wood sub-districts. Contracted private guard service currently patrol the OARB sub-district,  
17      acting as first responder; OPD provides additional support within OARB (OPD 2001).

18      In accordance with the terms and conditions of a City of Oakland–Port of Oakland memorandum  
19      of understanding (MOU), the Port funds two full-time commercial officer positions to enforce  
20      truck-related regulations in West Oakland.

21      **Schools, Setting.** The study area is within the boundaries of two OUSD schools: Prescott  
22      Elementary and McClymonds High. In 2000, Prescott Elementary, located at 920 Campbell  
23      Street in West Oakland, served 640 students in kindergarten through 8<sup>th</sup> grade. McClymond  
24      High, located at 2507 Myrtle Street in West Oakland, served 819 students in grades 9 through  
25      12 in 2000 (OUSD 2001). In addition, the Oakland Military Institute College Preparatory  
26      Academy and a Head Start facility are located in the OARB sub-district.

27      Based on data from the 2000 U.S. Census, an average of 0.51 school-aged child resides in  
28      each Oakland household (U.S. Department of Commerce 2000). The redevelopment project  
29      area has approximately 20 residential loft units, and this analysis estimates approximately 10  
30      school-aged children live in the Maritime sub-district.

31      **Schools, Alternative Baseline.** In 1995, approximately 45 school children living at the OARB  
32      attended Oakland public schools. No other school-aged children lived in the redevelopment  
33      project area in 1995 (Corps 2001).

34      **Libraries.** The West Oakland branch library is located at 18<sup>th</sup> and Adeline streets in West  
35      Oakland. This branch houses the Public Library's bookmobile, and maintains free Internet  
36      access for patrons. The West Oakland branch library also sponsors several unique programs for

children, and others related to the history and culture of West Oakland. The West Oakland branch includes meeting rooms, and accommodates public forums by appointment (Oakland Public Library 2001).

**Hospitals.** The hospital nearest the study area is Summit Medical Center. A mental health and substance abuse facility serving military personnel is located within the Port development area of the OARB sub-district (within the Army Reserve Enclave), east of Maritime Street.

**Utilities**

Information for utility systems serving the OARB sub-district is summarized from the *Oakland Army Base Utility Study Utilities Systems Review* (Earth Tech 2000). For the remainder of the study area, information is generally summarized from the LUTE (City of Oakland 1998).

Throughout the redevelopment study area, a variety of entities supply resource-based utilities; these entities may or may not operate and maintain the utility systems. At the OARB, the Port of Oakland serves as the “qualified utility provider,” whereby the Port operates and maintains several of the utility systems. Redevelopment project area providers and system operators are, as follows:

Utility	Supplier	System Operator (area)
Wastewater collection		City (16 <sup>th</sup> /Wood) Port (OARB, Maritime)
Wastewater transport		EBMUD
Wastewater treatment		EBMUD
Stormwater collection, transport		City, Alameda County Flood Control District (16 <sup>th</sup> /Wood) Port (OARB, Maritime)
Potable, reclaimed water	EBMUD	EBMUD (16 <sup>th</sup> /Wood) Port (OARB, Maritime)
Solid waste		Waste Management
Electricity	WAPA PG&E	OARB, Maritime 16 <sup>th</sup> /Wood
Gas	PG&E	PG&E
Telecommunications	Pacific Bell	Pacific Bell

**Wastewater.** For the entire study area, EBMUD provides sanitary sewage transport (intercepting and lift stations), treatment and disposal services. Within the 16<sup>th</sup>/Wood sub-district, the Oakland Public Works Department owns, operates, and maintains the sewage collection system. Within the OARB sub-district, the Army owns, and the Port operates and maintains the sewage collection system. In addition, there is a single septic tank at Building No. 991. In the Maritime sub-district, the Port owns, operates, and maintains the collection system. The EBMUD 102-inch outfall pipeline, a pile-supported structure, starts at EBMUD’s main WWTF northeast of the OARB, traverses westerly just north of the Baldwin Yard, then immediately north of and parallel to Burma Road, and continues to its outfall point approximately one mile west of the eastern Bay shoreline. Prior to its discharge to the Bay, effluent is de-chlorinated by the addition of sodium bisulfide at a de-chlorination facility located at the Gateway Peninsula. This facility is located within a cinderblock building. Chemicals are stored in double-walled tanks, located within a bermed enclosure.

The redevelopment project area is located entirely within sewer collection basin 64 (Oakland North). Sewer collection basin 64 is subdivided into 15 numbered and one unnumbered (“X”)

1 sewer collection sub-basins. Each numbered sub-basin encompasses a specific physical area,  
2 and its sewer flows are assigned to a single discharge point from the City's collection system to  
3 the EBMUD interceptor system, in this case EBMUD's South Interceptor. The unnumbered sub-  
4 basins represent the total area within the larger sewer collection basin not located within a  
5 numbered sub-basin, and flows are not assigned to a specific discharge point along the EBMUD  
6 transport system. Each sub-basin is allocated a certain amount of sewer flow that may be  
7 discharged to the EBMUD system, and flows within a sub-basin normally may not exceed that  
8 allocation. Should a sub-basin require more flow than its allocation, allocation may be redirected  
9 between adjacent sub-basins, or allocation assigned to the unnumbered sub-basin may be  
10 redirected to a numbered sub-basin. In total, however, flows for the larger sewer basin may not  
11 exceed that basin's allocation. In this manner, EBMUD ensures the capacity of its wastewater  
12 transport and treatment system is adequate to serve development as planned and as proposed.  
13 The portion of the project area anticipating physical redevelopment spans all or a portion of the  
14 following sewer collection sub-basins: 64-4, 64-5, 64-12, 64-13, 64-14, 64-15, and 64-X. Total  
15 gross allocation for these sub-basins is 14.2 mgd.

16 **Stormwater.** The City of Oakland Public Works Department and the ACFCD serve the  
17 16<sup>th</sup>/Wood sub-district. The Port of Oakland owns and maintains the storm sewer system within  
18 the majority of the Maritime sub-district. The Port of Oakland is constructing its Vision 2000  
19 Maritime Development Program along the Oakland Inner and Middle harbors. This major port  
20 and regional recreation program includes a new stormwater system subject to permit conditions  
21 imposed by the RWQCB. Within the OARB sub-district, the Army owns, and the Port operates  
22 and maintains the storm sewer system, including pipelines, manholes, 440 catch basins, and 11  
23 outfall structures discharging to the Oakland Outer Harbor.

24 **Potable and Reclaimed Water, Setting.** The EBMUD treats potable water for the entire study  
25 area. Within the 16<sup>th</sup>/Wood and Maritime sub-districts, EBMUD also transports potable water to  
26 each customer's meter. Within the OARB sub-district, the Army owns, and the Port operates  
27 and maintains the water distribution system from two connections to the EBMUD system, one  
28 located near the intersection of 14<sup>th</sup> and Maritime streets, and the other located near the West  
29 Grand Avenue over-crossing near I-80. A 12-inch water line owned by the City of San Francisco  
30 and serving Treasure Island, is located north of OARB in the I-80 right-of-way. This line provides  
31 a third connection to the OARB, although that connection is not utilized.

32 EBMUD does not currently serve the study area with reclaimed water. It does plan, however, to  
33 serve the area with reclaimed water through its East Bayshore Recycled Water Project.  
34 Recommended reclaimed water pipeline routes as depicted in the project's EIR would traverse  
35 the OARB and Maritime sub-districts in Maritime Street and 7<sup>th</sup> Street, and would be located  
36 adjacent to the 16<sup>th</sup>/Wood sub-district in Wood Street (EBMUD 2001c).

37 Current (2001) daily water demand for the redevelopment project area is estimated at  
38 approximately 991,500 gallons per day, as follows:

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1 **Potable and Reclaimed Water, Alternative**  
2 **Baseline (1995).** In the baseline year of 1995,  
3 actual daily water use at the OARB averaged  
4 184,100 gallons over a 12-month period  
5 (EBMUD 2001d).

<b>Sub-District</b>	<b>Gallons per Day, Rounded to Nearest 100 Gallons<sup>2</sup></b>
OARB	205,400
Maritime	760,200
16 <sup>th</sup> /Wood	25,900
<b>Total</b>	<b>991,500</b>

6 **Solid Waste.** Solid waste generated within the  
7 study area is ultimately disposed at the Altamont landfill. Within the 16<sup>th</sup>/Wood and Maritime  
8 sub-districts, Waste Management of Alameda County collects solid waste, processes it through  
9 the Davis Street transfer station, and disposes it at the landfill. Within the OARB sub-district,  
10 Waste Management collects and disposes of waste at the Altamont landfill ( Corps 1999).

11 **Power, Setting.** PG&E distributes natural gas to the entire study area. Within the OARB sub-  
12 district, PG&E distributes gas under “interruptible” terms, whereby delivery is subject to supply  
13 or capacity restrictions.

14 PG&E supplies and distributes electricity throughout the 16<sup>th</sup>/Wood sub-district and to a portion  
15 of the OARB sub-district. Within the majority of the OARB sub-district, a Port-owned 12 kV  
16 power line supplements the PG&E supply from the Western Area Power Association (WAPA)-  
17 supplied, Port-owned Davis sub-station, located on Maritime Street near 7<sup>th</sup> Street. The Port  
18 distributes 12 kV power to most of the Maritime sub-district as well as Treasure Island from its  
19 Davis sub-station. Existing feeder into the OARB switchgear can deliver 7.4 MW; the switchgear  
20 itself is rated at between twice and three times that amount. Four feeder circuits, each rated at  
21 5.3 megavolt amperes can supply a total of 5 MW, well above historic peak demand (Corps  
22 2001). In 1999, peak electrical demand at the OARB was 1.5 megawatts (MW) (Earth Tech  
23 2000).

24 **Power, Alternative Baseline (Electricity, 1995).** In the 1995 baseline year, peak demand for  
25 electricity at the OARB was just under 3 MW (Corps 2001).

26 **Telecommunications.** Pacific Bell operates and maintains the telecommunications system in  
27 the redevelopment project area, and own most of the system outside the OARB sub-district.  
28 Within the OARB, Pacific Bell has a primary point of interface in Building No. 780 and an  
29 intermediate distribution frame in Building No. 1. The Army owns the remainder of the telephone  
30 infrastructure equipment at the OARB. Pacific Bell provides service to all tenants at the Base.

### 31 4.9.5 Impact Analysis Methodology

32 As allowed by CEQA, where relevant, the analysis of impacts of community reuse of a military  
33 base may be based on environmental conditions that existed at the time the federal government

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<sup>2</sup> Demand for the OARB is taken from metered usage averaged over a 12-month period. Demand for the Maritime and 16<sup>th</sup>/Wood sub-districts is derived from EBMUD’s “Average Land Use Demands by Location” methodology. See Appendix 4.9 for calculation of water demand estimates for 2001 and 2020.

1 made the decision to close the base, rather than current existing conditions. For the OARB, this  
2 decision was made in 1995. The analysis of impacts to potable water use/supply, energy  
3 consumption, and school attendance use this alternative baseline for only the OARB portion of  
4 the project area.

5 **Significance Criteria**

6 Redevelopment would have a significant impact on the environment if it would:

- 7 • Result in substantial adverse physical impacts associated with the provision of new or  
8 physically altered governmental facilities, need for new or physically altered governmental  
9 facilities, the construction of which could cause significant environmental impacts, in order to  
10 maintain acceptable service ratios, response times or other performance objectives for any  
11 of the public services:
  - 12 Fire protection;
  - 13 Police protection;
  - 14 Schools<sup>3</sup>; or
  - 15 Other public facilities;<sup>4</sup>
- 16 • Impair implementation of or physically interfere with an adopted emergency response plan  
17 or emergency evacuation plan;
- 18 • Exceed wastewater treatment requirements of the San Francisco Bay RWQCB;
- 19 • Require or result in construction of new storm water drainage facilities or expansion of  
20 existing facilities, construction of which could cause significant environmental effects;
- 21 • Exceed water supplies available to serve the redevelopment program from existing  
22 entitlements and resources, and require or result in construction of water facilities or  
23 expansion of existing facilities, construction of which could cause significant environmental  
24 effects;
- 25 • Result in a determination by the wastewater treatment provider that serves or may serve the  
26 redevelopment program that it does not have adequate capacity to serve the redevelopment  
27 program's projected demand in addition to the providers' existing commitments and require  
28 or result in construction of new wastewater treatment facilities or expansion of existing  
29 facilities, construction of which could cause significant environmental effects;
- 30 • Be served by a landfill with insufficient permitted capacity to accommodate the  
31 redevelopment program's solid waste disposal needs and require or result in construction of

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<sup>3</sup> While school impacts are discussed, mitigation for such impacts is limited to allowable fees as established by Government Code Section 69955.

<sup>4</sup> Effects to public recreation facilities are disclosed in Section 4.10: Recreation and Public Access.

1 landfill facilities or expansion of existing facilities, construction of which could cause  
2 significant environmental effects;

- 3 • Violate applicable federal, state, or local statutes and regulations related to solid waste;
- 4 • Violate applicable federal, state or local statutes and regulations relating to energy  
5 standards;
- 6 • Result in a determination by the energy provider that serves or may serve the project that it  
7 does not have adequate capacity to serve the project's projected demand in addition to the  
8 providers' existing commitments and require or result in construction of new energy facilities  
9 or expansion of existing facilities, construction of which could cause significant  
10 environmental effects; or
- 11 • Accelerate or advance the timing and extent of roadway repair requirements in and around  
12 the project area to a greater extent than would otherwise be required for roadway upkeep  
13 and repair under normal vehicular flow conditions.

14 Not all criteria listed above apply to proposed redevelopment, and those that do not apply are  
15 not analyzed below. Safeguards are currently in place that would prohibit wastewater treatment  
16 requirements of the San Francisco RWQCB to be exceeded. For example, EBMUD is required  
17 to operate within its RWQCB-granted NPDES permit, which includes conditions on discharge  
18 quantity and quality specifically intended to ensure that high receiving water quality results. In  
19 addition, the City of Oakland may not exceed its flow allocations in each relevant EBMUD sewer  
20 collection sub-basin; again, this measure ensures that EBMUD has both the sewage transport  
21 and treatment capacity planned to ensure high receiving water quality. The NPDES-permitted  
22 discharge quality and quantity levels in EBMUD's NPDES permit represent the legal baseline for  
23 impact analysis. As long as redevelopment as proposed would not cause EBMUD to operate  
24 outside its permit conditions, no wastewater impacts would occur.

25 **4.9.6 Impacts**

26 Redevelopment as proposed would include the following activities or elements that could affect  
27 public services or utilities:

28 **Construction.** Demolition of buildings, removal of pavement and asphalt, possible removal of  
29 underground infrastructure (increases in solid waste); installation of underground utilities (new  
30 storm and sanitary sewers, potable water, reclaimed water, natural gas, telecommunications,  
31 and electrical systems); construction vehicles (deterioration of local roadways).

32 **Operations.** New and increased employment centers, commercial, and residential uses, with  
33 increased daytime population and industrial activity northwest of I-880, and increased day-time  
34 and nighttime population southeast of I-880 (increased demand for fire, emergency response,  
35 police, and first medical response services; slight increase in school enrollment, library, and  
36 hospital services; increased demand for water supply and treatment and sanitary sewer  
37 transport and treatment; increased solid waste; accelerated roadway deterioration).

**Benefits**

Redevelopment as proposed would result in repair and/or replacement of the majority of the existing water supply, stormwater collection/discharge, and collection sanitary sewer systems. This would result in new infrastructure systems designed and constructed to modern municipal standards. Losses in leaking water lines, contamination in storm sewer pipelines, and inflow/infiltration to sanitary sewer pipelines would be substantially lowered. This would result in lower water usage, cleaner receiving waters, and lower sanitary sewer flows than would otherwise occur with reuse of the old systems, a substantial environmental benefit.

As noted in Section 4.7: Hazardous Materials, reconstruction of the existing storm sewer system would eliminate a source of environmental contamination, a substantial benefit.

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**Impacts**

**Impact 4.9-1:** Construction activities and increases in employees and residents as well as increased building density would increase demand for fire, hazmat, and first responder medical emergency services.

**Significance:** Significant for long-term fire and first responder medical emergency response

Less than significant for hazmat response

**Mitigation 4.9-1:** The City and Port shall cooperatively investigate the need for, and if required shall fund on a fair-share basis construction and operation of a fire station in the OARB sub-district. Construction and operation of this fire station shall occur in accordance with all applicable measures recommended in this EIR to mitigate environmental impacts of such construction and operation.

**Residual Significance:** Less than significant

The redevelopment program would include activities such as demolition/de-construction, site preparation, and utilities installation that could result in a short-term increase in the need for fire, first responder medical emergency, and hazmat response services. This short-term need is not expected to require new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives, and the short-term impact to these services is considered less than significant.

As is currently the case, redevelopment could result in the transport of hazardous materials along access routes, and the transport, handling, and use of such materials within the redevelopment project area. The quantities and types of hazardous materials used in redevelopment operations are likely to differ than those currently used, but in any case,

1 redevelopment would not introduce new types of hazardous materials to an area. It is not  
2 expected the potential long-term need for hazardous response services would require new or  
3 physically altered government facilities in order to maintain acceptable service ratios, response  
4 times, or other performance objectives, and the long-term impact to these services is  
5 considered less than significant.

6 For fire, first responder medical emergency, and hazmat response services, it is possible that  
7 due to increases in both daytime and full-time populations, existing equipment and staffing may  
8 not be adequate to serve the redevelopment project area. When the City grants permits for  
9 redevelopment or subsequent redevelopment activities, the permit may include conditions  
10 requiring payment of monies to defray the costs of increased equipment or staffing of facilities  
11 needed to provide adequate services.

12 Although the exact type and location of redevelopment physical elements is not currently  
13 defined, redevelopment would result in replacement of old structures or vacant parcels with new  
14 structures designed to modern building codes. This would reduce the long-term need for fire  
15 response services based on structure age and type. This is counter-balanced, however, by the  
16 intensification of land uses and increased activity levels in the OARB sub-district (including the  
17 presence of more than 10,000 new local employees), the distance of the sub-district from the  
18 nearest public fire station, and the intervening elevated I880 requires access to the site from  
19 any Oakland fire station across elevated structures. Such structures may be compromised in a  
20 major seismic event, isolating the OARB and most of the Maritime sub-districts from emergency  
21 responders. This combination of factors could result in response times unacceptable to the OFD  
22 for fire and first responder medical emergency services (OFD 2002b), requiring new facilities  
23 whose construction may have a significant impact on the environment, and the effect of  
24 redevelopment relative to fire and first responder medical emergency services is considered  
25 significant. With implementation of Mitigation Measure 4.9-1, the impact would be rectified, and  
26 the residual impact is considered less than significant. Because mitigation for this impact may  
27 be a physical facility, implementation of this measure may in itself result in significant impacts to  
28 the environment. If required, the facility would be located within the OARB sub-district, and its  
29 construction and operation would be subject to the same mitigation program as all other  
30 redevelopment activities. It is, therefore, included in the analysis of impacts for the  
31 redevelopment program as a whole. In addition, Mitigation Measure 4.3-8 is intended to address  
32 isolation of a portion of the Gateway development from emergency responders.

33 Section 4.8: Population, Housing, and Employment, describes the projected long-term increase  
34 in both business and residential population expected from redevelopment as proposed. This  
35 increase in the number of people working and living in the area could increase the need for first  
36 responder medical emergency services. It is not expected the potential long-term need for first  
37 responder medical emergency services would require new or physically altered government  
38 facilities in order to maintain acceptable service ratios, response times, or other performance  
39 objectives, and the long-term impact to these services is considered less than significant.





1 the project area at the OARB in the baseline year of 1995, the net potential increase in student  
2 population due to redevelopment is approximately 145 students.

3 The 16<sup>th</sup>/Wood sub-district is within the boundaries of Prescott Elementary School and  
4 McClymonds High school. The redevelopment-generated long-term need for school services is  
5 not expected to require new or physically altered government facilities in order to maintain  
6 acceptable performance objectives, and the long-term impact to these services is considered  
7 less than significant.

8 While new or altered physical facilities that could result in an impact to the environment are not  
9 expected to be required as a result of redevelopment, it is possible that due to increases in  
10 student population, existing equipment and staffing may not be adequate to serve the  
11 redevelopment project area. Pursuant to Government Code Section 65595, fees, charges,  
12 dedications, or other requirements imposed on development in amounts not to exceed those  
13 established by that code section considered full and complete mitigation for any school-related  
14 impacts.



16 **Impact 4.9-4:** Increases in residential population could increase demand for library  
17 services.

18 **Significance:** Less than significant

19 **Mitigation:** Mitigation is not warranted.

20 Redevelopment would result in 375 new live-work units in the 16<sup>th</sup>/Wood sub-district. Based on  
21 *Projections 2002*, Oakland households are expected to have an average of 2.6 persons in  
22 2020; in addition, total population growth between 200 and 2020 is projected to be 10.1 percent  
23 (Association of Bay Area Governments [ABAG] 2001). Using the ABAG methodology, the  
24 residential population increase resulting from redevelopment would be 975 persons. Because  
25 live/work is generally not family housing, this is a conservative estimate. In 2000, the Oakland  
26 library system served 421,050 persons (Oakland Public Library 2001). Using ABAG  
27 assumptions regarding population growth, this number would increase to approximately 463,800  
28 by 2020. Assuming all new redevelopment-generated residents become library patrons,  
29 redevelopment would represent an increase in patronage of approximately 0.2 percent, and  
30 impact to library services is considered less than significant.

31 While new or altered physical facilities that could result in an impact to the environment are not  
32 expected to be required as a result of redevelopment, it is possible that due to increases in  
33 student population, existing equipment and staffing may not be adequate to serve the  
34 redevelopment project area. When the City grants permits for redevelopment or subsequent  
35 redevelopment activities, the permit may include conditions requiring payment of monies to

1 defray the costs of increased equipment or staffing of school facilities needed to provide  
2 adequate services.



4 **Impact 4.9-5:** Increases in employee and residential population could increase  
5 demand for hospital services.

6 **Significance:** Less than significant

7 **Mitigation:** Mitigation is not warranted.

8 During construction, redevelopment as proposed could result in a slight short-term increase in  
9 the need for hospital services. Section 4.8: Population, Housing, and Employment, describes  
10 the projected long-term increase in both business and residential population expected from  
11 redevelopment as proposed. The net increase in the number of people working and living in the  
12 area could increase the long-term need for hospital services. The short-term and long-term  
13 need for hospital services are not expected to require new or physically altered facilities in order  
14 to maintain acceptable service ratios, response times, or other performance objectives, and the  
15 impact to these services is considered less than significant.



17 **Impact 4.9-6:** Redevelopment construction could interfere with operation of the  
18 Maritime Street emergency response staging area, or with the West  
19 Grand Avenue and 7<sup>th</sup> Street evacuation routes.

20 **Significance:** Potentially significant

21 **Mitigation 4.9-2:** The Port and City shall work with OES to ensure changes in local  
22 area circulation are reflected in the revised Response Concept.

23 **Mitigation 4.9-3:** The Port and City shall require developers within their respective  
24 jurisdictions to notify OES of their plans in advance of construction or  
25 remediation activities.

26 **Residual Significance:** Less than significant

27 Large-scale construction, particularly relocation of Maritime Street and re-construction of the 7<sup>th</sup>  
28 Street rail structure has the potential to interfere with emergency first responder/evacuation  
29 routes. Because occurrence of this impact depends on a large scale emergency that may or  
30 may not occur, the impact is considered potentially significant. With implementation of Mitigation  
31 Measures 4.9-2 and 4.9-3, this impact would be substantially reduced, and the residual impact  
32 is considered less than significant.



**Impact 4.9-7:** The new storm sewer system for the 16<sup>th</sup>/Wood sub-district would expand existing facilities.

**Significance:** Less than significant

**Mitigation:** Mitigation is not warranted.

Redevelopment as proposed in the 16<sup>th</sup>/Wood sub-district would require that new or expanded storm drains be constructed, and that new system would tie into the existing municipal system. Because redevelopment of the 16<sup>th</sup>/Wood sub-district would be infill on currently or previously developed lands, it would not result in substantially greater impervious cover, or increased amounts of storm run-off than occurred when the area was fully developed. While the local storm drain system must be rebuilt, it would not be built with excess capacity that could induce additional growth (see Chapter 6: Consideration of Impacts of Proposed Redevelopment, for a discussion of the potential of the redevelopment program to induce growth). Physical environmental impacts of storm sewer reconstruction are taken into consideration in various locations within this chapter, depending on the environmental factor impacted or potentially impacted. Additional impacts beyond those already disclosed in this document are not anticipated.



**Impact 4.9-8:** Redevelopment would increase potable water demand.

**Significance:** Significant

**Mitigation 4.9-4:** Individual actions with landscaping requirements of one or more acres shall plumb landscape areas for irrigation with reclaimed water.

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

**Mitigation 4.9-6:** Site design shall facilitate use of reclaimed water, and shall comply with requirements of CCR Title 22 regarding prohibitions of site run-off to surface waters.

**Residual Significance:** Less than significant

Redevelopment as proposed would increase employed and resident population and intensify land use within the project area in a manner that would increase water demand. Utilizing metered water usage at the OARB, and the East Bay Municipal Water District land-use based

1 methodology for calculating water demand for off-Base areas within the project area, total  
2 estimated water demand in 2001 is approximately 991,500 gallons per day (gpd); for the  
3 baseline year, water use was 970,200.<sup>5</sup> Water demand for the entire redevelopment project  
4 area in 2020 is projected to be approximately 1.5 million gallons per day (mgd); approximately  
5 614,000 gpd in the OARB sub-district, 747,000 gpd in the Maritime sub-district, and 126,000  
6 gpd in the 16<sup>th</sup>/Wood sub-district. Assuming 2001 demand, increased water demand due to  
7 redevelopment is projected to be approximately 495,300 gpd; assuming baseline year demand,  
8 increased water demand due to redevelopment is projected to be approximately 516,500 gpd.  
9 This analysis conservatively does not assume the OARB water system is leaking, although this  
10 would be reasonable to assume, given the system is of World War II vintage; moreover usage is  
11 higher in 2001 than in 1995, when the Base was fully operational, which may indicate that  
12 leakage is occurring and is becoming worse over time.

13 Pursuant to Section 10910 of the California Water Code and the requirements of CEQA, the  
14 City requested that EBMUD assess the water demand of the redevelopment program, as well  
15 as EBMUD's ability to serve that demand. The findings of the water demand and supply  
16 assessment, and EBMUD's response to the City's request is included as Appendix 4.9 to this  
17 document. The findings of the assessment conclude that EBMUD has sufficient supplies to  
18 meet the demand of the redevelopment program in years of normal rainfall. Given the findings  
19 of the water supply assessment, demand of the redevelopment program would not exceed  
20 available water supplies from existing entitlements and sources. Neither would the program  
21 require construction or expansion of water supply or treatment facilities, and the impact of  
22 redevelopment to water supplies in normal years is considered less than significant.

23 Under drought conditions, EBMUD would not have sufficient water to serve all customer  
24 demand within its service boundary, including the redevelopment program. This is considered a  
25 significant impact. Under drought conditions, EBMUD would ration potable water to its  
26 customers, including those located within the redevelopment project area, consistent with its  
27 most current UWMP (EBMUD 2000). Implementation of EBMUD's drought condition rationing  
28 program in combination with Mitigation Measures 4.9-4, 4.9-5, and 4.9-6, would substantially  
29 reduce demand for potable water from redevelopment during critical water supply events,  
30 consistent with EBMUD policies. The residual impact is considered less than significant.

31 ❖ ❖ ❖

32 **Impact 4.9-9:** Redevelopment would increase sewer flows to the EBMUD transport  
33 and treatment system.

34 **Significance:** Less than significant

35 **Mitigation:** Mitigation is not warranted.

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<sup>5</sup> Data of metered water use at the OARB, and the EBMUD water demand and supply assessment are included in this document as Appendix 4.9.

1 During wet weather events and in times when groundwater is at its highest level (e.g., after one  
2 or more high-rain seasons), groundwater inflow and infiltration (I/I) to the sanitary sewer system  
3 can account for the majority of sewer flows. Moreover, groundwater in the Maritime and OARB  
4 sub-districts is normally relatively shallow. As with the water system, the OARB sewerage  
5 system is of World War II vintage; conversely, much of the Maritime sub-district system was  
6 recently installed as part of the Port of Oakland's Vision 2000 Program. All or nearly all sanitary  
7 sewer pipelines in the OARB and 16<sup>th</sup>/Wood sub-districts would be removed, and a new sewer  
8 system would be constructed as part of the redevelopment program.

9 Based on standard flow factors, and assuming reconstruction of large portions of the system as  
10 described above, sewer flows for the redevelopment program are estimated to be approximately  
11 898,000 gpd, average dry weather flow (ADWF), and 2.6 mgd peak weather flow (PWWF).  
12 These protected flows would not exceed allowable sewer collection sub-basin allocations.<sup>6</sup>  
13 Sewer flows from the redeveloped project area would not exceed the capacity of either the  
14 sewer transport or treatment systems, and the impact is considered less than significant.



16 **Impact 4.9-10:** Redevelopment would increase the quantity of solid waste, and  
17 demand for solid waste services.

18 **Significance:** Potentially significant

19 **Mitigation: 4.9-7:** To the maximum extent feasible, the City and Port shall jointly  
20 participate in a deconstruction program to capture materials and  
21 recycle them into the construction market.

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

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

28 **Residual Significance:** Less than significant

29 While the City currently complies with waste diversion requirements of 50 percent,  
30 redevelopment activities could generate waste in quantities that could jeopardize that  
31 compliance. During construction, demolition of buildings would generate large amounts of wood,  
32 metal, ceramic, and other materials. Removal of existing building slabs, roads, and parking lots  
33 would generate substantial amounts of concrete and asphalt. It is not likely these materials  
34 would be generated in quantities that would threaten landfill capacity, but they may be produced

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<sup>6</sup> Analysis of sewer flows on a sub-basin basis is included in this EIR as Appendix 4.9.

1 in quantities sufficient to hamper the City's ability to achieve mandated waste diversion goals.  
2 Because the volume and weight of construction debris cannot be estimated with accuracy, the  
3 impact is considered potentially significant. With implementation of Mitigation Measures 4.9-7,  
4 4.9-8 and 4.9-9, the impact would be substantially reduced, and the residual impact is  
5 considered less than significant. In addition, Mitigation Measure 4.6-5, primarily intended to  
6 mitigate impacts to historic resources, would further mitigate impacts related to construction-  
7 phase solid waste.

8 During the operations phase, redevelopment would generate the types and quantities of solid  
9 waste typical of the types of uses anticipated: transportation, industrial, office/R&D, commercial,  
10 and live/work. An analysis of the quantity of solid waste generation, diversion, and disposal  
11 related to redevelopment is included as Appendix 4.9 to this EIR. Using waste generation  
12 factors utilized in other environmental analysis as summarized by the IWMB, redevelopment is  
13 expected to generate approximately 27,600 tons per year (tpy) of solid waste. Accounting for  
14 existing solid waste generation from the OARB sub-district (which would be replaced with new  
15 land uses) of 10,600 tpy, net solid waste generation from redevelopment would be 17,100 tpy.  
16 Accounting for Oakland's historic 50 percent diversion rate, net solid waste for disposal  
17 attributable to redevelopment would be 8,500 tpy. This is less than 2 percent of total Oakland  
18 disposal in 2000, and less than 0.3 percent of total waste disposed daily at the Altamont and  
19 Vasco Road landfills. The redevelopment-specific impact to public services relative to solid  
20 waste is considered less than significant.



22 **Impact 4.9-11:** Redevelopment could increase demand for energy.

23 **Significance:** Less than significant

24 **Mitigation:** Mitigation is not warranted.

25 Redevelopment would replace approximately 3.3 million square feet of enclosed building area  
26 constructed to 1940s standards, with approximately 4.1 million enclosed square feet of modern,  
27 insulated, buildings. Although square footage would increase by approximately 25 percent  
28 relative to the existing condition, due to the use of modern materials with excellent insulation  
29 capabilities, energy consumption per square foot for climate control is likely to be greatly lower  
30 than the current condition. In the absence of development details, energy use is difficult to  
31 estimate in a meaningful manner. While new land uses may require substantial power, there is  
32 excess capacity in the existing system that would allow for considerable growth (Corps 2001).  
33 PG&E can deliver up to approximately 7.4 megawatts (MW) of power to switching station that  
34 serves the area. Should this entire capacity be used, it would represent less than 0.02 percent  
35 of California electricity consumption in 2000 (California Energy Commission [CEC] 2001).  
36 Accounting for baseline year consumption (3 MW), net estimated consumption would be 4.4  
37 MW, less than 0.01 percent of California 2000 consumption. Existing capacity is adequate to  
38 serve redevelopment, and additional facilities or sources of energy would not need to be

1 developed. The redevelopment-specific effect on energy resources would be less than  
2 significant.



4 **Impact 4.9-12:** Both construction/remediation vehicles and increased operations  
5 vehicle activity would accelerate or advance deterioration of local  
6 roadways and the timing and extent of roadway maintenance/repair.

7 **Significance:** Significant

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

13 **Residual Significance:** Less than significant

14 Due to their weight, heavy-duty construction/remediation vehicles and on-road equipment could  
15 accelerate deterioration of local roadways. During operations, increased activity levels would  
16 result in increased vehicle trips associated with all redevelopment sub-districts. Some of these  
17 increased trips would be extra-heavy truck trips, allowed only in the Port area. Increases in trips,  
18 which are described in Section 4.3: Transportation and Traffic, would accelerate or increase  
19 physical deterioration of local roads, which is considered a significant impact. With  
20 implementation of Mitigation Measure 4.9-10, the impact would be substantially rectified or  
21 compensated for, and the residual impact is considered less than significant. In addition,  
22 Mitigation Measure 4.8-13, intended to primarily address traffic impacts would also further  
23 mitigate this impact.



25 **4.9.7 Mitigation**

26 Implementation of the following mitigation measures will avoid, minimize, reduce, rectify, or  
27 compensate for significant impacts of redevelopment.

28 **Mitigation 4.9-1.** The City and Port shall cooperatively investigate the need for, and if required,  
29 shall fund on a fair-share basis construction and operation of a fire station in the OARB sub-  
30 district. Construction and operation of this fire station shall occur in accordance with all  
31 applicable measures recommended in this EIR to mitigate environmental impacts of such  
32 construction and operation.

33 This measure applies to Impact 4.9-1 and Cumulative Impact 5.9-1.

1 The City and Port of Oakland will each contribute their fair share toward cooperatively  
2 investigating the need for a new fire station in the redevelopment area west of 1880. This  
3 investigation shall include consultation with the OES and OFD. Should this investigation  
4 conclude that, based on detailed redevelopment design, a new fire facility is required, the Port  
5 and the City shall each fund their fair share to construct, equip, and staff a fire station and first  
6 responder medical emergency facility in the OARB sub-district. In addition, as subsequent  
7 redevelopment activities occur, the City and Port will develop a fee formula (to recoup initial  
8 investment from future development), as well as a long-term cost sharing formula (to equitably  
9 distribute the cost of continuing operations).

10 The fire facility will be constructed after basic underground infrastructure is constructed, and  
11 before any people-attracting subsequent redevelopment activities begin operations.



13 **Mitigation 4.9-2:** The Port and City shall work with OES to ensure changes in local area  
14 circulation are reflected in the revised Response Concept.

15 This measure applies to Impact 4.9-6.

16 The Port and City would provide information to the OES to facilitate that agency's accurate  
17 revision of its Response Concept and Annex H. In particular, the City and Port would provide  
18 OES information regarding new and proposed project area development, intensification and  
19 changes in land uses, realignment of area roadways, and construction of new local circulation  
20 facilities.



22 **Mitigation 4.9-3:** The Port and City shall require developers within their respective jurisdictions  
23 to notify OES of their plans in advance of construction or remediation activities.

24 This measure applies to Impact 4.9-6.

25 Each developer proposing construction in the redevelopment project area would be required to  
26 notify OES prior to initiation of construction, so that OES may plan emergency access and  
27 egress taking into consideration possible conflicts or interference during the construction phase.  
28 The developer would also be required to notify OES once construction is complete.



30 **Mitigation 4.9-4:** Individual actions with landscaping requirements of one or more acres shall  
31 plumb landscape areas for irrigation with reclaimed water.

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

1 As subsequent redevelopment activities are designed, the City and Port would require that  
2 activities of a certain magnitude shall include a reclaimed landscaping irrigation system. The  
3 City and Port would make this a condition of approval for private actions that require such  
4 approval, and would include reclaimed landscape water systems in the design of their own  
5 public projects.



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

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

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



16 **Mitigation 4.9-6:** Site design shall facilitate use of reclaimed 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.

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



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

1 practicable. Material for recycling may include, and is not limited to, timbers and siding, ceramic  
2 fixtures, metal, and copper wiring. The City and Port may elect to partner with local job-training  
3 bridge programs to provide construction training opportunities to Oakland residents through their  
4 deconstruction program.



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

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

10 Foundation and paving removal would generate substantial debris, and the City and Port would  
11 ensure these materials are crushed and recycled. As a first preference, these materials should  
12 be re-used on-site; as a second preference, they would be sold to the construction market. The  
13 City and Port would make every effort practicable to avoid disposal to landfill of this material.

14 This mitigation measure may itself result in impacts to the environment relative to noise and air  
15 quality. These impacts are discussed in Sections 4.4: Air Quality, and 4.15: Noise.



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

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

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

- 29 • Goals.
- 30 • Key personnel.
- 31 • Quantification of waste.
- 32 • Identification of waste materials.
- 33 • Program elements.

- 1 • Monitoring requirements and performance standards.
- 2 • Reporting.

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

8 This measure applies to Impact 4.9-12.

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

