
Other Less-than-Significant Effects

Section 15128 of the CEQA Guidelines requires that the EIR “contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.” The following environmental topics, included in the City’s CEQA Thresholds, were found not to be significant.

Agriculture and Forest Resources

Farmland Conversion

Impact Ag-1: Future development pursuant to or consistent with the Specific Plan would not convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. **(No Impact)**

Lands designated by the California Resources Agency as Prime Farmland, Unique Farmland or Farmland of Statewide Importance are considered Farmland for purposes of CEQA. There are no designated Farmlands within the Planning Area. The Planning Area and surrounding areas are developed and are designated as Urban and Built-Up Land.¹

Mitigation Measures

None needed

Agricultural Zoning or Williamson Act Conflicts

Impact Ag -2: Future development pursuant to or consistent with the Specific Plan would not conflict with existing zoning for agricultural use, or with a Williamson Act contract. **(No Impact)**

The Planning Area is urbanized and not zoned for agricultural use. There are no Williamson Act contracts within the Planning Area or in the vicinity. The Specific Plan would not conflict with existing zoning for agricultural use or any Williamson Act contracts.

¹ California Department of Conservation, Division of Land resource Protection, Contra Costa County Important Farmland 2008, July 2009. The Planning Area is designated Urban and Built Up Land, which is defined as, “...occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.

Mitigation Measures

None needed

Forest Resources

Impact Ag-3: Future development pursuant to or consistent with the Specific Plan would not conflict with existing zoning for, or cause rezoning of forest land, and would not result in the loss of forest land or conversion of forest land to non-forest use or timberland zoned Timberland Production. **(No Impact)**

The Planning Area and surrounding areas are urbanized and do not contain Farmland or Forest Land.

Mitigation Measures

None needed

Other Changes Affecting Farmland or Forest Resources

Impact Ag-4: The Specific Plan would not involve any changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. **(No Impact)**

The Planning Area and surrounding areas are urbanized and do not contain farmland or forest land.

Mitigation Measures

None needed

Biological Resources

Special-Status Species

Impact Bio-1: Future development pursuant to the Specific Plan would not have a substantial direct adverse effect on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. However, tree removal, building demolition, and other construction activities can cause disturbance, noise, or loss of habitat for resident or migratory birds and mammals, including special-status species potentially occurring within the Planning Area. **(LTS with SCA)**

Wildlife use within the Planning Area is expected to be relatively low due to the absence of natural habitat, the proximity of streets and development, and the lack of protective cover. Birds (e.g., house sparrow, starling, crow, etc.) and wildlife such as opossums and small rodents typically associated with developed properties would be expected to occur. Special-status species are not expected to occur within the Planning Area because of a lack of suitable habitat, the smaller size and fragmented nature of remaining habitat, prior disturbance, and the current level of human activity. According to the Open Space, Conservation and Recreation Element of the City of Oakland General Plan, there are no special-status species known to occur within the Planning Area.

Based on a search of the California Natural Diversity Database (CNDDDB) conducted for this EIR², there are a number of special-status animals that may potentially use habitat in the Planning Area, including the peregrine falcon, Cooper's hawk, red-shouldered hawk, red-tailed hawk, pallid bat, silver-haired bat, hoary bat, and big free-tailed bat. Tree removal, building demolition, and other construction activities can cause disturbance, noise, or loss of habitat for resident or migratory birds and mammals, including special-status species potentially occurring within the Planning Area.

Standard Conditions of Approval

The following City Standard Conditions of Approval, SCA 44, *Tree Removal During Breeding Season*, and SCA D, *Bird Collision Reduction*, would be a mandatory requirement of each individual future development project pursuant to the Specific Plan that requires removal of any unprotected tree when it is approved by the City. SCA 44 would require a survey by a qualified biologist to verify the presence or absence of nesting birds before removal of any tree during the breeding season and an appropriately sized buffer around any nest that may be found. SCA D would reduce incidents of bird and bat collisions with new buildings.

SCA 44: Tree Removal During Breeding Season. *(Prior to issuance of a tree removal permit.)* To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of raptors shall not occur during the breeding season of March 15 and August 15.

- a. If tree removal must occur during the breeding season, all sites shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to start of work from March 15 through May 31, and within 30 days prior to the start of work from June 1 through August 15. The pre-removal surveys shall be submitted to the Planning and Zoning Division and the Tree Services Division of the Public Works Agency.
- b. If the survey indicates the potential presences of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the CDFG, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

SCA D: Bird Collision Reduction. *(Prior to issuance of a building permit and ongoing.)*

The SCA applies to ALL new construction, including telecommunication towers, which include large uninterrupted expanses of glass that account for more than 40% of any one side of the building's exterior AND at least one of the following: (a) the project is located immediately adjacent to a substantial water body (i.e. Oakland Estuary, San Francisco Bay, Lake Merritt or other substantial lake, reservoir, or wetland); OR (b) the project is located immediately adjacent to a substantial recreation area or park (i.e. Region-Serving Park, Resource Conservation Areas, Community Parks, Neighborhood Parks, and Linear Parks and Special Use Parks and generally over 1 acre in size), which contains substantial vegetation, OR (c) the project includes a substantial vegetated or green roof (roofs with growing medium and plants taking the place of conventional roofing, such as asphalt, tile, gravel, or shingles), but excluding container gardens.

The project applicant, or his or her successor, including the building manager or homeowners' association, shall submit plans to the Planning and Zoning Division, for review and approval,

² California Natural Diversity Database, Biogeographic Data Branch, Department of Fish and Game, August 8, 2012.

indicating how they intend to reduce potential bird collisions to the maximum feasible extent. The applicant shall implement the approved plan, including all mandatory measures, as well as applicable and specific project Best Management Practice (BMP) strategies to reduce bird strike impacts to the maximum feasible extent.

- a. Mandatory measures include all of the following:
 - i. Comply with federal aviation safety regulations for large buildings by installing minimum intensity white strobe lighting with three second flash instead of blinking red or rotating lights.
 - ii. Minimize the number of and co-locate rooftop-antennas and other rooftop structures.
 - iii. Monopole structures or antennas shall not include guy wires.
 - iv. Avoid the use of mirrors in landscape design.
 - v. Avoid placement of bird-friendly attractants (i.e. landscaped areas, vegetated roofs, water features) near glass.
- b. Additional BMP strategies to consider include the following: Make clear or reflective glass visible to birds using visual noise techniques. Examples include:
 - i. Use of opaque or transparent glass in window panes instead of reflective glass.
 - ii. Uniformly cover the outside clear glass surface with patterns (e.g., dots, decals, images, abstract patterns). Patterns must be separated by a minimum 10 centimeters (cm).
 - iii. Apply striping on glass surface. If the striping is less than 2 cm wide it must be applied vertically at a maximum of 10 cm apart (or 1 cm wide strips at 5 cm distance).
 - iv. Install paned glass with fenestration patterns with vertical and horizontal mullions of 10 cm or less.
 - v. Place decorative grilles or louvers with spacing of 10 cm or less.
 - vi. Apply one-way transparent film laminates to outside glass surface to make the window appear opaque on the outside.
 - vii. Install internal screens through non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects.
 - viii. Install windows which have the screen on the outside of the glass.
 - ix. Use UV-reflective glass. Most birds can see ultraviolet light, which is invisible to humans.
 - x. If it is not possible to apply glass treatments to the entire building, the treatment should be applied to windows at the top of the surrounding tree canopy or the anticipated height of the surrounding vegetation at maturity.
- c. Mute reflections in glass. Examples include:
 - i. Angle glass panes toward ground or sky so that the reflection is not in a direct line-of-sight (minimum angle of 20 degrees with optimum angle of 40 degrees).
 - ii. Awnings, overhangs, and sunshades provide birds a visual indication of a barrier and may reduce image reflections on glass, but do not entirely eliminate reflections.
- d. Reduce Light Pollution. Examples include:

- i. Turn off all unnecessary interior lights from 11 p.m. to sunrise.
 - ii. Install motion-sensitive lighting in lobbies, work stations, walkways, and corridors, or any area visible from the exterior and retrofitting operation systems that automatically turn lights off during after-work hours.
 - iii. Reduce perimeter lighting whenever possible.
- e. Institute a building operation and management manual that promotes bird safety. Example text in the manual includes:
- i. Donation of discovered dead bird specimens to authorized bird conservation organization or museums to aid in species identification and to benefit scientific study, as per all federal, state and local laws.
 - ii. Production of educational materials on bird-safe practices for the building occupants.
 - iii. Asking employees to turn off task lighting at their work stations and draw office blinds or curtains at end of work day.
 - iv. Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible.

With required implementation of SCA 44, *Tree Removal During Breeding Season*, and SCA D, *Bird Collision Reduction*, the potential impacts of the Specific Plan on special-status species would be less than significant.

Mitigation Measures

None needed

Riparian Habitat and Sensitive Natural Communities

Impact Bio-2: Future development pursuant to the Specific Plan would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service. **(No Impact)**

The State of California recognizes some plant communities as sensitive natural communities if they are uncommon, regionally declining, or vulnerable. Among these communities are riparian habitat, coast live oak forest, freshwater seeps, freshwater marshes, and coastal salt marsh. According to the Open Space, Conservation and Recreation Element of the City of Oakland General Plan, there is no riparian habitat or other sensitive natural community within or adjacent to the Planning Area. The California Natural Diversity Database (CNDDDB) tracks communities it believes to be of conservation concern and these communities are typically considered sensitive for the purposes of CEQA analysis. No CNDDDB-listed sensitive natural communities occur within the Planning Area.

Mitigation Measures

None needed

Wetlands

Impact Bio-3: Future development pursuant to or consistent with the Specific Plan would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **(No Impact)**

According to the Open Space, Conservation and Recreation Element of the City of Oakland General Plan, there are no wetlands known to occur within the Planning Area. Development in accordance with the Specific Plan would not involve the direct removal or fill of wetlands or indirectly affect the hydrology, soil, vegetation or wildlife of wetlands.

Mitigation Measures

None needed

Wildlife Movement and Breeding Sites

Impact Bio-4: Future demolition and construction activities associated with development pursuant to the Specific Plan would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, but could temporarily reduce nesting opportunities for resident and migratory bird species that are protected by the federal Migratory Bird Treaty Act or California Fish and Game Code Sections 3503, 3503.5, and 3800, could also eliminate bat roosts and, if construction were to occur during the maternal roosting season, young bats incapable of flight could be destroyed. **(LTS with SCA)**

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs and nests from activities such as hunting, pursuing, capturing, killing, selling and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The state of California has incorporated the protection of birds of prey in Sections 3800, 3513 and 3503.5 of the California Fish and Game Code.

California Fish and Game Code Sections 3503, 3503.5, and 3800

These sections of the California Fish and Game Code prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." Such a take would violate the Migratory Bird Treaty Act. The act is implemented as part of the review process for any required State agency authorization, agreement, or permit.

The Planning Area is limited in its function for wildlife movement due to its extensively developed nature. However, proximity to San Francisco Bay makes the Planning Area accessible to migratory birds. Nesting birds, including raptors, are protected by the CDFG Code Section 3503, which states "It is

unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Passerines (songbirds) and non-passerine land birds are further protected under the federal Migratory Bird Treaty Act.

Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Therefore, the California Fish and Game Code typically recommends preconstruction surveys for nesting birds that could potentially be directly (actual removal of trees/vegetation) or indirectly (noise disturbance) impacted by construction-related activities.

Bats may use vacant buildings, structures and trees within the Planning Area as seasonal or maternal roost. Future development in accordance with the Specific Plan could eliminate bat roosts and, if construction were to occur during the maternal roosting season, young bats incapable of flight could be destroyed.

Standard Conditions of Approval

The following City Standard Condition of Approval, SCA 44, *Tree Removal During Breeding Season*, would be a mandatory requirement of each individual future development project pursuant to the Specific Plan that requires removal of any unprotected tree when it is approved by the City. SCA 44 would require a survey by a qualified biologist to verify the presence or absence of nesting birds before removal any unprotected tree during the breeding season and an appropriately sized buffer around any nest that may be found. With required implementation of SCA 44, the potential impacts of the Specific Plan on nesting birds would be less than significant.

Mitigation Measures

None needed

Conflicts with Local Policies or Ordinances

Impact Bio-5: Future development pursuant to or consistent with the Specific Plan may require the removal of trees that are protected by the City of Oakland Tree Protection Ordinance. **(LTS with SCA)**

City of Oakland Tree Protection Ordinance

Future development in accordance with the Specific Plan may require the removal of trees that are protected by the City of Oakland Tree Protection Ordinance. The City of Oakland Tree Protection Ordinance (Oakland Municipal Code Chapter 12.36) applies to the removal of protected trees under certain circumstances. Factors to be considered in determining significance include the number, type, size, location and condition of the protected trees to be removed or affected by construction and the protected trees to remain, with special consideration given to native trees. Protected trees include the following:

- *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger; and
- any other tree measuring nine inches dbh or larger except *Eucalyptus* and *Pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be Protected trees.

Any project that would involve the removal of any tree or community of trees protected by the Tree Protection Ordinance would be required to first obtain a permit from the City and comply with any conditions of the permit, including replacement plantings and protection of remaining trees during construction.

Standard Conditions of Approval

The following City Standard Conditions of Approval, SCA 45, *Tree Removal Permit*, SCA 46, *Tree Replacement Plantings*, and SCA 47, *Tree Protection During Construction*, would be a mandatory requirement of each individual future development project pursuant to the Specific Plan that requires removal of any tree protected by the Tree Protection Ordinance. SCA 45, 46 and 47 require any project that involves removal of any tree protected to first obtain a permit from the City and comply with any conditions of the permit, including replacement plantings and protection of remaining trees during construction.

SCA 45: Tree Removal Permit. (Prior to issuance of a demolition, grading, or building permit.) Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit from the Tree Division of the Public Works Agency, and abide by the conditions of that permit.

SCA 46: Tree Replacement Plantings. *Prior to issuance of a final inspection of the building permit.* Replacement plantings shall be required for erosion control, groundwater replenishment, visual screening and wildlife habitat, and in order to prevent excessive loss of shade, in accordance with the following criteria:

- a. No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered.
- b. Replacement tree species shall consist of *Sequoia sempervirens* (Coast Redwood), *Quercus agrifolia* (Coast Live Oak), *Arbutus menziesii* (Madrone), *Aesculus californica* (California Buckeye) or *Umbellularia californica* (California Bay Laurel) or other tree species acceptable to the Tree Services Division.
- c. Replacement trees shall be at least of twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate.
- d. Minimum planting areas must be available on site as follows:
 - i. For *Sequoia sempervirens*, three hundred fifteen square feet per tree;
 - ii. For all other species listed in #2 above, seven hundred (700) square feet per tree.
- e. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee as determined by the master fee schedule of the city may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians.
- f. Plantings shall be installed prior to the issuance of a final inspection of the building permit, subject to seasonal constraints, and shall be maintained by the project applicant until established. The Tree Reviewer of the Tree Division of the Public Works Agency may require a landscape plan showing the replacement planting and the method of irrigation. Any replacement planting which fails to become established within one year of planting shall be replanted at the project applicant's expense.

SCA 47: Tree Protection During Construction. *Prior to issuance of a demolition, grading, or building permit.* Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:

- a. Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the City Tree Reviewer. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.
- b. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the City Tree Reviewer from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.
- c. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the Tree Reviewer from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the tree reviewer. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.
- d. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.
- e. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency of such damage. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.
- f. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

With required implementation of SCA 45, 46 and 47, the impact of the Specific Plan related to conflicts with local policies or ordinances protecting biological resources would be less than significant.

Mitigation Measures

None needed

Conflicts with Habitat Conservation Plans

Impact Bio-6: Future development pursuant to or consistent with the Specific Plan would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **(No Impact)**

There is no Habitat Conservation Plan, Natural Community Conservation Plan, or other adopted habitat conservation plan applicable to the Planning Area. The Specific Plan would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Cumulative Biological Impacts

Cumulative Impact Bio-7: Given the number of similar development projects currently in progress, as well as those proposed at this time within the geographic context of this analysis, the incremental contribution of development under the West Oakland Specific Plan towards cumulative biological impacts is not considerable and is considered to be less than cumulatively considerable. **(LTS)**

The geographic area considered for the biological resources cumulative analysis is the City of Oakland. Most natural areas in the City have been completely developed and the hillsides have been graded extensively. However, several sensitive species and a rare vegetation community still exist within the City. As such, development of other past, present, current, pending, and future projects around the City could have a significant cumulative impact on sensitive species and habitat.

Future development pursuant to or consistent with the Specific Plan and all other future projects in the City would be required to comply with local, State, and federal laws and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources. New projects would be required to demonstrate that they would not have significant effects on these biological resources, although it is possible that some projects may be approved even though they would have significant, unavoidable impacts on biological resources. As explained in more detail above, biological impacts resulting from implementation of the Specific Plan are considered less than significant. Therefore, given the heavily urbanized context, the effect of the Plan on biological resources in combination with other foreseeable similar projects, would likely be less than significant. Given the number of similar development projects currently in progress, as well as those proposed at this time within the geographic context of this analysis, the incremental contribution of development under the Specific Plan towards cumulative biological impacts is not considerable and is considered to be less than cumulatively considerable.

Geology and Soils

Earthquake Fault Rupture

Impact Geo-1: There are no Alquist-Priolo Earthquake Fault Zones and no known earthquake fault traces within the Planning Area. Future development in accordance with the Specific Plan would not expose people or structures to substantial adverse effects, including the risk of loss, injury or death, as a result of the surface rupture of a known earthquake fault. **(LTS)**

West Oakland is located within the greater San Francisco Bay Area, which is recognized as one of the more seismically active regions of California. Geologic and geomorphic structures within the San

Francisco Bay Area are dominated by the San Andreas Fault, a right-lateral strike-slip fault that extends from the Gulf of California to Cape Mendocino. It forms a portion of the boundary between two independent tectonic plates: the Pacific plate and the North American plate. In the San Francisco Bay Area, movement across this plate boundary is concentrated on the San Andreas Fault. Much of the remainder is distributed across the Calaveras, Hayward, Greenville, Concord Green Valley, and Rodgers Creek fault zones. Together, these faults are referred to as the San Andreas Fault system. Movement along the San Andreas Fault system has been ongoing for about the last 25 million years. The northwest trend of the faults within this fault system is largely responsible for the strong northwest structural orientation of geologic and geomorphic features in the San Francisco Bay Area.

The active Hayward fault is the closest fault to West Oakland, located approximately 3.5 miles to the east along the southwestern base of the East Bay hills, paralleling Highway 13. Some of the other active fault system within approximately 100 kilometers of the Planning Area which could induce strong ground shaking at the project site include the Calaveras, San Andreas, Concord-Green Valley, San Gregorio, Greenville, Rodgers Creek, Napa and Ortagalita fault systems.

Surface rupture is the actual breaking apart of the ground during an earthquake. Surface rupture during earthquakes tends to occur along preexisting faults. Adequate setbacks from these faults would mitigate the effects of future surface rupture events. The Alquist-Priolo Earthquake Fault Zoning Act addresses the hazard of surface fault rupture by requiring the delineation of Earthquake Fault Zones and preventing the construction of buildings used for human occupancy over active faults.

There are no Alquist-Priolo Earthquake Fault Zones and no known earthquake fault traces within the Planning Area. Development in accordance with the Specific Plan would not expose people or structures to substantial adverse effects, including the risk of loss, injury or death, as a result of the surface rupture of a known earthquake fault.

Mitigation Measures

None needed

Seismic Ground Shaking and Ground Failure

Impact Geo-2: Future development pursuant to the Specific Plan could expose people or structures to substantial adverse effects, including the risk of loss, injury or death, due to strong seismic ground shaking and seismic-related ground failure, including liquefaction. However, with required implementation of City of Oakland Standard Conditions of Approval, impacts related to strong seismic ground shaking and seismic-related ground failure would be reduced to levels generally considered by professional engineering geologists as acceptable, or less than significant. **(LTS with SCA)**

The Planning Area is located within the greater San Francisco Bay Area, which is recognized as one of the more seismically active regions of California. The active Hayward fault is the closest fault to West Oakland, located approximately 3.5 miles to the east along the southwestern base of the East Bay hills, paralleling Highway 13. Some of the other active fault system within approximately 100 kilometers of the Planning Area which could induce strong ground shaking at the project site include the Calaveras, San Andreas, Concord-Green Valley, San Gregorio, Greenville, Rodgers Creek, Napa and Ortagalita fault systems.

The U.S. Geological Survey has reported that the overall probability of an earthquake of magnitude 6.7 or greater on the North Hayward segment of the Hayward-Rodgers Creek Fault system before 2030 is

approximately 16 percent. A magnitude 7.1 earthquake on the Hayward fault would be expected to generate strong seismic ground shaking throughout West Oakland.

Areas most susceptible to liquefaction-induced damage are underlain by loose, water-saturated, granular sediment within 40 feet of the ground surface. These geological and groundwater conditions are widespread in the San Francisco Bay Area, most notably in alluvial valley floodplains and around the margins of the Bay, including in West Oakland. West Oakland is situated at the edge of the flatlands on the shoreline of San Francisco Bay, on former dune-sand deposits formed by thousands of years of erosion from the East Bay Hills. As shown on **Figure 4.12-1**, the geological base material in the southern portion of West Oakland is known as Merritt sand, dating to the Holocene and Pleistocene eras. The Merritt sand outcrops in three large areas in Oakland and Alameda and is associated with depositions of bay muds resulting from long-term sea-level fluctuations. In the northerly portion of West Oakland (generally north of Grand Avenue) the base geology is comprised of alluvial fan and fluvial deposits of the Holocene area. The western margins of West Oakland near the Bay are comprised of artificial fill, or man-made deposit of various materials and ages. Some areas are compacted and quite firm, but fills made before 1965 (most of the western edge of West Oakland) are not compacted and consist simply of dumped materials.³ The depth to groundwater in West Oakland ranges from less than five feet to approximately 20 feet.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code, Chapter 7.8, Section 2690-2699.6) was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a Seismic Hazard Zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the project design.

Cities and counties are required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. Development permits for most developments designed for human occupancy that are located within a Seismic Hazard Zone cannot be approved until the geologic and soil conditions of the project site are investigated and appropriate mitigation measures, if any, are incorporated into development plans. The Act also requires sellers (and their agents) of real property within a mapped hazard zone to disclose at the time of sale that the property lies within such a zone.

Seismic Hazard Zone

Within West Oakland, the combination of strong earthquake ground shaking, underlying geological material consisting of sand, alluvial and fluvial deposits and artificial fill, and shallow depth to groundwater result in a high potential for liquefaction throughout most of the Planning Area. The California Geological Survey has identified a majority of West Oakland as being located within a Seismic Hazard Zone due to high liquefaction potential (see **Figure 4.12-2**). All of the Opportunity Areas are located within the within the Seismic Hazard Zone, except a small part of the 7th Street Opportunity Area south of 7th Street between Adeline Street and Union Street (includes Opportunity Site 33), and all but the westerly edge the 3rd Street Opportunity Area.

³ U.S. Geological Survey, Geologic map and map database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California, R.W. Graymer, 2000.

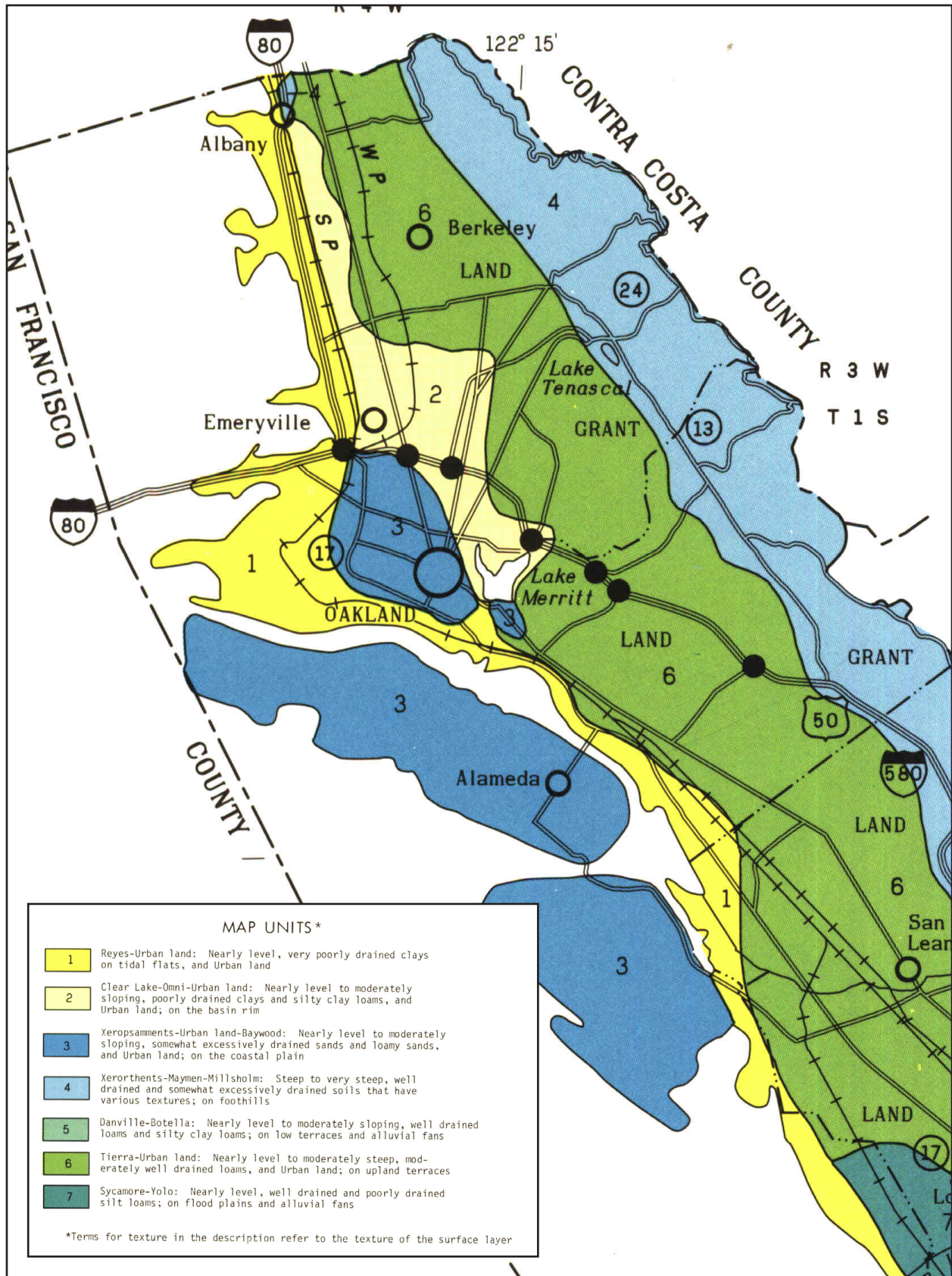


Figure 4-12-1
USGS, General Soils Map, West Oakland

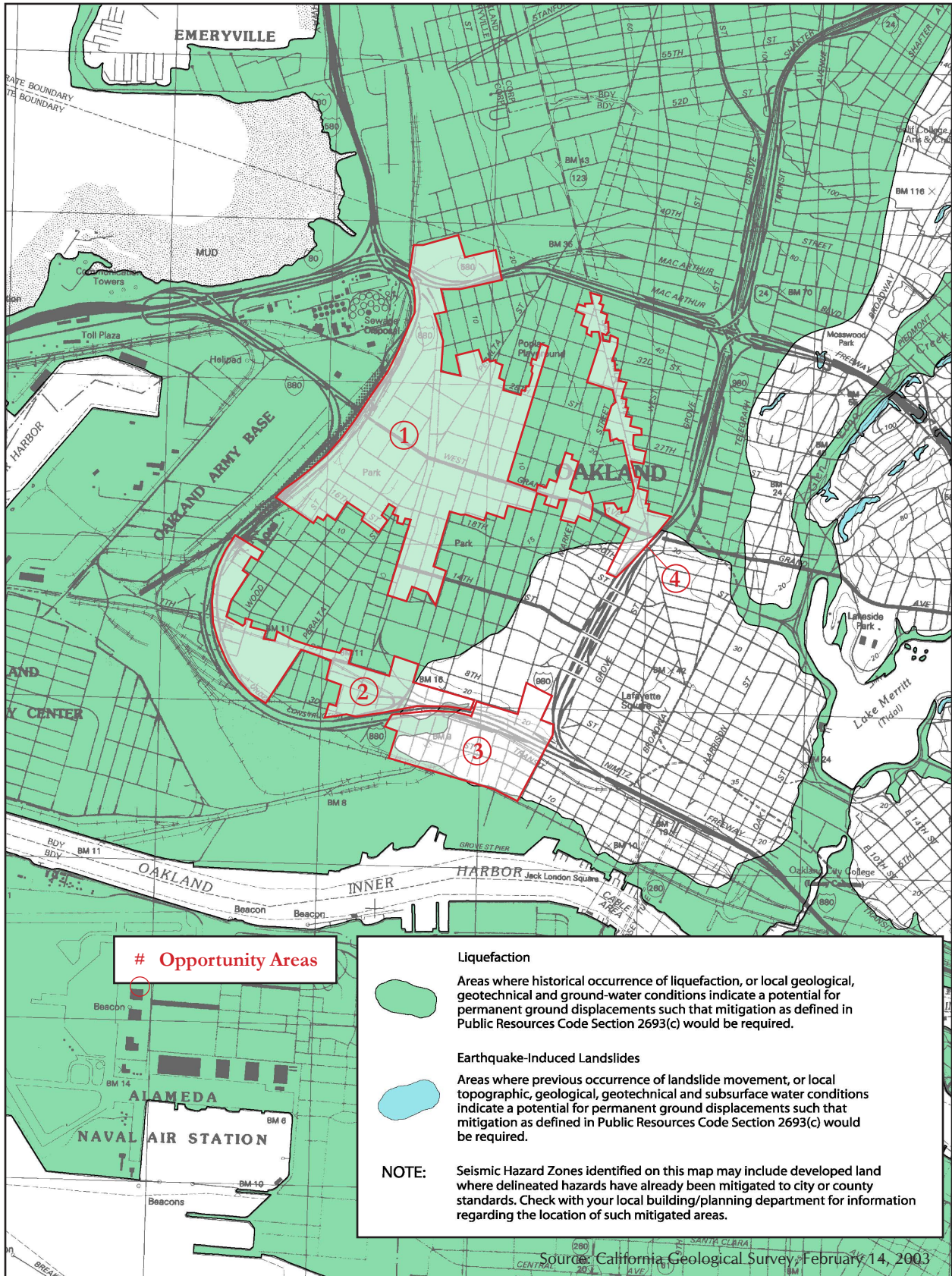


Figure 4.12-2
California Geological Survey, Seismic Hazard Zones

Standard Conditions of Approval

The following City Standard Conditions of Approval, SCA 60, *Geotechnical Report*, would be adopted as a mandatory requirement of each individual future project within the Planning Area that requires an application for a subdivision map and is located within the Seismic Hazard Zone. SCA 60 would require a site-specific, design level liquefaction geotechnical investigation.

SCA 60: Geotechnical Report. *(Required as part of the submittal of a tentative Tract Map or tentative Parcel Map.)*

- a. A site-specific, design level, landslide or liquefaction geotechnical investigation for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. Specifically:
- b. Each investigation shall include an analysis of expected ground motions at the site from identified faults. The analyses shall be accordance with applicable City ordinances and polices, and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from identified faults.
- c. The investigations shall determine final design parameters for the walls, foundations, foundation slabs, surrounding related improvements, and infrastructure (utilities, roadways, parking lots, and sidewalks).
- d. The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, shall be included in the final design, as approved by the City of Oakland.
- e. The geotechnical report shall include a map prepared by a land surveyor or civil engineer that shows all field work and location of the “No Build” zone. The map shall include a statement that the locations and limitations of the geologic features are accurate representations of said features as they exist on the ground, were placed on this map by the surveyor, the civil engineer or under their supervision, and are accurate to the best of their knowledge.
- f. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the project’s design phase, shall be incorporated in the project.
- g. Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division prior to commencement of the project.
- h. A peer review is required for the Geotechnical Report. Personnel reviewing the geologic report shall approve the report, reject it, or withhold approval pending the submission by the applicant or subdivider of further geologic and engineering studies to more adequately define active fault traces.
- i. Tentative Tract or Parcel Map approvals shall require, but not be limited to, approval of the Geotechnical Report.

With required implementation of SCA 60, the impact of the Specific Plan related to seismic ground shaking and seismic-related ground failure due to liquefaction would be less than significant.

Mitigation Measures

None needed

Landslides

Impact Geo-3: Future development in accordance with the Specific Plan would not expose people or structures to substantial adverse effects, including the risk of loss, injury or death, as a result of landslides. **(LTS)**

The Planning Area is flat and far from hillsides, and is not subject to risk from landslides as mapped by the Association of Bay Area Governments, based on data from the U.S. Geological Survey.⁴ There would be no impact related to landslides.

Mitigation Measures

None needed

Erosion and Loss of Topsoil

Impact Geo-4: Grading and excavations associated with future development pursuant to or consistent with the Specific Plan could result in the loss of topsoil through erosion. However, with required implementation of City of Oakland Standard Conditions of Approval, impacts related to erosion would be reduced to less than significant levels. **(LTS with SCA)**

The flat topography within the Planning Area would limit the potential for substantial soil erosion, and there are only limited areas within West Oakland where native topsoil has not been covered with impermeable surfaces such as paving and buildings. However, future grading and excavation activities necessary for new construction throughout the Planning Area have the potential to expose underlying soils. Once exposed, these soils could be subject to erosion and sedimentation from stormwater runoff.

Standard Conditions of Approval

The following City Standard Conditions of Approval would be adopted as mandatory requirements of each individual future project within the Planning Area and would require a site-specific erosion and sedimentation control plan.

SCA 34: Erosion and Sedimentation Control [When no grading permit is required.] (*Ongoing throughout demolition grading, and/or construction activities.*) The project applicant shall implement Best Management Practices (BMPs) to reduce erosion, sedimentation, and water quality impacts during construction to the maximum extent practicable. Plans demonstrating the Best Management Practices shall be submitted for review and approval by the Planning and Zoning Division and the Building Services Division. At a minimum, the project applicant shall provide filter materials deemed acceptable to the City at nearby catch basins to prevent any debris and dirt from flowing into the City's storm drain system and creeks.

SCA 55: Erosion and Sedimentation Control Plan [For projects that require a grading permit.] (*Prior to any grading activities.*)

- a. The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.780 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Building Services Division. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater

⁴ Association of Bay Area Governments, Hazards Program, Landslide Maps and Information website, viewed on June 22, 2012, <http://quake.abag.ca.gov/landslides/>

runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

Ongoing throughout grading and construction activities:

- b. The project applicant shall implement the approved erosion and sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.

SCA 75/76: Erosion, Sedimentation, and Debris Control Measures (Prior to issuance of demolition, grading, or construction-related permit). The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable "Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP's for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:

BASIC (Applies to ALL construction sites)

- a. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the street, gutters, storm drains.
- b. In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.
- c. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible.
- d. Install filter materials acceptable to the Engineering Division at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.
- e. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.
- f. Direct and locate tool and equipment cleaning so that wash water does not discharge into the street, gutters, or storm drains.

- g. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.
- h. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.
- i. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.
- j. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the street, gutter, storm drains.
- k. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB).
- l. All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately

These Development Standards apply to ALL projects that create or replace LESS than 10,000 square feet of impervious service or involve construction of one single family home. Exceptions to this standard include the following:

- m. Sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features associated with the street.
- n. Routine maintenance and repair of existing impervious surfaces, including roof and pavement resurfacing and road pavement structural section rehabilitation work within the existing pavement footprint; and
- o. Reconstruction work within an existing public street right-of-way where both sides of the right-of-way are already developed.

With required implementation of SCA 34 and 55, 75/76, the impact of the Specific Plan related to soil erosion or the loss of topsoil would be less than significant.

Mitigation Measures

None needed

Unstable or Expansive Soil Conditions

Impact Geo-5: Portions of the Planning Area are underlain by unstable geologic conditions and soils, and potentially wells, pits, tank vaults or unmarked sewer lines, creating substantial risks to life or property. Future development pursuant to or consistent with the Specific Plan could expose people or structures to substantial adverse effects. However, with required implementation of

City of Oakland Standard Conditions of Approval, impacts related to unstable soil conditions would be reduced to less than significant levels. **(LTS with SCA)**

The Planning Area is flat, is not subject to landslides, and is not downslope from any nearby existing landslides. However, the majority of the Planning Area is located within a designated Seismic Hazard Zone due to high liquefaction potential, and the western margins of West Oakland near the Bay are comprised of artificial fill, or man-made deposit of various materials and ages. Some areas are compacted and quite firm, but fills made before 1965 (most of the western edge of West Oakland) are not compacted and consist simply of dumped materials. Additionally, future development in accordance with the Specific Plan could be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. Future development in accordance with the Specific Plan in areas underlain by unstable geologic conditions or soils, or expansive soils could expose people or structures to substantial adverse effects.

Standard Conditions of Approval

The City's Standard Conditions of Approval would be adopted as a mandatory requirement of each individual future project within the Planning Area. Conditions of Approval SCA 58, *Soils Report*, and SCA 60, *Geotechnical Report*, would require site-specific, design level liquefaction geotechnical investigations and corrective measures, and site-specific soils reports that identify geologic and soils-related hazards and necessary corrective measures as a mandatory requirement of each individual future project within the Planning Area.

SCA 58: Soils Report. A preliminary soils report for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. The soils reports shall be based, at least in part, on information obtained from on-site testing. Specifically, the minimum contents of the report should include:

- a. Logs of borings and/or profiles of test pits and trenches:
- b. The minimum number of borings acceptable, when not used in combination with test pits or trenches, shall be two (2), when in the opinion of the Soils Engineer such borings shall be sufficient to establish a soils profile suitable for the design of all the footings, foundations, and retaining structures.
 - i. The depth of each boring shall be sufficient to provide adequate design criteria for all proposed structures.
 - ii. All boring logs shall be included in the soils report.
- c. Test pits and trenches
 - i. Test pits and trenches shall be of sufficient length and depth to establish a suitable soils profile for the design of all proposed structures.
 - ii. Soils profiles of all test pits and trenches shall be included in the soils report.
- d. A plat shall be included which shows the relationship of all the borings, test pits, and trenches to the exterior boundary of the site. The plat shall also show the location of all proposed site improvements. All proposed improvements shall be labeled.
- e. Copies of all data generated by the field and/or laboratory testing to determine allowable soil bearing pressures, shear strength, active and passive pressures, maximum allowable slopes where applicable and any other information which may be required for the proper design of foundations, retaining walls, and other structures to be erected subsequent to or concurrent with work done under the grading permit.

- f. Soils Report. A written report shall be submitted which shall include, but is not limited to, the following:
 - i. Site description;
 - ii. Local and site geology;
 - iii. Review of previous field and laboratory investigations for the site;
 - iv. Review of information on or in the vicinity of the site on file at the Information Counter, City of Oakland, Office of Planning and Building;
 - v. Site stability shall be addressed with particular attention to existing conditions and proposed corrective attention to existing conditions and proposed corrective actions at locations where land stability problems exist;
 - vi. Conclusions and recommendations for foundations and retaining structures, resistance to lateral loading, slopes, and specifications, for fills, and pavement design as required;
 - vii. Conclusions and recommendations for temporary and permanent erosion control and drainage. If not provided in a separate report they shall be appended to the required soils report;
 - viii. All other items which a Soils Engineer deems necessary;
 - ix. The signature and registration number of the Civil Engineer preparing the report.
- g. The Director of Planning and Building may reject a report that she/he believes is not sufficient. The Director of Planning and Building may refuse to accept a soils report if the certification date of the responsible soils engineer on said document is more than three years old. In this instance, the Director may be require that the old soils report be recertified, that an addendum to the soils report be submitted, or that a new soils report be provided.

The following Development Standards apply to ALL projects that require an application for a Tentative Tract Map or Tentative Parcel Map (not part of this approval) AND are located partially or wholly within the Seismic Hazards Zone. Exceptions include condominium conversions and single family wood or steel frame dwellings not exceeding two stories, when not part of a development of 4 or more dwellings. See Arcview for Seismic Hazards Zone layer.

60. Geotechnical Report (*Required as part of the submittal of a tentative Tract Map or tentative Parcel Map*)

- a. A site-specific, design level, Landslide or Liquefaction geotechnical investigation for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. Specifically:
 - i. Each investigation shall include an analysis of expected ground motions at the site from identified faults. The analyses shall be accordance with applicable City ordinances and polices, and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from identified faults.
 - ii. The investigations shall determine final design parameters for the walls, foundations, foundation slabs, surrounding related improvements, and infrastructure (utilities, roadways, parking lots, and sidewalks).
 - iii. The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, shall be included in the final design, as approved by the City of Oakland.

- iv. The geotechnical report shall include a map prepared by a land surveyor or civil engineer that shows all field work and location of the “No Build” zone. The map shall include a statement that the locations and limitations of the geologic features are accurate representations of said features as they exist on the ground, were placed on this map by the surveyor, the civil engineer or under their supervision, and are accurate to the best of their knowledge.
 - v. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the project’s design phase, shall be incorporated in the project.
 - vi. Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division prior to commencement of the project.
 - vii. A peer review is required for the Geotechnical Report. Personnel reviewing the geologic report shall approve the report, reject it, or withhold approval pending the submission by the applicant or subdivider of further geologic and engineering studies to more adequately define active fault traces.
- b. Tentative Tract or Parcel Map approvals shall require, but not be limited to, approval of the Geotechnical Report.

With required implementation of SCA 58 and 60, the impact of the Specific Plan related to unstable geology or soils, expansive soils, wells, pits, tank vaults or unmarked sewer lines would be less than significant.

Mitigation Measures

None needed

Soils Incapable of Supporting Septic Systems

Impact Geo-6: All properties within the Planning Area are connected to the City of Oakland sanitary sewer system. The Specific Plan would have no impact related to the capacity of local soils to adequately supporting the use of septic tanks or alternative wastewater disposal systems. (**No Impact**)

All properties within the Planning Area are connected to the City of Oakland sanitary sewer system. Wastewater is conveyed to, treated and disposed of at the East Bay Municipal Utilities District wastewater treatment plant. No septic tanks or alternative wastewater disposal systems are necessary or proposed. Therefore, the Specific Plan would have no impact related to the capacity of local soils to adequately supporting the use of septic tanks or alternative wastewater disposal systems.

Mitigation Measures

None needed

Cumulative Geology and Soils Impacts

Cumulative Impact Goe-6: Portions of Oakland are underlain by unstable geology and soil conditions, and cumulative development under these conditions could expose people or structures to substantial adverse effects. However, with required implementation of City of Oakland Standard Conditions of Approval, as well as other applicable local and State laws and regulations,

cumulative impacts related to unstable geology and soil conditions would be reduced to less than significant levels. **(LTS)**

Potential cumulative geology and soils impacts do not extend far beyond a project's boundaries since such impacts are typically confined to discrete spatial locations and do not combine to create an extensive cumulative impact. The exception to this generalization would occur where a large geologic feature (e.g., fault zone or massive landslide) might affect an extensive area, or where the development effects from the project could affect the geology of an off-site location.

Cumulative development would continue to expose people and property to seismic hazards and adverse soil conditions. Other development projects in Oakland would be subject to the same Standard Conditions of Approval. Review and permitting of specific development projects would be expected to involve characterization and consideration of site-specific geologic and soils conditions, and implementation of individual project mitigations where needed. All development projects in Oakland would be required to implement City of Oakland Standard Conditions of Approval related to geology and soils hazards. Development projects in Oakland and projects in surrounding communities would also be subject to other applicable local and State laws and regulations. As a result, cumulative impacts related to geology and soils hazards would be less than significant.

Hydrology and Water Quality

Waste Discharge Requirements

Impact Hydro-1: Future development in accordance with the Specific Plan would not be subject to waste discharge requirements and would not violate any water quality standards or waste discharge requirements. **(LTS)**

Future development would involve construction activities, generate stormwater runoff, and increase sewage requiring treatment at the wastewater treatment facility. Therefore, the applicable NPDES permits, which also serve as Waste Discharge Requirements (WDRs), include the Municipal NPDES permit for stormwater discharges (Alameda Countywide NPDES Municipal Stormwater Permit Water Quality Order No.R2-2003-0021, NPDES No. CAS0029831); the Construction General Permit for construction activities associated with land disturbance of more than one acre (WDRs) for Discharges of Storm Water Associated with Construction Activity Water Quality (Order No.99-08-DWQ, NPDES No. CAS000002); individual NPDES permits/WDRs for discharges that do not fall under the above categories; discharges from the municipal wastewater treatment facilities (e.g., Waste Discharge Requirements for the East Bay Municipal Utility District, Special District No. 1 Wet Weather Facilities (Alameda and Contra Costa Counties Water Quality Order No.R2-2009-0004, NPDES NO. CA0038440); US HUD/Oakland City of Housing Authority NPDES No. CA0038512); as well as Industrial General Permits.

Future development is not expected to result in discharge of water supply water requiring compliance with the General Permit for such discharges or an individual WDR/NPDES permit, unless substantial groundwater dewatering is required. Applicable water quality standards are listed in the San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).

Compliance with existing General Plan policies, Municipal Code regulations, Standard Conditions of Approvals, and federal, State, and local regulations would reduce impacts related to waste discharge to a less than significant level.

Mitigation Measures

None needed

Groundwater

Impact Hydro-2: Future redevelopment of existing developed properties and future development of vacant properties in West Oakland pursuant to or consistent with the Specific Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted); . Therefore, the impacts of the Specific Plan on groundwater recharge, the level of the groundwater table, and groundwater supplies would be less than significant. (LTS)

The Planning Area is underlain by the East Bay Plain groundwater basin. The San Francisco Regional Water Quality Control Board (RWQCB) has identified groundwater supplies in this basin for municipal, industrial and agricultural water supply. Impacts to the aquifer would occur if actions in accordance with the Specific Plan would result in reduced recharge to the aquifer or increased extraction from the aquifer. However, the East Bay Municipal Utilities District (EBMUD, the major water purveyor for Oakland) relies on surface water supplies. The groundwater basin is currently not being used for municipal water supply.

The amount of water able to infiltrate the aquifer through pervious areas within West Oakland would not substantially decrease as a result of future development because the Planning Area is already largely developed and mostly covered in impervious surface. Redevelopment of existing developed properties with new structures and uses would not substantially change the total area of impervious surfaces and thus would not substantially change groundwater recharge or the groundwater table level, or affect groundwater supplies.

Future redevelopment of existing developed properties and future development of vacant properties in West Oakland pursuant to or consistent with the Specific Plan could potentially even result in an increase in groundwater recharge. All such future projects will be required to comply with the C.3 provisions of the National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (see further discussion below), which requires that recharge rates at the site of major development projects shall be at least equivalent to the recharge rate at the site before redevelopment. Additionally, all future development must demonstrate compliance with City of Oakland Storm Drainage Design Guidelines. These Guidelines require a net reduction of 25 percent in the peak stormwater runoff rate from new projects, to the extent possible, in an effort to better address City-wide storm drainage capacity. Individual projects may be able to design an approach to stormwater quantity and quality control that reduces long-term runoff by minimizing impervious cover and maximizing on-site infiltration.

Consequently, impacts to groundwater would be less than significant.

Mitigation Measures

None needed

Construction-Period Water Quality

Impact Hydro-3: Grading and excavations associated with future development pursuant to or consistent with the Specific Plan could expose underlying soils to erosion or siltation, leading to downstream sedimentation in stormwater runoff. However, with required implementation of City of Oakland Standard Conditions of Approval, impacts related to siltation would be reduced to less than significant levels. **(LTS with SCA)**

The flat topography within the Planning Area would limit the potential for substantial soil erosion, and there are only limited areas within West Oakland where native topsoil has not been covered with impermeable surfaces such as paving and buildings. However, site grading and construction activity would expose underlying soils. If left unprotected during construction, such exposed soils could be carried via stormwater runoff into the storm drain system and/or into adjacent surface water, resulting in increased sedimentation.

Potential pollutants associated with construction activities are likely to include minor quantities of paint, solvents, oil and grease, and petroleum hydrocarbons. If such pollutants were allowed to enter into the storm water runoff from the site, they would contribute to the potential degradation of downstream receiving waters.

Standard Conditions of Approval

The following City Standard Condition of Approval would be adopted as a mandatory requirement of each individual future project within the Planning Area.

SCA 75: Stormwater Pollution Prevention Plan. (Prior to and ongoing throughout demolition, grading, and/or construction activities). The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Planning and Zoning Division and the Building Services Division. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit a copy of the SWPPP and evidence of approval of the SWPPP by the SWRCB to the Building Services Division. Implementation of the SWPPP shall start with the commencement of construction and continue through the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.

Pursuant to SCA 75, *Stormwater Pollution Prevention Plan*, each individual future project within the Planning Area would be required to obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). Coverage under this permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the City, and evidence of approval of the SWPPP by the SWRCB. At a minimum, the SWPPP would include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs); and an inspection and monitoring program. Implementation of SCA 75 would ensure that potentially significant water quality impacts during construction remain less than significant.

Mitigation Measures

None needed

Post-Construction Water Quality and Stormwater Runoff

Impact Hydro-4: Operational activities such as increased vehicular use, landscaping maintenance and industrial operations could potentially introduce pollutants into stormwater runoff, resulting in degradation of downstream water quality. New development pursuant to the Specific Plan could create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems, create or contribute substantial runoff which would be an additional source of polluted runoff, or otherwise substantially degrade water quality. These potential impacts would be reduced to a level of less than significant through implementation of City of Oakland Standard Conditions of Approval. **(LTS with SCA)**

Future development pursuant to or consistent with the Specific Plan could result in increased pollution of stormwater runoff. Potential pollutants may include motor oil and other automotive fluids from spills and leaks, metals from brake pad dust gathered in the parking lots; pesticides, fertilizers and herbicides used in on-site landscaping; air pollutants deposited on roof tops and decomposition of roofing and roof gutter materials and other building materials; trash and excess irrigation water. These pollutants could enter the storm drainage system and eventually contribute to surface water quality degradation.

Standard Conditions of Approval

The following City Standard Condition of Approval would be adopted as mandatory requirements of each individual future project within the Planning Area. These Development Standards apply to ALL projects 1) where the application for a zoning permit was deemed complete on or after February 15, 2005 that create or replace 1 acre or MORE of impervious surface or 2) that the application for a zoning permit was deemed complete on or after August 15, 2006 that create or replace 10,000 square feet or more of impervious surface. Exceptions include the following:

- Sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features associated with the street.
- Routine maintenance and repair of existing impervious surfaces, including roof and pavement resurfacing and road pavement structural section rehabilitation work within the existing pavement footprint; and
- Reconstruction work within an existing public street right-of-way where both sides of the right-of-way are already developed.

SCA 80: Post-Construction Stormwater Management Plan. *(Prior to issuance of building permit or other construction-related permit.)* The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a completed Stormwater Supplemental Form for the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater pollution management plan, for review and approval by the City, to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable.

- a. The post-construction stormwater pollution management plan shall include and identify the following:

- i. All proposed impervious surface on the site;
 - ii. Anticipated directional flows of on-site stormwater runoff; and
 - iii. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and
 - iv. Source control measures to limit the potential for stormwater pollution; and
 - v. Stormwater treatment measures to remove pollutants from stormwater runoff.
 - vi. Hydromodification management measures so that post-project stormwater runoff does not exceed the flow and duration of pre-project runoff, if required under the NPDES permit.
- b. The following additional information shall be submitted with the post-construction stormwater pollution management plan:
- i. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and
 - ii. Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e., non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable of removing the range of pollutants typically removed by landscape-based treatment measures and/or the range of pollutants expected to be generated by the project.
 - iii. All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater pollution management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program.
- c. *(Prior to final permit inspection.)* The applicant shall implement the approved stormwater pollution management plan.

SCA 81: Maintenance Agreement for Stormwater Treatment Measures. *(Prior to final zoning inspection.)* For projects incorporating stormwater treatment measures, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following:

- a. The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and
- b. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.

Pursuant to SCA 80, *Post-Construction Stormwater Management Plan*, each individual future project within the Planning Area would be required to demonstrate compliance with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES). Provision C.3 requires preparation and approval of a Stormwater Pollution Management Plan (SMP) to limit the discharge of

pollutants in stormwater after construction, during occupancy and operation of the project, to the maximum extent practicable. The SMP must identify all proposed impervious surfaces and anticipated directional flows of stormwater runoff; design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; source control measures to limit the potential for stormwater pollution; and stormwater treatment measures to remove pollutants from runoff.

Pursuant to SCA 81, *Maintenance Agreement for Stormwater Treatment Measures*, each individual future project within the Planning Area would be required to enter into a maintenance agreement accepting responsibility for the adequate installation or construction, operation, maintenance, inspection and reporting of all stormwater treatment measures incorporated into the project.

With required implementation of SCA 80 and 81, post-construction operational water quality impacts of the Specific Plan pertaining to water quality and runoff would be less than significant.

Mitigation Measures

None needed

Changes to the Drainage System Pattern and Capacity

Impact Hydro-5: The Specific Plan does not propose any changes to the existing drainage pattern within the Planning Area. All drainage and stormwater runoff is conveyed via underground pipes and conduits to pumping plants, which discharge runoff into the Bay. There are no surface water features or open drainage systems which would be altered, or where an increase in captured runoff may adversely affect the capacity of such features. **(No Impact)**

Future development in accordance with the Specific Plan and City actions implementing the Plan would not substantially alter the existing drainage pattern of the area or substantially increase the rate or amount of surface runoff in a manner which would adversely affect drainage patterns or capacity. The Specific Plan does not propose any changes to the existing drainage pattern within the Planning Area.

Future development in accordance with the Specific Plan would be subject to the City's Storm Drainage Design Guidelines, which requires a net reduction of 25 percent in the peak stormwater runoff rate from new projects, to the extent possible, in an effort to better address City-wide storm drainage capacity. The City's storm drainage system and its ability to accommodate potential future increases in storm water runoff are more fully discussed in Section 4.12, Utilities.

The Specific Plan does not propose a substantial alteration to existing drainage patterns, nor would it increase the rate or amount of flow, of a creek, river, or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- and off-site. The Specific Plan does not propose or authorize any new development within the areas where it may conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrologic resources.

Mitigation Measures

None needed

Flood Hazards

Impact Hydro-6: No portion of the Planning Area is located within a 100-year or 500-year flood hazard area, as mapped on the National Flood Insurance Program Flood Insurance Rate Maps.

Development in accordance with the Specific Plan would not place housing within a 100-year flood hazard area. **(LTS)**

No portion of the Planning Area is located within a 100-year or a 500-year flood hazard area as depicted on the National Flood Insurance Program Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency. All of West Oakland is designated Zone X, which means that it is an area determined to be an area of minimal flood hazard, outside the 0.2 percent annual chance floodplain. For this reason, implementation of the Specific plan would not result in substantial flooding on- or off-site; would not expose people or structures to a substantial risk of loss, injury, or death involving flooding; would not impede or redirect flood flows or place within a 100-year flood hazard area structures which would impede or redirect flood flows; now would it place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Map.

Potential flooding impacts related to sea level rise are addressed in Chapter 4.4, Greenhouse Gas Emissions.

Mitigation Measures

None needed

Dam Failure Inundation

Impact Hydro-7: The portion of the Planning Area north of I-580 is located within the Temescal Lake dam failure inundation area and could be subject to flooding in the event of a catastrophic failure of the dam. The Specific Plan does not propose any land use changes or improvements to the area north of I-580, and would not affect established emergency procedures for the evacuation and control of populated areas below Temescal Lake dam. Therefore, the Specific Plan would not expose people or structures to a substantial risk of loss, injury or death involving flooding due to dam failure inundation. **(LTS)**

The California Office of Emergency Services (CA OES) Dam Failure Inundation Mapping and Emergency Procedure Program establishes emergency procedures for the evacuation and control of populated areas below dams which could be used to save lives and reduce injury in the event of a dam failure. Dam owners submit inundation maps to CA OES for review and approval. Inundation maps represent the best estimate of where water would flow if a dam failed completely and suddenly with a full reservoir. Copies of the approved inundation maps are sent to the city and county emergency services coordinators of affected local jurisdictions, which are required to adopt emergency procedures for the evacuation and control of populated areas below the dams. The portion of the Planning Area north of I-580 is located within the Temescal Lake dam failure inundation area and could be subject to flooding and associated risk of injury and loss of property, in the event of a catastrophic failure of the dam.⁵

The City participates in the CA OES Dam Failure Inundation Mapping and Emergency Procedure Program and has included potential dam failure in its emergency preparedness, response and evacuation programs. The Specific Plan would not alter these City programs, nor would these programs need to be changed to accommodate future development pursuant to or consistent with the Specific Plan. The Specific Plan does not propose any land use changes or improvements to the area north of I-580.

⁵ Association of Bay Area Governments, Geographic Information Systems, Hazards Maps, Dam Failure Inundation Areas website, viewed on June 22, 2012, <http://www.abag.ca.gov/cgi-bin/pickdamx.pl>

Therefore, the potential flooding impacts related to failure of the Temescal Lake dam would be less than significant.

Mitigation Measures

None needed

Seiche, Tsunami and Mudflow

Impact Hydro-8: The Planning Area is not subject to risk from a seiche or landslides. However, the western portion of the Specific Plan, generally west of Mandela Parkway, is subject to tsunami inundation. The Alaska Tsunami Warning Center, State Warning System and OES emergency alert system, including the outdoor warning sirens in West Oakland, would provide early notification of an advancing tsunami allowing evacuation of people, although there could be property damage due to inundation. (LTS)

A seiche is a tidal change in an enclosed or semi-enclosed water body caused by sustained high winds or an earthquake. The Planning Area is not located close enough to San Francisco Bay to be affected by a seiche.

Tsunamis are seismically induced sea waves that, upon entering shallow near-shore waters, may reach heights capable of causing widespread damage to coastal areas. The western portion of the Planning Area, generally west of Mandela Parkway, is subject to tsunami inundation, based on maps prepared by the California Emergency Management Agency representing a credible upper bound to inundation from realistic local and distant earthquakes and hypothetical extreme undersea, near-shore landslides.⁶

The National Weather Service operates the Alaska Tsunami Warning Center in Palmer, Alaska which serves as the regional Tsunami Warning Center for Alaska, British Columbia, Washington, Oregon, and California. This center monitors seismological and tidal stations throughout the Pacific Basin to evaluate whether an earthquake is capable of producing a tsunami and disseminates tsunami warning information. In the event that an earthquake occurred that would be capable of producing a tsunami that could affect West Oakland, the City of Oakland would receive the warning through the State Warning System.

The Oakland Office of Emergency Services (OES) operates a network of outdoor warning sirens to alert the public in the case of an emergency. There are sirens installed at three locations in West Oakland: the Goss Avenue/Pine Avenue intersection, Poplar Recreation Area, and Lafayette Square. The warning sirens would alert the public to tune into the local emergency alerting radio station for safety information and instructions. Police would also canvas the neighborhoods sounding sirens and bullhorns, as well as knocking on doors as needed, to provide emergency instructions. Evacuation centers would be set up if required.

The Alaska Tsunami Warning Center, State Warning System and OES emergency alert system, including the outdoor warning sirens in West Oakland, would provide early notification of an advancing tsunami allowing evacuation of people, although there could be property damage due to inundation. Given the rare occurrence of tsunamis, the distance of West Oakland to the Bay shoreline, and the emergency

⁶ Association of Bay Area Governments, Earthquake and Hazards Information, Tsunami Inundation Map for Coastal Evacuation website, viewed on June 22, 2012, <http://gis.abag.ca.gov/website/Tsunami/>

alert system enabling evacuation of people, potential impacts related to tsunami inundation would be less than significant.

The Planning Area is flat and far from hillsides, and is not subject to risk from landslides as mapped by the Association of Bay Area Governments, based on data from the U.S. Geological Survey.⁷

Mitigation Measures

None needed

Mineral Resources

Loss of Mineral Resources

Impact Min-1: Future development pursuant to or consistent with the Specific Plan would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. **(LTS)**

According to the California Department of Conservation Division of Mines and Geology's Aggregate Resource Map,⁸ the Planning Area is not currently considered an Aggregate Resource sector. The Leona Quarry was the last mine in Oakland to be identified as a regionally significant source of aggregate resources. Areas with this designation are judged to be of prime importance in meeting future mineral needs in the region, and land use decisions must consider the importance of these resources to the region as a whole, and not just their importance to Oakland. The Leona Quarry has been closed for many years, and there is no other land in Oakland with such a designation.

Mitigation Measures

None needed

Loss of a Mineral Resource Recovery Site

Impact Min-2: Future development pursuant to or consistent with the Specific Plan would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. **(No Impact)**

The Planning Area is not designated as a locally important mineral resource recovery site under the City of Oakland General Plan Land Use and Transportation Element or Open Space, Conservation and Recreation Element. Furthermore, Policy CO-3.2 of the Conservation Element prohibits new quarrying activity in Oakland except upon clear and compelling evidence that the benefits will outweigh the resulting environmental, health, safety, aesthetic and quality of life costs.

⁷ Association of Bay Area Governments, Hazards Program, Landslide Maps and Information website, viewed on June 22, 2012, <http://quake.abag.ca.gov/landslides/>

⁸ http://www.conservation.ca.gov/smgb/reports/Designation/DR%207/Documents/DR7_SR146_Plate2.60.pdf

Mitigation Measures

None needed