Draft
Supplemental Environmental Impact Report

Trumark Dumbarton Transit Oriented Development Residential Project

SCH #2010042012

December 2013

Prepared by:

NEWARK
california

In Consultation with:

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newark
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NOTICE OF AVAILABILITY OF
A DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (SEIR),
AND PUBLIC COMMENT PERIOD

The City of Newark has prepared a Draft Supplemental Environmental Impact Report (SEIR) for the Trumark Dumbarton Transit Oriented Development Residential Project. The project involves the implementation of a Corrective Action Plan to remediate soil contaminants on an approximately 21 acre site located at 8400 Enterprise Drive and the subsequent development of 217 detached single-family residential units, and the development of 27 detached single-family residential units on an approximately two acre site located at 8375 Enterprise Drive. The two project sites are within the Dumbarton Transit Oriented Development (TOD) Specific Plan Area which encompasses approximately 233 acres of land adjacent to the planned Dumbarton Rail Corridor (DRC). On September 8, 2011, the Newark City Council certified the Final Program Environmental Impact Report (FPEIR) and adopted a general plan amendment for the Dumbarton TOD Specific Plan. The purpose of a Supplemental Environmental Impact Report (SEIR) is to inform decision makers and the general public of the environmental effects of the proposed project that were not known at the time previous environmental review was conducted for the project.

The proposed project will have potentially significant environmental effects with regard to Air Quality, Biological Resources, Cultural Resources, Greenhouse Gas Emissions, Geology, Hazards and Hazardous Materials, and Noise. The California Environmental Quality Act (CEQA) requires this notice to disclose whether any listed toxic sites are present at the project location. The project location is contained on the Cortese List of hazardous waste sites.

The Draft EIR and documents referenced in the Draft SEIR are available for review online at the City of Newark's website: http://www.ci.newark.ca.us/ and at the following locations:

City of Newark
37101 Newark Boulevard
Newark, CA 94560
(510) 578-4208
Hours available:
Monday - Friday: 8:00 a.m. to 5:00 p.m.
Closed on alternating Fridays: January 3rd, 11th & 31st;
February 14th & 28th;

Newark Branch Library
6300 Civic Terrace Avenue
Newark, CA 94560
(510) 795-2627
Hours available: Sunday: 1 p.m. - 5 p.m.
Tuesday and Thursday: 1 p.m. - 9 pm.
Wednesday and Friday: 10 a.m. - 6 p.m.
Saturday: 10 a.m. - 5 p.m.

The 45-day public review period for this Draft EIR begins on **December 24, 2013** and ends on **February 7, 2014.** Written comments must be received at the City of Newark by **5:00 p.m.** on **February 7, 2014,** in order to be addressed as part of the formal EIR review process. Comments and questions should be referred to Mr. Terrence Grindall, Community Development Director, by fax at (510) 578-4265, or by regular mail at the mailing address listed above, or by email at Terrence.grindall@newark.org.

Following the close of the public review period, the City of Newark will prepare a Final Environmental Impact Report that will include responses to comments received during the review period. Ten days prior to the public hearing on the EIR, the City's responses to comments received during the public review period will be available for review.

Terrence Grindall

Terrence Grindall, Community Development Director
City of Newark

12-20-13
Date

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SUMMARY

The project involves the implementation of a Corrective Action Plan to remediate soil contaminants on an approximately 21 acre site located at 8400 Enterprise Drive and the subsequent development of 217 detached single-family residential units, and the development of 27 detached single-family residential units on an approximately two acre site located at 8375 Enterprise Drive. The two project sites are within the Dumbarton Transit Oriented Development (TOD) Specific Plan Area which encompasses approximately 233 acres of land adjacent to the planned Dumbarton Rail Corridor (DRC). On September 8, 2011, the Newark City Council certified the Final Program Environmental Impact Report (FPEIR) and adopted a general plan amendment for the Dumbarton TOD Specific Plan. The purpose of this Supplemental Environmental Impact Report (SEIR) is to inform decision makers and the general public of the environmental effects of the proposed project that were not known at the time previous environmental review was conducted for the Specific Plan project.

The following table summarizes the ***significant*** environmental impacts of the proposed project and mitigation measures proposed to reduce those impacts. A significant effect on the environment means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project. Applicable mitigation measures from the Environmental Impact Report (EIR) prepared to evaluate the impacts from adoption of the Dumbarton TOD Specific Plan are included along with project-specific measures to reduce impacts to the extent feasible.

Impacts that are less than significant are not described in this summary and can be found in the text of the SEIR, except those less than significant impacts that have been further mitigated to some extent. A complete description of the project, its impacts and proposed mitigation measures can be found in the text of the SEIR which follows this summary.

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
Air Quality	
Dust would be generated during remediation, grading, and construction activities. Nearby sensitive receptors could be exposed to this dust, resulting in temporary increases in cancer risk and respiratory health hazards.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.2-1a: Prior to issuance of any Grading Permit, the Public Works Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with the BAAQMD *CEQA Air Quality Guidelines*, the following basic construction mitigation measures shall be implemented for all construction projects: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	• All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measures, Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the 24-hour telephone number and person to contact at the construction firm regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.2-1b: Prior to issuance of any Grading Permit, the Public Works Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with the BAAQMD *CEQA Air Quality Guidelines*, the following additional construction mitigation measures shall be implemented for all construction projects: • All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. • Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	• Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. • The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. • All trucks and equipment, including their tires, shall be washed off prior to leaving the site. • Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel. • Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. • Minimizing the idling time of diesel powered construction equipment to two minutes. • The project shall develop a plan demonstrating that off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. • Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). • Require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. • Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
Biological Resources	

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
The Specific Plan area contains suitable nesting habitat for the western burrowing owl and development on the proposed project has the potential to disturb owls and cause nest abandonment if owls are present during construction.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-3 **(as revised for consistency with current CDFW protocol):** *4.3-3a* Presence/Absence Survey. A breeding season presence/absence survey for burrowing owls will be completed in conformance with the CDFW 2012 protocol to determine whether burrowing owls nest in the study area. A qualified biologist will conduct the survey during the burrowing owl peak nesting season (April 15 through July 15). During the initial site visit, the qualified biologist will survey the entire project site and (to the extent that access allows) the area within 500 feet of the site for burrowing owl habitat (i.e., burrows). Because suitable burrows are known to be present in the project area; a qualified biologist will visit the site an additional three times, with each visit separated by a minimum of three weeks, to investigate each burrow for signs of owl use and to determine whether owls are present in areas where they could be affected by the proposed activities. *4.3-3b* Pre-construction Survey. A pre-construction survey for burrowing owls will be completed in conformance with the CDFW 2012 protocol directly preceding project construction. The initial survey will be conducted no less than 14 days (e.g., 2-4 weeks) prior to the initiation of construction. During the initial site visit, a qualified biologist will survey both Site A and Site B and (to the extent that access allows) the area within 500 feet of the sites for suitable burrows that could be used by burrowing owls for nesting or roosting. If no suitable burrowing owl habitat is present, no additional surveys will be required. If suitable burrows are determined to be present on the site, a qualified biologist will visit the site an additional three times to investigate each burrow for signs of owl use and to determine whether owls are present in areas where they could be affected by the proposed activities. The final survey shall be conducted within the 24 hour-period prior to the initiation of construction. *4.3-3c* Buffer Zones. If burrowing owls are present during the non-breeding season (generally 1 September to 31 January), a 150-ft buffer zone shall be maintained around the occupied burrow(s) if practicable. If maintaining such a buffer is not feasible, then the buffer must be great enough

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	to avoid injury or mortality of individual owls, or else the owls should be passively relocated as described below. During the breeding season (generally 1 February to 31 August), a 250-ft buffer, within which no new activity will be permissible, will be maintained between Project activities and occupied burrows. Owls present on site after 1 February will be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area will remain in effect until 31 August, or at the CDFW's discretion and based upon monitoring evidence, until the young owls are foraging independently. *4.3-3d* Passive Relocation. If construction will directly impact occupied burrows, eviction of owls, by a qualified biologist, should occur outside the nesting season. No burrowing owls will be evicted from burrows during the nesting season (1 February through 31 August) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season). *4.3-3e* Compensatory Habitat Mitigation. If the surveys determine that owls are present in the study area, compensatory mitigation for Project impacts on nesting habitat will be provided in the form of habitat preservation and management. Mitigation will consist of providing 6.5 ac of suitable habitat off-site for every pair (or single owl, if unpaired) of owls displaced by the Project. The protected lands shall be adjacent to occupied burrowing owl habitat if possible, and at a location selected in collaboration with CDFW. Land identified to offset impacts on burrowing owls shall be protected in perpetuity by a suitable property instrument (e.g., a conservation easement or fee title acquisition). A Mitigation Plan shall be prepared in consultation with CDFW for review and approval by the City. The Mitigation Plan shall identify the mitigation site and any activities proposed to enhance the site, including the construction of artificial burrows and maintenance of California ground squirrel populations on the mitigation site. In addition, for each pair of burrowing owls found in the study area, two artificial nesting burrows shall be created at the mitigation site. The Plan shall also include a description of monitoring and management methods proposed at the mitigation site. Monitoring and management

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	of any lands identified for mitigation purposes shall be the responsibility of the applicant for at least five years. An annual report shall be prepared for submittal to CDFW and the City by December 31 of each monitoring year. Contingency measures for any anticipated problems will be identified in the plan. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
Based on the potential for special status raptors to nest in trees on site, the proposed project could result in disturbance to the nesting birds, loss of nesting habitat, and even bird death from construction activity occurring near active raptor nests.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-2: In order to avoid impacts on nesting raptors, a nesting survey shall be conducted on individual project site parcels prior to commencing with earth-moving or construction work if this work would occur during raptor nesting season, that is, between February 1 and August 31. The raptor nesting survey shall include examination of all trees on or within 300 feet of the entire project site, not just trees slated for removal, since ground vibrations and noise from earth-moving equipment can disturb nesting birds and potentially result in nest abandonment. Since northern harriers are ground nesting raptors, the nesting survey shall also include systematic walking transects across all suitable ground on the project site parcels. If nesting raptors are identified during the surveys, orange construction fence shall be installed to establish a 300-foot radius around the nest unless a qualified biologist determines that a lesser distance will adequately protect the nest (refer to discussion below for more detail). If the tree or nest is located off the project site, then the buffer shall be demarcated per the above where the buffer intersects the project site. The size of the non-disturbance nesting buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. If the buffer is reduced, the qualified raptor biologist shall remain onsite to monitor the raptors' behavior during heavy construction in order to ensure that the reduced buffer doesn't result in take of eggs or nestlings. No construction or earth-moving activity shall occur within the established buffer until it is determined by a qualified

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1. This date may be earlier or later, and would have to be determined by a qualified raptor biologist. If a qualified biologist is not hired to monitor the nesting raptors then the full 300-foot buffers shall be maintained in place from February 1 through the month of August. The buffer may be removed and work may proceed as otherwise planned within the buffer on September 1. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
The Specific Plan area contains suitable habitat for common passerine nesting birds as well as the San Francisco common yellowthroat and the Tricolored blackbird. Pursuant to the Migratory Bird Treaty Act and the findings of the *Dumbarton TOD Specific Plan EIR*, project impacts to nesting birds, their young, or their eggs, would be considered a significant impact.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-4: In order to avoid impacts on nesting passerines, a nesting survey shall be conducted on individual project site parcels prior to commencing initial earth-moving or construction work on that parcel if this work would occur during the passerine nesting season, that is, between March 1 and September 1. The nesting survey shall also survey lands within 100 feet of the parcel being developed. The nesting surveys shall be completed approximately 15 days prior to commencing with the work. If special-status birds, such as tricolored blackbirds and/or salt marsh common yellow throat, are identified nesting on or near the project site, a 100-foot radius around all identified active nests shall be demarcated with orange construction fencing to establish a non-disturbance buffer. If an active nest is found offsite, the intersecting portion of the buffer that is onsite shall be fenced. No construction or earth-moving activity shall occur within this 100-foot staked buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. If common (that is, not special-status) birds, for example, red-winged blackbird, are identified nesting on or adjacent to the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance around an active nest shall be postponed until it is determined by the qualified wildlife biologist that the young have fledged and have attained sufficient flight skills to leave the area.

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	Typically, most birds in the region of the project site are expected to complete nesting by August 1. However, in the region many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers shall be maintained until August 1 unless a qualified wildlife biologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to August 1st, the biologist conducting the nesting surveys shall prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City project planner prior to the time that buffers are removed if the date is before August 1. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
Sites A and B support habitat for seven special-status plants: Brittlescale, San Joaquin spearscale, Lesser saltscale, Congdon's tarplant, Hoover's button celery, Caper-fruited tropidocarpum, and Saline clover.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-5: Prior to City approval of any specific development, special-status plant surveys shall be conducted in appropriate habitats during the appropriate period in which the species are most identifiable. These surveys shall be in compliance with all CDFW (2000), USFWS (1996), and CNPS (2001) published survey guidelines. Project construction shall not be initiated until all special-status plant surveys are completed and subsequent mitigation, if necessary, is implemented. If special-status plant species are found during surveys, those individuals or populations shall be avoided to the maximum degree possible. If avoidance is not possible while otherwise obtaining the project's objectives, then other suitable measures and mitigation shall be developed in consultation with the agencies that are responsible for protection of that plant species based on its protection status [i.e., City (protected by CEQA), CDFW (protected by California law/regulation), or USFWS (protected by federal law/regulation)]. Appropriate mitigation prescriptions for impacts on special-status plants shall be included as conditions of project approval as detailed below. Special-status plant surveys shall be completed as described above prior to breaking ground on any parcel within the project site. A special-status plant survey report that includes the methods used, survey participants, and findings shall then be prepared and submitted to the City

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	demonstrating absence of special-status plants at least 30 days prior to breaking ground. The special-status plant report shall be reviewed by a City planner or biologist. If the report documents that there are no special-status plants on the particular project site parcel surveyed, then there would be no further mitigation and the project may proceed, provided all other applicable permits and authorizations are obtained for the project. However, if a special-status plant is found on the project site, the following mitigation measures shall also be implemented as a condition of project approval. If special-status plant species are found during surveys, project development plans shall consider avoidance to the extent practicable. If avoidance is not practicable while otherwise obtaining the project's objectives, then other suitable measures and mitigation shall be implemented as detailed below. A mitigation compliance report shall be submitted to the City planning staff or staff biologist at least 30 days prior to breaking ground. The compliance report shall detail the avoidance and other mitigation measures that have been implemented by the project. The City may approve grading/site disturbance in a quicker timeframe than 30 days if compliance with the mitigation measures can be verified by the City sooner than 30 days. The following measures shall be implemented if special-status plants are found on the project site: • Initially the feasibility of avoidance shall be evaluated as noted above. • If avoidance is not feasible, a mitigation plan shall be developed in consultation with CDFW personnel if it is a state listed (i.e., protected pursuant to the CESA) or a CNPS List 1B or List 2 plant. If the plant is state listed, an incidental take permit (i.e., a 2081 Agreement) shall be acquired for the project from CDFW prior to any grading within the project area. A copy of this permit shall be provided to the appropriate department within the City prior to any grading within the project area. Any conditions for the project established by CDFW in the 2081 Agreement shall

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	become conditions of the project also enforceable by the City. • If the plant is federally listed (i.e., protected pursuant to the Federal Endangered Species Act), the project sponsor shall formally notify the USFWS within five days of the finding and this agency's permitting instructions shall be incorporated into the project conditions of approval. As required in-practice by the USFWS, an "incidental take" permit may be necessary from the USFWS for any proposed impacts on any federally listed plants found within the project site. A copy of this permit or a letter from the USFWS that otherwise states this agency is satisfied with the avoidance and/or mitigation measures shall also be provided to the appropriate department at the City prior to the time the project site can be graded. • If a plant is found on the project site that is a CNPS List 1B or 2 species, and the species is not otherwise protected pursuant to state or federal regulations, prior to construction within the project area, a qualified botanist shall collect the seeds, propagules, and top soils, or other part of the plant that would ensure successful replanting of the population elsewhere. The seeds, propagules, or other plantable portion of all plants shall be collected at the appropriate time of the year. Half of the seeds and top soils collected shall be appropriately stored in long-term storage at a botanic garden or museum (for example, Rancho Santa Ana Botanic Garden). The other half of the seeds, propagules, or other plantable portion of all plants shall be planted at the appropriate time of year (late-fall months) in an area of the subject property or off-site, protected property that will not be impacted by the project (if the project has a designated off-site mitigation site for impacts on other special-status species, the plants can be seeded on the mitigation site). This area shall be fenced with permanent fencing (for example, chain link fencing) to ensure protection of the species. The applicant shall hire a qualified biologist to conduct annual monitoring surveys of the transplanted plant population for a five year period and shall prepare annual monitoring reports reporting the success or failure of the transplanting effort. These

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	reports shall be submitted to the City and appropriate resource agency (CDFW and/or USFWS) no later than December 1st each monitoring year. These steps shall be implemented prior to site disturbance. If the seeding/transplanting effort fails, the stored seeds and top soils can be taken out of long-term storage and sown in another location (either onsite or offsite) deemed suitable by CDFW. This seeding effort shall then be monitored for an additional three year period to ensure survivorship of the new population. Annual monitoring reports shall be submitted to the City for the three year period. A CNDDB form shall be filled out and submitted to CDFW for any special-status plant species identified within the project site. Any mitigation plan developed in consultation with CDFW shall be implemented prior to the initiation of grading or issuance of a development permit. In lieu of the above prescribed mitigation, as allowed in writing by the City (for CEQA protected species only) and/or CDFW (for CEQA and/or state listed species), mitigation requirements may be satisfied via the purchase of qualified mitigation credits or the preservation of offsite habitat. If the species in question is federally listed, then USFWS would also have to agree in writing typically through issuance of a Biological Opinion that the purchase of qualified mitigation credits or the preservation of offsite habitat would constitute satisfactory mitigation compensation. **Proposed Project Mitigation** Because site remediation must meet regulatory standards intended to protect the health of future residents, it would not be feasible to leave contaminants in place in areas where Congdon's tarplant occurs, therefore mitigation measures involving avoidance of the plant and its habitat on the site would be infeasible. Congdon's tarplant is not federally listed, but is a CNPS List 1B species. Because the project cannot avoid disturbing the plant, it would implement mitigation for CNPS 1B species identified in the *Dumbarton TOD Specific Plan EIR* and listed above. The project proposes to use either on-site

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	or off-site mitigation planting at a 1:1 plant to plant ratio. Prior to the issuance of grading permits, the project will submit a mitigation plan for impacts to Congdon's tarplant to the City of Newark for review and approval. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
There are 0.24 acres of seasonal fresh water wetlands on the project sites.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-6: Wetland mitigation shall, to the extent not already completed, require a wetland delineation conducted according to the 1987 USACE Wetland Delineation Manual (U.S. Army Corps of Engineers 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Coast Region (Corps 2008) prior to City approval of any specific development proposal. This delineation shall be submitted to the USACE for verification. Once that map is "verified," the full extent of waters of the U.S./State would be known and the extent of impacts on regulated areas ascertained. Authorization from the Corps and the RWQCB (for example, a Nationwide Permit and a Certification of Water Quality) shall be obtained as necessary/required by these agencies prior to filling any waters of the U.S./State on the project site. Impacts shall also be minimized by the use of Best Management Practices (BMPs) to protect preserved waters of the U.S./State and to ensure that water quality standards are not compromised in preserved wetlands and other waters within the watershed. These practices can include installing orange construction fencing buffers, straw waddles to keep fill from entering preserved/avoided wetlands and other waters, and other protective measures. During project construction, a biological monitor shall be onsite to monitor the integrity of any preserved wetlands and other waters during mass grading or filling of the project site. For those wetland areas that are not avoided, mitigation compensation wetlands shall be completed. As approved by the USACE and the RWQCB, the project sponsor may purchase mitigation credits from an approved mitigation bank or an approved in-lieu fee mitigation entity at a minimum 1:1 ratio.

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	As an alternative to the purchase of credits in a mitigation bank, wetlands may be created onsite and, if so, shall have an equal or higher functional value than those wetlands affected by the project (known as in-kind replacement). If wetlands cannot be created in-kind and onsite, other alternatives shall include off-site and/or out-of-kind. In any case, mitigation requirements for wetland areas that are not avoided shall be that all impacted wetlands are replaced at a minimum 1:1 ratio (for each square foot of impact, one square foot of wetland would be restored/created) or at a ratio determined by the RWQCB and USACE at the time permits are issued. Mitigation requirements would be based upon the existing conditions of the wetlands impacted. Where practicable, wetland plant/animal populations shall be relocated from the wetlands that would be impacted to any re-created wetlands. Top soils shall also be removed from wetlands that would be impacted if practicable, and placed into the re-created wetlands. These top soils would contain a seed bank of the impacted plant species which would germinate with fall/winter hydration of the re-created wetlands. If wetlands are restored/created, adequate compensation shall include creating wetlands at a suitable location that meet the following performance standards: • The wetlands shall remain inundated or saturated for sufficient duration to support a predominance of hydrophytic vegetation. • The wetlands shall exhibit plant species richness comparable to existing wetlands. • The wetlands shall replace the lost wetlands at a minimum ratio of one acre created for each acre, or fraction thereof, permanently impacted. • The developer shall provide for the protection of the mitigation areas in perpetuity either through deed restrictions or conservation easements. • The developer shall establish a five-year program to monitor the progress of the wetland mitigation toward these standards. At the end of each monitoring year, an

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	annual report shall be submitted to the City, the RWQCB, and the USACE. This report shall document the hydrological and vegetative condition of the mitigation wetlands, and shall recommend remedial measures as necessary to correct deficiencies. **Proposed Project Mitigation** Potential mitigation for impacts to wetland habitat that involve avoidance of wetlands or creating wetlands on site would not be feasible for the project. Since the proposed project cannot avoid on-site wetlands, or create wetland on site as part of the proposed development, the project would purchase mitigation credits from an approved mitigation bank or an approved in-lieu fee mitigation entity at a minimum 1:1 ratio (impacts: mitigation), for the USACE-verified area of wetlands on the project sites, subject to approval by the USACE and RWQCB. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
Removal of trees protected under the City of Newark Municipal Code could result in a potentially significant impact.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-8: A tree permit shall be obtained from the City prior to the removal of any tree protected by City ordinance on project site parcels. To offset impacts resulting from the removal of these trees, replacement trees shall be planted in designated open space areas on the subject parcel. Tree replacement shall be at a 1:1 ratio (that is, for each tree removed, one tree shall be planted as a replacement). Replacement trees shall be native California species that are native to the Newark area (for example, redwood trees are native to California but not to Newark). A Tree Management Plan shall be prepared for any project on any project site parcel where tree removal occurs. Preparation of this plan and subsequent planting and monitoring shall be a condition of project approval and shall be tied to a security bond or cash deposit posted by the developer with the City. This plan shall include a planting detail that specifies where all trees would be planted on the subject parcel. The methods used to plant trees shall also be specified. Adequate measures shall be established to minimize predation of planted trees by rodents including, but not limited to, pocket gophers (*Thomomys bottae*) and/or California ground squirrels (*Spermophilus beecheyi*).

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	All planted trees shall be provided with a buried, irrigation system that shall be maintained over a minimum three-year establishment period. The irrigation system shall be placed on automatic electric or battery operated timers so that trees are automatically watered during the dry months of the establishment period. At the end of the three-year establishment period, the irrigation system could be removed, if necessary. The planted trees' health shall be monitored annually for five years by a qualified biologist or arborist. Annual monitoring reports shall be submitted to the City. At the end of a five-year monitoring period, at least 80 percent of planted trees shall be in good health. If the numbers of planted trees falls below an 80 percent survival rate, additional trees shall be planted to bring the total number of planted trees up to 100 percent of the original number of trees planted. Irrigation and follow-up monitoring shall be established over an additional three year period after any replanting occurs. Any replanting and follow-up monitoring shall be reported in annual reports prepared for the City, Community Development Department. A performance bond, letter of credit, or other financial instrument shall be established to pay for any remedial work that might need to occur, if the prior effort fails. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
Cultural Resources	
The Dumbarton TOD Specific Plan area is moderately sensitive for buried cultural resources, which could be impacted by construction activites. To avoid impacts to potential buried cultural resources during construction (including grading and excavation for site remediation) the project will implement the following measures.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.4-1: Prior to the issuance of grading permits for future development allowed within the Dumbarton TOD Specific Plan area, project sponsors shall retain qualified archaeologists meeting the Secretary of the Interior's Professional Qualification Standards to train the construction crew on the mechanisms used to identify cultural resources and to caution them on the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts or human remains from the project sites. If subsurface deposits believed to be cultural or human in origin are discovered during the construction of future

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	development projects within the Dumbarton TOD Specific Plan area, then all work shall halt within a 200-foot radius of the discovery and they shall be evaluated by a professional archaeologist. If a potentially-eligible resource is encountered, then the archaeologist, lead agency, and project sponsor shall arrange for either: 1) total avoidance of the resource, if possible; or 2) test excavations to evaluate eligibility and, if eligible, data recovery as mitigation. If human remains of any kind are found during construction activities, all activities shall cease immediately and the Alameda County Coroner shall be notified as required by State law (Section 7050.5 of the Health and Safety Code). If the coroner determines the remains to be of Native American origin, he or she shall notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the most likely descendant(s) (MLD) to be consulted regarding treatment and/or reburial of the remains. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
Greenhouse Gas Emissions	
The proposed project would contribute to the GHG emissions calculated in the Specific Plan EIR.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.6-1: The Specific Plan shall include, but not be limited to, the following list of potential design features. These features shall be incorporated into the Specific Plan and future buildings to ensure consistency with adopted Statewide plans and programs. The project applicant shall demonstrate the incorporation of project design features prior to the issuance of building permits. <u>Energy Efficiency</u> • Increase Energy Efficiency Beyond Title 24 Requirements • Plant shade trees within 40 feet of the south side or within 60 feet of the west sides of properties • Require cool roof materials (albedo ≥ 30) • Install green roofs. • Require smart meters and programmable thermostats • Install solar or tank-less water heaters • Make residential and commercial buildings solar ready.

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	• Incorporate design guidelines for transit oriented development and complete street standards • Implement HVAC duct sealing • Maximize interior day light in residential uses • Increase roof/ceiling insulation <u>Transportation</u> • Provide a minimum of 15 percent affordable housing • Provide secure bike parking (at least one space per 20 vehicle spaces) • Provide information to the public (i.e., bike maps and transit schedules) on transportation alternatives • Provide free or preferential parking for carpool, vanpool, low emission vehicles, and car share vehicles **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
Hazards and Hazardous Materials	
Site A is impacted by VOCs in soil and groundwater that originate from the adjacent Honeywell site. VOC concentrations exceed residential health risk levels acceptable to the RWQCB.	Prior to the issuance of grading permits or building permits for development of Site A, a remediation plan and a risk management plan must be prepared and submitted for review by the RWQCB. The RWQCB will review the plans to confirm that implementation of the plans would achieve Cal-EPA approved risk management standards for residential use of risk less than 10^{-6} and health hazard index of less than 1. **(Less Than Significant Impact With Mitigation)**
Site B is impacted by soil contamination associated with past uses of the site.	Prior to the issuance of building permits for development of Site B, all pre-construction elements of the Remedial Action Plan conditionally approved by the RWQCB on July 30, 2013, as it may be amended, must be met, including required pre-construction contingent submittals listed in the RWQCB conditional approval. **(Less Than Significant Impact With Mitigation)**
Site B is impacted by groundwater contamination associated with past uses of the site.	Prior to the issuance of building permits for development of Site B, all pre-construction elements of the Remedial Action Plan conditionally approved by the RWQCB on July 30, 2013, as it may be amended, must be met, including required pre-construction contingent submittals listed in the RWQCB conditional approval. **(Less Than Significant Impact With Mitigation)**
Remediation of soil and groundwater contamination on Site B could expose	A Health and Safety Plan prepared in accordance with all Federal OSHA and California Division of Occupational

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
workers and the general public to contaminants in soil and groundwater.	Safety and Health that addresses the safety of workers and the general public during remediation of the site shall be implemented by the project. **(Less Than Significant Impact With Mitigation)**
Soil imported to the site for backfill could contain contaminants.	Imported soils shall be sampled for toxic or hazardous materials exceeding applicable Environmental Screening Levels for residential use of the site, and only clean soil shall be used that is consistent with RWQCB cleanup goals for the site. **(Less Than Significant Impact With Mitigation)**
Future residents of the project would be affected by airborne hazardous materials in the event of an accidental release from industrial facilities located approximately one mile from the project sites. Under a worst-case release scenario the site would be exposed to the chemicals Boron Trichloride, Nitrogen Dioxide and Chlorine. Under an alternative release scenario, the project would be affected by the release of Boron Trichloride and Nitrogen Dioxide. There are no feasible mitigation measures to protect the site or inhabitants of the site from exposure to airborne hazardous materials in the event of an accidental release.	The *Dumbarton TOD Specific Plan EIR* did not identify a potential impact from nearby facilities that store and use hazardous materials to adversely affect the health of future residents of the project sites in the event of an accidental release of hazardous materials. A survey of hazardous material users in the vicinity of the project and modeling of accidental releases of hazardous materials found that future residents of the project would be affected by airborne hazardous materials in the event of an accidental release from industrial facilities located approximately one mile from the project sites. There are no feasible mitigation measures to protect the site or inhabitants of the site from exposure to airborne hazardous materials in the event of an accidental release. **(Significant Unavoidable Impact)**
Noise	
Ambient noise impacts from surrounding uses to future residential development under the Specific Plan were found to be potentially significant. The residences proposed at the northern portion of Site A would be exposed to maximum instantaneous noise levels in excess of City standards by train operations. **(Significant Impact)**	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.10-3: Prior to building permit issuance, an Acoustical Assessment shall be prepared for the high/mixed-use residential, medium/high density residential, medium density residential parcels located north of Enterprise Drive (within approximately 600 feet of the Dumbarton transit corridor) to demonstrate that the exterior and interior noise levels are consistent with the City's land use compatibility standards and Title 25, Section 1092 of the California Code of Regulations. The Acoustical Assessment shall be prepared by a qualified Acoustical Consultant and submitted to the Community Development Director for review and approval. Measures (e.g., attenuation barriers, acoustically rated windows [i.e., appropriate STC or OITC ratings], upgraded insulation, etc.) shall be implemented where

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	conditions exceed the Noise and Land Use Compatibility Criteria of "Normally Acceptable" noise exposure levels. Project-specific acoustical analyses shall be completed for residential land uses exposed to noise levels exceeding 60 dBA L_{dn}. The specific determination of what treatments are necessary will be conducted on a unit-by-unit basis. Results of the analysis, including the description of the necessary noise control treatments, will be submitted to the City for review and approval prior to or during the building permit process. The analyses should meet the following noise reduction requirements: • Interior noise levels shall be reduced to 45 dBA L_{dn} or lower. Sound insulation requirements would likely need to include the provision of forced-air mechanical ventilation for all units, so that windows could be kept closed at the occupant's discretion to control noise. Special building construction techniques (e.g., sound-rated windows and building facade treatments) may be required for new residential uses adjacent to the DRC. • Maximum instantaneous noise levels (L_{max}) should be reduced to 50 dBA in bedrooms and 55 dBA in other habitable rooms. The design of mitigation at properties adjoining the railroad shall consider the best available methods. These treatments include, but are not limited to, sound rated windows and doors, sound rated wall construction, acoustical caulking, insulation, acoustical vents, etc. Large windows and doors should be oriented away from the railroad where possible. **(New Less Than Significant Impact With Mitigation)**
The Specific Plan EIR found that build-out of the Specific Plan would result in significant noise increases from traffic on Willow Street, where noise levels would increase by eight dBA to 57.5 dBA L_{dn}.	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.10-4: Prior to building permit issuance, the project applicant shall coordinate with the City's Public Works Director to change the posted speed limit along Willow Street (between Thornton Avenue and Central Avenue) to 25 miles per hour. Implementation of this measure shall be indicated on all project plans and specifications. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**
Noise generated by site remediation, site improvements, grading,	*Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.10-1a: To reduce noise impacts due to construction,

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
infrastructure improvements, and the construction of residences could result in noise levels exceeding 60 dBA L_{eq} and the ambient noise environment by 5 dBA L_{eq} for a period greater than one year.	project applicants shall require construction contractors to implement a site-specific noise reduction program, subject to City review and approval, which includes the following measures, ongoing through demolition, grading, and/or construction: • Restrict noise-generating activities at the construction site or in areas adjacent to the construction site to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and between 8:00 a.m. to 5:00 p.m. on Saturdays. • Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible). • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electronically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible. • Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporated insulation barriers, or other measures to the extent feasible. • If feasible, the noisiest phases of construction shall be limited to less than 10 days at a time. *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.10-1b: Prior to the issuance of each grading permit, project applicants shall submit to the City Building Inspection Division a list of measures to respond to and track complaints pertaining to construction noise, ongoing throughout demolition, grading, and/or construction. These measures shall include the following:

SIGNIFICANT IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	• A procedure and phone numbers for notifying the City Building Inspection Division staff and Newark Police Department (during regular construction hours and off-hours); • A sign posted onsite pertaining the permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours); • The designation of an onsite construction complaint and enforcement manager for the project. The manager shall act as a liaison between the project and its neighbors (including onsite residents). The manager's responsibilities and authority shall include the following: o An active role in monitoring project compliance with respect to noise; o Ability to reschedule noisy construction activities to reduce effects on surrounding noise sensitive receivers; o Site supervision of all potential sources of noise (e.g., material delivery, shouting, debris box pick-up and delivery) for all trades; and, o Intervening or discussing mitigation options with contractors. • Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of construction activities regarding the details and estimated duration of the activity; and, • A preconstruction meeting shall be held with the job inspectors and the general contractor/onsite project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed. **[Same Impact as Approved Project (Less Than Significant Impact With Mitigation)]**

SUMMARY OF ALTERNATIVES

CEQA requires that an EIR identify alternatives to the project as proposed. The CEQA Guidelines specify that an EIR identify alternatives which "would feasibly attain the most basic objectives of the project, but avoid or substantially lessen many of the significant environmental effects of the project," or would further reduce impacts that are considered less than significant with the incorporation of identified mitigation.

The City of Newark's objectives for implementation of the Dumbarton TOD Specific Plan are, in part, to:

- Guide the development of a sustainable community that includes a variety of residential, retail, employment generating, and park and recreational opportunities in close proximity to each other;
- Provide for a mix of housing opportunities at a range of densities from single family detached to multi-family housing to meet the varied housing needs of the community
- Effectuate the City's General Plan goals, policies, and programs that require a mix of housing types at a range of densities and for a range of income levels
- Provide a sufficient number of residential units within walking distance of the future, planned transit station to generate the ridership necessary to support the station if and when the DRC Project is implemented or alternative transit service is established
- Encourage the development of a predominantly vacant area of land for its highest and best use
- Guide the development of a new community with a distinct identity, architectural style and sense of place while being compatible with existing neighborhoods

The applicant's primary objectives for the project are to:

- Develop an economically viable, high-quality residential project consistent with the Dumbarton TOD Specific Plan.
- Develop single family detached residences consistent with the project sites' Medium High Density Residential land use designation.
- Prepare Site B for residential development by addressing soil and groundwater contaminants to achieve established regulatory standards for residential use of the property.
- Implement traffic circulation and streetscape improvement to serve the proposed residential units.
- Improve the overall appearance of the project area.

No Project Alternative

The No Project – Existing Plan Alternative assumes the proposed project is not approved or is not implemented, but that another future project is built consistent with existing plans and policies. In this case, what can be reasonably expected to occur in the foreseeable future, based on current plans and consistent with available infrastructure and community services is another residential project, at a density consistent with the Specific Plan designation for the site, *Medium Density Residential (DTOD Specific Plan) 14-25 du/acre*.

Regardless of the residential unit type ultimately developed under this alternative, remediation of soil contaminants on Site B and remediation of VOCs on Site A would have to occur prior to residential development. Extensive grading and excavation necessary to prepare Site B for residential use would still affect seasonal wetlands and Congdon's tarplant on the site to the same extent as the proposed project. The potential to avoid seasonal wetlands on Site A is discussed in more detail below in the Reduced Development Alternative and the Design Alternative.

The No Project – Existing Plan Alternative would not avoid the significant unavoidable impact from the potential exposure of future residents on Site A and Site B to airborne hazardous substances. The No Project – Existing Plan Alternative would not avoid the significant impacts of the proposed project on Site B, however, residential development on Site A in a more compact form could potentially reduce or avoid impacts to wetlands on Site A.

Location Alternative

In order to identify an alternative site that might reasonably be considered to "feasibly accomplish most of the basic purposes" of the project, and would also mitigate or reduce some or all of the significant impacts of the project, it is assumed that such a site would need to have the following characteristics:

- Located within the Dumbarton TOD Specific Plan area
- Land use designation of *Medium Density Residential*
- Approximately 22 acres in size to accommodate approximately 244 single family homes
- Immediately available

Because one of the objectives of the project is develop residential uses consistent with the Dumbarton TOD Specific Plan for the project sites, locations outside of the approximately 200 acre Specific Plan area would not be feasible. Within the Specific Plan area, approximately 68 acres are designated *Medium Density Residential* and would therefore support residential development at the same density specified by the Specific Plan for the project sites. Sites within the Specific Plan with the necessary *Medium Density Residential* designation include the Cargill, FMC and Torian properties, all located west of the proposed project. The Torian site is currently under development, so could be not used as a location alternative.

Under the Location Alternative, the project would be developed on either the Cargill or FMC properties (Figure 3-2). As noted in the *Dumbarton TOD Specific Plan EIR*, these sites are known to be impaired by hazardous materials, generally in the form of soil and/or groundwater contamination. It is likely that the remediation actions needed to prepare these sites for residential development would involve similar remediation as the project proposes for Site B.

The Location Alternative would reduce the potential exposure of future residents to airborne hazardous substances in the event of an accidental release from either of two facilities located in the vicinity of the project. As described in Section 4.4, *Hazards and Hazardous Materials*, under the alternative accidental release scenario (the accidental release of a portion of a hazardous substance as compared to a total release), the area of exposure to toxic levels of Nitrogen Dioxide would not extend to the FMC or Cargill properties (See Figure 4.4).

While development of the project on either the Cargill or FMC properties would result in a reduced risk from the accidental release of hazardous substances, all other impacts would be similar to those of the proposed project. None of the potential alternative locations, however, are controlled by the project proponent, therefore implementation of the project on an alternative location would not be feasible unless and until controlled by the applicant.

Reduced Development Alternatives

The Reduced Development Alternative would have the purpose of developing fewer units to avoid disturbing areas of the site with wetlands and Congdon's tarplant. This would entail a reduction of residential units on Site A to avoid seasonal wetlands by locating residences and streets away from mapped wetland areas. However, on Site B, remediation of soil contaminants to prepare it for residential uses would continue to necessitate disturbance of the entire site, thereby impacting wetlands and Congdon's tarplant on that area of the project.

The Reduced Development Alternative would establish appropriate buffer areas around the Site A wetlands to maintain the hydrologic conditions needed to sustain the wetlands. Additionally, the internal roadway would need to wind through the site in an inefficient, circuitous manner to avoid the wetlands and buffer areas. These restrictions in combination are estimated to reduce the number of units that could be developed on Site A by roughly half (12-15 units).

Given the proposed project at 244 total units narrowly achieves the minimum Specific Plan residential density of 14 units per acre, this reduced development alternative with roughly 12-15 fewer units would not meet the minimum density specified in the Specific Plan for the two sites. As noted above, one of the objectives of the Dumbarton TOD Specific Plan is to provide a sufficient number of residential units within walking distance of the planned transit station to generate the ridership necessary to support the planned station and public transit service. The Reduced Development Alternative would provide fewer residential units on site A than planned and therefore would fail to meet this objective.

The Reduced Development Alternative is not considered feasible because it would not be consistent with the General Plan designation for the site and would not achieve the objectives of the Specific Plan.

Project Design Alternative

This alternative would avoid development in areas of Site A containing seasonal wetlands. This alternative assumes the same number of units (244 total on both sites) as proposed by the project. It also assumes that streets and sidewalks would be provided for access, and that public open space areas would be included for Site B.

Preparation of Site B for residential use would still require extensive grading for soil removal as would be required under the proposed project. Alternative siting of streets and roads would not feasibly avoid wetland and tarplant impacts since the remediation of Site B required preceding any residential development would disturb areas in which these sensitive biological resources are present.

A Project Design Alternative to avoid seasonal wetlands impacts on Site A would involve reconfiguring the public street providing access from Enterprise Drive to avoid direct impacts to wetlands, and providing an adequate buffer around wetlands (estimated at requiring roughly 0.5 acres to be left alone) to maintain the hydrologic conditions needed to sustain Site A wetlands.

This alternative could redistribute the lost Site A units (estimated at roughly 12-15 units) to Site B. The site plan for Site B could not readily accommodate another 12-15 single-family detached units, and so this alternative would involve modifying some of the Site B units to a more compact, efficient form, which could impair the project's ability to meet the design standards and objectives established in the Specific Plan.

Relocating these units would allow the project as a whole (Site A and Site B) to maintain the minimum residential density for the *Medium Density Residential* land use designation but would not achieve the minimum density of 14 units per acre specified for Site A. Thus Site A would not conform to its General Plan land use designation under this alternative.

The Project Design Alternative would not avoid the significant unavoidable impact from the potential exposure of future residents on Sites A and B to airborne hazardous substances. Avoidance of impacts to seasonal wetlands and Congdon's tarplant on Site B under the Project Design Alternative would not be feasible since remediation of soil impacts during preparation of the Site for residential development would still result in direct impacts to them. The Project Design Alternative would avoid seasonal wetlands impacts on Site A, but would require that some number of units be instead constructed on Site B, and as attached units, to maintain the project's overall residential density specified in the General Plan. While the project, across both sites, could maintain the specified minimum residential density, Site A alone would not meet the minimum required and therefore would not be consistent with the General Plan.

Environmentally Superior Alternative

Based on the above discussion, the environmentally superior alternative is the No Project – No Development Alternative; because all of the project's significant environmental impacts would be avoided. However, Section 15126.6(e)(2) states that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Therefore, based on the previous discussion, the Location Alternative would be the environmentally superior alternative, because it would avoid the significant unavoidable impact of potential exposure of future residents to hazardous substances in the event of accidental release from hazardous material users in the vicinity of the project.
The potential alternative locations in the Dumbarton TOD Specific Plan, however, are controlled by other entities and not currently available to the project proponent and therefore would not be feasible for the project proponent.

Areas of Public Controversy

There are no known areas of controversy regarding the project. Written comments on the Notice of Preparation from public agencies and members of the public were received as described in *Section 1.4 Public Participation in Environmental Review*.

SECTION 1.0 INTRODUCTION AND PURPOSE

This document has been prepared by the City of Newark as the Lead Agency, in conformance with the California Environmental Quality Act (CEQA). The purpose of this Supplemental Environmental Impact Report (SEIR) is to inform decision makers and the general public of the environmental effects of the proposed remediation of contaminated soils on the project site and development of a 244-unit detached residential project, consistent with Dumbarton Transit Oriented Development Specific Plan.

On September 8, 2011 the City of Newark approved the Dumbarton Transit Oriented Development (TOD) Specific Plan, a master plan for the development of approximately 205 acres of formerly industrial land in western Newark. The Specific Plan includes the development of up to 2,500 residential units, retail space, community-serving buildings and open space, and a transit station. The purpose of the Specific Plan is to develop a new neighborhood around a train station planned separately as part of the Dumbarton Rail Service (DRS) Project. The DRS is still under development and will undergo separate environmental analysis in the future by the Peninsula Corridor Joint Powers Board, the lead agency for the project.

An Environmental Impact Report (EIR) was prepared to evaluate the impacts from adoption of the Dumbarton TOD Specific Plan. The Newark City Council certified the Final Program Environmental Impact Report (FPEIR) and adopted a general plan amendment for the Dumbarton TOD Specific Plan on September 8, 2011.

The Dumbarton TOD EIR included mitigation measures that were to be implemented as future development occurred within the Specific Plan area. The SEIR is intended to supplement the Dumbarton TOD EIR by evaluating environmental impacts resulting specifically from Trumark Homes' project within the Specific Plan area that would involve remediation of contaminated soils on the project site and development of a 244-unit detached residential project.

1.1 PURPOSE OF A SUPPLEMENTAL EIR

The purpose and role of a Supplemental EIR (SEIR) are described in the CEQA statutes and CEQA Guidelines. An SEIR is now required because the FPEIR did not evaluate project-level impacts on the two Trumark development sites now proposed for development, and the City has determined that the development of these two parcels would result in new significant impacts not adequately covered in the FPEIR. In accordance with CEQA, an EIR provides objective information regarding the environmental consequences of the proposed project, both to the decision makers who will be considering and reviewing the proposed project, and to the general public. The following guidelines are included in CEQA to clarify the role of an EIR:

> **Section 15121(a). Informational Document.** An EIR is an informational document which will inform public agency decision makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR, along with other information which may be presented to the agency.

Section 15146. Degree of Specificity. The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.

(a) An EIR on a construction project will necessarily be more detailed in the specific effects of a project than will an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.

(b) An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow.

Section 15151. Standards for Adequacy of an EIR. An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

1.2 TIERING OF ENVIRONMENTAL REVIEW

CEQA Section 21093(b) states that environmental impact reports shall be tiered whenever feasible, as determined by the lead agency. "Tiering" refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) in subsequent EIRs or Initial Studies/negative declarations on narrower projects; and concentrating the later environmental review on the issues specific to the later project [CEQA Guidelines 15152 (a)].

Tiering is appropriate when it helps a public agency to focus on issues at each level of environmental review and to avoid or eliminate duplicative analysis of environmental effects examined in previous environmental impact reports [CEQA Guideline 21093(a)]. In accordance with CEQA Section 21093 and CEQA Guidelines Sections 15152, this SEIR tiers off of the *Dumbarton TOD Specific Plan EIR* (SCH 2010042012) and incorporates the thresholds of significance established therein in its evaluation of the potential environmental impacts of the proposed projects

1.3 USES OF THE SEIR

This SEIR provides decision makers in the City of Newark, regulatory agencies and the general public with relevant environmental information to use in considering the proposed project. It is proposed that this SEIR be used for appropriate discretionary approvals necessary to implement the project, as proposed. Regulatory agencies that would use this SEIR as part of their decision-making process include the City of Newark as the CEQA Lead Agency, the Regional Water Quality Control Board, a Responsible Agency under CEQA, and the Alameda County Water District and San

Francisco Public Utilities District, public agencies with permitting authority for specific aspects of the proposed project.

1.4 PUBLIC PARTICIPATION IN ENVIRONMENTAL REVIEW

The City of Newark, as required by CEQA, encourages public participation in the environmental review process. Opportunities for comments by public agencies and the public include responding to the Notice of Preparation (NOP) of the Draft SEIR, written comments on this Draft SEIR, and presentation of written or verbal comments at future public hearings.

In accordance with Section 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) was circulated to the public and responsible agencies for input regarding the analysis in this SEIR. This EIR addresses those issues which were raised by the public and responsible agencies in response to the NOP. The NOP and the public responses to the NOP are presented in Appendix A of this SEIR.

1.5 REFERENCE AVAILABILITY

This EIR, and all documents referenced in it are available for public review at the City of Newark Community Development Department, 37101 Newark Boulevard Newark, CA 94560, on weekdays during normal business hours. This EIR will also be available on the City of Newark's Community Development Department webpage: http://www.ci.newark.ca.us/departments/planning-and-economic-development/.

SECTION 2.0 PROJECT INFORMATION

2.1 PROJECT TITLE

Trumark Dumbarton Transit Oriented Development Residential Project

2.2 PROJECT LOCATION

8375 and 8400 Enterprise Drive in the City of Newark, CA.

2.3 LEAD AGENCY INFORMATION

Terrence Grindall, Community Development Director
City of Newark
Community Development Department
37101 Newark Boulevard
Newark, CA 94560
510-578-4208
Terrence.grindall@newark.org

2.4 PROPERTY OWNER/APPLICANT

Enterprise Drive LLC (Site A); Newark Enterprise Joint Venture LLC (Site B)/Trumark Residential Properties

2.5 ASSESSORS PARCEL NUMBERS

The project would be located on APN 092-0140-008 (Site A) and APNs 092-0116-060, -058, and -059 (Site B).

2.6 ZONING AND GENERAL PLAN DESIGNATIONS

Zoning: ML-Limited Industrial (Site A) and MG-General Industrial (Site B).

General Plan: Medium-High Density (DTOD Specific Plan) 14-25 du/acre (both sites)

2.7 PROJECT-RELATED APPROVALS

The project would require various approvals from State and local agencies, including but not limited to the following:

City of Newark

- Certification of SEIR
- Development Agreement
- Architectural and Site Plan Review
- Rezoning

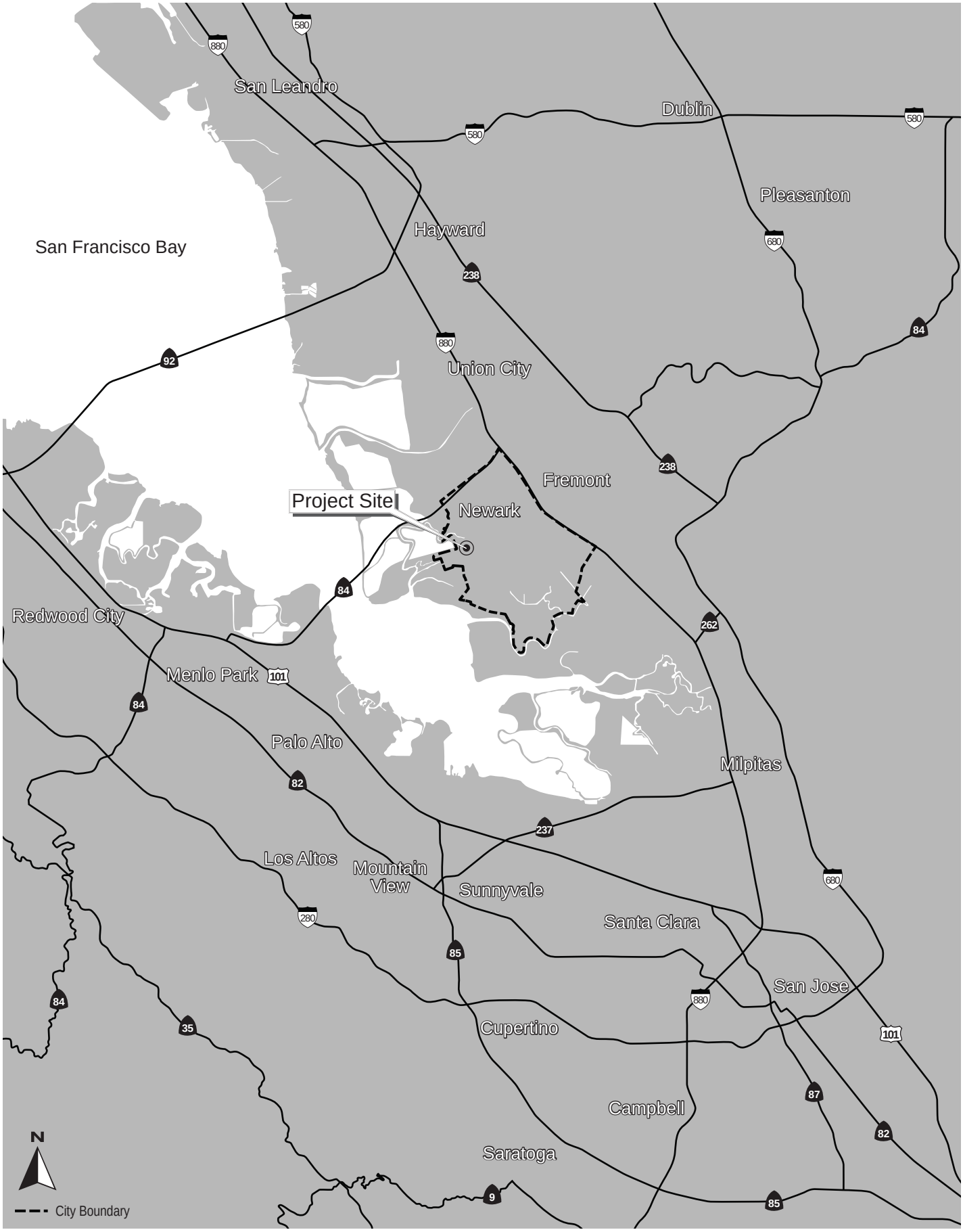
- Planned Unit Development/Conditional Use Permit
- Tentative Subdivision Map
- Parcel Maps
- Grading Permits
- Encroachment Permits

Alameda County Water District

- Well decommissioning permit
- Monitoring well construction permit

San Francisco Public Utilities Commission

- Access Easement



REGIONAL MAP FIGURE 2-1

VICINITY MAP

FIGURE 2-2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2-3

SECTION 3.0 PROJECT DESCRIPTION

3.1 BACKGROUND

In September, 2011 the City of Newark approved the Dumbarton Transit Oriented Development Specific Plan (Specific Plan), a master plan for the development of approximately 205 acres of formerly industrial land in western Newark. The Specific Plan includes the development of up to 2,500 residential units, retail space, community-serving buildings, parks and open space, and a transit station. The purpose of the Specific Plan is to develop a new neighborhood around a train station planned separately as part of the Dumbarton Rail Corridor (DRC) Project[1]. To date, entitlements have been issued for the construction of 547 residential units and associated street and infrastructure improvements (Torian Project, approved October 2012) within the Specific Plan area.

The environmental impacts resulting from the implementation of the Specific Plan were disclosed in the *Dumbarton TOD Specific Plan EIR*[2] which was certified by the City of Newark in September 2011. The Specific Plan EIR provided a program-level analysis of the environmental effects of converting the former industrial land in the Specific Plan area to residential, retail and community uses and the environmental impacts of the construction and operation of the entire Specific Plan project. As such, the EIR did not analyze the project-level environmental impacts resulting from the development of specific parcels other than the Torian project site in the Specific Plan area.

The proposed project is intended to further implement the Dumbarton TOD Specific Plan by constructing 244 residential units, and additional street and infrastructure improvements. The project also involves the preparation of the two sites for residential development by remediating soil contaminants and completing other site cleanup measures. Specific actions required for site cleanup, such as the removal of large quantities of contaminated soil, were not included in the program-level environmental analysis for the Specific Plan. These remediation actions are therefore included in the proposed project that is the subject of this Supplemental Environmental Impact Report.

3.2 PROJECT LOCATION

The proposed project is located on two sites at 8375 and 8400 Enterprise Drive in the City of Newark, referred to as Site A and Site B, respectively. The two project sites are within the Specific Plan Area which encompasses 205 acres of land adjacent to the planned DRC. See Figure 3-1.

Site A is a single 2.14-acre parcel located at 8375 Enterprise Drive. The parcel extends from Enterprise Drive north to the DRC and includes a portion of the Hetch Hetchy pipeline right-of-way. The site is bounded by vacant land to the west and an industrial property immediately to the east, with single family homes further east of the industrial property. The industrial property to the east of Site A (the current location of Gallade Chemical) would be redeveloped as a public park under the Dumbarton TOD Specific Plan.

[1] The Dumbarton Rail Corridor project was still under development at the time of preparation of this SEIR, and will undergo separate environmental analysis in the future by the Peninsula Corridor Joint Powers Board, the lead agency for the project.
[2] State Clearing House No. 2010042012

Site B comprises three parcels that total 21.27 acres. Site B is located on the south side of Enterprise Drive and is bounded by Willow Street to the west, and by an Alameda County Flood Control Agency flood channel to the east. Industrial properties are located to the south and east of the site.

3.3 PAST USES AND EXISTING CONDITIONS

As noted in the *Dumbarton TOD Specific Plan EIR*, industrial activities which have historically occupied the Specific Plan area have resulted in hazardous material impacts to groundwater and soil on properties throughout the Plan area, including the parcels that would be developed under the proposed project. As such, the proposed project includes the remediation of hazardous material impacts to groundwater and soil as part of the overall project that is the subject of this SEIR.

Both Site A and Site B are currently vacant and covered by ruderal (weedy) vegetation and enclosed by fencing. Site B contains a few trees located along the Enterprise Drive frontage. Site B also includes an approximately three acre bermed area and asphalt cap that covers the location of a former wastewater and stormwater detention and evaporation pond on the southwest corner of the site, described in greater detail below.

Site A was likely used for agricultural purposes prior to the 1950s. By the early 1950s, Site A was developed with a rectangular structure and a railroad spur; the structure was demolished by 1973. Several mounds of soil were stockpiled on Site A between 1985 and 1992. The site was subsequently cleared and has since remained vacant. Site A also has a history of soil and groundwater investigations dating back to 1989 and continuing through 1998.[3] The results of these studies are described in further detail in *Section 4.5 Hazards and Hazardous Materials* of this SEIR.

Approximately nine acres of the northeast portion of Site B was first developed in the 1940's as a meat processing and packing facility. Jones-Hamilton operated an industrial chemical facility on the northwest portion of the site beginning in the 1950's. A number of structures including production buildings, chemical storage tanks and finished product storage and loading facilities occupied the northwestern quadrant of the site. A rail spur extended along the west and south sides of the property. Jones-Hamilton ceased chemical production at the site in 2001. All structures on the site were demolished in 2007, with the exception of the asphalt-capped wastewater and stormwater impoundment ponds, which covers approximately three acres of the southwest portion of the site. A number of investigations and cleanup efforts were performed on the site beginning from the early 1980's through the late 1990's and early 2000's to address chemical pollutants in site soils and in groundwater below[4]. A detailed description of past cleanup actions on the site and additional cleanup efforts that would occur as part of the proposed project are included in *Section 3.5* and *Section 4.5* of this SEIR.

[3] Cornerstone Earth Group. *Environmental Evaluation and Remedial Action Plan Summary, 2.1 Acre Enterprise Drive Parcel, Newark, California.* December 19, 2012.
[4] Cornerstone Earth Group, *Revised Remedial Actions and Cleanup Standards Report-Former Jones-Hamilton*. December 2012.

3.4 PROPERTY OWNERSHIP

As shown on Figure 3-2 (Project Parcels) Site A (APN 092-0140-008) is owned by Trumark Properties (as Enterprise Drive LLC). Site B (APNs 092-0116-060, -058, and -059) is owned by Jones-Hamilton Company (as Newark Enterprise Joint Venture LLC).

3.5 DETAILED DESCRIPTION OF PROPOSED PROJECT

3.5.1 Project Overview

The proposed project would involve 1) preparation of Site A and Site B for residential development, and 2) the construction of 244 single family homes and associated streets, sidewalks, open space and utilities on those sites.

3.5.2 Pollutant Remediation and Site Preparation

Preparation of the project sites for residential development involves remediation of soil and groundwater contamination. The nature of the contamination on Site A and Site B is different, and the actions necessary to prepare the sites for residential development are different for each site. As described below, preparation of Site A for development is influenced by ongoing efforts by Honeywell to remove contaminants from the adjoining easterly parcel that has impacted groundwater beneath Site A. The extent of work necessary to prepare Site A for development will depend on the success of remediation of the adjoining property. At the time of preparation of this SEIR, the RWQCB had approved an alternative cleanup plan prepared by Honeywell to address the chemicals in groundwater beneath Site A that proposes enhanced bioremediation of groundwater contaminants. In addition, the proposed project would include constructing vapor intrusion engineering controls (e.g., vapor barriers, sub-slab depressurization, etc.) beneath the buildings on Site A to protect future development from vapor intrusion. By comparison, the preparation of Site B would involve the removal of contaminated soil on the project site itself, and would not be dependent on any off-site cleanup efforts.

3.5.2.1 *Site A - Trumark Property*

For Site A, this SEIR assumes as a pre-condition that the chemical distribution operation currently located on the property immediately to the east (Gallade Chemical Company) would no longer be in operation, and that groundwater contamination beneath the Site A would be sufficiently remediated to allow development of the site with residential uses. As described below, soil contamination on the future park site (Honeywell property[5]) is the known source of Volatile Organic Compounds (VOCs) impacting groundwater beneath Site A, which is down-gradient of the Honeywell property (now used by Gallade Chemical Co.) with respect to groundwater flow direction. Various methods of VOC remediation have been implemented on the Honeywell site and on adjoining properties, including Site A. As described further in *Section 4.5, Hazards and Hazardous Materials,* Honeywell under order of the Regional Water Quality Control Board (RWQCB) has submitted a work plan to address

[5] APN 092-0140-005. In various regulatory documents and technical reports this parcel is referred to as the "Gallade property" for the current tenant of the site, Gallade Chemical Co., or as "Baron-Blakeslee" or "BBI" for the previous owner of the site. Honeywell International, Inc. is responsible for site remediation.

VOC impacts to adjoining properties. At the time of preparation of this SEIR the RWQCB had approved an Alternate Cleanup Plan[6] for remediation of VOCs impacts to Site A.

The project applicant has proposed that the project include construction of mechanical controls such as passive vapor barriers, and active ventilation or sub-slab depressurization systems on Site A to protect future residences from intrusion by residual VOCs in groundwater. Remediation of groundwater impacts to the site may consist of enhanced in-situ (e.g. in-place) biodegradation and/or other methods approved by the RWQCB. Removal and disposal of large amounts of contaminated soil from the site is not anticipated. Approval by the RWQCB of the methods of remediating VOC impacts to the site and post-remediation requirements for residential use of the property would be required prior to development of Site A with residential uses[7].

3.5.2.2 *Site B Jones-Hamilton*

For Site B, the RWQCB issued a *Conditional Approval of Revised Remedial Action and Cleanup Standards Report* in July, 2013. This action by the RWQCB indicates that the cleanup actions described in the remediation plan are generally acceptable to the agency, and that the work described in the plan can be used as the basis for evaluating the environmental impacts of site remediation. (Previously, the RWQCB had approved a Remedial Action Plan for the site for continued industrial and commercial uses. The change to residential use of the site consistent with the Dumbarton TOD Master Plan, necessitated the preparation of the Revised RAP for residential uses). The details of the RAP are included in *Section 4.5 Hazards and Hazardous Materials.*

Implementation of the RAP and preparation of the site for subsequent development is expected to take six to twelve months and would involve the following corrective actions, which are described in detail below:

- Removal of Capped Soil exceeding residential cleanup goals in Former Evaporation Pond
- Removal of Soil exceeding residential cleanup goals in the vacant/undeveloped portions of the site
- Soil Excavation at Location of Former Chemical Production Plant, testing the soil and removing soil that does not meet residential standards
- Groundwater Management and Groundwater Well Replacement

Figure 3-3 illustrates the extent of excavation anticipated in the area of the capped wastewater evaporation pond and former facility necessary to implement these corrective actions. The extent of soil removal in the vacant/undeveloped portions of the site will be determined by additional testing prior to commencement of cleanup actions.

[6] San Francisco Bay Regional Water Quality Control Board. *Approval of Alternate Cleanup Plan, former Baron Blakeslee Facility, 8333 Enterprise Drive, Newark, Alameda County*. August 29, 2013

[7] Per the *Dumbarton Transit Oriented Development Specific Plan Final EIR*, Mitigation Measure 4.7-1.a , the "responsible agency", in this case the RWQCB, would need to determine that the proposed use of the property does not present an unacceptable risk to human health prior to the issuance of development permits.

Removal of Capped Soil in Former Evaporation Pond

On the southwest portion of the site, the former wastewater detention and evaporation pond[8] would be removed. The pond area is approximately three acres in size and is currently capped with approximately four inches of asphalt over two feet of aggregate, a synthetic membrane and approximately two feet of clayey soil. A containment wall made of a bentonite/soil slurry varying in depth between 35 and 45 feet below grade extends around the perimeter of the former pond area. The project would remove the asphalt cap, the membrane and geotextiles, and soil in the former pond area. The pond liner and a portion of the containment wall that surrounds the former pond area would also be removed, and all soil excavated to the depth of native soil. It is anticipated that excavated soil and the membrane, liners, and geotextile would be disposed of at a hazardous waste facility. The containment wall material (hardened bentonite) is expected to be disposed of as non-hazardous waste or reused on site as fill. Testing of native soils below the pond area and additional soil removal would occur after the pond structure is removed. Cleanup of the former detention pond area would require up to 44,000 cubic yards of excavation.

Removal of Soil Containing Dioxin

Soil testing for Dioxins and Furans would be conducted on the vacant/undeveloped portions of the site. Soils exceeding acceptable levels for future residential use of the site will be excavated and removed for disposal at a licensed facility. Excavation depths and quantities of soil to be removed would vary depending on the extent of contamination, however up to 35,000 cubic yards of soil could be removed from the site during this process. Upon completion of cleanup for dioxins, approximately 16,000 cubic yards of clean fill soil would be used to backfill the excavated area (in combination with approximately 19,000 cubic yards of aggregate and clean soil from the former pond area) and allow rough grading of the site for subsequent construction of residences.

Soil Excavation at Location of Former Chemical Production Plant

Soil would be removed from approximately six acres at the location of the former chemical processing facility at the northwest corner of the site. An approximately 150,000 square foot area would be excavated to a depth of approximately five feet below grade to remove any loosely backfilled excavations or utility trenches remaining from the chemical plant structures. This excavation would also remove any pockets of contaminated soil left in place after the closure of the facility and subsequent sampling and soil removal between 2004-07. Additional soil testing would be conducted in this area and additional material removed if required. An estimated maximum of 29,000 cubic yards of soil would be excavated from this area, and stockpiled and tested. Soil that exceeds residential cleanup goals would be removed for offsite disposal at an appropriate facility. It is estimated that a portion of the soil excavated from this area (approximately 15,000 cubic yards) could be reused as backfill on the site.

[8] This area is described as containing two ponds in some studies. For the purpose of the RAP and this SEIR, the filled and capped detention pond area is considered a single pond.

Groundwater Management and Groundwater Well Replacement

Twenty-two groundwater monitoring wells are currently located on Site B, including six within the perimeter of the capped pond area. Destruction of all on-site wells will be necessary prior to removal of contaminated soil and site development. Wells would be decommissioned in accordance with Alameda County Water District standards. A plan for destruction and replacement of the monitoring wells is included in the RAP. New monitoring wells would be constructed as part of site development, and would be located in street rights of way, in common areas and/or within easement areas to allow ongoing monitoring of impacted groundwater, as described in the RAP.

Groundwater generated during dewatering activities during excavation of the former evaporation pond or during excavation of other portions of the project site would be temporarily containerized on site within a portable holding tank and sampled. Pumped groundwater that meets Union Sanitary District's waste discharge requirements would be discharged to the sanitary sewer system under a discharge permit. If water exceeds discharge requirements, it would be treated using a carbon filter system (or similar, depending on concentrations and constituents detected) until waste discharge standards are met, then discharged to the sanitary sewer.

Transport and Disposal of Contaminated Soil

Remediation of Site B would involve transporting an estimated 60,350 cubic yards (approximately 91,000 tons) of contaminated soil to a Class 1 or Class 2 hazardous waste facility[9]. Whether soil would be taken to a Class 1 or Class 2 facility would be determined during the remediation process by analyzing samples of excavated soil to determine the concentration of contaminants. Based on the past use of the site and site soil investigations, a preliminary estimate of 25,000 cubic yards of soil would require Class 1 disposal. The project would use one of the following four potential methods of transporting contaminated soil to an appropriate facility. The particular method of transportation would be determined based on the total amount soil removed from the site (as determined by testing during cleanup, as noted above), the capacity of the nearest Class 1 receiving facilities[10] at the time of site cleanup and the cost of material transport at the time of cleanup. The potential methods of transporting contaminated soil from the site include:

- Transport soil by truck to Class 1 Hazardous Waste facility in Buttonwillow, CA, or other Class 1 facility;
- Transport soil by truck to Richmond, CA for loading onto trains for disposal at an out-of state Class 1 facility
- Contaminated soil and materials (i.e., geotextiles from the former evaporation pond) destined for disposal at a Class 2 facility would be trucked from the site.

[9] Class I hazardous waste facilities are licensed to accept hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Class II facilities are municipal landfills that accept general waste, including some oil contaminated soil and other materials containing pollutants below RCRA thresholds. Information available at http://www.epa.gov/osw/laws-regs/regs-haz.htm.

[10] The nearest Class 1 facility accessible by truck hauling is the CleanHarbors Buttonwillow Landfill in Buttonwillow, CA, approximately 235 miles from the project site. The nearest Class 1 facility known to be accessible by rail is the U.S. Ecology Hazardous Waste Treatment and Disposal facility in Beatty, NV, approximately 450 miles from the project site.

The nearest Class 2 facilities are the Dumbarton Landfill and the Altamont Landfill in eastern Alameda County.

Backfill and Site Grading

An estimated maximum of 59,000 cubic yards of soil would be brought to the site to backfill excavated areas and adjust grade elevations for subsequent residential development. An estimated 19,000 cubic yards of aggregate and soil that would be excavated during site cleanup would be stockpiled and reused for fill. Imported soils would likely be sourced from other construction projects in the region and would be tested for contaminants using the DTSC *Clean Fill Guidelines* prior to use on site. Final grading of the site would result in elevations approximately two to four feet above current grade.

3.5.3 Residential Development

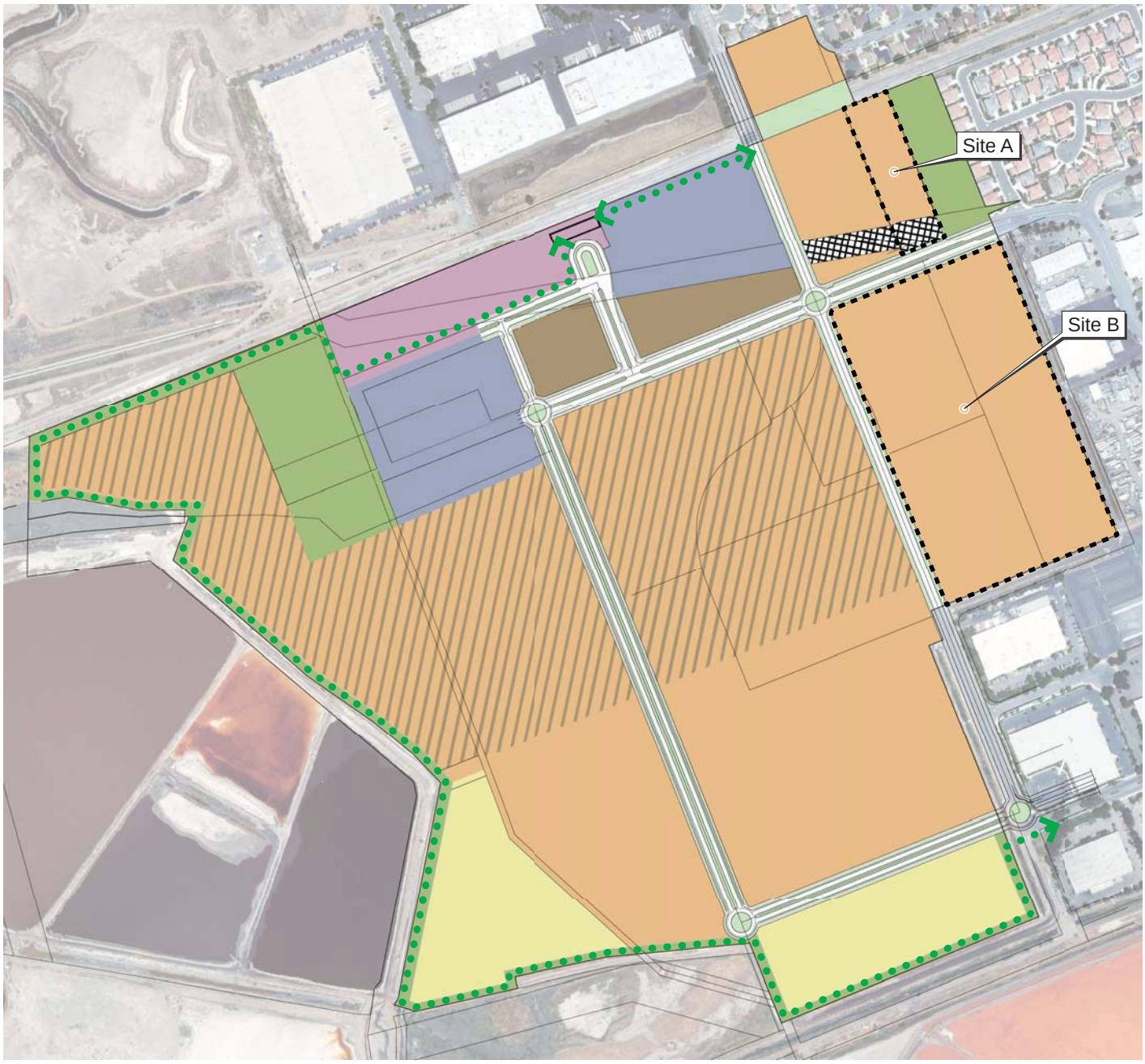
The proposed project would construct twenty-seven single family homes on Site A. The new residences would be arranged in blocks of four or five homes each, with access provided by three lanes extending east from a new street perpendicular to Enterprise Drive. The average lot size would be approximately 1,925 square feet. Sidewalks, landscaping and utility connections would be included in the project. See Figure 3-4.

On Site B, the project would construct 217 single family detached homes with an average lot size of 2,437 square feet. Access to the residences would be provided by a combination of "Places" (cul de sacs) and "Ways" (through streets) arranged around a rectangular central street. The site would be accessed from both Willow Street and Enterprise Drive via new public streets connecting to the central street. Sidewalks, landscaping and other public amenities would be included. See Figure 3-5.

A new public park would be located immediately east of Site A on a 2.3 acre site at the current location of the Gallade Chemical Company (8333 Enterprise Drive). Use of this property as a public park was evaluated in the Specific Plan EIR only at a program level given the final cleanup activities to allow use of the site as a park were not sufficiently defined. Site cleanup requirements for this site are under authority of the RWQCB. At the time of preparation of this SEIR, Gallade Chemical was operating a chemical packaging and distribution business on the site, and the party responsible for the site, Honeywell International, Inc. was approved to implement an Alternate Cleanup Plan (ACP), pursuant to Site Cleanup Requirements Order No. R2-2007-0005. Implementation of the ACP is described in detail in Section 4.4 Hazards and Hazardous Materials.

At the time of preparation of this SEIR, neither the City nor the project applicant controls the park site and the extent of site preparation for its use as a park is not known, therefore park construction cannot be fully evaluated in this SEIR (beyond the program-level analysis contained in the Specific Plan FPEIR) and will be subject to subsequent project-level environmental review by the City when the specific details of the future park are sufficiently defined for analysis.

As part of the residential development of the sites, the project would also construct utility and roadway improvements, as identified in the Dumbarton TOD Specific Plan and *Dumbarton TOD Specific Plan EIR.*

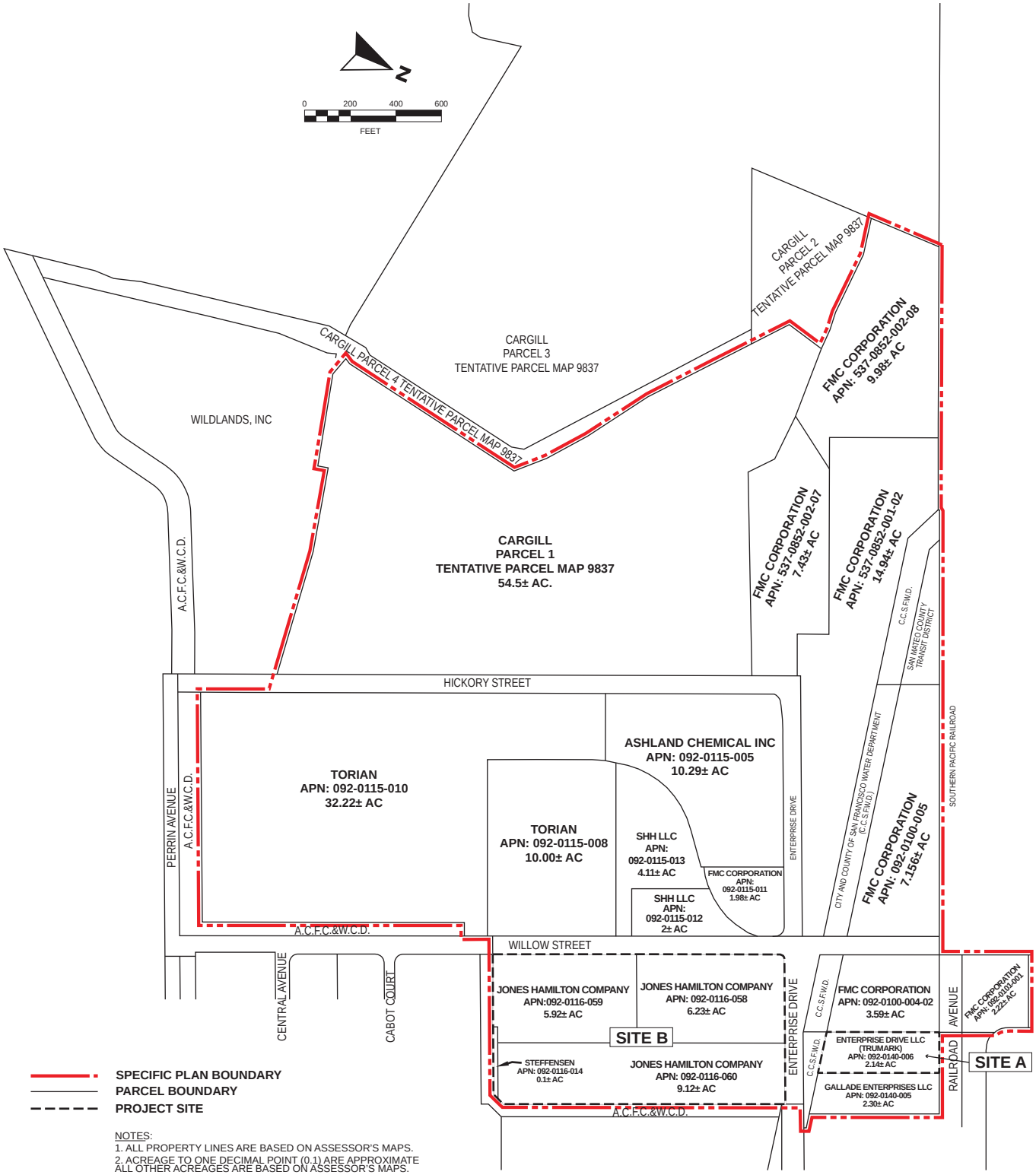


Land Use

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Medium/High Density Res.
- Commercial/Retail
- Transit Station
- Parks & Recreational Open Space
- Misc. Areas
- Restricted Use Areas
- Project Site

N

LOCATION OF PROJECT SITES IN SPECIFIC PLAN AREA FIGURE 3-1



Source: City of Newark (2010)

PROPERTY OWNERSHIP IN SPECIFIC PLAN AREA FIGURE 3-2

1) Remove cap, excavate to native soil surface ~9 feet

100' x 100' gridded sample locations for Dioxins/Furans site-wide characterization, excavate areas with concentrations above RMACs

1) Excavate to 5 feet to remove former preferential pathways
2) Potentially use soil for former evaporation pond area backfill
3) Backfill with clean, clayey soil
4) Future subsurface utilities to incorporate vapor migation controls

Aleppo

Enterprise Drive

Approximate Site Boundary

Former railroad tracks

Undeveloped Area

Former shed

Natural drainage ditch

Former office Building 101

Former maintenance Building 140

Former equipment storage area

Former berm

Former concrete drainage ditch

Former Building 160

Former UST

Concrete Pad

Former tanks

Former loading dock

Former asphalt swale

Dry SBS storage

HCl plant

Former SBS Process Building

Former Building 110 addition

Former Building 110

Former Building 150

Former wastewater sump

Former Building 10

Former tank

Former tanks

Former boiler and warming room

Electrical controls

Former Building 100

Former evaporation pond

Former rail spur

Former moat

Railroad tracks

Former interception sump

Former tanks

Former tank

Subsurface cut-off wall

Willow Street

N

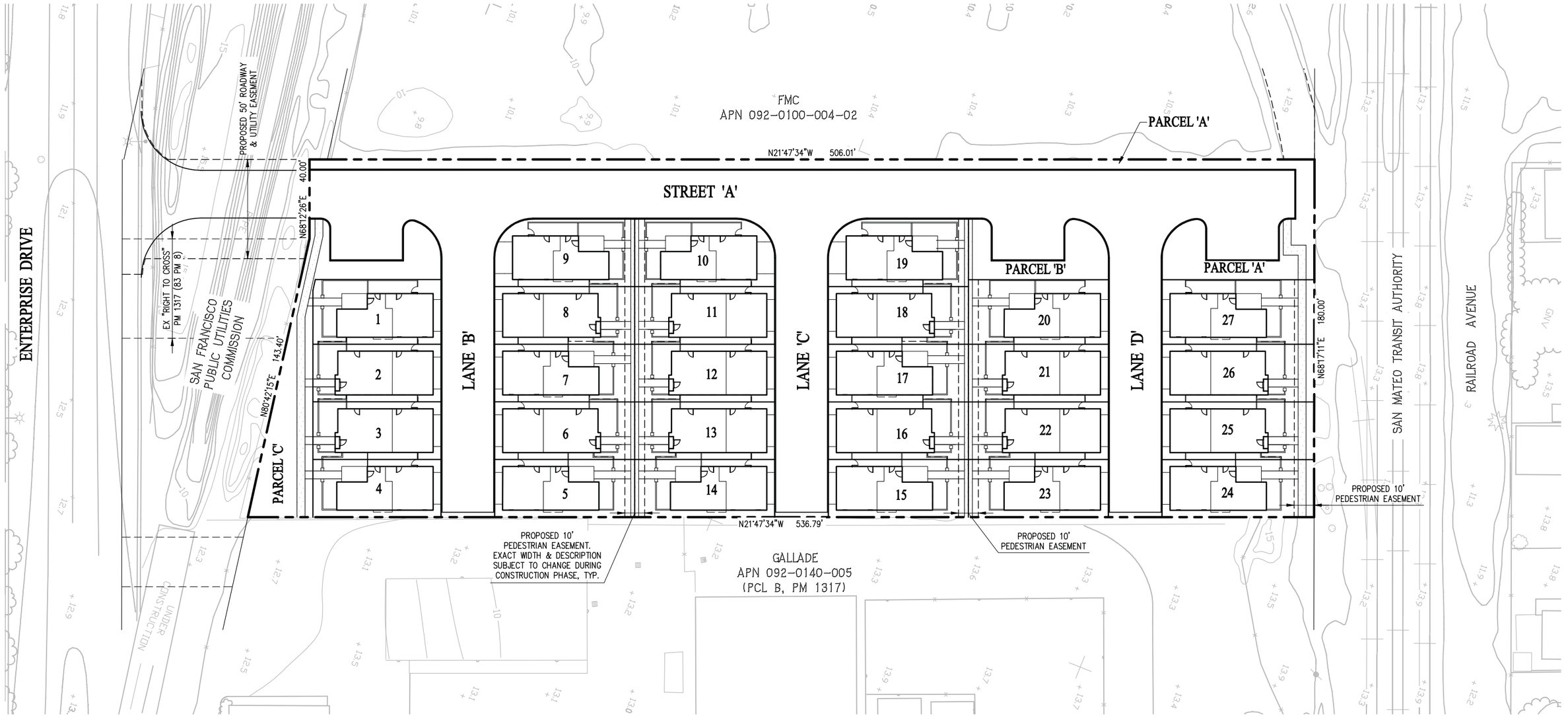
0 125 250

APPROXIMATE SCALE (FEET)

Source: Cornerstone Earth Group. Revised Remedial Actions and Cleanup Standards Report, Former Jones Hamilton, 8400 Enterprise Drive Newark, California. December 2012

SITE "B" - JONES HAMILTON - PROPOSED EXCAVATION FOR SITE REMEDIATION

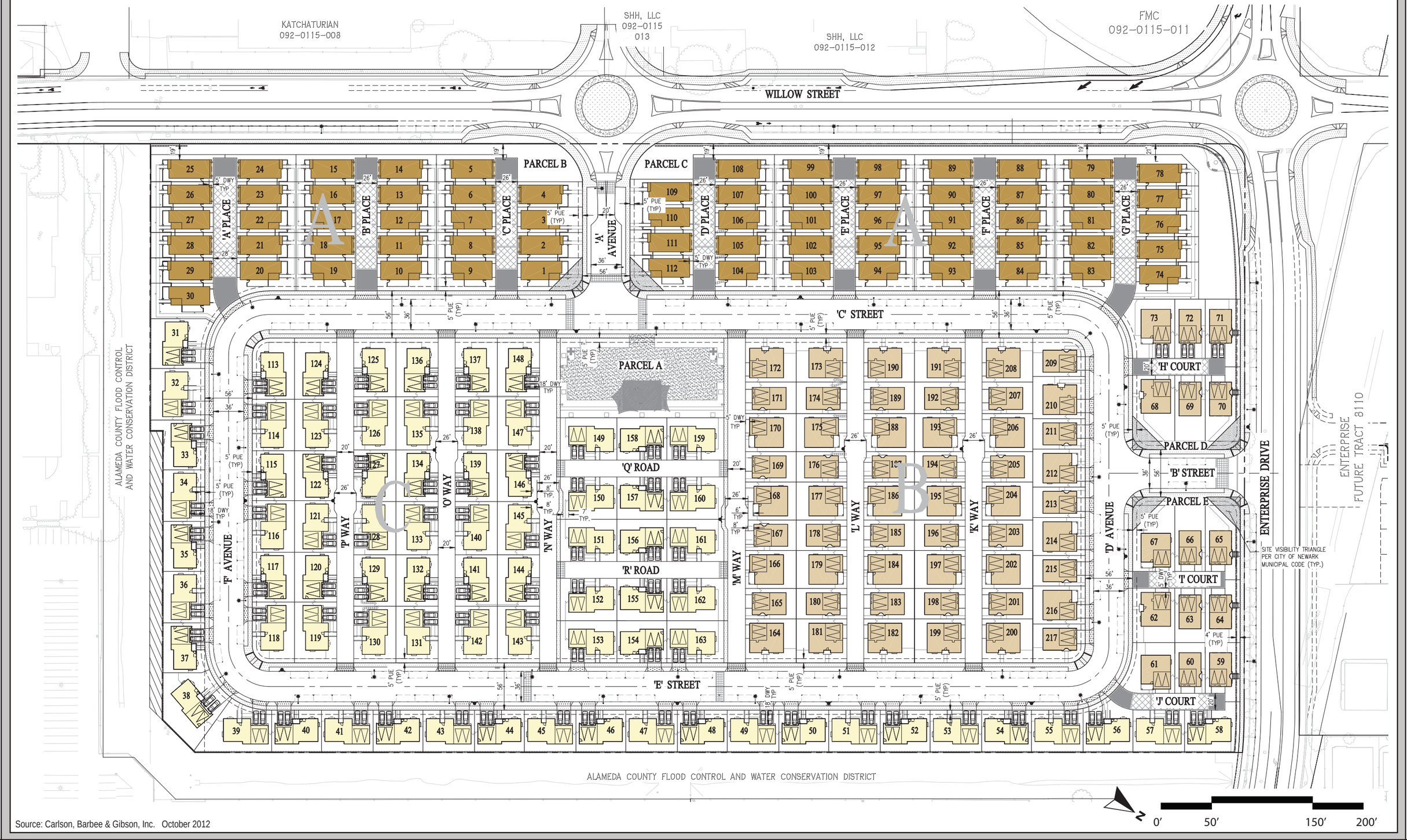
FIGURE 3-3



Source: Carlson, Barbee & Gibson, Inc. October 2012

SITE "A" DEVELOPMENT PLAN

FIGURE 3-4



Source: Carlson, Barbee & Gibson, Inc. October 2012

SITE "B" DEVELOPMENT PLAN

FIGURE 3-5

SECTION 4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

As a Supplement to the Dumbarton TOD Specific Plan FPEIR, this SEIR only address those impacts that the City has determined, after evaluating the specific development proposals filed for Site A and Site B, were not covered adequately in the FPEIR. This SEIR is to be read in combination with the FPEIR, it is not written as a stand-alone document addressing all topics, issues, and impacts associated with the implementation of the proposed project. This SEIR is intended to disclose 'new information' as defined by CEQA Guidelines Section 15162 relevant to the project sites since preparation of the FPEIR and approval of the Specific Plan.

This SEIR addresses potential environmental impacts regarding air quality and air toxics, biological resources, cultural resources, greenhouse gases, hazards and hazardous materials, and noise due to the proposed project's potential to result in new or different impacts than those disclosed in the FPEIR. Other topics and potential impact areas, such as aesthetic impacts, traffic, land use and geology are not analyzed further because the proposed project would not result in new or different impacts than those identified in the FPEIR.

4.1 AIR QUALITY

This section is based in part on a project-specific *Community Health Risk Assessment* prepared by Illingworth & Rodkin, Inc. in September 2013. This study can be found in Appendix F of this SEIR.

4.1.1 Background

An overview of the Federal, State, and local policies and regulations affecting air quality can be found in the *Dumbarton TOD Specific Plan EIR* (Section 4.2). Appendix F of this SEIR provides a full discussion of air pollution, the factors affecting air quality, and recent local air quality data.

The *Dumbarton TOD Specific Plan EIR* addressed the Specific Plan's construction-related air pollutant emissions and operational impacts related to odors, carbon monoxide, and toxic air contaminants (TACs), as well as the project's consistency with applicable air quality plans. Potential odor impacts were found to be less than significant due to the distance of the Plan area from the odor sources and the low frequency of odor events. The Specific Plan EIR found that build-out of the Specific Plan area would not cause traffic volumes at any intersection to exceed 44,000 vehicles per hour (or 24,000 for intersections with limited mixing zones, such as tunnels or overpasses) and that carbon monoxide concentrations would therefore not reach significant levels. Build-out of the Specific Plan was also found consistent with the Bay Area 2010 Clean Air Plan.

4.1.2 Impacts

The proposed project is consistent with the Specific Plan land use designations for the site and proposes residential development envisioned in the Specific Plan. As such, it would not conflict with applicable air quality plans or cause new impacts related to odors or carbon monoxide. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact)]**

The *Dumbarton TOD Specific Plan EIR* found potentially significant construction-related air quality impacts and included as mitigation the measures included in Tables 8-1 and 8-2 of the 2011 Bay Area Air Quality Management District (BAAQMD) *CEQA Air Quality Guidelines*. These measures are listed in Section 4.1.2.2 below.

The Specific Plan EIR also concluded that future residents of the plan area could potentially be exposed to air quality-related health risks associated with operation of the Dumbarton Rail Corridor. The Specific Plan EIR identified mitigation consisting of the preparation of project-specific health risk analyses to evaluate risks and identify whether air filtration in residential units would be required to reduce risks to acceptable levels. The project-specific health risk assessment and potential mitigation are discussed in greater detail below.

4.1.2.1 *Operational Impacts*

Criteria Pollutants

Ongoing operational criteria pollutant[11] emissions were calculated assuming the units are built and occupied as part of a project-specific *Community Health Risk Assessment* because they were not evaluated in the program-level *Dumbarton TOD Specific Plan EIR*. The Bay Area is considered a non-attainment area for ground-level ozone (O_3) and fine particulate matter ($PM_{2.5}$) under both the Federal and California Clean Air Acts. The area is also considered non-attainment for coarse particulate matter (PM_{10}) under the California Clean Air Act.

The BAAQMD *CEQA Air Quality Guidelines* consider a project that generates more than 10 tons per year or 54 pounds per day of reactive organic gases (ROG), nitrogen oxides (NOx), or $PM_{2.5}$, or more than 15 tons per year or 82 pounds per day of PM_{10} to have a significant operational and/or construction-related air quality impact. In support of these thresholds, the BAAQMD has developed screening criteria to provide a conservative indication of whether a project could result in potentially significant air quality impacts. For operational impacts, the screening project size is identified at 325 dwelling units. Single-family development projects of a smaller size than the screening level would be expected to have less than significant operational criteria pollutant emissions. The project proposes to construct up to 244 single-family dwelling units, which is below the BAAQMD project screening size, therefore the project would have a less than significant impact related to operational criteria pollutant emissions. The project does not propose any stationary sources of air pollution (e.g. back-up generators) or propose additional uses that would generate greater criteria pollutants. **(New Less Than Significant Impact)**

Community Health Risk

The *Dumbarton TOD Specific Plan EIR* evaluated one stationary source of toxic air contaminants (TACs) within 1,000 feet of the Plan Area: the Morton International salt processing facility located at 7380 Morton Avenue approximately 0.7 miles east of Site B. The Specific Plan EIR found that impacts from the facility to future sensitive receptors including the subject project parcels would be less than significant. Community health risk impacts affecting future project residents associated with TAC emissions from both roadway and stationary sources were found to be less than significant.

Due to the program-level nature of its analysis, the *Dumbarton TOD Specific Plan EIR* could not evaluate impacts using project-specific site designs. As a result, TAC emissions from future railroad operations were not evaluated. To avoid impacts to future sensitive receptors, the Specific Plan EIR included the following mitigation requiring health risk assessments for projects within 1,000 feet of the future Dumbarton Transit Station. Site A is located adjacent to tracks that are proposed for use for the Dumbarton Rail Corridor (DRC) service, and is approximately 1,000 feet from the future Transit Station (see Figure 3-1).

[11] "Criteria pollutants" are air pollutants for which ambient air quality standards have been established under the Federal and/or State Clean Air Acts. The major criteria pollutants are reactive organic gases (ROGs) which lead to ground-level ozone (O_3), carbon monoxide (CO), nitrogen oxides (NO_x), and particulate matter (PM_{10} and $PM_{2.5}$).

Dumbarton TOD Specific Plan EIR Mitigation Measure 4.2-2: Prior to building permit issuance, the project applicant shall demonstrate to the City of Newark Community Development Director that emissions from the Dumbarton Transit Station would not exceed BAAQMD health risk criteria at the high/mixed-use residential, medium/high density residential, medium density residential parcels located within 1,000 feet. If health risks are determined for any sensitive receptors located within 1,000 feet of the Dumbarton Transit Station, the project applicant shall demonstrate to the Community Development Director that the following is provided:

- A filtered air supply system shall be installed in all residential units to maintain positive pressure when windows are closed. The ventilation system, whether a central heating, ventilation and air conditioning (HVAC) or a unit-by-unit filtration system, shall include high-efficiency filters meeting minimum efficiency reporting value (MERV) 13, per American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 52.2 (equivalent to approximately ASHRAE Standard 52.1 Dust Spot 85 percent) or shall be certified by a licensed design professional that the ventilation system is capable of removing more than 80 percent of ambient $PM_{2.5}$ from habitable areas of dwelling units.
- Air intakes for HVAC shall be located away from the freeway to the maximum extent feasible.
- The applicant shall also prepare and implement a plan that ensures on-going maintenance of ventilation and filtration systems, including informing occupants of the proper maintenance of any installed air filtration system.

Consistent with the *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.2-2, a project-specific Community Health Risk Assessment was prepared to evaluate the potential health risks to future project residents from diesel particulate matter (DPM) emissions associated with planned DRC train operations. The number of daily commuter train pass-by events was anticipated to be twelve events per day.[12] The maximum estimated long-term diesel particulate matter and $PM_{2.5}$ concentrations from the use of the rail corridor occurred at the location of a proposed residence in the northeast corner of Site A, closest to the rail lines (See Appendix F, Figure 1). The maximum increased cancer risk at this location was computed as 8.4 cases in one million, which is below the significance threshold established in the BAAQMD *CEQA Air Quality Guidelines* for incremental cancer risk (which is defined as an increase of 10 cases or greater per million). Exposure of future sensitive receptors to emissions from trains would result in a less than significant incremental increase in cancer risk. **(New Less Than Significant Impact)**

Potential non-cancer health effects due to chronic exposure to diesel particulates were also evaluated. The Hazard Index[13] calculated for the area of maximum predicted DPM concentration would be 0.003, which is substantially lower than the BAAQMD significance criterion of 1.0 or greater. In addition, the maximum $PM_{2.5}$ annual concentration was modeled at 0.016 $\mu g/m^3$, which is well below

[12] San Mateo County Transit Authority. *Summary of the Dumbarton Rail Corridor Project Study Report.* May 2004. Page 23. Available at: http://www.smcta.com/Assets/Dumbarton+Rail+Corridor/documentation/DRC_PSR_Summary.pdf

[13] The Hazard Index is a ratio of toxic air contaminant concentration to a reference exposure level (REL), below which no adverse health effects are expected, even for sensitive individuals. Source: Bay Area Air Quality Management District. *CEQA Air Quality Guidelines*. Updated May 2011. Page D-35.

the BAAQMD significance threshold of 0.3 $\mu g/m^3$ or greater. Therefore, emissions from adjacent railroad activities would have a less than significant impact to future sensitive receptors proposed by the project. **(New Less Than Significant Impact)**

4.1.2.2 *Construction-Related Impacts*

Criteria Pollutants

Exhaust Emissions

Construction period criteria pollutant emissions would consist of exhaust released by construction equipment and diesel-powered vehicles, as well as dust generated by grading and construction activities. Construction exhaust emissions were calculated using the computer model CalEEMod based on a project-specific construction activity schedule. The model was run for construction of 244 homes on both Site A and B, and remediation of pollutants on Site B required to prepare the land for residential development. Heavy-duty truck trips were estimated based on the estimated volume of material to be hauled to and from the site.

As noted in the Project Description, a portion of the contaminated soil removed from Site B will be disposed of at a Class I Hazardous Waste facility outside of the Bay Area Air Basin. Soil from Site B would be hauled either by truck, or potentially by rail to its ultimate disposal point. To properly assess regional air quality impacts, the analysis only included truck and train trips within the Bay Area Air Basin. Once the truck or rail cars have left the Bay Area, the emissions generated in other air basins associated with transport of this soil would be attributed to the facilities receiving the soil.

The air quality analysis was based on the assumption that up to 109,850 cubic yards (CY) of soil could be exported from Site B and up to 59,500 CY could be imported to the site. These soil volumes represent a possible, though unlikely, "worst case" excavation and removal scenario. As noted in the Project Description and in Section 4.4 *Hazards and Hazardous Materials* of this SEIR, the amount of soil to be removed from and imported to Site B will be determined during site remediation and will be determined by soil testing conducted during that process. Best estimates for the amount of soil to be removed from the site are approximately 60,350 CY, which is approximately half than the amount modeled for the air quality impact analysis. Emissions were modeled based on a volume greater than the best estimated volume to ensure that if additional excavation is found to be necessary once remediation is underway, it was adequately accounted for in the analysis of the project's potential air quality impact. Consequently, the air quality analysis likely overestimates the amount of equipment operation and the number of truck trips (or hauling by rail) that would actually occur during site remediation.

Site remediation and project construction is anticipated to occur over a four year period, from 2014 through 2018. Table 4-1 below shows that construction-period annual and daily emissions of criteria pollutants would not exceed the daily or annual BAAQMD-recommended criteria pollutant thresholds.

Table 4-1 Construction-period Annual and Average Daily Emissions				
Description	**ROG**	**NO_X**	**PM_{10} (exhaust)**	**$PM_{2.5}$ (exhaust)**
Site Remediation – 2014 (tons per year)	1.41	9.88	0.25	0.23
Building Construction – 2014 (tons per year)	0.07	0.58	0.04	0.04
Building Construction – 2015 (tons per year)	0.33	0.89	0.04	0.03
Building Construction – 2016 (tons per year)	0.31	0.73	0.02	0.02
Building Construction – 2017 (tons per year)	0.29	0.67	0.02	0.02
Building Construction – 2018 (tons per year)	3.25	0.38	0.01	0.01
Maximum Annual Emissions (tons per year)	3.25	9.88	0.25	0.23
BAAQMD Threshold (tons per year)	*10*	*10*	*15*	*10*
Exceed threshold?	***No***	***No***	***No***	***No***
Average Daily Emissions (pounds per day)[1]	9.8	22.6	<1	<1
BAAQMD Thresholds (pounds per day)	*54*	*54*	*82*	*54*
Exceed Threshold?	***No***	***No***	***No***	***No***
Notes: [1] Assumes 1,160 workdays.				

Exhaust emissions of criteria pollutants during construction would not exceed BAAQMD thresholds, therefore the project would not result in a cumulatively considerable increase in criteria pollutants for which the Bay Area is in non-attainment. **(New Less Than Significant Impact)**

Dust Emissions

Dust would be generated during remediation, grading, and construction activities. Nearby sensitive receptors could be exposed to this dust, resulting in temporary increases in cancer risk and respiratory health hazards. The measures listed below are from Tables 8-1 and 8-2 from the BAAQMD *CEQA Air Quality Guidelines*, which list measures recommended for all projects and for projects exceeding the construction emissions thresholds, respectively. The project proposes to implement the following mitigation measures recommended by BAAQMD for all construction projects, which were also included in the *Dumbarton TOD Specific Plan EIR* to reduce construction-related fugitive dust impacts to a less than significant level.

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.2-1a: Prior to issuance of any Grading Permit, the Public Works Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with the BAAQMD *CEQA Air Quality Guidelines*, the following basic construction mitigation measures shall be implemented for all construction projects:
>
> - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
> - All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
> - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measures, Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the 24-hour telephone number and person to contact at the construction firm regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Additionally, the project would implement the following BAAQMD-recommended mitigation measures for projects with construction-related emissions that could exceed the BAAQMD criteria pollutant significance thresholds. Even though the proposed project wound not exceed those thresholds, these measures were identified as applicable to all Specific Plan projects in the *Dumbarton TOD Specific Plan EIR.*

Dumbarton TOD Specific Plan EIR Mitigation Measure 4.2-1b: Prior to issuance of any Grading Permit, the Public Works Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with the BAAQMD *CEQA Air Quality Guidelines*, the following additional construction mitigation measures shall be implemented for all construction projects:

- All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
- Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

- Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Minimizing the idling time of diesel powered construction equipment to two minutes.
- The project shall develop a plan demonstrating that off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.
- Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
- Require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM.
- Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines.

The City of Newark will implement these measures through Conditions of Approval for Grading, Site Development and Building permits. With implementation of these measures, the proposed project would not result in significant impacts related to fugitive dust emissions during construction. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

Community Health Risk

Health risk impacts from construction of the proposed project to nearby sensitive receptors were also evaluated as part of the *Community Health Risk Assessment*. The nearest sensitive receptors are a series of single family homes along Juniper Avenue approximately 100 feet north of Site A and along Aleppo Drive approximately 200 feet east of Site A. Construction-period emissions were computed using CalEEMod, based on site-specific construction activity schedules. Construction is expected to occur over a four year period beginning in spring 2014. An additional model was run for the proposed remediation equipment and soil hauling activities associated with hazardous material cleanup.

The maximum modeled DPM concentration occurred at a residence on Aleppo Drive east of the southeast corner of Site A (see Appendix A, Figure 2). Increased cancer risks using the maximum concentration indicate a maximum incremental residential child excess cancer risk of 5.2 cancer cases per million and a residential adult incremental cancer risk of 0.3 cases per million. Both of these increases are below the BAAQMD threshold of 10 excess cancer cases per million.

The maximum modeled Hazard Index was 0.009 and the maximum modeled $PM_{2.5}$ concentration was 0.081 $\mu g/m^3$, both of which are below their respective BAAQMD thresholds. The project would implement the BAAQMD-recommended best management practices for minimizing construction-period air pollutant emissions, identified in the *Dumbarton TOD Specific Plan EIR* as Mitigation

Measures 4.2-1a and 4.2-1b and required as Conditions of Approval for the proposed project. Therefore the project would have a less than significant impact with respect to community health risk caused by construction activities. **(New Less Than Significant Impact)**

4.1.3 Conclusion

Consistent with *Specific Plan EIR* Mitigation Measure 4.2-2, a *Community Health Risk Assessment* was completed for the project, which shows that the project would not expose future sensitive receptors to substantial pollutant concentrations associated with operation of the Dumbarton Rail Corridor. The Assessment also found that site remediation and construction would not expose nearby receptors to substantial increases in cancer and non-cancer health hazards. **(New Less Than Significant Impact)**

Operational and construction-related criteria pollutant emissions would not exceed BAAQMD screening levels and significance thresholds, respectively. Therefore the project would not result in a cumulatively considerable increase in criteria pollutants for which the Bay Area is in non-attainment. **(New Less Than Significant Impact)**

With implementation of *Specific Plan EIR* Mitigation Measures 4.2-1a and 4.2-1b, the proposed project would not result in significant impacts related to fugitive dust emissions during construction. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

The proposed project is consistent with the Specific Plan land use designations for the site and would not conflict with applicable air quality plans or result in new impacts related to odors or carbon monoxide. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact)]**

4.2 BIOLOGICAL RESOURCES

This section is based in part on a *Biological Resources Report,* a *Preliminary Delineation of Wetlands and Other Waters*, a *Burrowing Owl Survey Report,* and a *Rare Plant Survey Report*, prepared by H.T. Harvey and Associates, Inc. between May and July, 2013. These studies can be found in Appendices B-1 – B-4 of this SEIR.

4.2.1 Background

The *Dumbarton TOD Specific Plan EIR* assessed existing biological resources within the Specific Plan area, analyzed potential impacts to biological resources resulting from implementation of the Specific Plan, and identified measures to avoid impacts or reduce impacts to less than significant levels. The *Dumbarton Specific Plan EIR's* analysis of biological impacts was based in part on a 2010 Jurisdictional Delineation (wetlands and waterways delineation) and a 2011 Special-Status Species Assessment that were prepared for development of the Torian property prior to City adoption of the Dumbarton TOD Specific Plan, and a program-level Biological Resources Analysis prepared specifically for the Specific Plan.

The *Dumbarton TOD Specific Plan EIR* concluded that implementation of the Specific Plan could result in significant impacts to nesting raptors, special-status animal species including the Salt Marsh harvest mouse, the Western burrowing owl, the Tricolored blackbird, Saltmarsh common yellowthroat, and other nesting passerine birds. Significant impacts to special-status plants and to seasonal wetlands were also identified. The *Dumbarton TOD Specific Plan EIR* included mitigation measures consisting primarily of pre-construction surveys to reduce potential impacts to biological resources to a less than significant levels through avoidance of special status species.

Because the mitigation measures identified in the *Dumbarton TOD Specific Plan EIR* apply to the proposed project, project-level surveys for special status plant and animal species and for regulated habitats were completed for Sites A and B, as described below.

4.2.2 Impacts

4.2.2.1 *Salt Marsh Harvest Mouse*

The *Dumbarton TOD Specific Plan EIR* found that the Specific Plan area was unlikely to provide suitable habitat for the salt marsh harvest mouse (SMHM), however a mitigation measure requires project-level, parcel-specific habitat assessments for the salt marsh harvest mouse habitat to reduce potentially significant impacts to a less than significant level. Consistent with *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-1, in February 2013 personnel qualified to conduct field assessments of SMHM habitat visited the study area and determined that neither Site A nor Site B contain suitable SMHM habitat.[14] The proposed residential development in Site A and Site B therefore would not impact any SMHM or habitat potentially suitable for SMHM. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

[14] Further detail regarding survey methods and results as well as the qualifications of the personnel completing them can be found in the Biological Resources Report prepared for the project and included in Appendix B-1.

4.2.2.2 *Western Burrowing Owl*

The Specific Plan area contains suitable nesting habitat for the western burrowing owl and development on the proposed project has the potential to disturb owls and cause nest abandonment if owls are present during construction. Therefore, as required by the *Dumbarton TOD Specific Plan EIR*, protocol-level breeding season burrowing owl surveys were conducted by a qualified biologist.

Since the completion of the *Dumbarton TOD Specific Plan EIR,* the California Department of Fish and Wildlife (CDFW) guidelines for conducting protocol-level burrowing owl surveys have been updated and the measures included in the *Dumbarton TOD Specific Plan EIR* are no longer consistent with the CDFW protocol. Therefore, the project implemented a breeding season presence/absence as required by the *Dumbarton TOD Specific Plan EIR* and consistent with current CDFW requirements:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-3 **(as revised for consistency with current CDFW protocol):**
>
> *4.3-3a* Presence/Absence Survey. A breeding season presence/absence survey for burrowing owls will be completed in conformance with the CDFW 2012 protocol to determine whether burrowing owls nest in the study area. A qualified biologist will conduct the survey during the burrowing owl peak nesting season (April 15 through July 15). During the initial site visit, the qualified biologist will survey the entire project site and (to the extent that access allows) the area within 500 feet of the site for burrowing owl habitat (i.e., burrows). Because suitable burrows are known to be present in the project area; a qualified biologist will visit the site an additional three times, with each visit separated by a minimum of three weeks, to investigate each burrow for signs of owl use and to determine whether owls are present in areas where they could be affected by the proposed activities.
>
> *4.3-3b* Pre-construction Survey. A pre-construction survey for burrowing owls will be completed in conformance with the CDFW 2012 protocol directly preceding project construction. The initial survey will be conducted no less than 14 days (e.g., 2-4 weeks) prior to the initiation of construction. During the initial site visit, a qualified biologist will survey both Site A and Site B and (to the extent that access allows) the area within 500 feet of the sites for suitable burrows that could be used by burrowing owls for nesting or roosting. If no suitable burrowing owl habitat is present, no additional surveys will be required. If suitable burrows are determined to be present on the site, a qualified biologist will visit the site an additional three times to investigate each burrow for signs of owl use and to determine whether owls are present in areas where they could be affected by the proposed activities. The final survey shall be conducted within the 24 hour-period prior to the initiation of construction.
>
> *4.3-3c* Buffer Zones. If burrowing owls are present during the non-breeding season (generally 1 September to 31 January), a 150-ft buffer zone shall be maintained around the occupied burrow(s) if practicable. If maintaining such a buffer is not feasible, then the buffer must be great enough to avoid injury or mortality of individual owls, or else the owls should be passively relocated as described below. During the breeding season (generally 1 February to

31 August), a 250-ft buffer, within which no new activity will be permissible, will be maintained between Project activities and occupied burrows. Owls present on site after 1 February will be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area will remain in effect until 31 August, or at the CDFW's discretion and based upon monitoring evidence, until the young owls are foraging independently.

4.3-3d Passive Relocation. If construction will directly impact occupied burrows, eviction of owls, by a qualified biologist, should occur outside the nesting season. No burrowing owls will be evicted from burrows during the nesting season (1 February through 31 August) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season).

4.3-3e Compensatory Habitat Mitigation. If the surveys determine that owls are present in the study area, compensatory mitigation for Project impacts on nesting habitat will be provided in the form of habitat preservation and management. Mitigation will consist of providing 6.5 ac of suitable habitat off-site for every pair (or single owl, if unpaired) of owls displaced by the Project. The protected lands shall be adjacent to occupied burrowing owl habitat if possible, and at a location selected in collaboration with CDFW. Land identified to offset impacts on burrowing owls shall be protected in perpetuity by a suitable property instrument (e.g., a conservation easement or fee title acquisition). A Mitigation Plan shall be prepared in consultation with CDFW for review and approval by the City. The Mitigation Plan shall identify the mitigation site and any activities proposed to enhance the site, including the construction of artificial burrows and maintenance of California ground squirrel populations on the mitigation site. In addition, for each pair of burrowing owls found in the study area, two artificial nesting burrows shall be created at the mitigation site. The Plan shall also include a description of monitoring and management methods proposed at the mitigation site. Monitoring and management of any lands identified for mitigation purposes shall be the responsibility of the applicant for at least five years. An annual report shall be prepared for submittal to CDFW and the City by December 31 of each monitoring year. Contingency measures for any anticipated problems will be identified in the plan.

Results of Owl Surveys

The breeding season presence/absence surveys did not result in any observations of burrowing owls on-site, though multiple ground squirrel colonies were observed, particularly on Site A. Ground squirrel colonies create burrows in dirt mounds and berms that provide habitat for burrowing owls. Small amounts of bird droppings consistent with those of a burrowing owl were also observed, but no owls were observed within the project area. Because burrowing owls were determined to be absent from the project site, implementation of the project would not impact nesting habitat, therefore no mitigation for project impacts to burrowing owl habitat is required.

The project would conduct pre-construction surveys for burrowing owls as specified in *Dumbarton TOD Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-4b-4e, above prior to the commencement of construction activities.

With implementation of *Dumbarton TOD Dumbarton TOD Specific Plan EIR Mitigation Measures 4.3-3b-3e*, the proposed project would have a less than significant impact on the Western burrowing owl. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.2.2.3 *Nesting Raptors*

The *Biological Resources Report* prepared for the proposed project found that though northern harriers may forage on or near the project sites, there is insufficient marsh habitat to support nesting. There is potential for white-tailed kites and red-tailed hawks to nest in trees on or adjacent to the project sites, though none were observed during surveys of the project sites conducted in February 2013. Based on the potential for special status raptors to nest in trees on site, the proposed project could result in disturbance to the nesting birds, loss of nesting habitat, and even bird death from construction activity occurring near active raptor nests. Although no more than one pair of each species would be likely to nest on or near the project area at one time, any harm to active nests or eggs would be a violation of the Migratory Bird Treaty Act. The *Dumbarton TOD Specific Plan EIR* included the following mitigation measures to be implemented as part of future project development in the Plan Area:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-2: In order to avoid impacts on nesting raptors, a nesting survey shall be conducted on individual project site parcels prior to commencing with earth-moving or construction work if this work would occur during raptor nesting season, that is, between February 1 and August 31. The raptor nesting survey shall include examination of all trees on or within 300 feet of the entire project site, not just trees slated for removal, since ground vibrations and noise from earth-moving equipment can disturb nesting birds and potentially result in nest abandonment. Since northern harriers are ground nesting raptors, the nesting survey shall also include systematic walking transects across all suitable ground on the project site parcels.
>
> If nesting raptors are identified during the surveys, orange construction fence shall be installed to establish a 300-foot radius around the nest unless a qualified biologist determines that a lesser distance will adequately protect the nest (refer to discussion below for more detail). If the tree or nest is located off the project site, then the buffer shall be demarcated per the above where the buffer intersects the project site.
>
> The size of the non-disturbance nesting buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. If the buffer is reduced, the qualified raptor biologist shall remain onsite to monitor the raptors' behavior during heavy construction in order to ensure that the reduced buffer doesn't result in take of eggs or nestlings. No construction or earth-moving activity shall occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1. This date may be earlier or later, and would have to be determined by a qualified raptor biologist. If a qualified biologist is not hired to monitor the nesting raptors then the full 300-foot buffers shall be maintained in place from February 1

through the month of August. The buffer may be removed and work may proceed as otherwise planned within the buffer on September 1.

With implementation of these measures, the proposed project would have a less than significant impact on nesting raptors. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.2.2.4 *Passerine Nesting Birds*

The Specific Plan area contains suitable habitat for common passerine nesting birds as well as the San Francisco common yellowthroat and the Tricolored blackbird. Field surveys of Site A and Site B found that they do not provide suitable breeding habitat for the yellowthroat or blackbird. According to the project *Biological Resources Report*, other passerine birds that could be expected to nest on or near the project site are regionally common. Thus the loss of passerine nesting habitat from project development would not constitute a substantial reduction in the availability of regional habitat. However, pursuant to the Migratory Bird Treaty Act and the findings of the *Dumbarton TOD Specific Plan EIR*, project impacts to nesting birds, their young, or their eggs, would be considered a significant impact. Therefore the project proposes to implement measures included in the *Dumbarton TOD Specific Plan EIR* to reduce potential impact to nesting birds to less than significant levels:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-4: In order to avoid impacts on nesting passerines, a nesting survey shall be conducted on individual project site parcels prior to commencing initial earth-moving or construction work on that parcel if this work would occur during the passerine nesting season, that is, between March 1 and September 1. The nesting survey shall also survey lands within 100 feet of the parcel being developed. The nesting surveys shall be completed approximately 15 days prior to commencing with the work. If special-status birds, such as tricolored blackbirds and/or salt marsh common yellow throat, are identified nesting on or near the project site, a 100-foot radius around all identified active nests shall be demarcated with orange construction fencing to establish a non-disturbance buffer. If an active nest is found offsite, the intersecting portion of the buffer that is onsite shall be fenced. No construction or earth-moving activity shall occur within this 100-foot staked buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones.
>
> If common (that is, not special-status) birds, for example, red-winged blackbird, are identified nesting on or adjacent to the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance around an active nest shall be postponed until it is determined by the qualified wildlife biologist that the young have fledged and have attained sufficient flight skills to leave the area.
>
> Typically, most birds in the region of the project site are expected to complete nesting by August 1. However, in the region many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers shall be maintained until August 1 unless a qualified wildlife biologist determines that young have fledged and are independent of their

nests at an earlier date. If buffers are removed prior to August 1st, the biologist conducting the nesting surveys shall prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City project planner prior to the time that buffers are removed if the date is before August 1.

With implementation of these measures, the proposed project would have a less than significant impact on nesting passerine birds. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.2.2.5 *Special-Status Plants*

Pursuant to the mitigation measures identified in the Dumbarton TOD Specific Plan EIR, rare plant surveys were completed for the project sites in May and July 2013 and summarized in the *Rare Plant Survey Report*. The results show that Sites A and B contain habitat that could support seven special-status plants: Brittlescale, San Joaquin spearscale, Lesser saltscale, Congdon's tarplant, Hoover's button celery, Caper-fruited tropidocarpum, and Saline clover. Of these seven plants only one, the Congdon's tarplant, was observed on the project site. Ten individuals of the Congdon's tarplant were observed in a seasonal wetland at the southeast corner of Site B. The *Dumbarton TOD Specific Plan EIR* identified mitigation measures that would reduce potential impacts to special-status plants to a less than significant level:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-5: Prior to City approval of any specific development, special-status plant surveys shall be conducted in appropriate habitats during the appropriate period in which the species are most identifiable. These surveys shall be in compliance with all CDFW (2000), USFWS (1996), and CNPS (2001) published survey guidelines. Project construction shall not be initiated until all special-status plant surveys are completed and subsequent mitigation, if necessary, is implemented.
>
> If special-status plant species are found during surveys, those individuals or populations shall be avoided to the maximum degree possible. If avoidance is not possible while otherwise obtaining the project's objectives, then other suitable measures and mitigation shall be developed in consultation with the agencies that are responsible for protection of that plant species based on its protection status [i.e., City (protected by CEQA), CDFW (protected by California law/regulation), or USFWS (protected by federal law/regulation)]. Appropriate mitigation prescriptions for impacts on special-status plants shall be included as conditions of project approval as detailed below.
>
> Special-status plant surveys shall be completed as described above prior to breaking ground on any parcel within the project site. A special-status plant survey report that includes the methods used, survey participants, and findings shall then be prepared and submitted to the City demonstrating absence of special-status plants at least 30 days prior to breaking ground. The special-status plant report shall be reviewed by a City planner or biologist. If the report documents that there are no special-status plants on the particular project site parcel surveyed, then there would be no further mitigation and the project may proceed, provided all other applicable permits and authorizations are obtained for the project. However, if a special-status plant is found on the project site, the following mitigation measures shall also be implemented as a condition of project approval.

If special-status plant species are found during surveys, project development plans shall consider avoidance to the extent practicable. If avoidance is not practicable while otherwise obtaining the project's objectives, then other suitable measures and mitigation shall be implemented as detailed below.

A mitigation compliance report shall be submitted to the City planning staff or staff biologist at least 30 days prior to breaking ground. The compliance report shall detail the avoidance and other mitigation measures that have been implemented by the project. The City may approve grading/site disturbance in a quicker timeframe than 30 days if compliance with the mitigation measures can be verified by the City sooner than 30 days.

The following measures shall be implemented if special-status plants are found on the project site:

- Initially the feasibility of avoidance shall be evaluated as noted above.

- If avoidance is not feasible, a mitigation plan shall be developed in consultation with CDFW personnel if it is a state listed (i.e., protected pursuant to the CESA) or a CNPS List 1B or List 2 plant. If the plant is state listed, an incidental take permit (i.e., a 2081 Agreement) shall be acquired for the project from CDFW prior to any grading within the project area. A copy of this permit shall be provided to the appropriate department within the City prior to any grading within the project area. Any conditions for the project established by CDFW in the 2081 Agreement shall become conditions of the project also enforceable by the City.

- If the plant is federally listed (i.e., protected pursuant to the Federal Endangered Species Act), the project sponsor shall formally notify the USFWS within five days of the finding and this agency's permitting instructions shall be incorporated into the project conditions of approval. As required in-practice by the USFWS, an "incidental take" permit may be necessary from the USFWS for any proposed impacts on any federally listed plants found within the project site. A copy of this permit or a letter from the USFWS that otherwise states this agency is satisfied with the avoidance and/or mitigation measures shall also be provided to the appropriate department at the City prior to the time the project site can be graded.

- If a plant is found on the project site that is a CNPS List 1B or 2 species, and the species is not otherwise protected pursuant to state or federal regulations, prior to construction within the project area, a qualified botanist shall collect the seeds, propagules, and top soils, or other part of the plant that would ensure successful replanting of the population elsewhere. The seeds, propagules, or other plantable portion of all plants shall be collected at the appropriate time of the year. Half of the seeds and top soils collected shall be appropriately stored in long-term storage at a botanic garden or museum (for example, Rancho Santa Ana Botanic Garden). The other half of the seeds,

propagules, or other plantable portion of all plants shall be planted at the appropriate time of year (late-fall months) in an area of the subject property or off-site, protected property that will not be impacted by the project (if the project has a designated off-site mitigation site for impacts on other special-status species, the plants can be seeded on the mitigation site). This area shall be fenced with permanent fencing (for example, chain link fencing) to ensure protection of the species. The applicant shall hire a qualified biologist to conduct annual monitoring surveys of the transplanted plant population for a five year period and shall prepare annual monitoring reports reporting the success or failure of the transplanting effort. These reports shall be submitted to the City and appropriate resource agency (CDFW and/or USFWS) no later than December 1st each monitoring year.

These steps shall be implemented prior to site disturbance. If the seeding/transplanting effort fails, the stored seeds and top soils can be taken out of long-term storage and sown in another location (either onsite or offsite) deemed suitable by CDFW. This seeding effort shall then be monitored for an additional three year period to ensure survivorship of the new population. Annual monitoring reports shall be submitted to the City for the three year period.

A CNDDB form shall be filled out and submitted to CDFW for any special-status plant species identified within the project site. Any mitigation plan developed in consultation with CDFW shall be implemented prior to the initiation of grading or issuance of a development permit.

In lieu of the above prescribed mitigation, as allowed in writing by the City (for CEQA protected species only) and/or CDFW (for CEQA and/or state listed species), mitigation requirements may be satisfied via the purchase of qualified mitigation credits or the preservation of offsite habitat. If the species in question is federally listed, then USFWS would also have to agree in writing typically through issuance of a Biological Opinion that the purchase of qualified mitigation credits or the preservation of offsite habitat would constitute satisfactory mitigation compensation.

Proposed Project Mitigation

The proposed project includes remediation of soil contamination on Site B that would result in disturbance to all of the site. As described further in *Section 4.5, Hazards and Hazardous Materials,* removal of contaminated soil, backfilling with clean soil and site grading for subsequent residential development would involve extensive earthwork across the site, including the southeast portion of Site B where Congdon's tarplant is present. (See Figure 2 in Appendix B-4 of this SEIR, *Rare Plant Survey Report*). Because site remediation must meet regulatory standards intended to protect the health of future residents, it would not be feasible to leave contaminants in place in areas where Congdon's tarplant occurs, therefore mitigation measures involving avoidance of the plant and its habitat on the site would be infeasible.

Congdon's tarplant is not federally listed, but is a CNPS List 1B species protected by CEQA. Because the project cannot avoid disturbing the plant, it would implement mitigation for CNPS 1B species identified in the *Dumbarton TOD Specific Plan EIR* and listed above. The project proposes

to use either on-site or off-site mitigation planting at a 1:1 plant to plant ratio. Prior to the issuance of grading permits, the project will submit a mitigation plan for impacts to Congdon's tarplant to the City of Newark for review and approval, with the option of creating an on-site planting area after site remediation, or an off-site mitigation site.

Because the proposed project would implement mitigation measures for impacts to CNPS List 1B species included in the *Dumbarton TOD Specific Plan EIR* and listed above, it would have a less than significant impact on special-status plants. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.2.2.6 *Wetlands*

In compliance with the *Dumbarton TOD Specific Plan EIR* mitigation measures for potential wetland impacts, a *Preliminary Delineation of Wetlands Report* was completed for the proposed project. The report found that a total of 0.24 acres of the project area (two locations on Site A and three locations on Site B) are seasonal fresh water wetlands. See Figure 4-1. No salt water marshes or salt water wetlands were found to be present. As described in Section 4.2.2.5, disturbance of all of Site B would be required to remove soil contaminants from the site. For Site A, wetlands would be disturbed by site preparation and residential development. Project alternatives that would avoid seasonal fresh water wetlands present on Site A by redesigning the project are described further in Section 7, Project Alternatives.

The project would implement the mitigation measures from the *Dumbarton TOD Specific Plan EIR* for wetland impacts, which are as follows:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-6: Wetland mitigation shall, to the extent not already completed, require a wetland delineation conducted according to the 1987 USACE Wetland Delineation Manual (U.S. Army Corps of Engineers 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Coast Region (Corps 2008) prior to City approval of any specific development proposal. This delineation shall be submitted to the USACE for verification. Once that map is "verified," the full extent of waters of the U.S./State would be known and the extent of impacts on regulated areas ascertained.
>
> Authorization from the Corps and the RWQCB (for example, a Nationwide Permit and a Certification of Water Quality) shall be obtained as necessary/required by these agencies prior to filling any waters of the U.S./State on the project site.
>
> Impacts shall also be minimized by the use of Best Management Practices (BMPs) to protect preserved waters of the U.S./State and to ensure that water quality standards are not compromised in preserved wetlands and other waters within the watershed. These practices can include installing orange construction fencing buffers, straw waddles to keep fill from entering preserved/avoided wetlands and other waters, and other protective measures. During project construction, a biological monitor shall be onsite to monitor the integrity of any preserved wetlands and other waters during mass grading or filling of the project site.

For those wetland areas that are not avoided, mitigation compensation wetlands shall be completed. As approved by the USACE and the RWQCB, the project sponsor may purchase mitigation credits from an approved mitigation bank or an approved in-lieu fee mitigation entity at a minimum 1:1 ratio.

As an alternative to the purchase of credits in a mitigation bank, wetlands may be created onsite and, if so, shall have an equal or higher functional value than those wetlands affected by the project (known as in-kind replacement). If wetlands cannot be created in-kind and onsite, other alternatives shall include off-site and/or out-of-kind. In any case, mitigation requirements for wetland areas that are not avoided shall be that all impacted wetlands are replaced at a minimum 1:1 ratio (for each square foot of impact, one square foot of wetland would be restored/created) or at a ratio determined by the RWQCB and USACE at the time permits are issued. Mitigation requirements would be based upon the existing conditions of the wetlands impacted. Where practicable, wetland plant/animal populations shall be relocated from the wetlands that would be impacted to any re-created wetlands. Top soils shall also be removed from wetlands that would be impacted if practicable, and placed into the re-created wetlands. These top soils would contain a seed bank of the impacted plant species which would germinate with fall/winter hydration of the re-created wetlands.

If wetlands are restored/created, adequate compensation shall include creating wetlands at a suitable location that meet the following performance standards:

- The wetlands shall remain inundated or saturated for sufficient duration to support a predominance of hydrophytic vegetation.
- The wetlands shall exhibit plant species richness comparable to existing wetlands.
- The wetlands shall replace the lost wetlands at a minimum ratio of one acre created for each acre, or fraction thereof, permanently impacted.
- The developer shall provide for the protection of the mitigation areas in perpetuity either through deed restrictions or conservation easements.
- The developer shall establish a five-year program to monitor the progress of the wetland mitigation toward these standards. At the end of each monitoring year, an annual report shall be submitted to the City, the RWQCB, and the USACE. This report shall document the hydrological and vegetative condition of the mitigation wetlands, and shall recommend remedial measures as necessary to correct deficiencies.

Proposed Project Mitigation

The proposed project would require extensive grading on Site B to remove contaminated soils from the site. This would result in disturbance to the entire site, including areas containing seasonal fresh water wetlands. Potential mitigation for impacts to wetland habitat that involve avoidance of wetlands or creating wetlands on site would not be feasible for the project. Project alternatives that

would avoid seasonal fresh water wetlands present on Site A by redesigning the project are described further in Section 7, Project Alternatives.

The project would purchase mitigation credits from an approved mitigation bank or an approved in-lieu fee mitigation entity at a minimum 1:1 ratio (impacts: mitigation), for the USACE-verified area of wetlands on the project sites, subject to approval by the USACE and RWQCB. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

Source: HT Harvey and Associates: Trumark Residential Project, Preliminary Delineation of Wetlands and Other Waters. May 6, 2013.

WETLANDS IN PROJECT AREA

FIGURE 4-1

4.2.2.7 *Trees*

There are no trees present on Site A. Site B contains six trees, including non-native eucalyptus, Mexican fan palm and Peruvian pepper trees. Approximately 20 street trees are located along Enterprise Drive adjacent to the site. An arborists' report evaluating the condition of the trees on site was not prepared for the project since remediation of soil contaminants on Site B would require removal of all trees, thereby precluding any opportunities for tree preservation. In addition to trees on Site B, existing street trees adjacent to the site along Enterprise Drive would be removed and replaced by the project.

Removal of trees protected under the City of Newark Municipal Code could result in a potentially significant impact. Therefore the project proposes to implement the mitigation measures from the Dumbarton TOD Specific Plan EIR:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-8: A tree permit shall be obtained from the City prior to the removal of any tree protected by City ordinance on project site parcels. To offset impacts resulting from the removal of these trees, replacement trees shall be planted in designated open space areas on the subject parcel. Tree replacement shall be at a 1:1 ratio (that is, for each tree removed, one tree shall be planted as a replacement). Replacement trees shall be native California species that are native to the Newark area (for example, redwood trees are native to California but not to Newark).
>
> A Tree Management Plan shall be prepared for any project on any project site parcel where tree removal occurs. Preparation of this plan and subsequent planting and monitoring shall be a condition of project approval and shall be tied to a security bond or cash deposit posted by the developer with the City. This plan shall include a planting detail that specifies where all trees would be planted on the subject parcel. The methods used to plant trees shall also be specified. Adequate measures shall be established to minimize predation of planted trees by rodents including, but not limited to, pocket gophers (*Thomomys bottae*) and/or California ground squirrels (*Spermophilus beecheyi*).
>
> All planted trees shall be provided with a buried irrigation system that shall be maintained over a minimum three-year establishment period. The irrigation system shall be placed on automatic electric or battery operated timers so that trees are automatically watered during the dry months of the establishment period. At the end of the three-year establishment period, the irrigation system could be removed, if necessary. The planted trees' health shall be monitored annually for five years by a qualified biologist or arborist. Annual monitoring reports shall be submitted to the City.
>
> At the end of a five-year monitoring period, at least 80 percent of planted trees shall be in good health. If the numbers of planted trees falls below an 80 percent survival rate, additional trees shall be planted to bring the total number of planted trees up to 100 percent of the original number of trees planted. Irrigation and follow-up monitoring shall be established over an additional three year period after any replanting occurs. Any replanting and follow-up monitoring shall be reported in annual reports prepared for the City, Community Development Department. A performance bond, letter of credit, or other financial instrument

shall be established to pay for any remedial work that might need to occur, if the prior effort fails.

The project proposes to plant over 50 trees on Site A, and over 450 trees on Site B. New street trees would be planted along Enterprise Drive and Willow Street, and along the new streets constructed by the project. With implementation of the tree replacement proposed by the project and tree establishment and maintenance requirements listed above, the project would have a less than significant impact on trees. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.2.3 Conclusion

Based on site-specific surveys for biological resources prepared for the proposed project, project impacts to biological resources would be the same or less than those identified in the *Dumbarton TOD Specific Plan EIR*, as described below.

Field surveys for potential Salt Marsh Harvest Mouse (SMHM) habitat determined that neither Site A nor Site B contain suitable SMHM habitat. The proposed project therefore would not impact any SMHM or habitat potentially suitable for SMHM. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact)]**

The breeding season survey for Western burrowing owls found that no owls were present on site nor nesting on site, although owls could occupy the site in the future prior to project implementation and therefore the project will implement pre-construction survey mitigation identified in the Specific Plan FPEIR. The proposed project would not impact burrowing owl nesting habitat, therefore no mitigation for burrowing owl habitat is required. **(Less Than Significant Impact With Mitigation)**

The project would impact 0.24 acres of seasonal fresh water wetland habitat. Because avoidance of wetland habitat is infeasible, the project will provide mitigation for this impact by purchasing mitigation credits from an approved mitigation bank or an approved in-lieu fee mitigation entity at a minimum 1:1 ratio, as approved by the USACE and the RWQCB. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

The project would impact Congdon's tarplant, a California Native Plant Society 1B.1-listed plant that is located on the southeast portion of Site B. Because site remediation must meet regulatory standards intended to protect the health of future residents, it would not be feasible to leave contaminants in place in areas where Congdon's tarplant occurs, therefore avoidance of the plant and its habitat on the site would be infeasible. The project would implement *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.3-5 for mitigation of impacts to special status plants. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.3 CULTURAL RESOURCES

This section evaluates potential impacts to cultural resources that could result from implementation of the proposed project, and is based on information from the *Dumbarton TOD Specific Plan EIR* and the *CEQA Impacts Analysis Dumbarton Transit Oriented Development Trumark Residential Project* prepared by JRP Historical Consultants in March 2013, included as Appendix C of this SEIR.

4.3.1 Background

The *Dumbarton TOD Specific Plan EIR* assessed known and potential cultural resources in the Specific Plan area. The EIR determined that the Specific Plan area was moderately sensitive for buried archeological resources, given its location adjacent to historic salt marshes and the historic presence of a creek on the Torian property (located west of Site B).

The *Dumbarton TOD Specific Plan EIR* identified no *existing* National Register of Historic Places or California Register of Historical Resources listed sites in or adjacent to the Specific Plan area. However, the EIR identified the Southern Pacific Railroad Corridor[15] adjacent to the northern portion of the Specific Plan area (immediately north of Site A, and planned to be utilized by the Dumbarton Rail Corridor project) as a *potential* cultural resource that could be impacted by implementation of the Specific Plan.

4.3.2 Analysis

The *Dumbarton TOD Specific Plan EIR* identified both pre-construction and construction-period measures to avoid significant impacts to cultural resources. As discussed below, the project would implement construction-period mitigation measures to avoid impacts to buried cultural resources if present, as specified in the *Dumbarton TOD Specific Plan EIR*. The project has completed a pre-construction evaluation of potential project impacts to potential historic resources, and has therefore satisfied the mitigation requirement for avoidance of historic resources specified in the *Dumbarton TOD Specific Plan EIR*.

4.3.2.1 *Impacts to Buried Cultural Resources*

The Dumbarton TOD Specific Plan area is moderately sensitive for buried cultural resources. To avoid impacts to potential buried cultural resources during construction (including grading and excavation for site remediation) the project will implement the following measures:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.4-1: Prior to the issuance of grading permits for future development allowed within the Dumbarton TOD Specific Plan area, project sponsors shall retain qualified archaeologists meeting the Secretary of the Interior's Professional Qualification Standards to train the construction crew on the mechanisms used to identify cultural resources and to caution them on the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts or human remains from the project sites.

[15] Identified as the Union Pacific Railroad corridor in the *Dumbarton TOD Specific Plan EIR.*

If subsurface deposits believed to be cultural or human in origin are discovered during the construction of future development projects within the Dumbarton TOD Specific Plan area, then all work shall halt within a 200-foot radius of the discovery and they shall be evaluated by a professional archaeologist. If a potentially-eligible resource is encountered, then the archaeologist, lead agency, and project sponsor shall arrange for either: 1) total avoidance of the resource, if possible; or 2) test excavations to evaluate eligibility and, if eligible, data recovery as mitigation.

If human remains of any kind are found during construction activities, all activities shall cease immediately and the Alameda County Coroner shall be notified as required by State law (Section 7050.5 of the Health and Safety Code). If the coroner determines the remains to be of Native American origin, he or she shall notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the most likely descendant(s) (MLD) to be consulted regarding treatment and/or reburial of the remains.

With implementation of *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.4-1a, the proposed project would have a less than significant impact on buried cultural resources. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.3.2.2 *Impacts to Historic Resources*

The Southern Pacific Railroad Corridor, a portion of which is immediately north of Site A, is a potential historic resource that could be indirectly impacted by the project. The proposed project would locate residential structures on Site A within approximately 50 feet of the railroad corridor and thereby alter the railroad corridor's setting. The following mitigation was identified in the *Dumbarton TOD Specific Plan EIR* to avoid impacts to the potentially historic railroad corridor:

Dumbarton TOD Specific Plan EIR Mitigation Measure 4.4-1b: Prior to approval of Tentative Subdivision Maps for any development within the Dumbarton TOD Specific Plan area that would directly affect any existing buildings or structures or the Union Pacific Railroad corridor, or is proposed within 100 meters (328 feet) of any existing buildings or structures or the Union Pacific Railroad corridor, the resource shall be evaluated for inclusion in the National Register by a qualified professional archaeologist familiar with the architecture and history of Alameda County.

If the building or structure is considered eligible for inclusion in the National Register, then the project sponsor shall submit a study prepared by a qualified historian or architectural historian to determine whether the proposed project would materially alter in an adverse manner those physical characteristics of the known historical resource that conveys its historical significance.

An evaluation of potential impacts from the project to the Southern Pacific Railroad Corridor was prepared by a qualified historian (Appendix C of this SEIR). The evaluation noted that the rail corridor adjacent to the project site is part of the Southern Pacific Railroad Dumbarton Cutoff Linear Historic District (Dumbarton Cutoff), which appears eligible for listing in the National Register of Historic Places and the California Register of Historic Places.

The Dumbarton Cutoff was built between 1907 and 1910 and is associated with the history of the Southern Pacific Railroad, the economic growth of San Francisco and its port, and national defense efforts during the first and second World Wars. The Dumbarton Cutoff is also linked in history to Southern Pacific Railroad president E.H. Harriman. The Dumbarton Cutoff historic district extends approximately 16 miles from Redwood Point in San Mateo County to Niles in Alameda County and includes the trestles and bridges that cross San Francisco Bay. As such, the portion of the railway adjacent to the proposed project (Site A) represents only a fraction of the entire Dumbarton Cutoff alignment.

The impact evaluation found that the project would not cause a substantial adverse change to the Dumbarton Cutoff since it would not involve physical changes to the railroad itself. Further, the project would result in a minimal visual change to the setting of the Dumbarton Cutoff since it would affect only a small portion of the approximately 16-mile long alignment and, given the alignment is bounded by modern development to the immediate east and north, the project would not substantially alter its setting. The project therefore would have a less than significant impact on historic resources. **(Less Than Significant Impact)**

4.3.3 Conclusion

Based on the impact evaluation prepared for the proposed project, the project would not result in a significant impact to the Southern Pacific Railroad Dumbarton Cutoff Linear Historic District (Dumbarton Cutoff) which is the only known historic resource in the Specific Plan area. **(Less Than Significant Impact)**

With implementation of *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.4-1 the proposed project would not result in any new or more significant impacts to buried cultural artifacts, including historic resources and human remains, than those previously-disclosed in the Specific Plan EIR. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.4 GREENHOUSE GAS EMISSIONS

A discussion of the principles and science of climate change along with an overview of the plans and policies governing greenhouse gas (GHG) emissions can be found in the Specific Plan EIR.

4.4.1 Background

As outlined in Section 15183.5 of the CEQA Guidelines (*Tiering and Streamlining the Analysis of Greenhouse Gas Emissions*), public agencies may analyze and identify mitigation for GHG emissions in a program-level plan such as a General Plan, Specific Plan, or a GHG reduction plan that has been adopted in a public process following environmental review. Project-specific GHG emissions analysis can tier from the EIR completed for such plans, and the project may be determined to have a less than significant GHG impact if it is consistent with and implements the measures of the program-level plan. The City of Newark adopted a Climate Action Plan Initial Framework (CAP) on January 28, 2010 to document the City's baseline GHG emissions and to set emissions reduction goals.

Certified in September 2011, the Specific Plan EIR identifies measures that future development in the Specific Plan area would implement to reduce GHG emissions. The Specific Plan is consistent with applicable climate change plans and policies and meets the criteria laid out in CEQA Guidelines Section 15183.5 for programmatic GHG reduction plans. It includes measures that, if implemented by the proposed project, would contribute to the achievement of the specified emissions reductions. Individual development projects in the Specific Plan area that incorporate the project features outlined in the Specific Plan EIR can be determined to have a less than significant cumulative GHG impact under CEQA.

4.4.2 Impacts

4.4.2.1 *Operational (Long-Term) Greenhouse Gas Emissions Impacts*

The Specific Plan EIR found that without any project design features to reduce GHG emissions, build-out of the Specific Plan area would result in the emission of approximately 25,603 metric tons of carbon dioxide equivalents per year (MT CO_2e/year). The EIR included measures to reduce emissions consistent with the BAAQMD *CEQA Air Quality Guidelines* and the City of Newark CAP. Based on the emissions model URBEMIS2007 and the BAAQMD Greenhouse Gas Model (BGM), the EIR concluded that project design features required and recommended by the Specific Plan would reduce emissions from the Specific Plan area by 27.92 percent to approximately 18,455 MT CO_2e/yr. The GHG emissions after reductions were calculated to equal 2.26 MT CO_2e per service population per year (MT CO_2e/SP/yr), which is below the 4.6 MT CO_2e/SP/yr BAAQMD threshold of significance.[16] Projects that are consistent with the Specific Plan land use designations and assumed densities, therefore, would have a less than significant GHG emissions impact if the applicable emissions reduction measures identified in the Specific Plan EIR are implemented.

Neither Site A nor Site B are currently developed with any uses, therefore they do not contain sources of greenhouse gases. The proposed project would contribute to the GHG emissions

[16] The Dumbarton TOD Specific Plan estimates a service population of 8,150.

calculated in the Specific Plan EIR. Therefore the project proposes to implement the mitigation measures from the Dumbarton TOD Specific Plan EIR:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.6-1: The Specific Plan shall include, but not be limited to, the following list of potential design features. These features shall be incorporated into the Specific Plan and future buildings to ensure consistency with adopted Statewide plans and programs. The project applicant shall demonstrate the incorporation of project design features prior to the issuance of building permits.
>
> Energy Efficiency
>
> - Increase Energy Efficiency Beyond Title 24 Requirements
> - Plant shade trees within 40 feet of the south side or within 60 feet of the west sides of properties
> - Require cool roof materials (albedo ≥ 30)
> - Install green roofs.
> - Require smart meters and programmable thermostats
> - Install solar or tank-less water heaters
> - Make residential and commercial buildings solar ready.
> - Incorporate design guidelines for transit oriented development and complete street standards
> - Implement HVAC duct sealing
> - Maximize interior day light in residential uses
> - Increase roof/ceiling insulation
>
> Transportation
>
> - Provide a minimum of 15 percent affordable housing
> - Provide secure bike parking (at least one space per 20 vehicle spaces)
> - Provide information to the public (i.e., bike maps and transit schedules) on transportation alternatives
> - Provide free or preferential parking for carpool, vanpool, low emission vehicles, and car share vehicles

Table 4-2, below, identifies features proposed by the project to implement the GHG reduction measures identified in the Specific Plan EIR.

Table 4-2 Project Implementation of Specific Plan Greenhouse Gas Reduction Measures	
Specific Plan EIR Measure[a]	**Project Implementation**
Energy Efficiency	
Increase Energy Efficiency Beyond Title 24 Requirements	The proposed project would at a minimum meet Title 24 energy efficiency requirements and would exceed Title 24 by as much as 15 percent, depending on the features selected by future residents (e.g. tankless water heaters).
Plant shade trees within 40 feet of the south side or within 60 feet of the west sides of properties	The conceptual landscape plans for the project include shade trees on the south and west sides of individual residences and along the site perimeter.
Require cool roof materials (albedo ≥ 30)	The project does not propose cool roof materials.
Install green roofs.	The project does not propose green roofs.
Require smart meters and programmable thermostats	Smart meters and programmable thermostats would be included in the proposed residences.
Install solar or tankless water heaters	Tankless water heaters would be included as an optional item for new residential units.
Make residential and commercial buildings solar ready.	Future residents would have the option of purchasing their homes solar ready.
Incorporate design guidelines for transit oriented development and complete street standards	The project will construct or contribute to reconstruction of Enterprise Drive and Willow Street consistent with Specific Plan Complete Street designs.
Implement HVAC duct sealing	The project would implement HVAC duct sealing in new residential units.
Maximize interior day light in residential uses	The proposed residential unit designs would maximize interior day light.
Increase roof/ceiling insulation	Roof and ceiling insulation would comply with Title 24 requirements.
Transportation	
Provide a minimum of 15 percent affordable housing	The project would provide in-lieu fees to the City of Newark to fund affordable housing development.
Provide secure bike parking (at least one space per 20 vehicle spaces)	Multiple bicycle racks would be located throughout both Site A and Site B. The project would provide at least 39 bicycle parking spaces in common areas, as required.
Provide information to the public (i.e., bike maps and transit schedules) on transportation alternatives	The project applicant would provide information to future residents on local public transportation alternatives.

Table 4-2 Project Implementation of Specific Plan Greenhouse Gas Reduction Measures	
Specific Plan EIR Measure[a]	**Project Implementation**
Provide free or preferential parking for carpool, vanpool, low emission vehicles, and car share vehicles	The project would construct a portion of the residential units proposed in the Specific Plan. Therefore most of the parking in the project area would be provided by off-street garages attached to the proposed residences. All on-street parking would be free and there are no locations at which parking could be considered preferential (e.g. near an entrance to a popular building).
[a] Information in this column is taken from: City of Newark. *Dumbarton TOD Specific Plan Draft EIR*. May 2011. Table 4.6-3 and Page 4.6-30.	

The proposed project is consistent with the Specific Plan land use designations for both Site A and Site B. The project would implement the majority of the mitigation measures applicable to the project included in the Specific Plan EIR to reduce potentially significant operational emissions to a less than significant level, therefore the proposed project would have a less than significant operational greenhouse gas emissions impact. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.4.2.2 *Construction (Short-Term) Greenhouse Gas Emissions Impacts*

Greenhouse gas emissions would occur during site remediation, excavation, and grading, as well as during construction of the proposed residences. The project would also generate GHG emissions during the transport of soil, building materials, and workers to and from the project site.

Neither the City of Newark nor BAAQMD have quantified GHG thresholds for construction activities. BAAQMD encourages the incorporation of Best Management Practices (BMPs) to reduce GHG emissions during construction where feasible and applicable. BMPs may include but are not limited to using alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment for at least 15 percent of the fleet; using at least 10 percent local building materials; and recycling or reusing at least 50 percent of construction waste or demolition materials.

The project site is located in an urban location within close distance of construction supplies and equipment, which would help to minimize GHG emissions generated from transport of construction materials and waste associated with the project. There is no reliable method to estimate construction-related emissions associated with the manufacturing of project materials since the source of the materials is unknown at this time.

The project would be subject to the waste diversion requirements set forth in Section 15.44.030 of the Newark Municipal Code, which states that covered projects "shall divert one hundred percent of all Portland cement concrete and asphalt concrete and an average of no less than fifty percent of all remaining construction and/or demolition debris." As defined in the Municipal Code, 'divert' means to use material for any purpose other than disposal in a landfill or transformation facility (i.e. solid waste incineration for heat or electricity). There are special circumstances for which this would not

apply, such as if the construction waste is contaminated and unusable, in which case the Community Development Director may grant an exception.

While much of the soil on the project site is contaminated and could not be reused, the proposed project would reuse up to 19,000 cubic yards of soil and aggregate from the former pond area as backfill and up to 15,000 cubic yards of soil from the site of the former chemical production plant, if the soil is found clean enough to reuse on site. The volume of soil and aggregate to be reused would depend on the results of soil sampling and characterization to be completed as part of the proposed project. The project would also recycle construction waste to the extent feasible, consistent with the goals of the City of Newark's Construction and Demolition Debris Recycling ordinance.

Because there is no quantified threshold of significance for impacts resulting from construction-period GHG emissions impacts, the Specific Plan EIR did not include a calculation of construction GHG emissions. Given that the project is in an urban setting close to construction supplies and that the City of Newark standards would require diversion of construction waste in a manner similar to the BAAQMD-recommended BMPs, construction of the proposed project would not contribute substantially to GHG emissions. **(New Less Than Significant Impact)**

4.4.2.3 *Consistency With Plans and Policies*

The Specific Plan EIR includes a discussion of applicable plans and policies governing GHG emissions from projects in the City of Newark. The Specific Plan EIR found that full build-out of the Specific Plan Area, with implementation of the measures identified in the Specific Plan EIR, would not conflict with any applicable GHG reduction plans, policies, or regulations. As discussed above, the project incorporates most of the applicable measures identified in the Specific Plan EIR.

BAAQMD's thresholds of significance for GHG emissions (e.g. 4.6 MT CO_2e/SP/year) identify the levels below which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions.[17] That is, if a project would generate GHG emissions above the threshold level, it would be considered to contribute substantially to a cumulative impact. Since the Specific Plan EIR concluded that project-specific implementation of the measures detailed above would generate emissions below this threshold, the proposed project would not substantially conflict with any GHG reduction plans, policies, or regulations. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact)]**

4.4.2.4 *Climate Change Impacts to the Project*

The project site is located within an area of the San Francisco Bay Area that has been identified by the Bay Conservation and Development Commission (BCDC) as potentially exposed to a 16-inch sea level rise resulting from climate change.[18] As noted in the Specific Plan EIR, the Specific Plan area does not lie within BCDC's jurisdiction, and the BCDC forecast and any related policies are intended as guidance regarding potential, future flood risks, and are not directly applicable to the Specific Plan area and projects implemented under the Specific Plan. The Specific Plan EIR concluded that if sea

[17] BAAQMD. *CEQA Air Quality Guidelines.* Update May 2011. Page 2-1.
[18] San Francisco Bay Conservation and Development Commission. *Shoreline Areas Potentially Exposed to Sea Level Rise: Central Bay South.* 2007. Map. Available at: http://www.bcdc.ca.gov/planning/climate_change/index_map.shtml

level rise was determined to be a significant threat, protective measures such as levees installed by regional and local governments would be available to protect urbanized areas.

The City of Newark has in place Municipal Code requirements to construct residential development above the 100 year flood elevation. Among other things, the Code requires building pads of all occupied structures to be a minimum of 11.25-feet above sea level with the finished floor being a minimum of six inches above the building pad. In addition, the City requires that the top of curb grades for residential streets must be no less than ten-feet above sea level throughout the City (Section 16.08.06 Newark Municipal Code).

The project site would be graded to achieve elevations that comply with Newark Municipal Code requirements to address the 100-year flood. As such, it would be protected against impacts resulting from known flood risks.

The Specific Plan EIR also discussed the effects of climate change such as increased frequency and intensity of storms, decreasing snowpack, intensified wildfires, and deteriorating air quality. The Specific Plan EIR found that the project site would either not be vulnerable to these effects or that the effects were regional in nature and that no project-specific effect could be identified. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact)]**

4.4.3 Conclusion

The project is located in an urban setting close to construction supplies and would implement the BAAQMD-recommended BMPs where feasible to reduce construction GHG emissions. **(New Less Than Significant Impact)**

The proposed project would not be vulnerable to the hazards and environmental impacts caused by climate change. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact)]**

The proposed project would implement the applicable mitigation measures identified in the Specific Plan EIR to reduce GHG emissions below the BAAQMD threshold of significance. In doing so, the project would be consistent with applicable plans, policies, and regulations to reduce GHG emissions. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.5 HAZARDS AND HAZARDOUS MATERIALS

This section is based on part on the *Dumbarton TOD Specific Plan EIR*, the *Revised Remedial Actions and Cleanup Standards Report* prepared by Cornerstone Earth Group in December, 2012, the *Environmental Evaluation and Remedial Action Summary, 2.1 Acre Enterprise Drive Parcel, Newark, California* by Cornerstone Earth Group, December, 2012, the *Human Health Risk Assessment for the Trumark Parcel, Former Baron Blakeslee, Inc. facility, Newark, California,* prepared by CH2M HILL, May, 2013, San Francisco Bay Regional Water Quality Control Board *Final Site Cleanup Requirement Order No.* 98-067, and San Francisco Bay Regional Water Quality Control Board *Conditional Approval of Revised Remedial Action and Cleanup Standards Report*, May 2013, and the *Alternate Cleanup Plan, Former Baron Blakeslee, Inc. Facility, 8333 Enterprise Drive, Newark California* by AMEC Environmental and Infrastructure, Inc., August 2013, and *Approval of Alternate Cleanup Plan, former Baron Blakeslee Facility, 8333 Enterprise Drive, Newark, Alameda County*, San Francisco Bay Regional Water Quality Control Board, August 29, 2013. There reports are included in Appendices D-1 – D-7.

4.5.1 Background

The *Dumbarton TOD Specific Plan EIR* assessed the potential presence of hazards and hazardous materials within the Specific Plan area, and identified measures to avoid impacts or reduce impacts to less than significant levels. The *Dumbarton Specific Plan EIR's* analysis of hazards and hazardous materials was based in part on a search of regulatory databases, including the Department of Toxic Substances Control's EnviroStar database, and the California State Water Resources Control Board's GeoTracker database.

The Specific Plan EIR identified eight different "Hazardous Materials Sites" within the specific plan area that had hazardous material impacts or hazardous natural features (e.g. naturally occurring asbestos). Most of these properties were impacted by previous businesses operating on the site that stored and processed chemicals. Figure 4.2 identifies properties in the Specific Plan area with a history of hazardous materials contamination. Remediation of contamination on the sites has been or is currently underway on most of the sites. For the purposes of this SEIR, hazards and hazardous materials impacts affecting Site A and Site B only were evaluated.

4.5.1.1 *Dumbarton TOD Specific Plan EIR Impacts*

The *Dumbarton TOD Specific Plan EIR* analyzed potential hazards and hazardous materials impacts resulting from implementation of the Specific Plan, including:

- Presence of Naturally Occurring Asbestos
- Accidental Upset or Release of Hazardous Materials
- Implementation of emergency response and evacuation plans
- Presence of Hazardous Material Sites

Naturally Occurring Asbestos

The Specific Plan EIR identified the presence of Naturally Occurring Asbestos (NOA) on Cargill property west of the project sites. Mitigation measures were identified to reduce impacts from the

disturbance of NOA during construction. The proposed project does not involve the development of property within the Specific Plan area that contains naturally occurring asbestos, therefore no additional analysis of impacts from NOA is included in this SEIR. **(Less Than Significant Impact)**

Transport and Use of Hazardous Materials

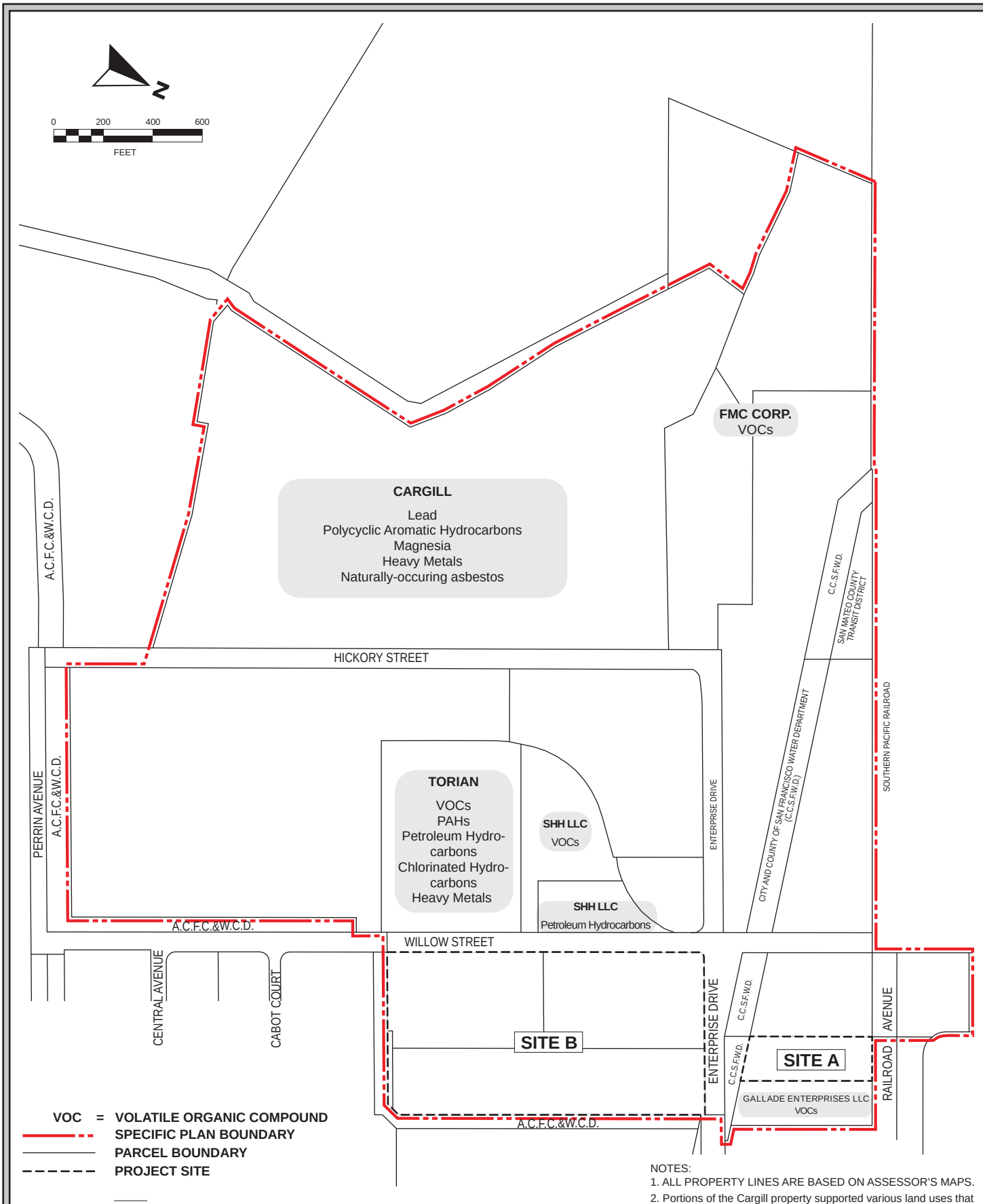
The Specific Plan EIR found that potential impacts resulting from the routine use and transport of hazardous materials during project operation (residential and commercial uses in the TOD area) would be less than significant since those land uses do not typically involve large quantities of hazardous materials and the transport and use of hazardous materials are regulated by the state and local agencies to prevent impacts to workers, the general public and the environment. **(Less Than Significant Impact)**

Emergency Response and Evacuation Plans

The Specific Plan EIR also found that implementation of the Specific Plan would not have a significant impact on the implementation of emergency response and evacuation plans, as the City has adequate plans in place that would account for the additional residential units and commercial and public-serving uses in the Specific Plan area. **(Less Than Significant Impact)**

Sites Impaired by Hazardous Materials

The Specific Plan EIR identified eight properties within the specific plan area that were found to contain hazardous materials due to past uses. The proposed project involves two of these sites. As noted in the *Dumbarton TOD Specific Plan EIR*, implementation of the Specific Plan would result in the transport of hazardous materials during remediation and construction activities that would be subject to oversight by appropriate regulatory agencies (e.g., DTSC, RWQCB, BAAQMD) and that remediation actions would be subject to appropriate environmental review and regulation, and therefore would not result in adverse environmental impacts to the proposed project. As such, the analysis of hazards and hazardous materials impacts contained in this SEIR is limited to the potential environmental impacts resulting from remediation of contaminants on Site B, and the subsequent development and operation of Site B with residential uses; and the development of Site A with residential uses and engineered controls to mitigate impacts to the site from an adjacent property (former Honeywell property located east of Site A, identified as Gallade Enterprises on Figure 4-2 below).



NOTES:
1. ALL PROPERTY LINES ARE BASED ON ASSESSOR'S MAPS.
2. Portions of the Cargill property supported various land uses that resulted in site contamination, including the Newark Police Pistol Range (Lead), Newark Sportsman's Club (Lead, PAHs) and Leslie Salt/FMC (Metals, magnesia). The Cargill property also includes naturally-occurring asbestos in the South Hill area.

Source: City of Newark (2010), Dumbarton Transit Oriented Development Specific Plan. Final Environmental Impact Report. July 2011.

SPECIFIC PLAN AREA SITES WITH HISTORY OF CONTAMINATION FIGURE 4-2

4.5.1.2 *Specific Plan EIR Mitigation Measures Applicable to Project*

The project does not involve the sites within the Specific Plan area that contain naturally occurring asbestos (NOA), therefore the mitigation measures identified in the *Dumbarton TOD Specific Plan EIR* for NOA are not applicable to the project.

The following hazards and hazardous materials mitigation measures identified in the *Dumbarton TOD Specific Plan EIR* would apply to the proposed project:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.7-1a - 1c:
>
> *4.7-1a* - Prior to the issuance of grading or building permit for an individual property within the Specific Plan area with known, suspected, or potential residual environmental contamination, the property owner shall, to the extent such activities have not previously been performed by the property owner pursuant to the requirements of the San Francisco Bay Regional Water Quality Control Board (RWQCB) or other overseeing agency under applicable environmental laws (Oversight Agency), do all of the following: 1) summarize available information regarding the magnitude and extent of soil and groundwater contamination at the subject property; 2) perform a data gap analysis; 3) based on the results of the data gap analysis, determine whether any additional investigation is needed to fill data gaps and, if so, propose and perform such investigation with the approval of the Oversight Agency; 4) provide either a Health Risk Assessment (HRA) or Feasibility Study (FS) containing an HRA to summarize potential risks to human health and the environment posed by the contamination with respect to the proposed development; 5) based on the HRA or as set forth in the FS, develop remedial options to address the identified risks based upon the proposed development, which remedial option may include engineering or institutional controls, and tentatively select the most appropriate remedial option to ensure that the proposed development will not present an unacceptable risk to human health or the environment as required by applicable environmental laws, as well as procedures for proper management of contaminated soil and groundwater that may be encountered during development; and 6) submit a report to the Oversight Agency for review and regulatory approval of the proposed remedial plan, including engineering and/or institutional controls, under applicable environmental laws.
>
> *4.7-1b* - Prior to grading permit issuance, areas to be graded shall be cleared of debris, significant vegetation, pre-existing abandoned utilities, buried structures, and asphalt concrete.
>
> *4.7-1c* - Prior to the import of a soil to a particular property within the Specific Plan area as part of that property's site development, such soils shall be sampled for toxic or hazardous materials exceeding applicable Environmental Screening Levels for the proposed land use at such a property as required by the Oversight Agency prior to importing to such a property.

4.5.2 Impacts

4.5.2.1 *Site A – Trumark Property*

Site Conditions

As noted in the *Dumbarton TOD Specific Plan EIR*, Site A was owned between 1961 and 1971 by the Barr Manufacturing Corporation. It is not documented what the site was used for during this period, although the site did include a railroad spur and one structure prior to and during Barr's ownership. The site has generally been vacant since the mid-1970s, though soil stockpiles were present on the site between 1985 and 1992. The site is currently vacant.

Site A has been significantly impacted by contaminants attributed to the Honeywell property immediately to the east[19]. Releases from the Honeywell property have impacted soil, soil vapor and ground water quality on the Trumark Site. Detected concentrations of Volatile Organic Compounds (VOCs) on the Site exceed residential Environmental Screening Levels[20] (ESLs) established by the RWQCB. A summary of site conditions prepared for the project[21] noted that soil and groundwater at and down-gradient (west) of the Honeywell property, including Site A have been affected by VOCs. Specific chemicals of concern (COCs) in the area affected by VOCs include trichloroethene (TCE), tetrachloroethene (PCE), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), methylene chloride, Freon-113 and 1,4-dioxane. The health effects of VOC exposure varies widely depending on the particular compound and exposure pathway, however some VOCs are known carcinogens[22].

Based on the frequency of detection, the concentrations detected, and the toxicity, PCE and TCE are considered the primary COCs in soil on site A, and TCE is considered the primary COC in the ground water beneath the site. Dissolved VOCs are present in both the shallow ground water zone of the affected area and, to a lesser extent, the underlying Newark Aquifer[23].

Remediation Actions/ Preparation for Residential Development

Remediation and monitoring efforts associated with VOC releases at the Honeywell property are on-going and are being conducted by Honeywell International, Inc. under the Final Site Cleanup Requirements Order No. R22007-0005, issued by the San Francisco Bay RWQCB in January 2007.

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[19] APN 092-0140-005. In various regulatory documents and technical reports this parcel is referred to as the "Gallade property" for the current tenant of the site, Gallade Chemical Co., or as "Baron-Blakeslee" or "BBI" for the previous owner of the site. Honeywell International, Inc. is responsible for site remediation.

[20] Environmental Screening Levels represent the concentration at which an environmental contaminant is determined to pose and acceptable risk or no risk to human health. ESLs are determined on a site by site basis, based on health risk analysis that accounts for human use of the site.

[21] Cornerstone Earth Group, *Environmental Evaluation and Remedial Action Summary, 2.1 Acre Enterprise Drive Parcel, Newark, California.* December, 2012.

[22] US Environmental Protection Agency, Introduction to Indoor Air Quality "Volatile Organic Compounds". Accessed October 3, 2013.
http://www.epa.gov/iaq/voc.html

[23] Ibid., page 3.

In May 2013, Honeywell submitted a Human Health Risk Assessment (HHRA)[24] to the RWQCB to summarize potential risks to human health and the environment posed by the soil and groundwater contamination generated by the Honeywell site, with respect to the proposed development of Site A. The HHRA was intended to address the requirements of *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.7-1a, listed above. The HHRA used data derived from on-site sampling of groundwater, soil gas and subsurface soil to assess the health risk site contamination posed to future residents and construction personnel building the proposed project. The HHRA concluded the risks to future residents from soil vapor intrusion without vapor intrusion engineering controls exceeded target risks levels. The HHRA recommended that the project implement a risk management approach to soil and groundwater contamination by including vapor intrusion mitigation systems and/or other engineering controls in the proposed project to reduce potentially unacceptable risks of vapor intrusion into future residential structures. The HHRA also noted that VOCs in subsurface soils were not considered a risk to construction workers even if subsurface soils were disturbed during construction, but that VOCs in shallow groundwater were at concentrations higher than those deemed appropriate by environmental regulatory agencies for construction activities involving contact with groundwater.

In August 2013 Honeywell submitted to the RWQCB an Alternate Cleanup Plan (ACP)[25] that proposed a remediation plan for shallow groundwater beneath Site A, in response to the RWQCB's comments on the May 2013 HHRA in which the RWQCB required a proposal for supplemental action to meet the shallow groundwater remediation actions levels. The RWQCB additionally stated that a risk management approach to vapor intrusion alone would not be adequate for the future residential use of Site A. The ACP was approved by the RWQCB in late August 2013.

Enhanced in situ bioremediation (EISB) will be used to remediate VOC impacts to Site A to achieve residential ESLs, as specified in the approved ACP. EISB treatment involves the injection of an electron donor (a food source for microorganisms) through injection wells to stimulate microbial growth and ultimately dechlorinate PCE and TCE contaminants. Dechlorination would reduce PCE and TCE to their basic elements and render them non-toxic.

Construction and operation of the EISB system would involve drilling a series of injection wells on Site A, installing well equipment and the placement of a network of pipes and manifolds. Portable equipment would be used to inject the electron donor solution. The set up and operation of the EISB system would involve a moderate amount of excavation and other construction. As discussed in *Section 4.1 Air Quality,* and described below, construction equipment emissions for the remediation of Site B have been estimated on a "worse case" scenario involving the maximum extent of excavation and soil removal required to prepare that site for residential development. As such, emissions from the limited amount of construction activity associated with construction of the EISB system on Site A would not exceed overall emission estimates for the entire proposed project.

The anticipated schedule to implement the ACP, as noted in the RWQCB approval is as follows:

- Pre-design investigation - Fourth Quarter 2013 through Second Quarter 2014

[24] CH2M HILL, *Human Health Risk Assessment for the Trumark Parcel, Former Baron Blakeslee, Inc. facility, Newark, California.* May, 2013. Appendix D-3.
[25] AMEC Environmental and Infrastructure, Inc. *Alternate Cleanup Plan, Former Baron Blakeslee, Inc. Facility, 8333 Enterprise Drive, Newark California*. August 2013.

- Implement EISB - Third Quarter 2014
- Implement performance monitoring program – Fourth Quarter 2014

Performance monitoring would occur quarterly or semiannually for the first year, and would be reevaluated annually by the RWQCB thereafter, with semiannual monitoring required by the cleanup order performed concurrently with the performance monitoring. A subsequent phase of the ACP would address VOCs on the FMC parcel located immediately west and hydraulically downgradient of Site A.

Groundwater remediation would continue on adjacent parcels after initiation and completion of the ACP. The project proposes to install engineered vapor barrier controls as part of residential development of Site A to mitigate risks to future residents until groundwater remediation is complete.

As noted above, the *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.7-1a requires that the agency with regulatory oversight of the project - in this case the RWQCB - review and approve of the proposed remediation plan and other risk management plans, prior to the issuance of grading or building permits for the project. As the lead agency for the project under CEQA, the City of Newark would implement this requirement by requiring RWQCB approval of such plans prior to issuing such permits. The City will require as project Conditions of Approval that *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.7-1b and 1c, addressing site cleaning and testing of imported soil for contaminants, respectively, be implemented during development of Site A.

Dumbarton TOD Specific Plan EIR Mitigation Measure 4.7-1a is amended to address the specific conditions of Site A, as follows:

Impact HAZ – 1: Site A is impacted by VOCs in soil and groundwater that originate from the adjacent Honeywell site. VOC concentrations exceed residential health risk levels acceptable to the RWQCB. **(Significant Impact)**

MM HAZ – 1: Prior to the issuance of grading permits or building permits for development of Site A, a remediation plan and a risk management plan must be prepared and submitted for review by the RWQCB. The RWQCB will review the plans to confirm that implementation of the plans would achieve Cal-EPA approved risk management standards for residential use of risk less than 10^{-6} and health hazard index of less than 1. **(Less Than Significant Impact with Mitigation)**

With implementation of *Dumbarton TOD Specific Plan EIR* Mitigation Measures 4.7-1a-c, residential development on Site A would have a less than significant impact. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact with Mitigation)]**

4.5.2.2 *Site B Jones – Hamilton*

Site Conditions

As noted in the *Dumbarton TOD Specific Plan EIR*, Site B was the site of the Jones-Hamilton Company's chemical blending and packaging facility that began operations in 1956. Jones-Hamilton

ceased chemical production at the site in 2001. Various chemicals were handled and stored on the site, including gasoline, sodium bisulfate, hydrochloric acid, arsenic acid, chromic acid, cupric acid, formaldehyde, triethanolamine, pentachlorophenol, a variety of surfactants, and a variety of hydrocarbon-based solvents. Previous activities also included the operation of two hazardous waste management units (surface impoundment ponds), the loading and unloading of a variety of raw waste liquids and recovered chlorinated chemical products, and the storage and distribution of these chemicals onsite. Unauthorized releases of some of these chemicals into soil and groundwater reportedly occurred during operation of the site.

All structures on the site, including production buildings, chemical storage tanks and finished product storage and loading facilities were demolished by 2007, with the exception of the asphalt-capped wastewater and stormwater impoundment ponds, which cover approximately three acres of the southwest portion of the site. A number of investigations and cleanup efforts were performed on the site beginning from the early 1980's through the late 1990's and early 2000's to address chemical pollutants in site soils and in groundwater. The chemicals of concern in soil and underlying groundwater at the site are pentachlorophenol (PCP), Dioxins/Furans, 1,2 dichloroethane (1,2 DCA) and to a lesser degree arsenic and chromium in soils. Groundwater beneath the site is impacted by an area-wide plume of 1,2-DCA).[26]

As described in greater detail below, all of Site B would be tested for Dioxins/Furans and those areas with concentrations above residential screening levels would be excavated and the soil removed from the site. The term Dioxin is commonly used to refer to a family of toxic chemicals that all share a similar chemical structure and a common mechanism of toxic action. This family includes polychlorinated dibenzo dioxins (PCDDs), polychlorinated dibenzo furans (PCDFs) and polychlorinated biphenyls (PCBs). PCDDs and PCDFs are not commercial chemical products but are trace level unintentional byproducts of most forms of combustion and several industrial chemical processes. PCBs were produced commercially in large quantities until production was stopped in 1977. Dioxin levels in the environment have been declining since the early seventies and have been the subject of a number of federal and state regulations and clean-up actions; however, current exposure levels still remain a concern.[27]

Regulatory Oversight of Site Remediation

Beginning in 2001 and continuing to the present, Site B has been regulated under a Final Site Cleanup Requirement Order (Order No. 01-054) issued by the San Francisco Bay RWQCB.[28] The Order establishes required cleanup actions and sets final cleanup standards based on the anticipated redevelopment of the site for industrial and commercial uses. Because the project proposes development of the site for residential use consistent with the Dumbarton TOD Specific Plan, the project proposes to implement a revised cleanup plan that would supersede the previous cleanup order to account for residential use. The proposed cleanup actions to prepare the site for residential

[26] San Francisco Bay Regional Water Quality Control Board *Conditional Approval of Revised Remedial Action and Cleanup Standards Report*, May 2013.
[27] US Environmental Protection Agency, Persistent Bioaccumulative and Toxic Chemical Program. Accessed October 7, 2013: http://www.epa.gov/pbt/pubs/dioxins.htm
[28] The RWQCB has overseen site investigation and cleanup activities since 1986, originally under Final Site Cleanup Requirement Order No. 98-067.

use are described below and in greater detail in the Remedial Action Plan (RAP) [29] included in Appendix D-1 of this SEIR. The RWQCB issued a conditional approval of the RAP in May 2013.

RWQCB approval of the RAP was conditioned in part on the completion of a RAP Addendum that included: 1) either a rationale for the grid-based sampling plan for dioxins or that presented an alternative sampling methodology, and: 2) a post-remediation monitoring plan for soil, soil vapor and groundwater. . The conditional approval also requires a revised deed restriction that allows for residential uses of the site.

Remediation Actions/ Preparation for Residential Development

Preparation of Site B for residential development would consist of the excavation and removal of approximately 60,350 cubic yards of contaminated soil from the site, backfilling excavated areas and rough grading of the site. Figure 3-3 provides a conceptual plan showing grading necessary for remediation of contaminated soil; Table 4-3 below provides a summary of estimated approximate excavation quantities. Remediation of contaminants on the site would involve three main actions: 1) removal of soil in former evaporation pond area, 2) removal of soil containing dioxins exceeding the residential cleanup goal across the entire site, and 3) removal of soil in the location of the former chemical processing facility that exceeds residential re-use criteria. Additionally, ponded water within the former wastewater pond area would be removed during excavation activities. Each of these actions are described in greater detail below.

Table 4-3
Estimated Excavation Quantities - Site B

Remediation Area	Contaminant	Estimated Excavation*	Disposal/ Destination
Remove Soil in Former Evaporation Ponds	Metals. Dioxins/Furans, VOCs	29,000 CY	Membrane, fill and underlying soil to Class II facility Liner, geotextiles to Class II facility • Reuse on site containment wall and asphalt
Remove Soil at Former Chemical Facility	Metals, VOCs, PCBs	30,000 CY	Class I or II facility or reuse on site
Remove Soil with Dioxin/Furans above Regulatory Levels	Dioxins/Furans	35,000 CY	Class I or II facility
Estimated Excavation Total	-	94,000 CY	-
Estimated Material to be Removed from Site	-	60,350 CY	Class I and II

[29] Cornerstone Earth Group, *Revised Remedial Actions and Cleanup Standards Report-Former Jones-Hamilton*. December 2012.

*As noted in the Remedial Action Plan, the extent of soil excavation and soil removed from the site will be determined based on soil testing during the remediation process. Excavation quantities represent the maximum excavation quantities expected to meet site cleanup goals.

The total amount of soil to be removed from the site is estimated at roughly 60,350 cubic yards, however the ultimate quantity of soil removed from the site would vary depending on the areal extent of impacted soil and the concentration of contaminants relative to residential cleanup goals. The excavation quantities listed above represent the expected maximum excavation amounts required to meet site cleanup goals.

Removal of Capped Soil in Former Evaporation Pond

On the southwest portion of the site, the former wastewater detention and evaporation pond[30] would be removed. The pond area is approximately three acres in size and is currently capped with approximately four inches of asphalt over two feet of aggregate, a synthetic membrane and approximately two feet of clayey soil. A containment wall made of a bentonite/soil slurry varying in depth between 35 and 45 feet below grade extends around the perimeter of the former pond area. The project would remove the asphalt cap, the membrane and geotextiles, and soil in the former pond area. The pond liner and a portion of the containment wall that surrounds the former pond area would also be removed, and all soil excavated to the depth of native soil. It is anticipated that excavated soil and the membrane, liners, and geotextile would be disposed of at a hazardous waste facility. The containment wall material (hardened bentonite) is expected to be disposed of as non-hazardous waste or reused on site as fill. Testing of native soils below and outside of the pond area and additional soil removal as necessary would occur after the pond structure is removed.

Removal of Soil Exceeding Remedial Goals for Dioxin

Soil testing for dioxins and furans would be conducted across the portion of the site that is outside the former facility area and capped pond area. Soils exceeding acceptable levels for future residential use of the site will be excavated and removed for disposal at a licensed facility. Excavation depths and quantities of soil to be removed would vary depending on the extent of contamination however, it is estimated that up to 35,000 cubic yards of soil (of the total estimated 60,350 cubic yards to be removed from the site) could be removed from the site during this process alone. Upon completion of cleanup for dioxins, approximately 16,000 cubic yards of clean fill soil would be used to backfill the excavated area (in combination with approximately 19,000 cubic yards of aggregate and clean soil from the former pond area) and allow rough grading of the site for subsequent construction of residences.

Soil Excavation at Location of Former Chemical Processing Facility

Soil would be removed from approximately six acres at the location of the former chemical processing facility at the northwest corner of the site. An approximately 150,000 square foot area would be excavated to a depth of approximately five feet below grade to remove any loosely backfilled excavations or utility trenches remaining from the chemical plant structures. This excavation would also remove any pockets of contaminated soil left in place after the closure of the

[30] This area is described as containing two ponds in some studies. For the purpose of the RAP and this SEIR, the filled and capped detention pond area is considered a single pond.

facility and subsequent sampling and soil removal between 2004 and 2007. Additional soil testing would be conducted in this area and additional material removed if required beyond the initial five foot excavation depth. An estimated maximum of 29,000 cubic yards of soil would be excavated from this area, and stockpiled and tested. Soil that exceed residential cleanup goals would be removed for offsite disposal at an appropriate facility. It is estimated that a portion of the soil excavated from this area (approximately 15,000 cubic yards) could be clean enough to be reused as backfill on the site.

Impact HAZ – 2: Site B is impacted by soil contamination associated with past uses of the site. **(Significant Impact)**

MM HAZ – 2: Prior to the issuance of building permits for development of Site B, all pre-construction elements of the Remedial Action Plan conditionally approved by the RWQCB on July 30, 2013, as it may be amended, must be met, including required pre-construction contingent submittals listed in the RWQCB conditional approval. . **(Less Than Significant Impact With Mitigation)**

Groundwater Management and Groundwater Well Replacement

Twenty-two groundwater monitoring wells are currently located on Site B, including six within the perimeter of the capped pond area. Destruction of all on-site wells will be necessary prior to removal of contaminated soil and site development. Wells would be decommissioned in accordance with Alameda County Water District standards. A plan for destruction and replacement of the monitoring wells is included in the RAP. New monitoring wells would be constructed as part of site development, and would be located in street rights of way, in common areas and/or within easement areas to allow ongoing monitoring of impacted groundwater, as described in the RAP.

Groundwater generated from dewatering activities during excavation of the former evaporation pond or during excavation of other portions of the project site would be temporarily containerized on site within a portable holding tank and sampled. Based on past groundwater monitoring, groundwater encountered during excavation of subsurface soils may contain VOCs or related contaminants. Pumped groundwater that meets Union Sanitary District's waste discharge requirements would be discharged to the sanitary sewer system under a discharge permit. If water exceeds discharge requirements, it would be treated using a carbon filter system (or similar, depending on concentrations and constituents detected) until waste discharge standards are met, then discharged to the sanitary sewer.

Impact HAZ – 3: Site B is impacted by groundwater contamination associated with past uses of the site. **(Significant Impact)**

MM HAZ – 3: Prior to the issuance of building permits for development of Site B, all pre-construction elements of the Remedial Action Plan conditionally approved by the RWQCB on July 30, 2013, as it may be amended, must be met, including required pre-construction contingent submittals listed in the RWQCB conditional approval. **(Less Than Significant Impact With Mitigation)**

Transport and Disposal of Contaminated Soil

Remediation of Site B would involve transporting an estimated 60,350 cubic yards (approximately 91,000 tons) of contaminated soil to a Class I or Class II hazardous waste facility.[31] Whether soil would be taken to a Class I or Class II facility would be determined during the remediation process by analyzing samples of excavated soil to determine the concentration of contaminants. Based on the past use of the site and site soil investigations, a preliminary estimate of 25,000 cubic yards of soil would require Class I disposal. Soil and other material would be transported by truck or by train to the appropriate disposal facility. The particular method of transportation would be determined based on the total amount soil removed from the site (as determined by testing during cleanup, as noted above), the capacity of the nearest hazardous waste receiving facilities[32] or landfill at the time of site cleanup and the cost of material transport at the time of cleanup.

Due to the anticipated volume of soil that would require disposal at a Class I hazardous waste facility and the distance from the project site to such a facility, the project may transport soil by rail instead of by truck. If rail transport is used the project would truck soil from the project site to the nearest rail transfer facility in Richmond, CA where it would be transferred onto rail cars.[33] The transport of contaminated soil destined for disposal at a Class I hazardous waste facility would be regulated by RCRA and Federal Department of Transportation (DOT) standards.[34]

A Health and Safety Plan[35] has been prepared for the project to address the safety of on-site workers involved in remediation work, such as the excavation, sampling and loading of soil for transport. Dust control measures identified in the plan and additional dust control measures discussed in Section 4.1 *Air Quality* are expected to provide adequate protection to workers and the general public from the loading and transport of contaminated soil from the site.

Impact HAZ – 4: Remediation of soil and groundwater contamination on Site B could expose workers and the general public to contaminants in soil and groundwater. **(Significant Impact)**

MM HAZ – 4: A Health and Safety Plan prepared in accordance with all Federal OSHA and California Division of Occupational Safety and Health that addresses the safety of workers and the general public during remediation of the site shall be implemented by the project. **(Less Than Significant Impact With Mitigation)**

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[31] Class I hazardous waste facilities are licensed to accept hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Class II facilities are municipal landfills that accept general waste, including some oil contaminated soil and other materials containing pollutants below RCRA thresholds. Information available at http://www.epa.gov/osw/laws-regs/regs-haz.htm.

[32] The nearest Class 1 facility accessible by truck hauling is the CleanHarbors Buttonwillow Landfill in Buttonwillow, CA, approximately 235 miles from the project site. The nearest Class 1 facility known to be accessible by rail is the U.S. Ecology Hazardous Waste Treatment and Disposal facility in Beatty, NV, approximately 450 miles from the project site.

[33] Kwoka, Christopher, P.E. DECON Environmental Services. Personal Communication July 1, 2013.
[34] US Environmental Protection Agency, Regulations Governing Hazardous Waste Transporters. Accessed October 9, 2013.
http://www.epa.gov/osw/inforesources/pubs/orientat/rom34.pdf
[35] Appendix K of the RAP.

Backfill and Site Grading

An estimated maximum of 59,000 cubic yards of soil would be brought to the site to backfill excavated areas and adjust grade elevations for subsequent residential development. An estimated 19,000 cubic yards of aggregate and soil that would be excavated during site cleanup is expected to meet screening levels for contaminants so that it can be reused for fill. Imported soils would likely be sourced from other construction projects in the region. As noted above, *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.7-1c requires that:

> *4.7-1c* - Prior to the import of a soil to a particular property within the Specific Plan area as part of that property's site development, such soils shall be sampled for toxic or hazardous materials exceeding applicable Environmental Screening Levels for the proposed land use at such a property as required by the Oversight Agency prior to importing to such a property.

The project proposes to test imported soils for contaminants using the Department of Toxic Substances Control (DTSC) *Clean Fill Guidelines* prior to its acceptance for use on site.

Impact HAZ – 5: Soil imported to the site for backfill could contain contaminants. **(Significant Impact)**

MM HAZ – 5: Imported soils shall be sampled for toxic or hazardous materials exceeding applicable Environmental Screening Levels for residential use of the site, and only clean soil shall be used that is consistent with RWQCB cleanup goals for the site. **(Less Than Significant Impact With Mitigation)**

Conclusion

As noted above, *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.7-1a requires that the agency with regulatory oversight of the project- in this case the RWQCB- review and approve of the proposed remedial plan, including engineering and/or institutional controls for Site B, prior to the issuance of grading or building permits for the project.

Remediation of soil contaminants on Site B and removal of potentially contaminated perched groundwater under a Remedial Action Plan approved by the RWQCB will prepare the site for subsequent residential development consistent with the *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.7-1a and this SEIR. Additionally, the project would implement Mitigation Measures 4.7-1b and 1c by conducting site clearing to remove physical site hazards and by conducting testing on soils brought to the site for backfill, to ensure that contaminants exceeding regulatory standards are not imported to the site. The City will require as project Conditions of Approval that *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.7-1b and 1c, be implemented during remediation and development of Site B.

With implementation of *Dumbarton TOD Specific Plan EIR* Mitigation Measures 4.7-1a-1c, the removal of contaminated soils for Site B and its subsequent residential development would not create a hazard to human health and therefore would have a less than significant impact. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.5.2.3 *Offsite Hazardous Material Releases*

The following discussion addresses potential hazardous materials impacts posed to the project that were not evaluated in the *Dumbarton TOD Specific Plan EIR*. The purpose of this analysis is to provide a project-level evaluation of the potential for existing uses in the vicinity of the project that store and/or use hazardous materials to impact the proposed project in the event of the accidental release of hazardous substances into the environment. This analysis is based on a *Vicinity Hazardous Materials Users Survey*, prepared by Belinda Blackie, PE, REA in October 2013 (Appendix D-8) and an *Accidental Release Offsite Consequences Analysis* prepared by Environ in October 2013 (Appendix D-9).

Background

The Specific Plan EIR found that the routine transport, use or disposal of hazardous materials by individual projects developed under the Specific Plan would pose a less than significant impact to the public or the environment. While land uses proposed for the Specific Plan area would use hazardous material such as cleaning solvents, fertilizers, pesticides and similar materials during regular property maintenance, compliance with Federal, State and local laws and regulations governing proper use and disposal of these materials would provide adequate prevention of significant impacts (Specific Plan EIR Impact 4.7-2).

The Specific Plan EIR also found that the accidental release of hazardous materials into the environment would have a less than significant impact on land uses in the Specific Plan area with mitigation provided by Specific Plan EIR mitigation measures 4.71a through 4.7-1e in combination with compliance with Federal, State and local regulations (Impact 4.7-3).

The Specific Plan EIR did not include an evaluation of potential impacts from the specific hazardous materials used by industrial and commercial uses located near the Specific Plan area. As shown in Figure 2-3 (Aerial Map), commercial, industrial and light industrial uses are located immediately east and south of Site B, and in close proximity to Site A. A visual survey of an approximately one-half mile radius of Site A and Site B (conducted as part of a hazardous materials users survey discussed below) identified 102 commercial, industrial and light industrial uses, of which 29 had hazardous material placards indicating hazardous materials were used or stored on site.

Analysis

The potential impacts to the project from the accidental release of hazardous substances at industrial uses near the project sites was evaluated by conducting a survey of hazardous materials users in proximity to the project sites and reviewing the hazardous material inventories of those sites. Additional analysis was given to hazardous materials inventories that appeared (based on type of material and quantities) to pose a risk to the project in the event of an accidental release. Computer modeling of the spread of hazardous materials during an accidental release was prepared for chemicals stored in quantities meeting regulatory thresholds. Additional information about this analysis is included in Appendix D-7 (Vicinity Hazardous Materials Users Survey) and Appendix D-8 (Hazardous Release Analysis) of this SEIR, and is summarized below.

Vicinity Hazardous Materials Users Survey

The Vicinity Hazardous Materials Users Survey conducted a visual survey of businesses located within a ½-mile radius of the project sites appearing to have the potential to use, handle, and/or store significant quantities of toxic or hazardous materials and/or wastes. The survey reviewed the Hazardous Material Business Plan (HMBP) for those facilities within an approximate one mile radius of the project regulated by the Alameda County Environmental Health Department (ACDEH) and those regulated by ACDEH under the California Accidental Release Program (CalARP).

The ACEHD acts as the Certified Unified Program Agency (CUPA), an administrative agency that coordinates and enforces numerous local, State, Federal hazardous materials management and environmental protection programs for hazardous material users county-wide, including:

- Hazardous Materials Business Plan Program
- Hazardous Waste Generator Program
- Underground Storage Tank Program
- California Accidental Release Program
- Tiered Permitting Program
- Aboveground Storage Tank Program

As such, the hazardous materials information available from ACDEH provides the most complete accounting of significant quantities of hazardous materials stored and used within the county. The survey identified four facilities located within approximately one mile of the project sites that appeared to have the potential to impact the project in the event of a hazardous release:

- Quality Quartz Engineering (8484 Central Avenue)
- California Brazing (37955 Central Court)
- Matheson TriGas (6925 Central Avenue)
- Alameda County Water District (ACWD) Desalination Plant (Redeker Place)

Two of the facilities (Matheson TriGas and the ACWD Desalination Plant) are regulated under the CalARP program. The specific hazardous material inventories of these facilities were used in the subsequent hazardous release analysis. The Gallade Chemical Company at 8333 Enterprise Drive immediately adjacent to Site A was excluded from the analysis since the proposed project would not be occupied with Gallade Chemical operating from its current location. The Specific Plan identifies this parcel as a future park, and the project will be pre-conditioned such that units will not be occupied while Gallade Chemical remains in operation at the current location.

Hazardous Release Analysis

The accidental hazardous material release analysis prepared for the project was based on criteria from two regulatory programs designed to assess and help mitigate potential accidental releases from industrial sources: the Federal Risk Management Program (RMP) and CalARP. Both programs establish threshold quantities and methodologies to assess potential impacts from accidental release of flammable or toxic chemicals. Chemicals and quantities meeting the RMP and CalARP thresholds were used as the basis of the release analysis. This analysis used the largest container as the storage

quantity for comparison with the CalARP or RMP threshold. This selection was likely conservative as the largest container represents the total capacity of the container, not necessarily the actual storage amount of the chemical in the container.

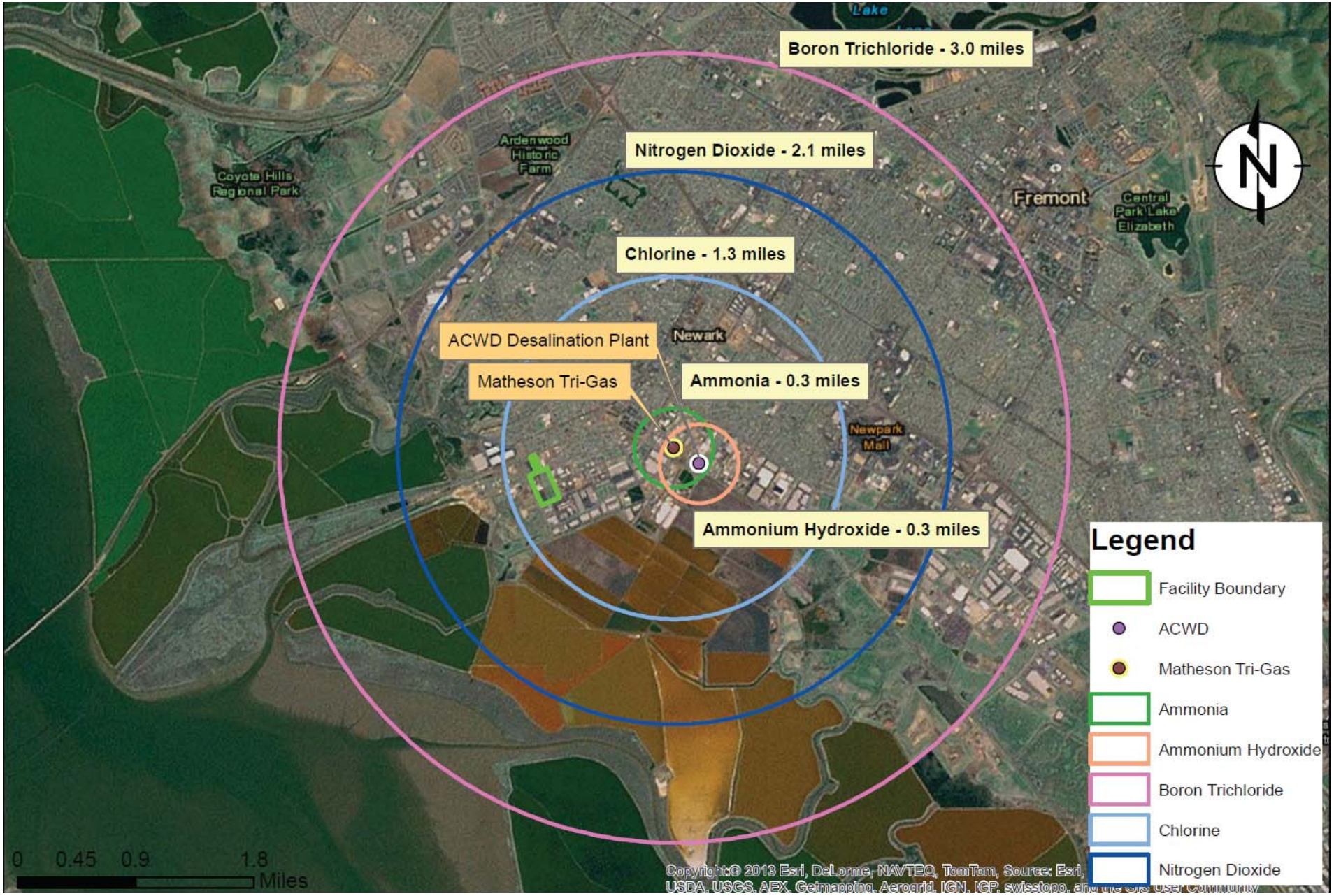
Consistent with CalARP and RMP guidance, both the worst-case release scenario[36] and an alternative release scenario[37] for each chemical determined to be above the regulatory threshold quantities was modeled. As noted above, chemical inventories reported in the CalARP-regulated facilities' Hazardous Materials Business Plan was used as the basis of the analysis. CalARP files were not available for public review, therefore the release modeling analysis used an accidental release assumption based on storage container size that does not account for process and site-specific controls for the prevention of hazardous material releases at each site.

Based on the release modeling analysis, it was determined that chemical inventories at Matheson TriGas, located approximately one mile from the project site, could potentially affect the project in the event of an accidental release. The chemicals stored and used at the ACWD Desalination Plant, also located approximately one mile from the project site were found to not have the potential to reach the project in the event of an accidental release.

As shown in Figure 4-4, under the worst-case release scenario, the project site would be affected by the release of Boron Trichloride, Nitrogen Dioxide and Chlorine releases from Matheson TriGas.

[36] For worst-case release scenario analysis under RMP, the possible causes of the worst-case release or the probability that such a release might take place are not considered; the release is simply assumed to occur. Worst-case release scenarios represent the failure modes that would result in the worst possible off-site consequences, however unlikely, and not more likely smaller releases that would potentially result in smaller impacts.

[37] An alternative release scenario is defined as a release that is more likely to occur than the worst-case scenario and may have an off-site impact.



Source: Environ, Oct. 2013.

WORST CASE SCENARIO - DISTANCE TO TOXIC ENDPOINT

FIGURE 4-3

Source: Environ, Oct. 2013.

ALTERNATIVE CASE SCENARIO - DISTANCE TO TOXIC ENDPOINT

FIGURE 4-4

Under the alternative release scenario shown in Figure 4-5, the project would be affected by the release of Boron Trichloride and Nitrogen Dioxide from Matheson TriGas.

The screening analysis and hazardous release modeling used conservative assumptions with regard to the estimated amount of RMP and CalARP regulated chemicals stored at any time, using a maximum container size as the assumed storage volume. Additionally, because process and site-specific information regarding the use and storage of hazardous chemicals at each site was not available, the analysis does not account for engineered controls to minimize or prevent hazardous material releases that are typically in place at industrial facilities that use and store such chemicals. As such, the potential impacts of existing industrial uses on the proposed project through the accidental release of hazardous substances are assumed to be overstated for both the worst case and alternate release scenarios.

As noted in the *Accidental Release Offsite Consequences Analysis* (Appendix D-8), chemicals in the quantities evaluated for the project are routinely transported by rail and by truck on public roadways, including Interstate 880, approximately two miles east of the project site, and State Route 84, approximately one mile north of the project. The potential risks to the site from the accidental release of hazardous materials is therefore similar to that of other urbanized areas, including those in Newark, near industrial or transportation facilities.

The *Accidental Release Offsite Consequences Analysis* suggested that measures included in the U.S. Army Corps of Engineers' guideline document *Protecting Buildings and Their Occupants from Airborne Hazards* (October 2001) could aid the project in developing prevention measures for catastrophic off-site consequences from an accidental release of hazardous materials. Protection measures identified in the guidelines include:

- Architectural and mechanical design features, such as elevating exterior air intakes and creating controlled air zones
- Shut off switches for ventilation systems
- Applying internal and external air filtration to a building
- Protective actions for perceptible hazards, such as pre-planning for evacuation or sheltering in place

The *Accidental Release Offsite Consequences Analysis* did not evaluate the feasibility of applying measures identified in the guidelines to a single family residential context, and most measures would be applicable to office and institutional buildings with centralized air handling systems. Protection measures focused on building security, provision of protective masks for building occupants and control of air at vestibules would clearly not be feasible for occupants of the proposed residential project. As such, the most feasible protection measure identified in the guidelines would involve implementing a warning to future residents of the site in the event of a known offsite hazardous release. Given the widespread area affected by an accidental release of a hazardous substance (as shown in Figures 4-4 and 4-5) an emergency warning of hazardous conditions would likely occur on a City-wide, rather than site-specific basis.

There is no guarantee that any prevention measure, including a warning to the public in the event of a release, would fully protect occupants at the site under all hazardous material release scenarios. As

such, there is no feasible project-specific measures that would protect future residents in the event of an accidental release of hazardous substances into the environment from nearby industrial properties.

Impact HAZ – 6: Future residents of the project would be affected by airborne hazardous materials in the event of an accidental release from industrial facilities located approximately one mile from the project sites. Under a worst-case release scenario the site would be exposed to the chemicals Boron Trichloride, Nitrogen Dioxide and Chlorine. Under an alternative release scenario, the project would be affected by the release of Boron Trichloride and Nitrogen Dioxide. There are no feasible mitigation measures to protect the site or inhabitants of the site from exposure to airborne hazardous materials in the event of an accidental release. **(Significant Unavoidable Impact)**

4.5.3 Conclusion

The *Dumbarton TOD Specific Plan EIR* identified the project sites as being impacted by hazardous materials. As such, *Dumbarton TOD Specific Plan EIR* Mitigation Measures 4.7-1a-c would be implemented by the project to address the following potential hazardous material impacts.

Site A is impacted by VOCs in soil and groundwater that originate from the adjacent Honeywell site. VOC concentrations found in an HHRA performed in 2013 exceed health risk levels acceptable to the RWQCB for on-grade (slab on grade) residential units. A remediation plan approved by the RWQCB that would reduce VOC concentrations in soil and groundwater on Site A to acceptable risk levels will be implemented prior to residential use of the site. RWQCB approval of the remediation and additional health protection measures would be required prior to the issuance of grading or building permits, consistent with Dumbarton TOD Specific Plan EIR Mitigation Measures 4.7-1a. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact with Mitigation)]**

Site B is impacted by soil contamination and groundwater contamination associated with past uses of the site. A remediation plan, as approved by the RWQCB, shall be prepared and implemented to reduce groundwater contaminants on Site B to acceptable risk levels for residential use. Compliance with the RWQCB conditions of approval of the remediation plan and RWQCB acceptance of the remediation results will be required prior to the issuance of grading or building permits for development of Site B, consistent with *Dumbarton TOD Specific Plan EIR* Mitigation Measures 4.7-1a. **([Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact with Mitigation)]**

Remediation of soil and groundwater contamination on Site B could expose workers and the general public to contaminants in soil and groundwater. A Health and Safety Plan prepared in accordance with all Federal OSHA and California Division of Occupational Safety and Health that addresses the safety of workers and the general public during remediation of the site shall be implemented by the project. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact with Mitigation)]**

Soil imported to the site for backfill could contain contaminants. Imported soils shall be sampled for toxic or hazardous materials exceeding applicable Environmental Screening Levels for residential

use of the site, and only clean soil shall be used that is consistent with RWQCB cleanup goals for the site. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact with Mitigation)]**

The *Dumbarton TOD Specific Plan EIR* did not identify a potential impact from nearby facilities that store and use hazardous materials to adversely affect the health of future residents of the project sites in the event of an accidental release of hazardous materials. A survey of hazardous material users in the vicinity of the project and modeling of accidental releases of hazardous materials found that future residents of the project would be affected by airborne hazardous materials in the event of an accidental release from industrial facilities located approximately one mile from the project sites. There are no feasible mitigation measures to protect the site or inhabitants of the site from exposure to airborne hazardous materials in the event of an accidental release. **(Significant Unavoidable Impact)**

4.6 NOISE

The following section is based in part on a *Noise and Vibration Assessment* prepared for the proposed project by Illingworth & Rodkin, Inc. on September 13, 2013. This report can be found in Appendix E of this Supplemental EIR.

4.6.1 Background

A discussion of the principles of noise and vibration along with an overview of the regulations governing noise and vibration can be found in *Dumbarton TOD Specific Plan EIR*. The *Dumbarton TOD Specific Plan EIR* evaluated the existing noise and vibration environment within the Specific Plan area, and analyzed the potential short- and long-term noise and vibration impacts resulting from build-out of the Specific Plan. Noise measurements were taken at four locations within and adjacent to the Specific Plan area, and measures were included to reduce potentially significant noise impacts to a less than significant level.

The Noise Element of the City of Newark General Plan identifies noise and land use compatibility standards for various land uses. These standards are intended to ensure compatible land uses throughout the community with regards to environmental noise. Residential land uses are considered "normally acceptable" in an exterior noise environment of 60 dBA L_{dn} or less. Interior noise levels attributable to exterior noise sources shall be maintained at or below 45 dBA L_{dn}.

4.6.2 Impacts

4.6.2.1 *Operational Noise and Vibration Impacts to the Project*

Noise

Noise sources affecting the project sites include vehicular traffic on Enterprise Drive and Willow Street and mechanical equipment from nearby industrial uses. The railroad adjacent to the northern boundary of Site A, though not currently in operation, is planned for operation as part of the Dumbarton Rail Corridor (DRC) Project. The *Dumbarton TOD Specific Plan EIR* found that implementation of the Specific Plan would not cause on-site ambient noise levels to increase substantially. However, ambient noise impacts from surrounding uses to future residential development under the Specific Plan were found to be potentially significant. The following mitigation measure from the *Dumbarton TOD Specific Plan EIR* would apply to the project:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.10-3: Prior to building permit issuance, an Acoustical Assessment shall be prepared for the high/mixed-use residential, medium/high density residential, medium density residential parcels located north of Enterprise Drive (within approximately 600 feet of the Dumbarton transit corridor) to demonstrate that the exterior and interior noise levels are consistent with the City's land use compatibility standards and Title 25, Section 1092 of the California Code of Regulations. The Acoustical Assessment shall be prepared by a qualified Acoustical Consultant and submitted to the Community Development Director for review and approval. Measures (e.g., attenuation barriers, acoustically rated windows [i.e., appropriate STC or OITC ratings],

upgraded insulation, etc.) shall be implemented where conditions exceed the Noise and Land Use Compatibility Criteria of "Normally Acceptable" noise exposure levels.

Consistent with mitigation measure 4.10-3 from the *Dumbarton TOD Specific Plan EIR*, a *Noise and Vibration Assessment* was completed for the proposed project. Long-term and short-term noise measurements were taken between May 29 and May 31, 2013, the locations of which are shown in Photo 1, below.

Source: Illingworth & Rodkin, September 13, 2013.

Photo 1: Noise Measurement Locations

Table 4-4 below shows the results of the noise measurements taken for the proposed project and whether or not the results exceed the City of Newark standards. Only the Day/Night Average Sound Level (i.e. L_{dn}) measurements are included because that is the metric used for the City of Newark standards.

Table 4-4 Existing Short- and Long-Term Noise Measurements

Measurement	Day/Night Average Sound Level (L_{dn})	Exceeds Residential Standards?
LT-1	68 dBA	Yes
LT-2	55-57 dBA	No
LT-3	61 dBA	Yes
ST-1	63 dBA	Yes
ST-2	65 dBA	Yes
ST-3	63 dBA	Yes
ST-4	60 dBA	No
ST-5	67 dBA	Yes

The proposed residential uses would be exposed to exterior noise levels greater than 60 dBA L_{dn} in the existing environment, which exceeds the exterior noise and land use compatibility standard presented in the City of Newark's General Plan. Interior noise levels would be expected to exceed 45 dBA L_{dn} assuming standard residential construction methods. The future noise environment at the project sites would continue to result primarily from vehicular traffic on Willow Street and Enterprise Drive as well as light equipment noise from nearby industrial uses. Vehicle traffic and the noise associated with it will increase as build-out of the Specific Plan area proceeds, and noise may also be generated from train pass-bys along the DRC when service begins.

Exterior Noise Levels

Methods available to reduce exterior noise levels in private or shared outdoor use areas include site planning alternatives (e.g., increased setbacks and using the proposed buildings as noise barriers), the construction of traditional noise barriers such as walls or fences or earth berms, or a combination of the above. The project proposes to construct a sound wall along the northern boundary of Site A, between the proposed residences and the DRC, which would attenuate noise by approximately seven dBA. A six foot tall "Good Neighbor" fence and a ten-foot wide pedestrian easement is proposed along the eastern boundary of Site A, adjacent to the current site of the Gallade Chemical Company. As part of Dumbarton TOD Specific Plan implementation, the property on which Gallade is located will be developed as a public park prior to or concurrent with the use of Site A, reducing future exterior noise levels to less than 60 dBA L_{dn}. The south side of Site A would be buffered from traffic noise on Enterprise Drive by landscaping placed along the San Francisco Public Utilities Commission easement. A new proposed street that would provide access to the residences the site (Street A, in Figure 3-4), would provide additional space between the proposed residences and Willow Street to the west. The project site design indicates that the proposed easements, perimeter fences and walls, landscaping, and streets would serve as buffers to reduce exterior noise levels from roadways and nearby land uses to less than 60 dBA L_{dn}.

Site B also includes a six foot tall fence along the eastern and southern site boundaries. A barrier calculation was performed to find the noise attenuation provided by the proposed fence located along backyard property lines to the south of Site B. Noise levels from nearby industrial activities and mechanical equipment would be attenuated 6 dBA at the proposed backyards, resulting in L_{dn} levels of 57 dBA, which is below the significance thresholds of applicable noise standards. A long term noise measurement (LT-2) taken along the eastern boundary of Site B was below 60 dBA, therefore the proposed fence at this location would attenuate noise levels well below the 60 dBA L_{dn} threshold.

Interior Noise Levels

In addition to the 45 dBA L_{dn} interior noise standard, the Noise and Vibration Assessment prepared for the project found that maximum instantaneous noise levels in bedrooms and habitable rooms must be limited to 50 dBA L_{max} and 55 dBA L_{max}, respectively. Noise sensitive land uses (residences) adjacent to the rail corridor would be exposed to high maximum instantaneous noise during high speed pass-bys or when warning horns are sounded.

Impact NOI – 1: The residences proposed at the northern portion of Site A would be exposed to maximum instantaneous noise levels in excess of City standards by future train operations. **(Significant Impact)**

Residential units proposed in the vicinity of the Dumbarton Rail Corridor would require forced-air mechanical ventilation systems and sound-rated construction methods to reduce interior average and maximum noise levels to acceptable levels. In some cases, high performance noise insulation features such as stucco-sided staggered-stud or double-stud walls and sound rated windows and doors may be required to maintain interior maximum instantaneous noise levels below 50 dBA in bedrooms and 55 dBA in other rooms.

MM NOI-1.1: Project-specific acoustical analyses shall be completed for residential land uses exposed to noise levels exceeding 60 dBA L_{dn}. The specific determination of what treatments are necessary will be conducted on a unit-by-unit basis. Results of the analysis, including the description of the necessary noise control treatments, will be submitted to the City for review and approval prior to or during the building permit process. The analyses shall meet the following noise reduction requirements:

- Interior noise levels shall be reduced to 45 dBA L_{dn} or lower. Sound insulation requirements would likely need to include the provision of forced-air mechanical ventilation for all units, so that windows could be kept closed at the occupant's discretion to control noise. Special building construction techniques (e.g., sound-rated windows and building facade treatments) may be required for new residential uses adjacent to the DRC.

- Maximum instantaneous noise levels (L_{max}) should be reduced to 50 dBA in bedrooms and 55 dBA in other habitable rooms. The design of mitigation at properties adjoining the railroad shall consider the best available methods. These treatments include, but are not limited to, sound rated windows and doors, sound rated wall construction, acoustical caulking, insulation, acoustical vents, etc. Large windows and doors should be oriented away from the railroad where possible.

With implementation of these measures, the project would not expose sensitive receptors to significant noise impacts. **(New Less Than Significant Impact With Mitigation)**

Vibration

Railroad trains are a source of groundborne vibration when receivers are located close to the tracks. The U.S. Department of Transportation, Federal Transit Administration (FTA), has developed vibration impact assessment criteria for evaluating vibration impacts associated with rapid transit projects.[38] The number of daily DRC commuter train pass-by events is anticipated to be twelve events per day.[39] This is well within the range to be considered infrequent events per U.S. DOT criteria of less than 30 vibration events of the same source per day, setting the applicable criterion for

[38] U.S. Department of Transportation, Federal Transit Administration. *Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06*. May 2006.
[39] San Mateo County Transit Authority. *Summary of the Dumbarton Rail Corridor Project Study Report.* May 2004. Page 23. Available at: http://www.smcta.com/Assets/Dumbarton+Rail+Corridor/documentation/DRC_PSR_Summary.pdf

groundborne vibration impacts at 80 VdB for proposed residences (see Appendix E for additional information about VdB).

The *Dumbarton TOD Specific Plan EIR* does not discuss potential vibration levels from railroad trains, and information regarding future vibration levels resulting from the DRC project were not available at the time of this study. The Noise and Vibration Assessment prepared for the project estimates vibration levels based on recent experience and vibration assessments prepared for a Caltrain station in Morgan Hill, California.[40] Data gathered along the Union Pacific Railroad in Morgan Hill indicated that vibration levels are typically 70 VdB or less at a distance of 100 feet from the center of the near track. Vibration levels within 50 feet of the near track may exceed 75 VdB, and vibration levels within 25 feet of the near track may exceed 80 VdB. Vibration levels from the DRC project, assuming operational characteristics similar to those of Caltrain in Morgan Hill, are anticipated to be less than 80 VdB at a distance of 60 feet from the nearest railroad track. Vibration levels are not anticipated to exceed the FTA guidelines at the nearest proposed residential units to the railroad. Therefore the project would not expose sensitive receptors to significant levels of vibration. **(New Less Than Significant Impact)**

4.6.2.2 *Operational Noise and Vibration Impacts from the Project*

Noise

The primary operational noise created by residential development is vehicular traffic. The Specific Plan EIR found that build out of the Specific Plan would result in significant noise increases from traffic on Willow Street, where noise levels would increase by eight dBA to 57.5 dBA L_{dn}. The Specific Plan EIR included mitigation to reduce this impact to a less than significant level:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.10-4: Prior to building permit issuance, the project applicant shall coordinate with the City's Public Works Director to change the posted speed limit along Willow Street (between Thornton Avenue and Central Avenue) to 25 miles per hour. Implementation of this measure shall be indicated on all project plans and specifications.

The speed limit on Willow Street would be reduced from 40 miles per hour to 25 miles per hour prior to or concurrent with operation of the proposed project. The traffic generated by the proposed project would be consistent with the trip generation estimates made in the Specific Plan EIR, therefore implementation of the Mitigation Measure 4.10-4 would reduce traffic noise impacts to a less than significant level. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

Vibration

The proposed residential use of Site A and Site B would not cause vibration impacts to buildings or nearby sensitive receptors. **(No Impact)**

[40] Illingworth & Rodkin, Inc. *Morgan Hill Downtown Specific Plan Environmental Noise Assessment.* July 16, 2009.

4.6.2.3 *Construction Noise and Vibration Impacts*

Noise

The Specific Plan EIR concluded that construction-related noise would result in potentially significant noise and vibration impacts to nearby sensitive receptors. The nearest sensitive receptors to Site A are the single family residences located 185 feet to the east and the residences located 100 feet to the north across the train tracks. The only sensitive receptors near Site B are the residences approximately 85 feet north of the northeast corner of Site B, across Enterprise Drive.

As noted in the Noise and Vibration Assessment prepared for the project, CEQA does not define what noise level increase would be considered substantial. The City of Newark General Plan states that residential land uses are considered "normally acceptable" in an exterior noise environment of 60 dBA L_{dn} or less. Where noise from construction activities exceeds 60 dBA L_{eq} (L_{dn} is not used because construction would not occur at night) and exceeds the ambient noise environment by at least 5 dBA L_{eq} at noise-sensitive uses in the project vicinity for a period of one year or more, the impact would be considered significant. Noise generated by site remediation, site improvements, grading, infrastructure improvements, and the construction of residences could result in noise levels exceeding 60 dBA L_{eq} and the ambient noise environment by 5 dBA L_{eq} for a period greater than one year.

The project would implement the mitigation measures included in the *Dumbarton TOD Specific Plan EIR* to reduce construction noise impacts:

> *Dumbarton TOD Specific Plan EIR* Mitigation Measure 4.10-1a: To reduce noise impacts due to construction, project applicants shall require construction contractors to implement a site-specific noise reduction program, subject to City review and approval, which includes the following measures, ongoing through demolition, grading, and/or construction:
>
> - Restrict noise-generating activities at the construction site or in areas adjacent to the construction site to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and between 8:00 a.m. to 5:00 p.m. on Saturdays.
> - Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible).
> - Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electronically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.
> - Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporated insulation barriers, or other measures to the extent feasible.

- If feasible, the noisiest phases of construction shall be limited to less than 10 days at a time.

Dumbarton TOD Specific Plan EIR Mitigation Measure 4.10-1b: Prior to the issuance of each grading permit, project applicants shall submit to the City Building Inspection Division a list of measures to respond to and track complaints pertaining to construction noise, ongoing throughout demolition, grading, and/or construction. These measures shall include the following:

- A procedure and phone numbers for notifying the City Building Inspection Division staff and Newark Police Department (during regular construction hours and off-hours);
- A sign posted onsite pertaining the permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);
- The designation of an onsite construction complaint and enforcement manager for the project. The manager shall act as a liaison between the project and its neighbors (including onsite residents). The manager's responsibilities and authority shall include the following:
    - An active role in monitoring project compliance with respect to noise;
    - Ability to reschedule noisy construction activities to reduce effects on surrounding noise sensitive receivers;
    - Site supervision of all potential sources of noise (e.g., material delivery, shouting, debris box pick-up and delivery) for all trades; and,
    - Intervening or discussing mitigation options with contractors.
- Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of construction activities regarding the details and estimated duration of the activity; and,
- A preconstruction meeting shall be held with the job inspectors and the general contractor/onsite project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

Implementation of the *Dumbarton TOD Specific Plan EIR* measures would reduce construction noise levels emanating from the sites including the option of utilizing a new railroad spur for soil off-haul, limit construction hours, and minimize disruption and annoyance. With implementation of these measures (and the understanding that noise generated by each project phase would only affect the sensitive land uses adjoining that particular phase and that the remaining phases would tend to occur at increased distances from those same sensitive uses) the substantial temporary increase in ambient noise levels would be less than significant. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

Vibration

The *Dumbarton TOD Specific Plan EIR* found that construction-related vibration impacts would be potentially significant during grading and construction activities. Mitigation measure 4.10-2

included in the *Dumbarton TOD Specific Plan EIR* would apply only if pile driving were proposed. Since pile driving is not included as part of the proposed project, the project would not implement this measure. According to the Noise and Vibration Assessment prepared for the project, construction activities such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment may generate substantial vibration in the immediate vicinity. While construction activities could occur for more than one year, construction vibration would not be substantial for most of that time.

At a distance of 25 feet, jackhammers typically generate vibration levels of 0.035 inches per second PPV (Peak Particle Velocity[41]), and drilling typically generates vibration levels of 0.09 in/sec PPV. Vibration levels would be 0.2 in/sec PPV or less, below the 0.3 in/sec PPV threshold. While vibration generated by construction near the common property line would at times be perceptible, construction-related vibration would not result in architectural damage to buildings. Administrative controls such as notifying the occupants of neighboring properties of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration to hours with the least potential to affect adjacent uses, perceptible vibration would be kept to a minimum and as such would not result in a significant impact. These controls would be implemented through the Specific Plan EIR mitigation measures 4.10-1a and 4.10-1b as described above. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

4.6.3 Conclusion

The proposed project would develop residences adjacent to the Dumbarton Rail Corridor, where sensitive receptors would be exposed to interior noise levels in excess of the City of Newark standards. Site-specific acoustical analyses, resulting in a specific determination of what treatments are necessary on a unit-by-unit basis, would reduce these impacts to a less than significant level. **(New Less Than Significant Impact With Mitigation)**

Vibration generated by the DRC would not result in a significant impact to buildings or to sensitive receptors. **(New Less Than Significant Impact)**

The proposed project would place sensitive receptors in an environment in which ambient noise levels exceed the City of Newark standards. Sound walls and Good Neighbor fences would be included as part of the project and would attenuate exterior noise to less than significant levels. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

Implementation of the Specific Plan EIR mitigation measure 4.10-4, to reduce the speed limit of Willow Street, would occur prior to or concurrent with project development and would reduce traffic noise impacts to a less than significant level. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

[41] A description of Peak Particle Velocity can be found in Section 4.10.1.3 of the *Dumbarton TOD Specific Plan EIR*.

Implementation of Dumbarton TOD Specific Plan EIR mitigation measures 4.10-1a and 4.10-1b would reduce construction-related noise and vibration impacts to nearby sensitive receptors to a less than significant level. **[Same Impact as Approved Dumbarton TOD Specific Plan (Less Than Significant Impact With Mitigation)]**

SECTION 5.0 CUMULATIVE IMPACTS

As noted in the *Dumbarton TOD Specific Plan EIR,* implementation of the Specific Plan would result in cumulative impacts to biological resources, cultural resources, and hydrology and water quality. Vehicle trips generated by the land uses included in then Specific Plan, when combined with future traffic volumes, would contribute to a significant cumulative impacts to transportation levels of service.

The proposed project is within the range of planned development under the Dumbarton TOD Specific Plan, therefore its incremental contribution to the cumulative impacts resulting from implementation of the Specific Plan were included in the analysis of cumulative impacts included in the *Dumbarton TOD Specific Plan EIR.* The proposed project would not result in new or different cumulative impacts than those of the Specific Plan.

SECTION 6.0 CONSISTENCY WITH PLAN AND POLICIES

The *Dumbarton TOD Specific Plan EIR* provided an analysis of the Specific Plan's consistency with relevant regional plans and policies, the City's General Plan, and applicable local plans and policies in place at the time of preparation of the EIR. As a project that implements the adopted Dumbarton TOD Specific Plan, the proposed project's consistency with applicable plans and policies was included as part of the *Dumbarton TOD Specific Plan EIR*'*s* consistency analysis.

The *Dumbarton TOD Specific Plan EIR* identified the following plans, policies and regulations as applicable to the Specific Plan project:

- *Alameda County Congestion Management Program*
- *ABAG/MTC FOCUS Strategy*
- *BAAQMD Clean Air Plan*
- *BAAQMD Greenhouse Gas Mitigation Measures*
- *Bay Trail Plan*
- *City of Newark Climate Action Plan*
- *City of Newark General Plan*
- *City of Newark Municipal Code*
- *Plan Bay Area (*draft*)*
- *Regional Smart Growth Strategy/Regional Livability Footprint Project*
- *San Francisco Bay Region Water Quality Control Plan*

The Specific Plan was found to be consistent with all applicable plans, policies and regulations. By extension, the current project would also be consistent applicable plans, policies and regulations since it proposes to develop both Sites A & B with residential units as provided for under the Specific Plan.

6.1 PLAN BAY AREA

At the time of adoption of the Dumbarton TOD Specific Plan, *Plan Bay Area* was still in draft form. *Plan Bay Area* was adopted after the publication of the Notice of Preparation of this SEIR, and therefore is not be considered an applicable plan to the proposed project. Project consistency with the plan, however, is described below.

Plan Bay Area is a long-range transportation and land use/housing strategy (aka Sustainable Community Strategy) for the San Francisco Bay Area that identifies areas of the region appropriate to accommodate the next 25 years of population and employment growth while reducing greenhouse gas emissions pursuant to SB 375. *Plan Bay Area* additionally serves as the Regional Transportation Plan for the Bay Area. On July 18, 2013, *Plan Bay Area* was jointly approved by the Association of Bay Area Governments Executive Board and by the Metropolitan Transportation Commission.

The Dumbarton TOD Specific Plan is located within the previously-established Dumbarton Rail Station Priority Development Area (PDA). *Plan Bay Area* directs future population and job growth to established PDAs. As such, *Plan Bay Area* assumes that the development identified in the Specific Plan will occur within the Dumbarton Rail PDA. Since the proposed project implements the

Specific Plan, it is included in the range of future development included in *Plan Bay Area*, and is therefore consistent with the adopted plan prepared pursuant to SB 375.

SECTION 7.0 PROJECT ALTERNATIVES

7.1 INTRODUCTION

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that an EIR should identify alternatives which "would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." The purpose of this section is to determine whether there are alternatives of design, scope or location which would substantially lessen the significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives" or are more expensive. (§ 15126.6)

In order to comply with the purposes of CEQA, it is important to identify alternatives that reduce the significant impacts, which are anticipated to occur if the project is implemented, but to try to meet as many of the project's objectives as possible. The CEQA Guidelines emphasize a common sense approach; the alternatives should be reasonable, should "foster informed decision making and public participation" and should focus on alternatives that avoid or substantially lessen the significant impacts.

The three critical factors to consider in selecting and evaluating alternatives are, therefore: (1) the significant impacts from the proposed project which could be reduced or avoided by an alternative, (2) the project's objectives, and (3) the feasibility of the alternatives available. Each of these factors is described below.

7.1.1 SIGNIFICANT IMPACTS OF THE PROJECT

The significant new impacts resulting from the proposed project would include biological impacts and hazardous material impacts. These represent project-specific impacts that are specific to the location of the project sites and the development proposed by the project.

As described in Section 4.2, *Biological Resources*, the project would result in impacts to seasonal wetlands and Congdon's tarplant. These impacts would be mitigated to less than significant levels through mitigation measures identified in this SEIR, specifically the purchase of off-site mitigation credits for habitat impacts (or alternatively, on-site propagation of Congdon's tarplant on Site B).

As described in Section 4.5, *Hazards and Hazardous Materials,* the project could be affected by airborne hazardous substances in the event of an accidental release from facilities located approximately one mile from the project. Given the extensive area potentially impacted by a hazardous substance releases, and that the lack of feasible protective measures for single family homes in the affected area, there is no feasible mitigation to protect future residents of the project from the hazard. This potential impact is therefore considered significant and unavoidable.

7.1.2 PROJECT OBJECTIVES

The City of Newark's objectives for implementation of the Dumbarton TOD Specific Plan are, in part, to:

- Guide the development of a sustainable community that includes a variety of residential, retail, employment generating, and park and recreational opportunities in close proximity to each other;

- Provide for a mix of housing opportunities at a range of densities from single family detached to multi-family housing to meet the varied housing needs of the community

- Effectuate the City's General Plan goals, policies, and programs that require a mix of housing types at a range of densities and for a range of income levels

- Provide a sufficient number of residential units within walking distance of the future, planned transit station to generate the ridership necessary to support the station if and when the DRC Project is implemented or alternative transit service is established

- Encourage the development of a predominantly vacant area of land for its highest and best use

- Guide the development of a new community with a distinct identity, architectural style and sense of place while being compatible with existing neighborhoods

The applicant's primary objectives for the project are to:

- Develop an economically viable, high-quality residential project consistent with the Dumbarton TOD Specific Plan.

- Develop single family detached residences consistent with the project sites' Medium High Density Residential land use designation.

- Prepare Site B for residential development by addressing soil and groundwater contaminants to achieve established regulatory standards for residential use of the property.

- Implement traffic circulation and streetscape improvement to serve the proposed residential units.

- Improve the overall appearance of the project area.

7.1.3 DUMBARTON TOD SPECIFIC PLAN EIR ALTERNATIVES

The *Dumbarton TOD Specific Plan EIR* analyzed three alternatives to the Specific Plan project: 1) No Project/No Build Alternative, 2) High Density Residential Alternative and 3) Medium High Density Residential Alternative. The No Project/ No Build Alternative would have eliminated potentially significant impacts to several special status plant and animal species, as well as potential wetlands impacts, since the land in the Specific Plan area would not be developed. Remediation of site contaminants was assumed unlikely to occur under that alternative. The High Density Residential Alternative would have resulted in fewer impacts to biological resources than the adopted Specific Plan project by concentrating residential units into a smaller portion of the Specific Plan

area, presumably avoiding sensitive habitats. The Medium Density Residential Alternative would also have potentially avoided some biological impacts, since a greater portion of the Specific Plan area would have remained as parkland and open space.

The significant unavoidable impact from the accidental release of hazardous materials identified in this SEIR was not identified in the Specific Plan EIR, therefore none of the Specific Plan EIR alternatives (other than No Project Alternative) address avoidance of this impact. The High Density Residential Alternative and Medium High Density Residential Alternative both would have located residential units on Site A and Site B at higher densities than the proposed project. As such, the risk of an accidental release of hazardous substances affecting future residents would be greater under those alternatives.

With adoption of the Dumbarton TOD Specific Plan, the City of Newark found that the alternatives to the Specific Plan were infeasible, and/or did not achieve the City's objectives for the project. As such, the alternatives included in this SEIR address minimizing or avoiding impacts resulting from the implementation of a specific project under that plan, rather than the Specific Plan as a whole.

7.1.4 FEASIBILITY OF ALTERNATIVES

CEQA, the CEQA Guidelines, and the case law on the subject have found that feasibility can be based on a wide range of factors and influences. The Guidelines advise that such factors can include (but are not necessarily limited to) the suitability of an alternate site, economic viability, availability of infrastructure, consistency with a general plan or with other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can "reasonably acquire, control or otherwise have access to the alternative site" [Section 15126.6(f)(1)].

7.1.5 SELECTION OF ALTERNATIVES

In addition to the "No Project Alternative," the CEQA Guidelines advise that the range of alternatives discussed in the EIR should be limited to those that "would avoid or substantially lessen any of the significant impacts of the project", or in the case of the proposed project, would avoid a significant impact (albeit adequately mitigated) to seasonal wetlands and Congdon's tarplant and significant unavoidable hazardous materials impact that could not be mitigated to less than significant levels. [§15126.6(f)]. The discussion below, therefore, addresses several alternatives which could reduce project-specific impacts. The components of these alternatives are described below, followed by a discussion of their impacts, how they would differ from those of the proposed project, their ability to achieve project objectives, and issues affecting their feasibility.

7.2 PROJECT ALTERNATIVES

7.2.1 No Project-No Development Alternative

The CEQA Guidelines stipulate that an EIR specifically include a "No Project" Alternative, which should address both " the existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure and community services."

Sites A and B have a General Plan designation of *Medium Density (DTOD Specific Plan) 14-25 du/acre.* Under the No Project Alternative, the sites would remain vacant and would not be developed to effectuate residential development under the Dumbarton TOD Specific Plan. Remediation of soil contaminants to regulatory standards for residential use of Site B would not be implemented. Remediation of VOCs in groundwater beneath Site A would likely still occur as part of the on-going cleanup of VOC-impaired groundwater associated with the Honeywell property.

Under the No Project Alternative, the project sites would presumably remain vacant as other nearby properties were developed under the Dumbarton TOD Specific Plan, unless or until the Plan was amended to specify other uses of the sites. Alternative use of the sites for purposes other than residential would also require an amendment to the Newark General Plan and rezoning.

Under the No Project Alternative, disturbance of seasonal wetlands and Condon's tarplant would be avoided since existing habitat would be not disturbed by site remediation and residential development. This alternative would avoid the significant unavoidable impact to future residents of the site resulting from an accidental release of hazardous substances from hazardous material users in the vicinity of the project.

While the No Project Alternative would avoid the identified environmental impacts of the proposed project, it would not support the objectives of the Dumbarton TOD Specific Plan and could be detrimental to successful implementation of the Plan. The No Project Alternative would not support the City's goals for developing a sustainable community within the Specific Plan area, nor would it accomplish the highest and best use of the sites by leaving them vacant. This alternative would not meet any of the project proponent's objectives of developing residential uses as identified in the Dumbarton TOD Specific Plan and it would not remediate soil contamination on Site B.

While the No Project Alternative would be feasible in the sense that no further action, including expensive remediation, would be taken to develop the project sites, this alternative would not achieve any of the project objectives and would hinder implementation of the adopted Dumbarton TOD Specific Plan.

7.2.2 No Project – Existing Plan Alternative

The No Project – Existing Plan Alternative assumes the proposed project is not approved or is not implemented, but that another future project is built consistent with existing plans and policies. In this case, what can be reasonably expected to occur in the foreseeable future, based on current plans and consistent with available infrastructure and community services is another residential project, at a density consistent with the Specific Plan designation for the site, *Medium Density Residential (DTOD Specific Plan) 14-25 du/acre*. As the current project is proposed at the lower end of the allowed density range, it is foreseeable that a future alternative project on the site consistent with the Specific Plan could have a similar number (244) or perhaps more single family units, or, if developed with townhomes (or other attached unit product type) at the upper end of the specified density range, could approach 400 or so units.

Regardless of the residential unit type ultimately developed under this alternative, remediation of soil contaminants on Site B and remediation of VOCs on Site A would also have to occur prior to residential development. Extensive grading and excavation necessary to prepare Site B for

residential use would still affect seasonal wetlands and Congdon's tarplant on the site to the same extent as the proposed project. A townhome residential project could potentially avoid some seasonal wetland impacts on Site A by employing a more compact site design, and establishing appropriate buffer areas around the wetlands to maintain the hydrologic conditions to sustain the wetlands. The potential to avoid seasonal wetlands on Site A is discussed in more detail below in the Reduced Development Alternative and the Design Alternative.

The No Project – Existing Plan Alternative would not avoid the significant unavoidable impact from the potential exposure of future residents on Site A and Site B to airborne hazardous substances. The No Project – Existing Plan Alternative would not avoid the significant impacts of the proposed project on Site B, however, residential development on Site A in a more compact form could potentially reduce or avoid impacts to wetlands on Site A.

7.2.3 Location Alternative

The CEQA Guidelines require that an EIR identify an alternative location that "would avoid or substantially lessen any of the significant effects of the project" (§ 15126.6 92)(f)(A)). As noted previously in this section, the objective of the project is to develop the sites with residential uses consistent with the Dumbarton TOD Specific Plan.

In order to identify an alternative site that might reasonably be considered to "feasibly accomplish most of the basic purposes" of the project, and would also mitigate or reduce some or all of the significant impacts of the project, it is assumed that such a site would need to have the following characteristics:

- Located within the Dumbarton TOD Specific Plan area
- Land use designation of *Medium Density Residential*
- Approximately 22 acres in size to accommodate approximately 244 single family homes
- Immediately available

Because one of the objectives of the project is develop residential uses consistent with the Dumbarton TOD Specific Plan for the project sites, locations outside of the approximately 200 acre Specific Plan area would not be feasible. Within the Specific Plan area, approximately 68 acres are designated *Medium Density Residential* and would therefore support residential development at the same density specified by the Specific Plan for the project sites. Sites within the Specific Plan with the necessary *Medium Density Residential* designation include the Cargill, FMC and Torian properties, all located west of the proposed project. The Torian site is currently under development, so could be not used as a location alternative.

Under the Location Alternative, the project would be developed on either the Cargill or FMC properties (Figure 3-2). As noted in the *Dumbarton TOD Specific Plan EIR*, these sites are known to be impaired by hazardous materials, generally in the form of soil and/or groundwater contamination. It is likely that the remediation actions needed to prepare these sites for residential development would involve similar remediation as the project proposes for Site B. As noted in the Specific Plan EIR, portions of the FMC and Cargill site support wetland plant communities, and have the potential to also contain Condon's tarplant and other biotic resources. These sites may also support special status species such as Western Burrowing Owl, or Salt Marsh Harvest Mouse. Given the extensive

site work typically associated with remediation and site development, it is unlikely that implementation of the project on one of these alternative sites would avoid potential impacts to biotic resources present on these sites, although impacts on Site A and Site B would be avoided.

The Location Alternative would reduce the potential exposure of future residents to airborne hazardous substances in the event of an accidental release from either of two facilities located in the vicinity of the project. As described in Section 4.4, *Hazards and Hazardous Materials*, under the alternative accidental release scenario (the accidental release of a portion of a hazardous substance as compared to a total release), the area of exposure to toxic levels of Nitrogen Dioxide would not extend to the FMC or Cargill properties (See Figure 4.4).

Thus, the Location Alternative would avoid the significant unavoidable impact under an alternative hazardous substance release scenario. Under a worst-case release scenario, the Location Alternative sites would be subject to a significant unavoidable impact from the potential exposure of future residents to airborne hazardous substances (See Figure 4.5).

While development of the project on either the Cargill or FMC properties would result in a reduced risk from the accidental release of hazardous substances, all other impacts would be similar to those of the proposed project. None of the potential alternative locations, however, are controlled by the project proponent, therefore implementation of the project on an alternative location would not be feasible unless and until controlled by the applicant.

7.2.5 Reduced Development Alternative

The Reduced Development Alternative would have the purpose of developing fewer units to avoid disturbing areas of the site with wetlands and Congdon's tarplant. This would entail a reduction of residential units on Site A to avoid seasonal wetlands by locating residences and streets away from mapped wetland areas. However, on Site B, remediation of soil contaminants to prepare it for residential uses would continue to necessitate disturbance of the entire site, thereby impacting wetlands and Congdon's tarplant on that area of the project.

The Reduced Development Alternative would establish appropriate buffer areas around the Site A wetlands to maintain the hydrologic conditions needed to sustain the wetlands. This is estimated to require approximately 0.5 acres of the 2.2 acre Site A. Additionally, the internal roadway would need to wind through the site in an inefficient, circuitous manner to avoid the wetlands and buffer areas. These restrictions in combination are estimated to reduce the number of units that could be developed on Site A by roughly half (12-15 units).

Given the proposed project at 244 total units narrowly achieves the minimum Specific Plan residential density of 14 units per acre, this reduced development alternative with roughly 12-15 fewer units would not meet the minimum density specified in the Specific Plan for the two sites. As noted above, one of the objectives of the Dumbarton TOD Specific Plan is to provide a sufficient number of residential units within walking distance of the planned transit station to generate the ridership necessary to support the planned station and public transit service. The Reduced Development Alternative would provide fewer residential units on site A than planned and therefore would fail to meet this objective.

The Reduced Development Alternative is not considered feasible because it would not be consistent with the General Plan designation for the site and would not achieve the objectives of the Specific Plan.

7.2.6 Project Design Alternative

This alternative would avoid development in areas of Site A containing seasonal wetlands. This alternative assumes the same number of units (244 total on both sites) as proposed by the project. It also assumes that streets and sidewalks would be provided for access, and that public open space areas would be included for Site B.

Preparation of Site B for residential use would still require extensive grading for soil removal as would be required under the proposed project. Because the areas of seasonal wetlands and Congdon's tarplant are dispersed across Site B, it would not be feasible to avoid them during Site B remediation, nor would it be feasible to leave "pockets" of contaminated soil on Site B in areas where wetlands and tarplant occur. Alternative siting of streets and roads would not feasibly avoid wetland and tarplant impacts since the remediation of Site B required preceding any residential development would disturb areas in which these sensitive biological resources are present.

A Project Design Alternative to avoid seasonal wetlands impacts on Site A would involve reconfiguring the public street providing access from Enterprise Drive to avoid direct impacts to wetlands, and providing an adequate buffer around wetlands (estimated at requiring roughly 0.5 acres to be left alone) to maintain the hydrologic conditions needed to sustain Site A wetlands. Under this scenario, the main public street would meander from the east to west side of the site to avoid direct wetlands impacts, which would likely require that secondary streets be curvilinear. Parcels would be arranged around the modified street plan and in a way to avoid wetlands and provide appropriate buffer areas.

This alternative could redistribute the lost Site A units (estimated at roughly 12-15 units) to Site B. The site plan for Site B could not readily accommodate another 12-15 single-family detached units, and so this alternative would involve modifying some of the Site B units to a more compact, efficient form, likely either townhomes or stacked units. This alternative could impair the project's ability to meet the design standards and objectives established in the Specific Plan, such as those addressing neighborhood scale and architectural compatibility.
Relocating these units would allow the project as a whole (Site A and Site B) to maintain the 244 unit count to achieve the minimum residential density for the *Medium Density Residential* land use designation across both sites, but would not achieve the minimum density of 14 units per acre specified for Site A. Thus Site A would not conform to its General Plan land use designation under this alternative.

The Project Design Alternative would not avoid the significant unavoidable impact from the potential exposure of future residents on Sites A and B to airborne hazardous substances. Avoidance of impacts to seasonal wetlands and Congdon's tarplant on Site B under the Project Design Alternative would not be feasible since remediation of soil impacts during preparation of the Site for residential development would still result in direct impacts to them. The Project Design Alternative would avoid seasonal wetlands impacts on Site A, but would require that some number of units be instead constructed on Site B, and as attached units, to maintain the project's overall residential density

specified in the General Plan. While the project, across both sites, could maintain the specified minimum residential density, Site A alone would not meet the minimum required and therefore would not be consistent with the General Plan.

7.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussion, the environmentally superior alternative is the No Project – No Development Alternative; because all of the project's significant environmental impacts would be avoided. However, Section 15126.6(e)(2) states that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Therefore, based on the previous discussion, the Location Alternative would be the environmentally superior alternative, because it would avoid the significant unavoidable impact of potential exposure of future residents to hazardous substances in the event of accidental release from hazardous material users in the vicinity of the project.

The potential alternative locations in the Dumbarton TOD Specific Plan, however, are controlled by other entities and not currently available to the project proponent and therefore would not be feasible for the project proponent.

SECTION 8.0 REFERENCES

AMEC Environment & Infrastructure, Inc. *Alternate Cleanup Plan – Former Baron Blakeslee, Inc. Facility, 8333 Enterprise Drive, Newark, California.* August 2013.

Bay Area Air Quality Management District (BAAQMD). *CEQA Air Quality Guidelines*. Updated May 2011.

Blackie, Belinda P., P.E. *Vicinity Hazardous Materials Users Survey, Dumbarton TOD, Newark, California.* October 14, 2013.

CH2M HILL. *Additional Site Investigation Work Plan, Former Baron Blakeslee, Inc. Facility, Newark, California, Water Board Final SCR Order No. R2-2007-0005.* March 15, 2012.

--. *Human Health Risk Assessment for the Trumark Parcel, Former Baron Blakeslee, Inc. Facility, Newark, California, Water Board Final SCR Order No. R2-2007-0005.* May 10, 2013.

--. *Revised Feasibility Study and Remedial Action Plan (FS/RAP), Former Baron Blakeslee, Inc. Facility, Newark, California, RWQCB SCR Order No. 98-108/R2-2005-0004.* January 31, 2006.

City of Newark. *Dumbarton TOD Specific Plan*. September 8, 2010.

--. *Dumbarton Transit Oriented Development Specific Plan, Final Environmental Impact Report (State Clearinghouse No. 2010042012).* July 2011.

Cornerstone Earth Group. *Corrective Action Plan Addendum in Support of Residential Development*. January 25, 2012.

--. *Environmental Evaluation and Remedial Action Plan Summary, 2.1 Acre Enterprise Drive Parcel, Newark, California.* December 19, 2012.

--. *Potential Remedial Measures, Enterprise Drive Parcel, Newark, CA.* 2013.

--. *Preliminary Opinion of Estimated Soil Removal Costs – Jones Hamilton, 8400 Enterprise Drive, Newark, CA.* January 18, 2012.

--. *Revised Remedial Actions and Cleanup Standards Report-Former Jones-Hamilton*. December 18, 2012.

ENVIRON. *Accidental Release Offsite Consequence Analysis for Dumbarton Transit-Oriented Development Trumark Residential Project in Newark, CA.* October 16, 2013.

Federal Emergency Management Agency. *Flood Insurance Rate Map, 06001C0443G*. Effective August 3, 2009.

H.T. Harvey & Associates. *Trumark Residential Project – Alameda County, California Preliminary Delineation of Wetlands and Other Waters*. May 6, 2013.

--. *Trumark Residential Project - Biological Resources Report*. May 6, 2013.

--. *Trumark Residential Project – Burrowing Owl Breeding Season Protocol-level Survey Report*. July 18, 2013.

--. *Trumark Residential Project – Rare Plant Survey Report.* July 17, 2013.

Illingworth & Rodkin, Inc. *Dumbarton Transit Oriented Development Trumark Residential Project Draft Community Health Risk Assessment Newark, California.* September 19, 2013.

--. *Dumbarton Transit Oriented Development Trumark Residential Project Noise and Vibration Assessment Newark, California.* September 13, 2013.

--. *Morgan Hill Downtown Specific Plan Environmental Noise Assessment.* July 16, 2009.

JRP Historical Consulting, LLC. *CEQA Impacts Analysis, Dumbarton Transit Oriented Development, Trumark Residential Project, Newark, Alameda County, California.* March 2013.

San Francisco Bay Conservation and Development Commission. *Shoreline Areas Potentially Exposed to Sea Level Rise: Central Bay South*. 2007. Map. Available at: http://www.bcdc.ca.gov/planning/climate_change/index_map.shtml

San Francisco Bay Regional Water Quality Control Board. *Approval of Alternate Cleanup Plan, former Baron Blakeslee Facility, 8333 Enterprise Drive, Newark, Alameda County*. August 29, 2013.

--. *Conditional Approval of Revised Remedial Action and Cleanup Standards Report, Former Jones-Hamilton Company Facility, 8400 Enterprise Drive, Newark, Alameda County.* May 10, 2013.

--. *Order No. 01-054 – Adoption of Final Site Cleanup Requirements and Rescission of Order No. 98-067.* 2001.

--. *Order No. R2-2007-0005 – Final Site Cleanup Requirements and Rescission of Order No. 98-108 and R2-2005-0004.* 2007.

San Mateo County Transit Authority. *Summary of the Dumbarton Rail Corridor Project Study Report.* May 2004. Page 23. Available at: http://www.smcta.com/Assets/Dumbarton+Rail+Corridor/documentation/DRC_PSR_Summary.pdf

U.S. Department of Transportation, Federal Transit Administration. *Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06*. May 2006.

U.S. Environmental Protection Agency. *An Introduction to Indoor Air Quality: Volatile Organic Compounds.* Accessed October 3, 2013. Available at: http://www.epa.gov/iaq/voc.html

--. *Dioxins and Furans.* Accessed October 7, 2013. Available at: http://www.epa.gov/pbt/pubs/dioxins.htm

--. *Hazardous Waste Regulations*. Last Updated December 10, 2012. Accessed October 17, 2013. Available at: http://www.epa.gov/osw/laws-regs/regs- haz.htm.

--. *Regulations Governing Hazardous Waste Transporters.* Accessed October 9, 2013. Available at: http://www.epa.gov/osw/inforesources/pubs/orientat/rom34.pdf

Persons Contacted:

Kwoka, Christopher, P.E. DECON Environmental Services. July 1, 2013.

Guier, Holly, Deputy Fire Marshal, Newark Fire Department. July 17, 2013.

SECTION 9.0 AUTHORS AND CONSULTANTS

Lead Agency

City of Newark
Community Development Department
Terrence Grindall, Community Development Director

Consultants

David J. Powers & Associates
Environmental Consultants and Planners
Akoni Danielsen, Principal
Michael Rhoades, Project Manager
Matthew Gilliland, Assistant Project Manager
Zach Dill, Graphic Artist

Belinda Blackie, PE, REA
Vicinity Hazardous Materials Users Survey

Environ
Accidental Release Offsite Consequence Analysis
Gavin Hoch, Manager

HT Harvey & Associates
Biological Resources Report, Burrowing Owl Survey, Preliminary Delineation of Wetlands, Rare Plant Survey Report
Patrick Boursier, PhD Principal-In-Charge
Ginger Boland, PhD, Project Manager
Christopher Gurney, M.S., Plant/Wetland Ecologist

Illingworth & Rodkin, Inc.
Community Health Risk Assessment, Noise and Vibration Analysis
Joshua Carman
William Popenuck
Jordan L. Roberts

JRP Historical Consulting, LLC.
Historic Impacts Analysis
Rand Herbert, Principal
Joseph Freeman, Historian

Appendix A

Notice of Preparation and Responses

To: State Agencies
Responsible Agencies
Local and Public Agencies
Trustee Agencies
Interested Parties

From: Terrence Grindall
City of Newark
Community Development Department
37101 Newark Boulevard
Newark, CA 94560

NOTICE OF PREPARATION OF A SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT FOR THE DUMBARTON TRANSIT ORIENTED DEVELOPMENT TRUMARK RESIDENTIAL PROJECT

The City of Newark will be the Lead Agency under the California Environmental Quality Act (CEQA) and will prepare a Supplemental Environmental Impact Report (SEIR) for the above referenced project. We would like to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. This SEIR may be used by your agency when considering approvals for this project.

The project description, location, and a brief summary of potential environmental effects are attached. A Public Scoping Meeting will be held on February 12, 2013, at 2:00 p.m. to take comments regarding the scope and content of the draft SEIR. The Scoping Meeting will be held at Newark City Hall, 37101 Newark Boulevard, Newark, CA, in the City Council Chambers.

According to State law, the deadline for your response is 30 days after receipt of this notice; however, we would appreciate an earlier response, if possible. Written comments will be accepted until March 8, 2013 at 5:00 p.m.

Please send written responses to Terrence Grindall, Community Development Director, City of Newark, CA 94560-3796 or by email: Terrence.grindall@newark.org. Please identify a contact person in your agency.

Terrence Grindall
Community Development Director

_____

Date: _____

NOTICE OF PREPARATION OF A SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT FOR THE DUMBARTON TRANSIT ORIENTED DEVELOPMENT TRUMARK RESIDENTIAL PROJECT

A. INTRODUCTION

The purpose of a Supplemental Environmental Impact Report (SEIR) is to inform decision makers and the general public of the environmental effects of a proposed project that were not known at the time previous environmental review was conducted for the project. The SEIR process is intended to provide environmental information sufficient to evaluate a project and its potential for significant impacts on the environment; to examine methods of reducing adverse environmental impacts; and to consider alternatives to the project. Although an SEIR is one of the first documents to be reviewed when considering a project, the document itself, including its certification, does not constitute project approval. Upon finding the SEIR complete and in compliance with the California Environmental Quality Act (CEQA) of 1970, as amended, the City Council will consider certification of the SEIR at a public hearing and may take action on the proposed Dumbarton Transit Oriented Development (TOD) Trumark Residential Project.

The SEIR for the proposed Dumbarton TOD Trumark Residential Project will be prepared and processed in accordance with CEQA. In accordance with the requirements of CEQA, the EIR will include:

- A summary of the project,
- A project description,
- A description of the existing environmental setting, potential environmental impacts that were not described in the Dumbarton TOD Specific Plan Area EIR, and mitigation measures
- Alternatives to the project as proposed, and
- Environmental consequences, including: (a) any significant environmental effects which cannot be avoided if the project is implemented; (b) the growth-inducing impacts of the proposed project, and (c) cumulative impacts.

B. PROJECT LOCATION

The proposed Dumbarton TOD Trumark Residential Project is located at 8375 and 8400 Enterprise Drive in the City of Newark. For the purpose of discussion, the project properties will be referred to as Site A and Site B, respectively, throughout this Notice of Preparation. Site A is a single 2.14-acre parcel (APN 092-0140-008) located adjacent to the Dumbarton Rail Corridor and includes a portion of the Hetch Hetchy right-of-way (ROW). Site B comprises three parcels (APNs 092-0116-060, -058, and -059) that total 21.27 acres in size.

The two project sites are within the Dumbarton Transit Oriented Development (TOD) Specific Plan Area which encompasses approximately 233 acres of land in the vicinity of, and adjacent to the

future Dumbarton Rail Corridor (DRC). On September 8, 2011, the Newark City Council certified the Final Program Environmental Impact Report (FPEIR) and adopted a general plan amendment for the Dumbarton TOD Specific Plan. The purpose of the Specific Plan was to develop a new neighborhood around a train station planned separately as part of the Dumbarton Rail Service (DRS) Project. The DRS is still under development and will undergo separate environmental analysis in the future.

The project sites are surrounded by single-family residences to the north/northeast and industrial uses to the east. Construction of residential development is underway to the west of the project sites. The Cargill salt ponds are located to the south. Regional, vicinity, and aerial maps of the project site are attached to this Notice of Preparation as Figures 1, 2, and 3, respectively.

C. DESCRIPTION OF THE PROPOSED PROJECT

The first project component of the project will be implementation of a Corrective Action Plan (CAP) for both sites. Industrial activities which historically occupied the Specific Plan Area have resulted in hazardous material impacts to groundwater and soil at the two project sites and at some of the surrounding properties. The CAPs will prepare the two project sites for residential use with oversight from the Regional Water Quality Control Board (RWQCB). For Site A, it is anticipated that groundwater remediation associated with contamination originating from the adjacent parcel (APN 092-0140-005) currently occupied by the Gallade Chemical Company will continue. Mitigation measures will be implemented to control potential soil vapor intrusion into future residences. Based on the preliminarily approved CAP, Site B will facilitate the excavation and off-site disposal of approximately 138,000 cubic yards (cy) of contaminated soil and import of over 86,000 cy of replacement fill.

The second project component will be the development of Site A with 27 detached single-family residential units, and Site B with 217 detached single-family residential units. The proposed residential development is consistent with the approved Specific Plan Area *MDR-Medium Density Residential* land use designation for the two sites.

D. ENVIRONMENTAL EFFECTS OF THE PROJECT

The SEIR will address the following environmental issues that were not fully analyzed on Site A and Site B at a project-specific level in the Dumbarton TOD Specific Plan Area EIR: hazardous materials, noise, biological resources, air quality and air toxics, greenhouse gases, and cultural resources. Cumulative impacts, alternatives to the project, and growth-inducing impacts will also be examined. A brief discussion of the anticipated environmental issues related to the proposed development is presented below.

Hazardous Materials

The SEIR will address contamination as well as the implementation of the final Corrective Action Plans (CAPs) for each site. The SEIR will provide documentation and analysis showing that contamination at both sites will be reduced below residential environmental screening levels or other

approved goals. The SEIR will also address the implications of constructing residences adjacent to the existing light industrial development in the vicinity. A survey of hazardous materials users will be completed to identify businesses and other facilities that use and/or store toxic or hazardous substances. Mitigation measures will be identified, if needed, to lessen or avoid any hazardous materials impacts.

Noise

The SEIR will describe the current noise setting on the project site and the surrounding area. A noise and vibration report will be prepared for the SEIR to analyze the potential noise impacts to the nearby residential uses resulting from site remediation work including excavation, off-haul, and fill activities. The SEIR will also address potential noise impacts to existing residential uses from construction activities associated with the proposed project. Mitigation measures will be identified, as needed, to lessen or avoid any noise impacts.

Biological Resources

The SEIR will describe the existing habitat and wildlife on the site and in the vicinity and will discuss the impacts of the proposed project upon biological resources. A biological resources assessment will document the existing habitat and wildlife on the site and also survey for the salt marsh harvest mouse. Mitigation measures will be identified as needed.

Air Quality/Air Toxics

The proposed project is proximate to existing residential uses and will place residences next to existing light industrial uses. The SEIR will describe the existing air quality conditions in the Bay Area and based on an air quality report and community risk assessment, it will evaluate the air quality impacts of the proposed remediation activities on each site and subsequent construction of residences. Air quality impacts to future residents from the existing industrial development will also be addressed. Mitigation measures will be identified to reduce and avoid impacts where feasible.

Greenhouse Gas Emissions

The SEIR will evaluate the GHG impacts of the proposed project. The SEIR will confirm that the proposed project incorporates greenhouse gas reduction measures previously-identified in the program-level Dumbarton TOD Specific Plan EIR.

Cultural Resources

Though there have been no recorded historic or prehistoric archaeological resource findings in the area, the project will implement mitigation measures identified in the program-level Specific Plan EIR in the event that any such resources are discovered during project construction. Consistent with the mitigation measures identified in the program-level Specific Plan EIR, a cultural resources report will be prepared for the nearby Dumbarton Rail Corridor (DRC), which has been evaluated as eligible for inclusion on the National Register of Historic Places. The SEIR will evaluate potential project impacts to the DRC historic district and include mitigation if needed.

Cumulative Impacts
The SEIR will include a discussion of cumulative impacts from the project in combination with other past, pending, and reasonably foreseeable future development in the area, building upon what has already been disclosed in the Specific Plan EIR. Mitigation and avoidance measures will be identified for significant cumulative impacts as appropriate.

Alternatives to the Project
In conformance with CEQA, alternatives to the proposed project will be evaluated, including a "No Project" alternative. Other alternatives analyzed will be selected based on their ability to reduce or avoid environmental impacts while meeting the basic objectives of the project. Alternatives may include alternative CAP approaches in the event the CAP for either project site results in significant impacts.

Growth-Inducing Impacts
The SEIR will discuss the ways in which the proposed project may foster growth in the surrounding environment beyond levels identified in the program-level Dumbarton TOD Specific Plan EIR.

Other Sections
The SEIR will include copies of the technical reports and all sections required by the CEQA Guidelines including Significant Unavoidable Impacts, References, and Authors and Consultants.

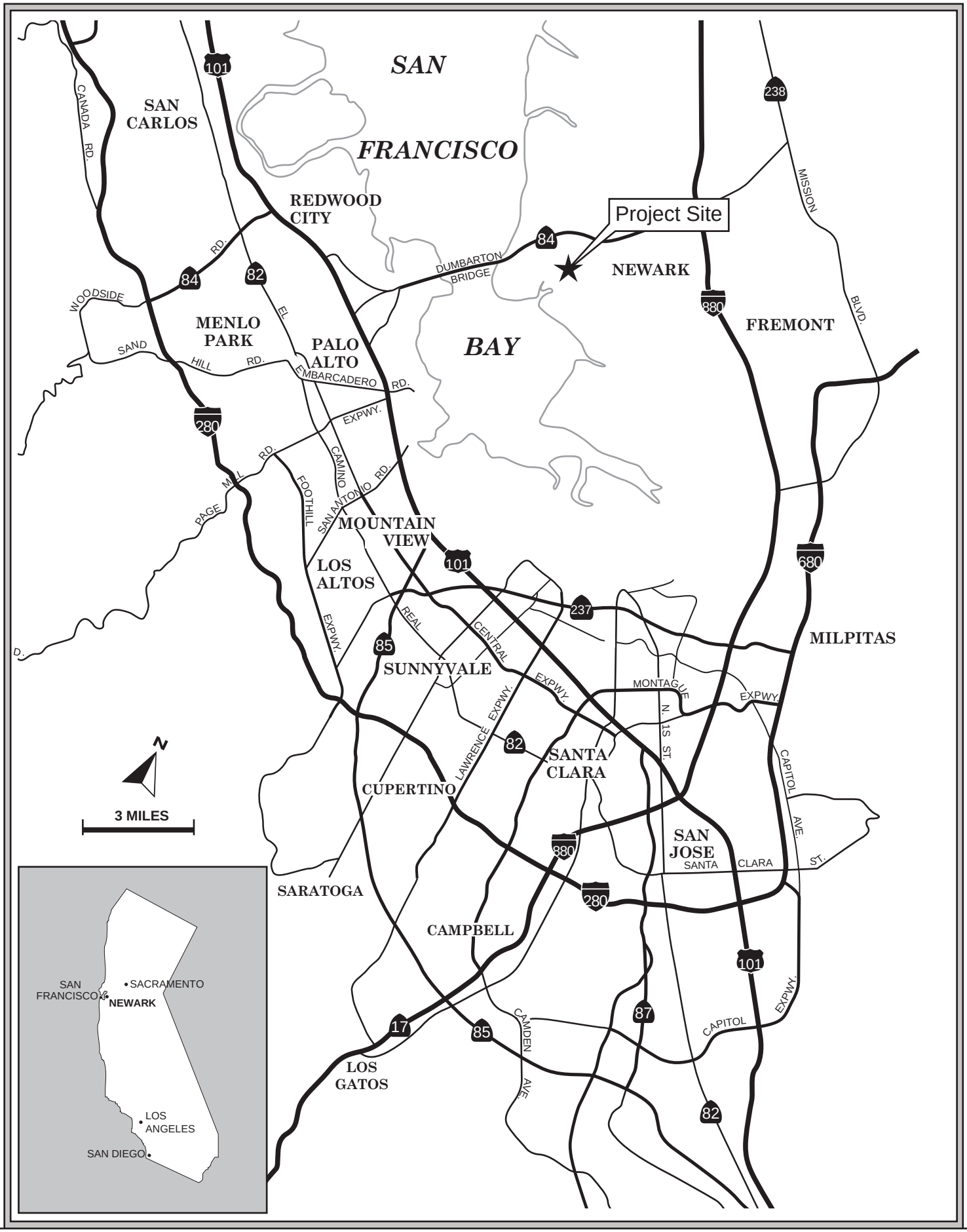
E. SCOPING COMMENTS

We are soliciting requests as to the scope and content of the environmental information appropriate to your agency's statutory responsibilities or of interest to your organization; specifically, we are requesting the following:

1. Identify significant environmental effects and mitigation measures that you believe need to be explored in the SEIR with supporting discussion of why you believe these effects may be significant.
2. Describe special studies and other information that you believe are necessary for the City to analyze the significant environmental effects, alternatives, and mitigation measures you have identified.
3. For public agencies that provide infrastructure and public services, identify any facilities that will be required to provide services;
4. Indicate whether staff from your agency would like to meet with City staff to discuss the scope and content of the SEIR's environmental information;
5. Provide the name, title, telephone number, postal, and email addresses of the contact person from your agency or organization that we can contact regarding your comments; and
6. Identify alternatives that you believe need to be explored in further detail in the SEIR.

Comments may be sent to:

Terrence Grindall
City of Newark
Community Development Department
37101 Newark Boulevard
Newark, CA 94560
Terrence.grindall@newark.org



REGIONAL MAP FIGURE 1

VICINITY MAP

FIGURE 2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 3

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

February 11, 2013

To: Reviewing Agencies

Re: Dumbarton Transit Oriented Development Trumark Residential Project
SCH# 2010042012

Attached for your review and comment is the Notice of Preparation (NOP) for the Dumbarton Transit Oriented Development Trumark Residential Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Terrence Grindall
City of Newark
37101 Newark Boulevard
Newark, CA 94560

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2010042012
Project Title Dumbarton Transit Oriented Development Trumark Residential Project
Lead Agency Newark, City of

Type NOP Notice of Preparation

Description Note: Supplemental
The first project component of the project will be implementation of a Corrective Action Plan (CAP) for both sites. Industrial activities which historically occupied the Specific Plan Area have resulted in hazardous material impacts to groundwater and soil at the two project sites and at some of the surrounding properties. The CAPs will prepare the two project sites for residential use with oversight from the Regional Water Quality Control Board (RWQCB).
The second project component will be the development of Site A with 27 detached single-family residential units, and Site B with 217 detached single-family residential units. The proposed residential development is consistent with the approved Specific Plan Area MDR-Medium Density Residential land use designation for the two sites.

Lead Agency Contact

Name Terrence Grindall
Agency City of Newark
Phone 510 578 4208 **Fax**
email terrence.grindall@newark.org
Address 37101 Newark Boulevard
City Newark **State** CA **Zip** 94560

Project Location

County Alameda
City Newark
Region
Cross Streets Willow Street/Enterprise Drive
Lat / Long
Parcel No. 092-0140-008, 092-0116-060,-058,-059; 092-0140-005
Township **Range** **Section** **Base**

Proximity to:

Highways I-880, SR-84
Airports
Railways SPRR
Waterways San Francisco Bay
Schools Multiple
Land Use Surrounded by single-family residences to the north/northeast and industrial uses to the east.

Project Issues Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Office of Historic Preservation; Department of Parks and Recreation; San Francisco Bay Conservation and Development Commission; Department of Water Resources; Department of Fish and Wildlife, Region 3; CA Department of Public Health; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 4; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 2

Document Details Report
State Clearinghouse Data Base

Date Received 02/08/2013 *Start of Review* 02/11/2013 *End of Review* 03/12/2013

)P Distribution List

County: Alameda

SCH# 2010042012

urces Agency

esources Agency
adell Gayou

☐ Dept. of Boating & Waterways
cole Wong

☐ California Coastal Commission
izabeth A. Fuchs

☐ Colorado River Board
erald R. Zimmerman

☐ Dept. of Conservation
izabeth Carpenter

☐ California Energy Commission
ic Knight

☐ Cal Fire
an Foster

☐ Central Valley Flood Protection Board
imes Herota

☒ Office of Historic Preservation
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ept of Parks & Recreation
nvironmental Stewardship
ection

☐ California Department of esources, Recycling & ecovery
ue O'Leary

☒ S.F. Bay Conservation & Dev't. Comm.
teve McAdam

☒ Dept. of Water Resources Resources Agency
adell Gayou

and Game

☐ Dept. of Fish & Wildlife
cott Flint
nvironmental Services Division

☐ Fish & Wildlife Region 1
onald Koch

☐ Fish & Wildlife Region 1E
Laurie Harnsberger

☐ Fish & Wildlife Region 2
Jeff Drongesen

☒ Fish & Wildlife Region 3
Charles Armor

☐ Fish & Wildlife Region 4
Julie Vance

☐ Fish & Wildlife Region 5
Leslie Newton-Reed
Habitat Conservation Program

☐ Fish & Wildlife Region 6
Gabrina Gatchel
Habitat Conservation Program

☐ Fish & Wildlife Region 6 I/M
Brad Henderson
Inyo/Mono, Habitat Conservation Program

☐ Dept. of Fish & Wildlife M
George Isaac
Marine Region

Other Departments

☐ Food & Agriculture
Sandra Schubert
Dept. of Food and Agriculture

☐ Depart. of General Services
Public School Construction

☐ Dept. of General Services
Anna Garbeff
Environmental Services Section

☒ Dept. of Public Health
Jeffery Worth
Dept. of Health/Drinking Water

☐ Delta Stewardship Council
Kevan Samsam

Independent Commissions,Boards

☐ Delta Protection Commission
Michael Machado

☐ Cal EMA (Emergency Management Agency)
Dennis Castrillo

■ Native American Heritage Comm.
Debbie Treadway

☒ Public Utilities Commission
Leo Wong

☐ Santa Monica Bay Restoration
Guangyu Wang

☐ State Lands Commission
Jennifer Deleong

☐ Tahoe Regional Planning Agency (TRPA)
Cherry Jacques

Business, Trans & Housing

☐ Caltrans - Division of Aeronautics
Philip Crimmins

☐ Caltrans - Planning
Terri Pencovic

☒ California Highway Patrol
Suzann Ikeuchi
Office of Special Projects

☒ Housing & Community Development
CEQA Coordinator
Housing Policy Division

Dept. of Transportation

☐ Caltrans, District 1
Rex Jackman

☐ Caltrans, District 2
Marcelino Gonzalez

☐ Caltrans, District 3
Gary Arnold

☒ Caltrans, District 4
Erik Alm

☐ Caltrans, District 5
David Murray

☐ Caltrans, District 6
Michael Navarro

☐ Caltrans, District 7
Dianna Watson

☐ Caltrans, District 8
Dan Kopulsky

☐ Caltrans, District 9
Gayle Rosander

☐ Caltrans, District 10
Tom Dumas

☐ Caltrans, District 11
Jacob Armstrong

☐ Caltrans, District 12
Marlon Regisford

Cal EPA

Air Resources Board

☐ Airport/Energy Projects
Jim Lerner

☐ Transportation Projects
Douglas Ito

☐ Industrial Projects
Mike Tollstrup

☐ State Water Resources Control Board
Regional Programs Unit
Division of Financial Assistance

☐ State Water Resources Control Board
Student Intern, 401 Water Quality Certification Unit
Division of Water Quality

☐ State Water Resouces Control Board
Phil Crader
Division of Water Rights

☒ Dept. of Toxic Substances Control
CEQA Tracking Center

☐ Department of Pesticide Regulation
CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

☐ RWQCB 1
Cathleen Hudson
North Coast Region (1)

☒ RWQCB 2
Environmental Document Coordinator
San Francisco Bay Region (2)

☐ RWQCB 3
Central Coast Region (3)

☐ RWQCB 4
Teresa Rodgers
Los Angeles Region (4)

☐ RWQCB 5S
Central Valley Region (5)

☐ RWQCB 5F
Central Valley Region (5)
Fresno Branch Office

☐ RWQCB 5R
Central Valley Region (5)
Redding Branch Office

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Lahontan Region (6)

☐ RWQCB 6V
Lahontan Region (6)
Victorville Branch Office

☐ RWQCB 7
Colorado River Basin Region (7)

☐ RWQCB 8
Santa Ana Region (8)

☐ RWQCB 9
San Diego Region (9)

☐ Other _____

_____

_____

☐ _____
Conservancy

ALAMEDA COUNTY WATER DISTRICT

43885 SOUTH GRIMMER BOULEVARD • P.O. BOX 5110, FREMONT, CALIFORNIA 94537-5110
(510) 668-4200 • FAX (510) 770-1793 • www.acwd.org

March 8, 2013

Terrence Grindall
Community Development Director
City of Newark
37101 Newark Boulevard
Newark, CA 94560-3796

Dear Mr. Grindall:

Subject: Notice of Preparation of a Supplemental Environmental Impact Report for the Dumbarton Transit-Oriented Development Trumark Residential Development

The Alameda County Water District (ACWD) wishes to thank you for the opportunity to comment on the "Notice of Preparation (NOP) of a Supplemental Environmental Impact Report (SEIR) for the Dumbarton Transit-Oriented Development (TOD) Trumark Residential Development."

ACWD has reviewed the NOP and would appreciate your consideration of the following comments:

1. Water System Infrastructure: As ACWD commented on the Draft Environmental Impact Report for the Dumbarton TOD Specific Plan, in order to extend the public water distribution system to meet water service requirements of the Dumbarton TOD Project and adequately integrate the project into ACWD's water system, significant public water system improvements will be required. At least one additional water main connection between the North side of the existing railroad right-of-way and the project site at either Willow Street or Hickory Street will be required. Based on the information provided in the draft Specific Plan for the Dumbarton TOD, it appears that a connection within Willow Street is most likely. Whichever particular development within the Dumbarton TOD Project area performs improvement work adjacent to the railroad right-of-way at either Willow Street or Hickory Street will be responsible for installing this water main connection and obtaining any necessary permits and approvals from the railroad. In addition, one or more new water mains will need to be constructed across the existing San Francisco Public Utilities Commission (SFPUC) right-of-way. Similarly, those particular developments within the Dumbarton TOD Project area performing improvement work adjacent to the SFPUC right-of-way will be responsible for installing the water main connection(s) crossing SFPUC right-of-way and obtaining any necessary permits and approvals from SPFUC. The construction of such railroad and SFPUC crossings may result in impacts to the environment. The SEIR should include this required connection and address any associated environmental impacts that may arise from its construction.

   Other onsite and offsite water system extensions and/or improvements may similarly be required in order to meet fire flow requirements or other ACWD standards and requirements. Any public water system extensions necessary to serve developments within the Dumbarton TOD Project area must meet ACWD public water system installation and design standards, including ACWD's *Standard Specifications for Water Main Installation* and *Development Specifications for Public Water System Extensions*. ACWD requests that the City and project proponents coordinate closely with ACWD throughout the planning and development of the Dumbarton TOD Project.

2. Hazards and Hazardous Materials: The SEIR should adequately identify the hazards and hazardous materials sites within the project area. The ability to install a public water system within the project area would be conditioned upon confirmation that the soil or groundwater does not pose a risk to health and safety either during installation of the public water system or during long-term operation and maintenance of such a system. Any mitigation required to eliminate such hazards or potential hazards, such as clean fill corridors or other mitigations, need to be identified and described in the SEIR.

3. Climate Action Plan: Reference is made to the City of Newark's Climate Action Plan, January 2010 Initial Framework. ACWD agrees with the City that planning related to sea level rise is important for the region and for ACWD, and recommends the City address the potential impacts of sea level rise and adaptation in the SEIR.

4. ACWD Contacts: The following ACWD contacts are provided so that the City can coordinate with ACWD as needed during the CEQA process:

    - Steven Inn, Groundwater Resources Manager at (510) 668-4441, or by e-mail at steven.inn@acwd.com, for coordination regarding ACWD's groundwater resources.

    - Rangarajan Sampath, Groundwater Resources Engineer at (510) 668-4411, or by e-mail at rangarajan.sampath@acwd.com, for coordination regarding cleanup sites.

    - Michelle Myers, Well Ordinance Supervisor, at (510) 668-4454, or by e-mail at michelle.myers@acwd.com, for coordination regarding groundwater wells and drilling permits.

    - Ed Stevenson, Development Services Manager, at (510) 668-4472, or by e-mail at ed.stevenson@acwd.com, for coordination regarding public water systems and water services.

Thank you for the opportunity to comment on the Notice of Preparation of the Supplemental Environmental Impact Report for the Dumbarton Transit-Oriented Development Trumark Residential Project at this time.

Sincerely,

Robert Shaver
Assistant General Manager - Engineering

la/jm
By PDF
cc: Steven Inn, ACWD
Ed Stevenson, ACWD
Michelle Myers, ACWD
Rangarajan Sampath, ACWD

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN JR., Governor

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-6053
FAX (510) 286-5559
TTY 711

Flex your power!
Be energy efficient!

March 12, 2013

ALAVAR008
SCH#2010042012

Mr. Terrence Grindall
City of Newark
37101 Newark Boulevard
Newark, CA 94569

Dear Mr. Grindall:

Dumbarton Transit-Oriented Development Trumark Residential Project – Notice of Preparation

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Dumbarton Transit-Oriented Development Trumark Residential Project. The following comments are based on the Notice of Preparation (NOP). As lead agency, the City of Newark is responsible for all project mitigation, including any needed improvements to State highways. The project's fair share contribution, financing, scheduling, and implementation responsibilities as well as lead agency monitoring should be fully discussed for all proposed mitigation measures and the project's traffic mitigation fees should be specifically identified in the environmental document. Any required roadway improvements should be completed prior to issuance of project occupancy permits.

Traffic Impact Study

The NOP for the Supplemental Environmental Impact Report does not include transportation and circulation as one of the environmental effects of the project. However, Caltrans believes the proposed development will generate a significant number of vehicular trips that will impact the State Highway System (SHS). Therefore, the environmental document should include an analysis of the impacts of the proposed project on SHS in the vicinity of the project site. Please ensure that a Traffic Impact Study (TIS) is prepared providing the information detailed below:

1. Information on the plan's traffic impacts in terms of trip generation, distribution, and assignment onto State facilities. The assumptions and methodologies used in compiling this information should be addressed. The study should include analysis of mainline operations on State Route (SR-) 84 and Interstate (I-) 880. Further, the study should also include on-ramps and off-ramps analysis Thornton Avenue/SR-84, Thornton Avenue/I-880, and Mowry Avenue/I-880.

2. Current Average Daily Traffic (ADT) and AM and PM peak hour volumes on all significantly affected streets, highway segments and intersections.

3. Schematic illustration and level of service (LOS) analysis for the following scenarios: 1) existing, 2) existing plus project, 3) cumulative and 4) cumulative plus project for the roadways and intersections in the project area.

4. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect the State highway facilities being evaluated.

5. The procedures contained in the 2010 update of the Highway Capacity Manual should be used as a guide for the analysis. We also recommend using Caltrans' *Guide for the Preparation of Traffic Impact Studies*. It is available on the following web site:
http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

6. Mitigation measures should be identified where plan implementation is expected to have a significant impact. Mitigation measures proposed should be fully discussed, including financing, scheduling, implementation responsibilities, and lead agency monitoring.

7. Include any proposed Transportation Demand Management (TDM) strategies to reduce vehicular impacts on local and State roadways. These TDM strategies should clearly indicate funding sources, implementation timeline, and monitoring of its effectiveness.

We encourage the City of Newark to coordinate preparation of the study with our office, and we would appreciate the opportunity to review the scope of work.

We look forward to reviewing the TIS, including Technical Appendices, and environmental document for this project. Please send two copies to the address at the top of this letterhead, marked ATTN: Yatman Kwan, AICP, Mail Stop #10D.

Should you have any questions regarding this letter, please call Yatman Kwan, AICP of my staff at (510) 622-1670.

Sincerely,

ERIK ALM, AICP
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

California Regional Water Quality Control Board
San Francisco Bay Region

Linda S. Adams
Secretary for
Environmental Protection

1515 Clay Street, Suite 1400, Oakland, California 94612
(510) 622-2300 • Fax (510) 622-2460
http://www. waterboards.ca.gov/sanfranciscobay

Arnold Schwarzenegger
Governor

Date: April 30, 2010
File Nos. 01S0024, 01S00294,
01S0157, 1S0131, 01S010038 (ccm)

Terrence Grindall (terrence.grindall@newark.org)
Community Development Director
City of Newark
37101 Newark Boulevard
Newark, CA, 94560

SUBJECT: Comments on the Notice of Preparation of an Environmental Impact Report for the Dumbarton Transit-Oriented Development (TOD) Specific Plan, Newark, Alameda County

Dear Mr. Grindall:

Thank you for the opportunity to comment on the Notice of Preparation that we received on April 1, 2010, for the proposed Dumbarton TOD Specific Plan. Regional Water Board staff oversee the investigation and cleanup of five sites (listed below) in the proposed project area, pursuant to California Water Code Section 13304, where hazardous substances have been discharged and deposited into waters of the State and have created a condition of pollution and nuisance. Additionally, the Alameda County Water District oversees numerous other cleanup sites in the TOD area (see the State's GeoTracker database https://geotracker.waterboards.ca.gov).

We are submitting comments to ensure that the environmental documentation under the California Environmental Quality Act (CEQA) adequately addresses the soil and groundwater pollution, and to ensure that appropriate mitigation measures pertaining to releases of hazardous substances at the Dumbarton TOD project are implemented.

Environmental Conditions and Regulatory Oversight of Cleanup Sites in Project Area

Contaminated soil and groundwater exist within the proposed TOD, and include high concentrations of chlorinated solvents, metals, flammable materials (i.e., elemental phosphorous), phenols (pentachlorophenol), dioxins/furans, poly aromatic hydrocarbons (PAHs) and petroleum hydrocarbons. Soil and groundwater remediation are required at the sites (listed below), pursuant to Site Cleanup Requirements (SCR) Orders issued by our agency.

- FMC Corporation, 8787 Enterprise Drive, SCR Order R2-2002-0060
- Ashland Inc., 8610 Enterprise Drive, SCR Order R2-2005-0038
- SHH, LLC, 37445 Willow Street, SCR Order R2-2008-0081
- Jones-Hamilton, 8400 Enterprise Drive, SCR Order R2-2001-0054,

- Former Baron-Blakeslee, 8333 Enterprise, SCR Order R2-2005-0004

Investigation and cleanup of the sites have been conducted independently by individual property owners rather than a collaborated joint effort. The cleanup standards approved for these sites were based on continued industrial/ commercial land and not residential use. If the land use changes, revised cleanup standards will have to be developed and amended SCR Orders will have to be adopted by the Water Board. The majority of the property proposed for the TOD is currently vacant.

Implications of Proposed Change in Land Use

While the Regional Water Board does not approve or disapprove specific development projects, we are often asked if a proposed future use is compatible with residual site contamination. Based upon the known residual concentrations remaining at these sites, we recommend the following:

1. Environmental risk assessment for the entire project area, conducted prior to development: Information on the preparation of environmental risk assessments can be found in several documents, including the Regional Water Board's interim final ESLs ("Application of Environmental Screening Levels and Decision Making at Sites With Impacted Soil and Groundwater" – May 2008 and updates). This document can be accessed from our website at www.waterboards.ca.gov/sanfranciscobay/esl.shtml.

2. Additional remediation for future sensitive land uses such as residential: To be suitable for future sensitive land use, the property needs (1) remediation to a level that allows unrestricted use or (2) risk management to assure that the future residents will not be exposed to unhealthy levels of contamination. Regarding the second option, we are generally reluctant to approve a risk management approach at residential sites, particularly single-family residential, and would only do so if the residual contamination was modest, the project design minimized potential exposure, and the local agency (City of Newark) played an active role in tracking and enforcing risk management measures. Special considerations may be needed for placement of underground structures and utility corridors in areas of soil and groundwater pollution exists, ability to incorporate groundwater remediation into new underground structures for enhancement of groundwater remediation, and location and design of above-ground treatment systems.

3. Capped areas: Currently, two capped areas exist at FMC's property: the elemental phosphorous pit area in Parcel A, and the ethylene dibromide and 1,2-dichloroethane (1,2-DCA) area in Parcels B and I. Neither area is suitable for development at this time. Active source removal should be seriously considered. Additionally, a capped area exists at the Jones-Hamilton site that contains elevated pentachlorophenol, 1,2-DCA, and dioxins. In a letter dated February 26, 2008, we approved a Feasibility Study/Corrective Action Plan dated November 12, 2007, for cap removal, soil excavation (10,500 yd^3) to a depth of ten feet

below grade, and groundwater pumping around well P-1 to remove a 1,2-DCA hot spot at the northwest corner of the former waste water impoundment. This work is currently on hold, pending the outcome of the City of Newark's Dumbarton TOD Specific Plan.

4. Protection of groundwater: Residual pollution left in place must be adequately managed to ensure that the impacted groundwater does not further deteriorate. The proposed project must incorporate mitigation measures to prevent further migration of pollutants from soil to groundwater and also prevent further migration to deeper aquifers in the project area, such as the Newark Aquifer. These deeper aquifers are actively managed by the Alameda County Water District as part of its water supply system.

5. Risk and construction management plans: To manage any significant residual pollution, a Risk Management Plan and a Construction Management Plan would be essential. Possible elements of a risk management plan include: a deed restriction prohibiting supply wells or sensitive site uses (e.g. residential use), requirement for vapor barriers and passive ventilation systems to mitigate possible vapor migration into new buildings (generally not allowed for residential use), special procedures and precautions for handling and transporting contaminated materials, a health and safety plan for construction workers who will be doing subsurface work at the site; notification and protection of existing residents in the area.

6. Mitigation measures: Pre- and post-development mitigation measures may be required to reduce exposure to pollutants in soil, vapors, dusts, groundwater during grading, construction, dewatering etc.; address potential vapor intrusion of pollutants to indoor air; and prevent further migration of pollutants.

7. Long-term monitoring and ongoing cleanup: The residual pollution will require continued monitoring long after the project is built out. In addition, ongoing compliance with cleanup orders, existing land use covenants, etc. will be required.

Given this context, the EIR should address the following issues:

- Potential threat to human health, water quality, and the environment from disturbance of soil and groundwater pollution during project construction
- Potential threat to human health, water quality, and the environment from residual soil and groundwater pollution during project operation (occupancy and use, based on a changed land use)
- Potential impact on deeper aquifers (Newark Aquifer and deeper) from soil and groundwater pollution as a result of construction and changed land use

The Regional Water Board staff looks forward to working with the City of Newark and other stakeholders to address the existing soil and groundwater pollution and move the redevelopment project forward. We would very much appreciate being kept up to date on the progress of your project in order that we can budget adequate staff time for your project.

If you have questions, please contact Cherie McCaulou of my staff at (510) 622-2342 (email address cmccaulou@waterboards.ca.gov.

Sincerely,

Bruce H. Wolfe
Executive Officer

cc:
Ashland, Inc., Attn: Mark Metcalf (mmetcalf@ashland.com)
SHH LLC, Attn: Peter Schneider (pete@discoversolutions.com)
FMC Corporation, Attn: Shawn Tollin (shawn.tollin@fmc.com)
Henry Khatchaturian, c/o John Olenchalk (johno@gvakm.com)
Cargill, Inc., Attn: Penny Streff (penny_streff@cargill.com)
Jones-Hamilton Co., Attn: Ray Hahn (rhahn@jones-hamilton.com)
Trumark Commercial, Attn: Jessica Roseman (jroseman@trumark-co.com)
Honeywell International Inc., Attn: Benny DeHigh (benny.dehghi@honeywell.com)
Alameda County Water District, Attn: Steven Inn (steven.inn@acwd.com)

ALAMEDA County Transportation Commission
1333 Broadway, Suites 220 & 300 ▪ Oakland, CA 94612 ▪ PH: (510) 208-7400
www.AlamedaCTC.org

February 11, 2013

Terrence Grindall
Community Development Director
City of Newark
Community Development Department
37101 Newark Blvd
Newark, CA 94560

SUBJECT: Comments on the Notice of Preparation of an Draft Supplemental Environmental Impact Report for the Dumbarton Transit Oriented Development Trumark Residential Project.

Dear Mr. Grindall,

Thank you for the opportunity to comment on the Notice of Preparation (NOP) of a Draft Supplemental Environmental Impact Report (DSEIR) for the Dumbarton Transit Oriented Development Trumark Residential Project.

The Project is located at 8375 and 8400 Enterprise Drive in the City of Newark. The first project component will be implementation of a Corrective Action Plan (CAP) for both sites. The second project component will be the development of Site A with 27 detached single-family residential units, and Site B with 217 detached single-family residential units. The proposed residential development is consistent with the approved Specific Plan Area MDR-Medium Density Residential land use designation for the two sites.

Per the NOP, our understanding is that the first project component will have no transportation impacts, and that the second project component is consistent with Final Program Environmental Impact Report for the Dumbarton TOD Specific Plan, within which transportation impacts have already been analyzed. This project is therefore exempt from further analysis in support of the requirements of the Congestion Management Program.

Thank you for the opportunity to comment on this Notice of Preparation. Please do not hesitate to contact me at (510) 208-7405 or Matthew Bomberg of my staff at (510) 208-7444 if you require additional information.

Sincerely,

Beth Walukas
Deputy Director of Planning

Cc: Matthew Bomberg, Assistant Transportation Planner
File: CMP – Environmental Review Opinions – Responses - 2013

8 March 2013

Terrence Grindall
Community Development Director
City of Newark
37191 Newark Blvd.
Newark CA. 94560

Re: NOP of Supplemental EIR Trumark Project

Dear Mr. Grindall,

The Project Location is incorrect. The proposed development is not around a proposed train station. There are no plans for a train or any form of public transportation. Therefore the SEIR must discuss traffic impacts in the absence of Dumbarton Rail and in the absence of any form of public transportation. Not only that but also traffic impacts for residents taking kids to school, going shopping, going to work and so forth. Dumbo Rail was never intended to serve all the transportation needs for residents. And don't forget impacts from the proposed Torian project.

The Description of the Proposed Project states that mitigation measures will be implemented to control potential soil vapor intrusion. What will those mitigation measures be? A nearby residential development built in an industrial area has frequent monitoring due to vapors entering residences from contaminated soil. Note also that part of the Trumark project would be adjacent to a chemical facility. This is poor planning.

The Environmental Effects of the Project must address water quality impacts of construction related activities. How will the city (and developers) ensure there will be no runoff from the site while it is being remediated? Have geotech studies been done? Are the soils subject to liquefaction and if so would mitigation measures impact surrounding areas of groundwater contamination? Would mitigation cause plumes of contaminated groundwater to migrate?

What measures will be taken to protect habitat and wildlife near the proposed Trumark project? Have any wildlife and habitat surveys been done?

The Greenhouse Gas Emissions segment in the NOP is a complete joke. The City says to check the program level EIR for Dumbarton Rail for details. The EIR states that planting trees, providing secure parking for bicycles, carpooling and vanpooling and ride sharing will solve GHG impacts. Is this really as far as the City is planning to go for the Trumark project? What will the real mitigation be?

Discussion on sea level rise is missing. Are the Trumark project sites within the 100-year flood hazard zone? If they are, what are the mitigation plans? And what are the mitigation plans for sea level rise impacts? These impacts would not only be residential but infrastructure as well.

Thank you for the opportunity to comment.

Sincerely,

Margaret Lewis

Margaret Lewis

San Francisco
Water Power Sewer
Operator of the Hetch Hetchy Regional Water System

Bureau of Environmental Management
525 Golden Gate Avenue, 6th Floor
San Francisco, CA 94102
T (415) 934-5700
F (415) 934-5750

March 7, 2013

Terrence Grindall
Community Development Director
City of Newark
37101 Newark Boulevard
Newark, CA 94560

RE: Notice of Preparation for Dumbarton Transit Oriented Development Trumark Residential Project; Supplemental Environmental Impact Report

Dear Mr. Grindall:

Under the provision of Section 15082 of the CEQA guidelines, the San Francisco Public Utilities Commission (SFPUC) hereby submits its comments regarding the Notice of Preparation for the Dumbarton Transit Oriented Development for the Trumark Residential Project; Supplemental Environmental Impact Report (SEIR).

The SEIR should list the SFPUC as a Responsible Agency and specify the location of the SFPUC Right of Way (ROW) in relation to the project and cite the SFPUC Pipeline Right of Way Requirements, which are enclosed. Please note that the SFPUC does not permit any structures on our ROW, nor does the SFPUC allow the ROW to be used as the sole access to any development. The project sponsor must obtain prior approval from the SFPUC for any development on our ROW. Please contact Brian Morelli, Right of Way Manager, at (415) 554-1545 or Bmorelli@sfwater.org regarding our specific requirements.

The SFPUC appreciates the opportunity to comment on the Notice of Preparation of the Supplemental Environmental Impact Report for the Dumbarton Transit Oriented Development Trumark Residential Project. Please contact YinLan Zhang at 415-487-5201 you have any questions about our comments.

Sincerely,

Irina Torrey, AICP, Manager
Bureau of Environmental Management

Enclosure

Cc: Rosanna Russell, Real Estate Director, SFPUC
Brian Morelli, Right of Way Manager, SFPUC

San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

San Francisco Public Utilities Commission
Pipeline Right of Way Requirements

- *Utilities*
    - No utility may be installed along, rather than across, the Right of Way. Only perpendicular crossings are permitted.
    - No aerial utility crossing over the Right of Way is permitted except in city streets.
- *Land Use, Structures, and Accessibility*
    - *Structures on the Right of Way are strictly prohibited*. No one shall construct or place any temporary or permanent structure or improvement in, on, under or about the Right of Way. For the SFPUC's purposes, asphalt, concrete and cementitious concrete driveways, sidewalks and parking areas, and fences are deemed "improvements," and are subject to SFPUC review and approval.
    - No use is permitted that would restrict access to Right of Way at any time by SFPUC staff, construction equipment or vehicles. This means that structures on adjacent property must be setback at least 10 feet from the Right of Way.
    - An adjacent property owner or tenant may not use the Right of Way fulfill its open space, setback, emergency access or other development requirements.
    - Any use where the Right of Way would provide an adjacent owner, tenant or licensee with its sole emergency access to the tenant or licensee's property is prohibited.
    - No use that would cause ponding on the Right of Way is permitted.
    - Any use that cannot effectively be displaced in a timely manner upon the SFPUC's request is disfavored.
    - Any use that may contaminate with hazardous materials the soils, water or natural habitat of SFPUC property is prohibited.

- Any use that would increase the SFPUC's potential liability or diminish its security is disfavored.

- Any use inconsistent with any existing or future policies adopted by the SFPUC, as they may be amended or modified from time to time, is disfavored.

- *Restoration*

  The SFPUC is not responsible for restoring or replacing any vegetation or improvement on the Right of Way damaged or demolished so that the SFPUC may access, maintain or repair its pipelines. The SFPUC will restore the ground with soil compacted to SFPUC standards. The vegetation or improvement owner is responsible any additional work or the restoration.

- *Vegetation*

  No trees or large shrubs may be planted within the Right of Way. Other vegetation may only be installed with the SFPUC's prior written consent. For a list of plants that may be permitted in the Right of Way, please refer to SFPUC Integrated Vegetation Management Policy Section 13.005 at http://www.sfwater.org/index.aspx?page=431. The tenant or licensee is responsible for vegetation maintenance and removal.

- *Right of Way Loading Restrictions*

  The maximum loading on the Right of Way should not exceed traffic loading HS-20 on the paved surfaces when the pipeline has a minimum four-foot cover. Overburdened or additional live or dead loads such as load-bearing footings, pole foundations, or large boulders within the influence line of the pipe trench is prohibited.

- *Right of Way Cover Requirements*

  To prevent damage to the PUC's underground pipelines, an adjacent owner or tenant's use of vehicles and equipment within twenty feet (20') of each side of the centerline of the PUC's pipelines (measured on the surface) are subject to the restrictions stated in Exhibit B.

UNION SANITARY DISTRICT

March 8, 2013

City of Newark
Economic Development and Planning
37101 Newark Blvd.
Newark, CA 94560-3796

Attention: Mr. Terrence Grindall

RE: Notice of Preparation of a Supplemental Environmental Impact Report for the Dumbarton Transit Oriented Development – Trumark Residential Project

Dear Mr. Grindall,

Thank you for notifying and giving Union Sanitary District (USD) the opportunity to review the Notice of Preparation of a Supplemental Environmental Impact Report for the Dumbarton Transit Oriented Development.

The first project component consists of a Corrective Action Plan (CAP) for Sites A and B. Site A CAP includes mitigation measures to be implemented to control potential soil vapor intrusion from the Gallade Chemical property contamination into future residences. USD issued a water discharge permit to Gallade Chemical to allow them to discharge ground water remediation effluent into the sanitary sewer system. The ground water remediation discharge is expected to continue for quite some time and is being monitored by USD to make sure that discharge permit requirements are being met. CAP for Site B requires the excavation and offsite disposal of approximately 148,000 cubic yards of contaminated soil to be replaced with 86,000 cubic yards of clean import fill material. Care must be taken to protect USD facilities where excavation and compaction of fill material are in close proximity to USD sanitary sewer mains.

The second project component in the Supplemental EIR includes a proposal to construct 27 detached single family residential units on Site A and 217 detached single family residential units on Site B. Adjacent USD sanitary sewer mains are available and may be used to provide sanitary sewer service to both sites. There is a 34.5-inch diameter sewer located on Willow Avenue, a 15-inch diameter sewer on the eastern boundary of Site B and a 12-inch sanitary sewer main on Enterprise Drive. The 12-inch sewer is primarily used as an overflow line. It has

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limited capacity because of the pipe's flat slope and condition. Therefore, it may need to be replaced or upsized as part of the project development if connection to this sewer main is desired.

We look forward to working with the City on this project. If you have any questions or if I can be of further help, you may call me at (510) 477-7617.

Truly yours,

Al D. Bunyi, P.E.
Associate Engineer

Cc: Rollie Arbolante
File

ADB:adb

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Francisco Bay Regional Water Quality Control Board

Date: March 8, 2013
File Nos. 01S0157, 01S0294 (ccm)

Terrence Grindall (terrence.grindall@newark.org)
Community Development Director
City of Newark
37101 Newark Boulevard
Newark, CA, 94560

Subject: **Comments on Notice of Preparation (NOP) dated February 2013 for Dumbarton Transit Oriented Development (TOD) Trumark Residential Project**

Dear Mr. Grindall:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) of a Supplemental Environmental Impact Report (SEIR) for the Dumbarton Transit Oriented Development (TOD) Trumark Residential Project (project).

Regional Water Board staff oversee the investigation and cleanup of the sites in the TOD and in the proposed project area, pursuant to California Water Code Section 13304, where hazardous substances have been discharged and deposited into the waters of the State and have created a condition of pollution and nuisance. Staff also considers any proposals to fill jurisdictional wetlands or any waters of the State and United States, under the California Water Code.

The project proposes (i) preparation of two project sites (Site A and Site B) for residential use with oversight from the Regional Water Board, and (ii) construction of single-family homes, consistent with the City's approved Specific Plan Area *MDR-Medium Density Residential* land use designation for the two sites. For site A, it is anticipated that groundwater remediation will continue and that mitigation measures will be implemented to control potential soil vapor intrusion into future residences. For Site B, excavation and offsite disposal of 130,000 cubic yards of contaminated soil and import of over 86,000 cy of replacement fill is being proposed by the property owners.

As a responsible and reviewing agency, we are submitting comments to ensure that the SEIR adequately addresses soil and groundwater pollution, and to ensure that appropriate mitigation measures pertaining to releases of hazardous substances at the proposed project are implemented for the protection of human health and the environment. The attached April 30, 2010, letter provides agency comments for the Dumbarton TOD EIR Specific Plan (with respect to soil and

groundwater contamination); these comments are applicable and relevant to this project. Additionally, the City should determine (with the U.S. Army Corps of Engineers and Water Board concurrence) whether or not there are wetlands in the proposed project area.

Information on prior investigations and cleanup actions for the Project properties can be found on the Water Board's GeoTracker database (https://geotracker.waterboards.ca.gov), and by reviewing files at our agency office, at the DTSC agency office, and at the City of Newark Fire Department office. The most recent findings can be found in the following reports:

- *Semiannual Status Report July 2012 to December 2012, Former Baron Blakeslee, Inc. Facility, 8333 Enterprise Drive, Newark, California, CH2MHILL, January 31, 2013*
- *First Five-Year Review Report, Former Baron Blakeslee, Inc. Facility, 8333 Enterprise Drive, Newark, California, CH2MHIL, January 15, 2012*
- *Revised Remedial Actions and Cleanup Standards Report, Former Jones-Hamilton, 8400 Enterprise Drive, Newark, California, December 18, 2012*
- *Year 2012 Annual Groundwater Monitoring Report, Jones-Hamilton Co. Newark Facility, January 17, 2013, OTC EnviroEngineering Solutions, Inc.*

We also encourage you to revisit our past correspondence (listed below) on the Dumbarton TOD Specific Plan Area, regarding site cleanup, and protection of human health, water quality, and wetlands in the proposed project area.

- April 30, 2010, Letter to City of Newark, Comments on the NOP for the Dumbarton TOD Specific Plan (Attached)
- June 30, 2011, Email to City of Newark, Comments on Draft EIR for Dumbarton TOD Specific Plan.
- July 27, 2011, Letter to City of Newark, Comments on Dumbarton TOD Specific Plan Final EIR.
- February 13, 2013, Letter to City of Newark, Comments on NOP for Newark General Plan Tune Up.

If you have any questions regarding our comments, please contact Brian Wines (bwines@waterboards.ca.gov) in our Watershed Division at (510) 622-2342 or Cherie McCaulou (cmccaulou@waterboards.ca.gov) in our Toxics Cleanup Division at (510) 622-2342.

Sincerely,

Bruce Wolfe
Executive Officer

Attachment: Letter to City of Newark, Comments on the NOP for the Dumbarton TOD Specific Plan, April 30, 2010
cc w/attach: Mailing List

Mailing List

Alameda County Water District, Attn Steven Inn (steven.inn@acwd.com)
Ashland, Inc., Attn: Michael Dever (mbdever@ashland.com)
SHH LLC, Attn: Peter Schneider (pds5000@aol.com)
FMC Corporation, Attn: James Bodamer (jbodamer@fmc.com)
Cargill, Inc., Attn Penny Streff (penny_streff@cargill.com)
Jones-Hamilton Co., Attn: Gerry Danes (gdanes@jones-hamilton.com)
Trumark Commerical, Attn: Jessica Roseman (jrose@trumark-co.com)
Honeywell International Inc., Attn: Benny DeHigh (benny.dehghi@honeywell.com)
Integral Communities, Attn: Glenn Brown (gbrown@integralcommunities.com)

Appendix B-1

Biological Resources Report

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

Trumark Residential Project
Biological Resources Report

Project # 3348-01

Prepared for:

Michael Rhoades
David J. Powers & Associates
1871 The Alameda, Suite 200
San Jose, CA 95126

Prepared by:

H. T. Harvey & Associates

6 May 2013

983 University Avenue, Building D • Los Gatos, CA 95032 • Ph: 408.458.3200 • F: 408.458.3210

List of Preparers

Patrick Boursier, Ph.D., Principal
Steve Rottenborn, Ph.D., Senior Wildlife Ecologist
Ginger Bolen, Ph.D., Project Manager/Senior Wildlife Ecologist
Howard Shellhammer, Ph.D., Senior Associate Wildlife Ecologist
Chris Gurney, M.S., Plant Ecologist
Nellie Thorngate, M.S., Wildlife Ecologist

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Figures:

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Section 1.0 Introduction

This report provides information on the biological resources within the boundaries and in the vicinity of the Trumark Residential Project (hereinafter "Project"). Biological resources in the Project area were previously analyzed in Chapter 4.3 of the 2011 *Dumbarton Transit Oriented Development Specific Plan Environmental Impact Report* (EIR; RBF Consulting 2011), a program-level EIR prepared to evaluate impacts from the adoption of the Dumbarton Transit Oriented Development Specific Plan (Specific Plan). However, based on the proposed scope of work, the City of Newark has determined that a Supplemental EIR (SEIR) is necessary. The purpose of this report is to supplement the 2011 Specific Plan EIR with respect to the proposed Project; update information regarding special-status plant and wildlife species, sensitive habitats, and any regulatory changes that may have occurred since certification of the 2011 EIR; and provide an analysis of impacts and mitigation measures specific to the Project.

1.1 Project Description

The Project applicant (Trumark) has proposed the implementation of a Corrective Action Plan (CAP) and residential development on two sites (Figure 1) within the Specific Plan area. Site A is a single 2.14-acre (ac) parcel (APN 092-0140-008) located at 8333 Enterprise Way, Newark, California (Figure 2). It is adjacent to the Dumbarton Rail Corridor, and includes a portion of the Hetch Hetchy pipeline right-of-way. Site B is located at 8400 Enterprise Way, Newark, California and comprises three parcels (APNs 092-0116-060, -058, and -059) that total 21.27 ac in size. The 23.46-ac Project study area encompasses both Sites A and B. The study area is located in Township 5 South, Range 2 West, Sections 2 and 11 and is within the *Newark*, *California* 7.5-minute U.S. Geological Survey (USGS) quadrangle.

The first Project component will be implementation of a CAP for both sites. Industrial activities that historically occupied the Specific Plan area have resulted in impacts on groundwater, soil vapor, and soil within the study area, and on some of the surrounding properties. The CAPs will present clean-up and mitigation measures to prepare the Project sites for residential use with oversight from the Regional Water Quality Control Board (RWQCB). For Site A, it is anticipated that ground water remediation associated with contamination originating from the adjacent parcel will continue, and mitigation measures will be implemented to control potential soil vapor intrusion into future residences. Based on the preliminarily approved CAP for Site B, implementation of the CAPs will require excavation and off-site disposal of approximately 138,000 cubic yards (yd^3) of contaminated soil and import of over 86,000 yd^3 of replacement fill.

The second Project component will be development of Site A with 27 detached single-family residential units, and Site B with 217 detached single-family residential units. The proposed residential development is consistent with the approved Specific Plan Area Medium Density Residential (MRD) land use designation for the two sites.

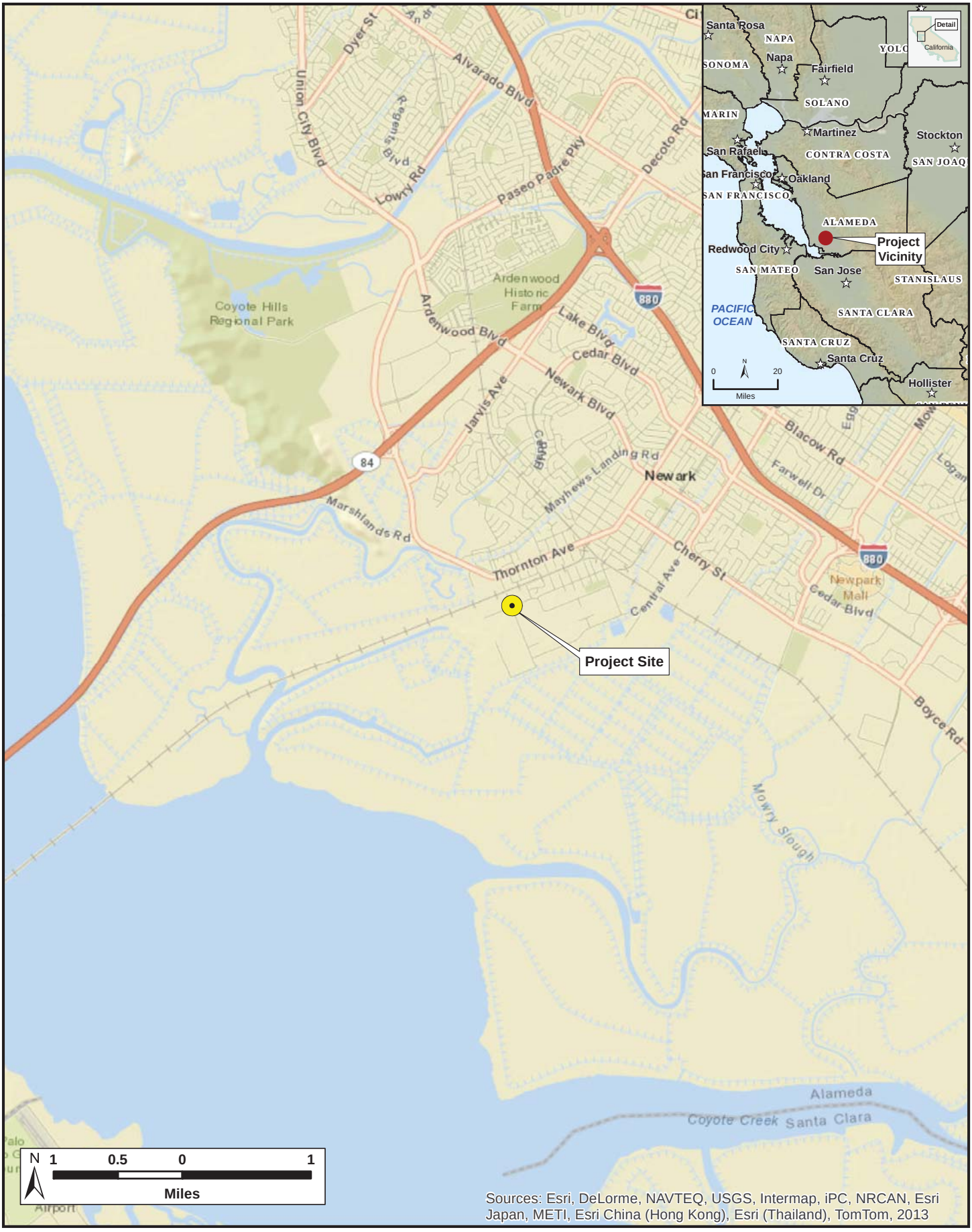
1.2 Methods

Prior to conducting field work, H. T. Harvey & Associates biologists reviewed Project plans; the 2011 Specific Plan EIR; aerial photos and topographic maps; a U.S. Fish and Wildlife Service (USFWS) species list for the *Newark*, *California* 7.5-minute USGS quadrangle and the surrounding eight quadrangles; the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB 2013); Calflora (2013); the Consortium of California Herbaria (2013); and other relevant scientific literature, technical databases, and resource agency reports in order to assess the current distribution of special-status plants and wildlife in the Project vicinity. For the purposes of this report, the general vicinity of the study area is defined as the area within a 5-mile (mi) radius.

Reconnaissance-level field surveys of the study area were conducted by H. T. Harvey & Associates wildlife ecologist Nellie Thorngate, M.S., and botanist Chris Gurney, M.S., on 13 February 2013. The purpose of these surveys was to provide a Project-specific impact assessment for development of the proposed Project as described above. Specifically, surveys were conducted to verify that current site conditions are consistent with those described in the Specific Plan EIR, or to note any differences so that the SEIR contains an accurate description of current site conditions

On 15 February 2013, H. T. Harvey & Associates Senior Associate Wildlife Ecologist Howard Shellhammer, Ph.D., visited the study area to determine if it provides suitable habitat for the salt marsh harvest mouse (*Reithrodontomys raviventris*). Dr. Shellhammer holds a federal Section 10(a)(1)(A) permit for conducting activities related to the salt marsh harvest mouse as well as an Memorandum of Understanding (MOU) from the CDFW authorizing him to conduct work related to the salt marsh harvest mouse.

On 19 and 29 April 2013, H. T. Harvey & Associates plant/wetland ecologist Christopher Gurney, M.S., conducted a survey of the Project site in order to map the extent and distribution of potential jurisdictional waters. The vegetation, soils, and hydrology of the study area were examined following the guidelines outlined in the *U.S. Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). In addition, the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (U.S. Army Corps of Engineers [USACE] 2008) was followed to document site conditions relative to hydrophytic vegetation, hydric soils, and wetland hydrology.



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

N:\Projects3400\3448-01\Reports\BA\Figure 1 Vicinity Map.mxd

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

Figure 1: Vicinity Map

Trumark Residential Project Biological Resources Report (3448-01)

May 2013

N:\Projects3400\3448-01\Reports\BA\Figure 2 Study Area Map.mxd

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

Figure 2: Study Area

Trumark Residential Project Biological Resources Report (3448-01)

May 2013

Section 2.0 Environmental Setting

The Project setting and a description of habitats within the study area were provided in the 2011 Specific Plan EIR. For the convenience of the reader, much of this information is repeated below, along with a brief description of the wildlife communities present within each habitat type. However, where appropriate, the description of the study area has been updated to reflect current conditions.

2.1 General Project Area Description

The study area is located in the northeastern portion of the Specific Plan area, between the existing industrial and residential uses on the western edge of Newark and the Cargill bittern basins to the west. Historically, the study area was largely uplands, an area of relatively rocky substrate and high elevation protruding into the tidal marshes of San Francisco Bay, that were converted for industrial use. The study area has an estimated mean annual temperature of 59° Fahrenheit and an estimated mean annual precipitation of 15.78 inches (PRISM 2013).

Currently, Site A is a level, vacant lot with ruderal vegetation that is enclosed by fencing. It is approximately 10 to 15 feet (ft) above mean sea level, with a gentle slope to the southwest towards San Francisco Bay. A Hetch Hetchy pipeline with a 110-ft right-of-way owned by the San Francisco Public Utilities Commission (SFPUC) is located in the southern portion of the site. The chemical blending and distribution facility located on the adjacent Gallade property uses a portion of Site A for parking and storage. Groundwater underneath the site and site soils have been impacted with chemicals of concern (COCs) from past uses associated with the adjacent Gallade property. Only one soil type, Marvin silt loam (saline-alkali), underlies Site A. Marvin silt loam is classified as a hydric soil on the National List of Hydric Soils (NRCS 2012).

From 1956 to 2001, Jones-Hamilton operated a chemical manufacturing, blending and packaging facility at Site B. Currently, the eastern half of the property is undeveloped and the western half is paved with either asphalt or concrete. Onsite soils and groundwater beneath the property have been impacted with COCs. A slurry wall and an asphalt cap encapsulate on-site impacted soils located on the southwestern portion of the site. Soils on Site B are the same as on Site A and include only Marvin silt loam (saline-alkali), a hydric soil (NRCS 2012).

2.2 Biotic Habitats

The Specific Plan EIR identified two biotic habitats in the study area (see Figure 4.3-1 of the 2011 EIR): anthropogenic (ruderal) and brackish/freshwater seasonal marsh. The reconnaissance-level survey of the site conducted on 13 February 2013 confirmed the presence of these two habitats in the study area. However, based on the results of this survey, the location of brackish/freshwater seasonal marsh habitat within the

study area has been updated (Figure 3). Table 1 provides the approximate acreage of each community within the study area boundary.

Table 1. Biotic Habitat Acreages within the Study Area

Biotic Habitat/Land Use	Total Area (ac)
Anthropogenic (ruderal)	23.22
Brackish/freshwater seasonal marsh	0.24
Total	**23.46**

2.2.1 Anthropogenic (Ruderal)

Vegetation. Anthropogenic (ruderal) habitat is the most common habitat in the study area (Photograph 1). This habitat type contains assemblages of plants that thrive in waste areas, roadsides, and other sites that have been disturbed by human activity. Weeds will grow through cracks in asphalt, in fields that are routinely disturbed by mowing or disking, or other frequent disturbances. Common ruderal species detected on the parcels in the study area include wild oats (*Avena* spp.), Italian ryegrass (*Festuca perennis*), prickly lettuce (*Lactuca serriola*), sweet fennel (*Foeniculum vulgare*), short-podded mustard (*Hirschfeldia incana*), common vetch (*Vicia sativa*), milk thistle (*Silybum marianum*), common knotweed (*Polygonum aviculare*), and horseweed (*Erigeron canadensis*). In addition, the non-native plant stinkwort (*Dittrichia graveolens*) is common in some of the seasonal wetland vegetation areas and in the ditches that periodically have standing water. Pampas grass (*Cortaderia jubata*), an invasive species that quickly covers up large areas of ground and can remove habitat for ground nesting passerine birds and raptors, is also present. Also included in this community are the non-native trees found onsite. While these are not numerous, the list includes trees that can spread into and replace native plant communities. Non-native trees observed in the study area include Mexican fan palm (*Washingtonia robusta*), eucalyptus (*Eucalyptus* sp.), and Peruvian pepper tree (*Schinus molle*). Several native willows (*Salix* spp.) were also present in ditches and seasonal wetland swales.

Photograph 1. Ruderal habitat.

Wildlife. Although most of the wildlife species found in ruderal habitats are common, widespread species associated with disturbed habitats, species present in adjacent habitats occasionally forage in ruderal areas as well. A variety of wildlife species were observed using the study area during the wildlife survey, including

N:\Projects3400\3448-01\Reports\BA\Figure 3 Habitat Map.mxd

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Figure 3: Habitat Map

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common insects such as honey bees (*Apis* sp.) and cabbage white butterflies (*Pieris rapae*); foraging birds such as Canada geese (*Branta canadensis*), American crows (*Corvus brachyrhynchos*), common ravens (*Corvus corax*), European starlings (*Sturnus vulgaris*), black phoebes (*Sayornis nigricans*), Say's phoebes (*Sayornis saya*), American pipits (*Anthus rubescens*), Anna's hummingbirds (*Calypte anna*), white-crowned sparrows (*Zonotrichia leucophrys*), and golden-crowned sparrows (*Zonotrichia atricapilla*); and small mammals such as Botta's pocket gophers (*Thomomys bottae*) and California ground squirrels (*Spermophilus beecheyi*). Additionally, at least one feral cat (*Felis catus*) was observed to be occupying Site B. Further, the trees in the study area provide suitable nesting habitat for raptors such as the red-tailed hawk (*Buteo jamaicensis*).

2.2.2 Brackish/Freshwater Seasonal Wetlands

Vegetation. Seasonal wetlands in the study area (Photograph 2) are inundated for extended periods during the early growing season, but are dry by the end of the growing season in most years. Due to their highly variable hydrology, they support a mixture of wetland and upland plant species but are typically dominated by hydrophytic () plant species. Most of the seasonal wetlands are dominated by non-native species including seaside barley, rabbit's foot grass (*Polypogon monspeliensis*), and Italian ryegrass (*Distichlis spicata*). However, these wetlands also contained a number of native species including saltgrass (*Distichlis spicata*), button celery (*Eryngium* sp.), flatface calicoflower (*Downingia pulchella*), smooth goldfields (*Lasthenia glaberrima*), and water pygmyweed (*Crassula aquatica*). Nevertheless, the wetlands on the site are of generally low quality, occurring in highly disturbed habitats.

Photograph 2. Brackish/freshwater seasonal wetland.

Wildlife. The wetland habitat in the study area is of limited value to wetland/aquatic wildlife due to its small extent and largely ephemeral nature. Canada geese were observed bathing and loafing in an ephemeral pool adjacent to Site A, and goose feathers in and around a seasonal wetland within Site A indicate that it is used in a similar fashion. A variety of wildlife species occupying the surrounding ruderal areas may forage in or drink from these pools if the water is fresh enough, and during inundated periods, Sierran chorus frogs (*Pseudacris sierrae*) may breed here.

Section 3.0 Regulatory Setting

Biological resources within the study area are regulated by a number of federal, state, and local laws and ordinances, as described below.

3.1 Federal

3.1.1 Clean Water Act

Areas meeting the regulatory definition of "waters of the U.S." (jurisdictional waters) are subject to the jurisdiction of the USACE under provisions of Section 404 of the 1972 Clean Water Act (Federal Water Pollution Control Act). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as "waters of the U.S.," tributaries of waters otherwise defined as "waters of the U. S.," the territorial seas, and wetlands (termed Special Aquatic Sites) adjacent to "waters of the U.S." (33 CFR, Part 328, Section 328.3). Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987).

Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions (33 CFR, Part 328).

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The State Water Resources Control Board (SWRCB) is the state agency (together with the Regional Water Quality Control Boards [RWQCBs]) charged with implementing water quality certification in California.

Project Applicability: Approximately 0.24 ac of potential USACE jurisdictional waters have been identified in the study area. Any work within waters of the U.S. (i.e., wetlands and other waters) may require a Section 404 fill discharge permit from the USACE and Section 401 Water Quality Certification from the RWQCB. The brackish/freshwater seasonal marsh features identified within the study area may be subject to the jurisdiction of the USACE and RWQCB as such.

3.1.2 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects listed wildlife species from harm or "take" which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to

engage in any such conduct. Take can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as "take" even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands or if the project requires a federal action, such as a Clean Water Act Section 404 fill permit from the USACE.

The USFWS has jurisdiction over federally listed threatened and endangered wildlife species under the FESA, while the National Marine Fisheries Service (NMFS) has jurisdiction over federally listed marine and anadromous fish.

Project Applicability: No federally listed plant or animal species are present in the study area.

3.1.3 Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA; 16 U.S.C., §703, Supp. I, 1989) prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The trustee agency that addresses issues related to the MBTA is the USFWS. Species of birds protected under the MBTA include all native birds and certain game birds (USFWS 2005). The MBTA protects whole birds, parts of birds, and bird eggs and nests; and prohibits the possession of all nests of protected bird species whether they are active or inactive. An active nest is defined as having eggs or young, as described by the Department of the Interior in its 16 April 2003 Migratory Bird Permit Memorandum. Nest starts (nests that are under construction and do not yet contain eggs) are not protected from destruction.

Project Applicability: All native bird species that occur in the study area are protected under the MBTA.

3.1.4 Bald and Golden Eagle Protection Act

This law, originally passed in 1940, provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*) as amended in 1962, by prohibiting the take; possession; sale; purchase; barter; offer to sell, purchase or barter; transport; export; or import of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16U.S.C 668(a); 50 CFR 22). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb (16U.S.C. 688(c); 50 CFR 22.3). For the purposes of these guidelines, "disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, any of the following: (1) injury to an eagle, (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior.

In addition to immediate impacts, the act also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal

breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment. A violation of the act can result in a fine, imprisonment, or both.

Project Applicability: Neither bald nor golden eagles are expected to occur within the study area.

3.1.5 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act governs all fishery management activities that occur in federal waters within the United States 200 nautical mile limit. The Act establishes eight Regional Fishery Management Councils responsible for the preparation of fishery management plans to achieve the optimum yield from U.S. fisheries in their regions. These councils, with assistance from the NMFS, establish Essential Fish Habitat (EFH) in fishery management plans for all managed species. Federal agencies that fund, permit, or implement activities that may adversely affect EFH are required to consult with the NMFS regarding potential adverse effects of their actions on EFH, and respond in writing to the NMFS' recommendations.

Project Applicability: No fish species subject to any fisheries management plans occur within the study area; therefore, no EFH is present within the study area.

3.2 State

3.2.1 Section 401 Water Quality Certification

The RWQCB is responsible for protecting surface, ground, and coastal waters within its boundaries. It requires that a project proponent apply for and obtain a CWA Section 401 Water Quality Certification for any project that requires a CWA Section 404 permit from the USACE.

Project Applicability: Approximately 0.24 ac of potential USACE jurisdictional waters have been identified in the study area. Any Section 404 permit authorized by the USACE for the Project would be inoperative without also obtaining authorization from the RWQCB pursuant to Section 401 of the Clean Water Act (i.e., without obtaining a certification of water quality). Pursuant to the *Preliminary Draft Water Quality Control Policy for Wetland Area Protection and Dredged or Fill Permitting* issued in January 2013, the SWRCB has proposed a new state definition of "wetlands" that is broader than the federal definition predominantly used within the state today. The new RWQCB definition includes unvegetated wetlands including tidal flats, playas, some river bars, and shallow unvegetated ponds. This state definition of "wetlands" is not in effect at this time. However, if the SWRCB's definition of wetlands becomes policy during the life of this Project, it may be necessary for property owners to have a wetland delineation completed on their property following the SWRCB's definition of wetlands in addition to having an USACE delineation. Any impacts to waters of the state would have to be mitigated to the satisfaction of the RWQCB prior to the time this resource agency would issue a permit for impacts to such features. The RWQCB requirements for issuance of a "401 Permit" typically parallel the USACE requirements for permitting impacts to USACE regulated areas pursuant to

Section 404 of the Clean Water Act (see Section 3.1.1 Clean Water Act). Refer to discussion of the Porter-Cologne Water Quality Control Act below for other applicable actions that may be imposed on the Project by the RWQCB prior to the time any certification of water quality is authorized for the Project. Note that any isolated wetlands or other waters that are determined to be in the study area that are not regulated by the USACE pursuant to the SWANCC decision would still be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act (refer to discussion below). Finally, during the lifetime of this Project, the SWRCB may have its own definition of wetlands that may need addressing.

3.2.2 Porter-Cologne Water Quality Control Act

The RWQCB is responsible for protecting surface, ground, and coastal waters within its boundaries, pursuant to the Porter-Cologne Water Quality Control Act of the California Water Code. The RWQCB has jurisdiction under Section 401 of the Clean Water Act for activities that could result in a discharge of dredged or fill material to a water body. Federal authority is exercised whenever a proposed project requires a Clean Water Act Section 404 permit from the USACE in the form of a Section 401 Water Quality Certification. State authority is exercised when a proposed project is not subject to federal authority, in the form of a Notice of Coverage, Waiver of Waste Discharge Requirements. RWQCB jurisdiction of other waters, such as streams and lakes, extends to all areas below the ordinary high water mark.

Under the Porter-Cologne Water Quality Control Act, the SWRCB and the nine regional boards also have the responsibility of granting Clean Water Act National Pollutant Discharge Elimination System permits and waste discharge requirements for certain point-source and non-point discharges to waters. These regulations limit impacts to aquatic and riparian habitats from a variety of urban sources.

Project Applicability: Any proposed activities that affect waters of the U.S. and/or State will require 401 Certification and/or a Waste Discharge Requirement from the RWQCB.

3.2.3 California Endangered Species Act

The California Endangered Species Act (CESA; Fish and Game Code of California, Chapter 1.5, Sections 2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, the CDFW has jurisdiction over state-listed species. The CDFW regulates activities that may result in "take" of individuals listed under the Act (i.e., "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of "take" under the Fish and Game Code. The CDFW, however, has interpreted "take" to include the "killing of a member of a species which is the proximate result of habitat modification."

Project Applicability: No state listed plant or animal species occur in the study area.

3.2.4 California Environmental Quality Act

The California Environmental Quality Act (CEQA) is a state law that requires state and local agencies, such as the City of Newark, to document and consider the environmental implications of their actions and to refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects. The CEQA requires the full disclosure of the environmental effects of agency actions, such as approval of a general plan update or the projects covered by that plan, on resources such as air quality, water quality, cultural resources, and biological resources. The State Resources Agency promulgated guidelines for implementing CEQA known as the State CEQA Guidelines.

Section 15380(b) of the State CEQA Guidelines provides that a species not listed on the federal or state lists of protected species may be considered rare if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the FESA and the CESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW or species that are locally or regionally rare.

The CDFW has produced three lists (amphibians and reptiles, birds, and mammals) of "species of special concern" that serve as "watch lists". Species on these lists are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Thus, their populations should be monitored. They may receive special attention during environmental review as potential rare species, but do not have specific statutory protection. All potentially rare or sensitive species, or habitats capable of supporting rare species, are considered for environmental review per the CEQA §15380(b).

The CNPS, a non-governmental conservation organization, has developed ranks of plant species of concern in California. Vascular plants included in these ranks are defined as follows:

Rank 1A Plants considered extinct

Rank 1B Plants rare, threatened, or endangered in California and elsewhere

Rank 2 Plants rare, threatened, or endangered in California but more common elsewhere

Rank 3 Plants about which more information is needed – a review list

Rank 4 Plants of limited distribution – a watch list.

These CNPS rankings are further described by the following threat code extensions:

.1—Seriously endangered in California

.2—Fairly endangered in California

.3—Not very endangered in California.

Although the CNPS is not a regulatory agency and plants in these ranks have no formal regulatory protection, plants appearing in Rank 1B or Rank 2 are, in general, considered to meet the CEQA's Section 15380 criteria, and adverse effects to these species may be considered significant. Impacts to plants that are ranked by the CNPS in Rank 3 or 4 are also considered during CEQA review, although because these species are typically not as rare as those in Rank 1B or Rank 2, impacts to them are less frequently considered significant.

Project Applicability: All potential impacts on biological resources will be considered during CEQA review of the Project in the context of this Biological Resources Report.

3.2.5 California Fish and Game Code

The California Fish and Game Code includes regulations governing the use of, or impacts on, many of the state's fish, wildlife, and sensitive habitats. The CDFW exerts jurisdiction over the bed and banks of rivers, lakes, and streams according to provisions of §§1601–1603 of the Fish and Game Code. The Fish and Game Code requires a Streambed Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or waterbody and for the removal of riparian vegetation.

Certain sections of the Fish and Game Code describe regulations pertaining to certain wildlife species. For example, Fish and Game Code §§3503, 2513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFW. Raptors (i.e., eagles, falcons, hawks, and owls) and their nests are specifically protected in California under Fish and Game Code §3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Non-game mammals are protected by Fish and Game Code §4150, and other sections of the Code protect other taxa.

Project Applicability: No rivers, lakes, or streams are present in the study area. However, the majority of birds and mammals occurring in the study area are protected under the California Fish and Game Code.

3.3 Local

3.3.1 City of Newark Municipal Code – Trees

Under Title 8 – Health and Safety, Chapter 8.16, Preservation of Trees on Private Property, the following section regarding trees is pertinent to this Project: 8.16.020 Permit Required. The section states: No person shall cut down, destroy, remove or move any tree which shall include any live woody plant having one or more well defined perennial stems with a trunk diameter of 6 inches or greater, measured at 4 ft above ground level growing within the city limits on any parcels of land except developed residential parcels of land

10,000 square feet or less in area, unless a permit to do so has been obtained from the public works director (Ord. 63 § 2 (part), 1979).

In accordance with 8.16.030, Permit, Inspection of premises upon application, upon receiving any such application for permit, the public works director shall inspect the premises involved and the surrounding area and shall ascertain whether the tree or trees serve a windbreak function upon which a substantial number of persons depend (Ord. 163 § 2 (part), 1979).

In accordance with 8.16.040 Permit Issuance, following investigation, the permit shall be issued unless the public works director finds that any such tree is in a reasonably healthy condition and is necessary in order to preserve the health, safety and welfare of a substantial number of persons in the community by serving a windbreak function; or that the public interest will be otherwise unduly prejudiced by the destruction or removal of any such tree; and that the public interest in preservation of any such tree is not outweighed by the individual hardship on the applicant in the event the application is denied. In applying the standards set forth in this chapter, nothing shall be deemed to prevent the public works director from issuing a permit to destroy or remove part of the trees involved in an application, while denying a permit as to the remainder (Ord. 163 § 2 (part), 1979).

Project Applicability: Ordinance-sized trees may be present in the study area. A permit from the City of Newark will need to be obtained prior to the removal of any ordinance-sized trees.

Section 4.0 Special-Status Species and Sensitive Habitats

The CEQA requires assessment of the effects of a project on species that are protected by state, federal, or local governments as "threatened, rare, or endangered"; such species are typically described as "special-status species". For the purpose of the environmental review of the Project, special-status species have been defined as described below. Impacts to these species are regulated by some of the federal, state, and local laws and ordinances described in the *Regulatory Setting* section above.

For purposes of this analysis, "special-status" plants are considered plant species that are:

- Listed under FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under CESA as threatened, endangered, rare, or a candidate species.
- Ranked by the CNPS as rare or endangered in Ranks 1A, 1B, 2, 3, or 4.

For purposes of this analysis, "special-status" animals are considered animal species that are:

- Listed under FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under CESA as threatened, endangered, or a candidate threatened or endangered species.
- Designated by the CDFW as a California species of special concern.
- Listed in the California Fish and Game Code as fully protected species (fully protected birds are provided in Section 3511, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515).

Information concerning threatened, endangered, and other special-status species that may occur in the study area and surrounding vicinity was collected from several sources and reviewed by H. T. Harvey & Associates biologists as described under *Methods* above. The specific habitat requirements and the locations of known occurrences of each special-status species were the principal criteria used to determine which species potentially occur in the study area. Figure 4a depicts CNDDB records of special-status plant species in the general vicinity of the study area, and Figure 4b depicts CNDDB records of special-status animal species. Because the CNDDB is limited to reported sightings, it is not a comprehensive list of species that may occur in a particular area. Therefore, other sources (as described above) were also considered to determine whether a species may be present or absent in the vicinity of the study area.

4.1 Special-status Plant Species

The Specific Plan EIR (2011) evaluated the potential occurrence of 34 special-status plant species in the Specific Plan area (Table 4.3-1 of the Specific Plan EIR), and determined that eight species have the potential

to occur. One species, that was originally evaluated, *Monardella villosa* ssp. *globosa*, is no longer listed as a CNPS rare plant species. In addition, we determined that 12 special-status plant species not originally addressed in the Specific Plan EIR might have some potential to occur in the study area based on the presence of suitable habitat on-site and/or proximity to known occurrences in the area (see Figure 4a). Thus, 46 special-status plant species were further analyzed for their potential to occur in the study area and each of these species, their listing status, preferred habitat, and potential to occur on site are summarized in Table 2. In brief, of the 46 special status plants that were analyzed, only seven are considered to be potentially present within the study area. Expanded descriptions for these seven special-status plants, with potential to occur in the study area, are discussed in more detail below. However, a discussion of the species' habitats and biology are provided only for those species not discussed in the Specific Plan EIR.

Brittlescale (*Atriplex depressa*). Federal Listing Status: None; State Listing Status: None; CNPS Listing Status: 1B.2. Brittlescale is an annual herb in the goosefoot family (Chenopodiaceae) that blooms from April to October. The species grows in relatively barren areas with alkaline clay soils within chenopod scrub, meadows and seeps, playas, vernal pools, valley and foothill grassland, and occasionally in riparian marshes at elevations ranging from 3 to 1050 ft. Atriplex species are somewhat tolerant of disturbance. Brittlescale has been documented in Alameda, Contra Costa, Colusa, Fresno, Glenn, Kern, Merced, Solano, Stanislaus, Tulare, and Yolo counties (CNPS 2013). Marginally suitable habitat for this species occurs in the brackish marsh community in the study area.

San Joaquin spearscale (*Atriplex joaquiniana*). Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.2. San Joaquin spearscale is an annual herb in the goosefoot family (Chenopodiaceae) that blooms from April to October. It is found in alkaline soils in chenopod scrublands, meadows and seeps, playas, and valley and foothill grasslands from 3 to 2740 ft elevation. This species has been documented in Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, Solano, and Yolo counties (CNPS 2013). It is presumed extirpated from its historical range in Santa Clara and San Joaquin counties and may be extirpated from Tulare County. Marginal habitat exists for this plant in the study area.

Lesser saltscale (*Atriplex minuscula*). Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.1. Lesser saltscale is an annual herb in the goosefoot family (Chenopodiaceae) that blooms from May to October. This plant occurs in alkali sinks and grasslands in sandy, alkaline soils within chenopod scrub and valley and foothill grassland communities at elevations between 49 and 656 ft. This species has been documented in Alameda, Butte, Fresno, Kern, Madera, Merced, and Tulare counties (CNPS 2013). It is presumed extirpated from Stanislaus County. Marginal habitat exists for this plant in the study area.

LEGEND

Study Area

5-Mile Radius

CNDDB Records

Plants

Specific Location

General Area

Approximate Location

Terrestrial Communities

Approximate Location

General Area

N 1.2 0.6 0 1.2

Miles

Northern Coastal Salt Marsh
hairless popcornflower
most beautiful jewel-flower
Santa Clara red ribbons
chaparral harebell
slender-leaved pondweed
Congdon's tarplant
Congdon's tarplant
chaparral ragwort
Congdon's tarplant
Northern Coastal Salt Marsh
Contra Costa goldfields
alkali milk-vetch
San Joaquin spearscale
saline clover
Congdon's tarplant
Congdon's tarplant
Point Reyes bird's-beak
Northern Coastal Salt Marsh
Congdon's tarplant
most beautiful jewel-flower
San Joaquin spearscale
Contra Costa goldfields
Hoover's button-celery
Northern Coastal Salt Marsh
Congdon's tarplant
alkali milk-vetch
Contra Costa goldfields
Congdon's tarplant
prostrate vernal pool navarretia
lesser saltscale
saline clover
Contra Costa goldfields
California seablite
Congdon's tarplant
Point Reyes bird's-beak
Valley Oak Woodland
Valley Oak Woodland
Northern Coastal Salt Marsh
California seablite
Point Reyes bird's-beak
San Mateo thorn-mint
lost thistle
slender-leaved pondweed
alkali milk-vetch
Hoover's button-celery
San Francisco collinsia
Point Reyes bird's-beak
Hoover's button-celery
saline clover
alkali milk-vetch
alkali milk-vetch

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Figure 4a: CNDDB Records of Special-Status Plants
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N:\Projects3400\3448-01\Reports\BA\Figure 4b CNDDB Records of Special-status Animals.mxd

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Figure 4b: CNDDB Records of Special-Status Animals

Trumark Residential Project Biological Resources Report (3448-01)

May 2013

Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*). Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.2. Congdon's tarplant is an annual herb that occurs in valley and foothill grasslands, particularly those with alkaline substrates, and in slumps or disturbed areas where water collects. It is restricted to lower elevation wetlands below approximately 760 ft. Congdon's tarplant, which is in the composite (Asteraceae) family, has a variable blooming period that extends from June through November. The range of this species has been reduced to remaining alkaline grasslands in Alameda, Contra Costa, Monterey, San Luis Obispo, San Mateo, and Santa Clara counties, and it is presumed to be extirpated from its historical range in Solano and Santa Cruz counties (CNPS 2013). Congdon's tarplant has been observed immediately north of the study area on the north side of the Southern Pacific Railroad tracks (CNDDB 2013) and suitable habitat is present in the study area.

Hoover's button celery (*Eryngium aristulatum* var. *hooveri*) Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.1. Hoover's button celery is an annual to perennial herb in the umbellifer (Apiaceae) family that blooms in July. It occurs in vernal pool habitats from 10 to 148 ft elevation. This California endemic has been documented in Alameda, San Benito, Santa Clara, San Diego, and San Luis Obispo counties but may be extirpated from Santa Clara County (CNPS 2013).

Hoover's button-celery was identified in 1901 in the vicinity of Mayfield and Charleston Sloughs, Palo Alto, approximately 4.7 miles from the study area (CNDDB 2013). However, this population, and the marsh it was found in, is believed extirpated due to development in the area over the last century. Suitable habitat for Hoover's button celery is present in the study area.

Caper-fruited tropidocarpum (*Tropidocarpum capparideum*). Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.1. Caper-fruited tropidocarpum is an annual herb belonging to the mustard family (Brassicaceae) that blooms from March to April. This plant occurs in alkaline clay soils in valley and foothill grasslands, at elevations between 3 and 1493 ft. Caper-fruited tropidocarpum was thought to be extinct, but in 2000 was rediscovered on Ft. Hunter Liggett. It is currently known from only two occurrences (CNPS 2013). While it is very unlikely for this plant to be present in the study area (due to its known occurrences in only two locations), suitable habitat is present.

Saline clover (*Trifolium depauperatum* var. *hydrophilum*). Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.2. Saline clover is an annual herb in the legume (Fabaceae) family that occurs in mesic, alkaline, or saline sites in valley and foothill grassland habitat, in vernal pool habitat, or in marshes and swamps at elevations from 0 to 984 ft. Hickman (1993) specifically indicates that the species occurs in coastal salt marshes as well as inland marshes. The blooming period extends from April through June, although in salt marshes the species may flower slightly later than seen in alkaline grassland areas. The range of this species has been reduced to remaining alkaline grasslands in Alameda, Contra Costa, Colusa, Lake, Monterey, Napa, Sacramento, San Benito, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, Solano, Sonoma, and Yolo counties (CNPS 2013). Suitable habitat for saline clover is present in the study area.

Table 2. Special-status Plant Species, Their Status, and Potential Occurrence in the Study Area

Name	*Status	Habitat	Potential for Occurrence on Site
Federal or State Endangered, Rare, or Threatened Species			
Alliaceae			
Allium peninsulare franciscanum Franciscan onion	Fed: - State: - CNPS: 1B.2	Cismontane woodland; valley and foothill grassland [clay, volcanic, often serpentine]. Elevation 52–300 meters.	**Absent.** No suitable habitat is present.
Apiaceae			
Eryngium aristulatum var. *hooveri* Hoover's button-celery	Fed: - State: - CNPS: 1B.1	Vernal pools. Elevation 3–45 meters.	**May be Present.** Chances of finding this plant are low but one specimen of *Eryngium* was found within the Specific Plan EIR boundary in October 2009 when Monk & Associates' biologists conducted a cursory site survey.
Asteraceae			
Balsamorhiza macrolepis Big-scale balsamroot	Fed: - State: - CNPS: 1B.2	Chaparral; cismontane woodland; valley and foothill grassland; [sometimes serpentinite]. Elevation 901–555 meters.	**Absent.** No suitable habitat is present.
Centromadia parryi ssp. *congdonii* Congdon's tarplant	Fed: - State: - CNPS: 1B.1	Valley and foothill grassland (alkaline). Elevation 0–230 meters.	**May be Present.** Alkaline soils and grassland areas are common in the study area, but are mostly overgrown with non-native grasses.
Cirsium fontinale var. *fontinale* Crystal Springs fountain thistle	Fed: - State: - CNPS: 1B.1	Serpentine seeps and streams in chaparral openings, cismontane woodland, or valley and foothill grassland. Elevation 46–175 meters.	**Absent.** No suitable habitat is present.
Cirsium praeteriens Lost thistle	Fed: - State: - CNPS: 1A	Unknown	**Absent.** Site has been routinely disturbed and this species is believed to be extinct. Last known record is from Palo Alto in 1901.
Helianthella castanea Diablo helianthella	Fed: - State: - CNPS: 1B.2	Broadleafed upland forest; chaparral; cismontane woodland; coastal scrub; riparian woodland; valley and foothill grassland. Elevation 60–1300 meters.	**Absent.** No suitable habitat is present.

Name	*Status	Habitat	Potential for Occurrence on Site
Holocarpha macradenia Santa Cruz tarplant	Fed: - State: - CNPS: 1B.1	Coastal prairie; coastal scrub; valley and foothill grassland; [often clay]. Elevation 10–220 meters.	**Absent.** No suitable habitat is present.
Lasthenia conjugens Contra Costa goldfields	Fed: - State: - CNPS: 1B.1	Valley and foothill grassland (mesic); vernal pools; cismontane woodlands; playas. Elevation 0–470 meters.	**Absent.** No suitable habitat is present.
Lessingia hololeuca Woolly-headed lessingia	Fed: - State: - CNPS: 3	Broad-leaved upland forest; coastal scrub; lower montane coniferous forest; valley and foothill grassland; [clay, serpentinite]. Elevation 15–305 meters.	**Absent.** No suitable habitat is present.
Micropus amphibolus Mt. Diablo cottonweed	Fed: - State: - CNPS: 3.2	Broad-leaf upland forest; chaparral; cismontane woodland; valley and foothill grassland. Elevation 45–825 meters.	**Absent.** No suitable habitat is present.
Monolopia gracilens Woodland wooly-threads	Fed: - State: - CNPS: 1B.2	Broadleaf upland forests (openings); chaparral (openings); cismontane woodland; North Coast coniferous forest (openings); valley and foothill grassland [serpentine]. Elevation 100–1200 meters.	**Absent.** No suitable habitat is present.
Senecio aphanactis Chaparral ragwort	Fed: - State: - CNPS: 2.2	Chaparral; cismontane woodland; coastal scrub [sometimes alkaline]. Elevation 15–800 meters.	**Absent.** No suitable habitat is present.
Boraginaceae			
Plagiobothrys glaber Hairless popcorn-flower	Fed: - State: - CNPS: 1A	Meadows and seeps (alkaline); marshes and swamps (coastal salt). Elevation 15–180 meters.	**Absent.** No suitable habitat is present.
Brassicaceae			
Streptanthus albidus ssp. *peramoenus* Most beautiful jewel-flower	Fed: - State: - CNPS: 1B.2	Cismontane woodland; chaparral; valley and foothill grassland [serpentinite]. Elevation 94–1000 meters.	**Absent.** No suitable habitat is present.
Tropidocarpum capparideum Caper-fruited tropidocarpum	Fed: - State: - CNPS: 1B.1	Valley and foothill grassland (alkaline hills). Elevation 14–55 meters.	**May be Present.** Very unlikely to be present. Site provides only marginal habitat but presence cannot be ruled out without surveys.

Name	*Status	Habitat	Potential for Occurrence on Site
Campanulaceae			
Campanula exigua Chaparral harebell	Fed: - State: - CNPS: 1B.2	Chaparral (rocky, usually serpentinite). Elevation 275–1250 meters.	**Absent.** No suitable habitat is present.
Chenopodiaceae			
Atriplex depressa Brittlescale	Fed: - State: - CNPS: 1B.2	Chenopod scrub; playas; meadows and seeps; vernal pools [alkaline or clay]; valley and foothill grassland. Elevation 1–320 meters.	**May be Present.** Study area provides alkaline substrate and herbaceous cover, but is somewhat to greatly disturbed.
Atriplex joaquiniana San Joaquin spearscale	Fed: - State: - CNPS: 1B.2	Chenopod scrub; meadows and seeps; valley and foothill grassland (alkaline); playas. Elevation 1–835 meters.	**May be Present.** Study area provides alkaline substrate and herbaceous cover, but is somewhat to greatly disturbed.
Atriplex minuscula Lesser saltscale	Fed: - State: - CNPS: 1B.1	Chenopod scrub; playas; valley and foothill grassland [alkaline, sandy]. Elevation 1–320 meters.	**May be Present.** Study area provides alkaline substrate and herbaceous cover, but is somewhat to greatly disturbed.
Suaeda californica California seablite	Fed: - State: - CNPS: 1B.1	Marshes and swamps (coastal salt). Elevation 0–15 meters.	**Absent.** No suitable habitat is present.
Ericaceae			
Arctostaphylos andersonii Anderson's manzanita	Fed: - State: - CNPS: 1B.2	Chaparral; broadleafed upland forest; north coast coniferous forest (openings and edges). Elevation 60–760 meters.	**Absent.** No suitable habitat is present.
Arctostaphylos regismontana Kings Mountain manzanita	Fed: - State: - CNPS: 1B.2	Broad-leaved upland forest; chaparral; north coast coniferous forest; [granitic or sandstone]. Elevation 305–730 meters.	**Absent.** No suitable habitat is present.
Fabaceae			
Astragalus tener var. *tener* Alkali milk-vetch	Fed: - State: - CNPS: 1B.2	Playas; valley and foothill grassland (adobe clay), vernal pools (alkaline). Elevation 1–60 meters.	**Absent.** No suitable habitat is present.
Trifolium amoenum Two-fork clover	Fed: FE State: - CNPS: 1B.1	Coastal bluff scrub; valley and foothill grassland. Elevation 5–415 meters.	**Absent.** No suitable habitat is present.

Name	*Status	Habitat	Potential for Occurrence on Site
Trifolium hydrophilum Saline clover	Fed: - State: - CNPS: 1B.1	Marshes and swamps; valley and foothill grassland (mesic, alkaline); vernal pools. Elevation 0–300 meters.	**May be Present.** The study area provides marginal habitat.
Lamiaceae			
Acanthomintha duttonii San Mateo thorn-mint	Fed: - State: - CNPS: 1B.1	Chaparral; valley and foothill grassland [serpentinite]. Elevation 50–300 meters.	**Absent.** No suitable habitat is present.
Monardella antonina ssp. *antonina* San Antonio Hills monardella	Fed: - State: - CNPS: 3	Chaparral; cismontane woodland. Elevation 500–1000 meters.	**Absent.** No suitable habitat is present.
Monardella villosa globosa *Robust Monardella*	Fed: - State: -	Chaparral (openings); cismontane woodland; broadleafed upland forest (openings); coastal scrub; valley and foothill grassland. Elevation 100–915 meters.	**Absent.** No suitable habitat is present.
Liliaceae			
Calochortus umbellatus Oakland star-tulip	Fed: - State: - CNPS: 4.2	Broadleaf upland forest; chaparral; cismontane woodland; lower montane coniferous forest; valley and foothill grassland [often serpentine]. Elevation 100–700 meters.	**Absent.** No suitable habitat is present.
Fritillaria liliacea Fragrant fritillary	Fed: - State: - CNPS: 1B.2	Cismontane woodland, coastal prairie; coastal scrub; valley and foothill grassland; [often serpentinite]. Elevation 3–410 meters.	**Absent.** No suitable habitat is present.
Linaceae			
Hesperolinon congestum Marin western flax	Fed: - State: - CNPS: 1B.1	Chaparral; valley and foothill grassland; [serpentinite]. Elevation 5370 meters.	**Absent.** No suitable habitat is present.
Malvaceae			
Malacothamnus arcuatus Arcuate bush-mallow	Fed: - State: - CNPS: 1B.2	Chaparral, cismontane woodland. Elevation 15–355 meters.	**Absent.** No suitable habitat is present.

Name	*Status	Habitat	Potential for Occurrence on Site
Malacothamnus davidsonii Davidson's bush-mallow	Fed: - State: - CNPS: 1B.2	Chaparral; cismontane woodland; coastal scrub; riparian woodland. Elevation 185–855 meters.	**Absent.** This shrub is identifiable year round and it has not been observed onsite.
Malacothamnus hallii Hall's bush-mallow	Fed: - State: - CNPS: 1B.2	Chaparral; coastal scrub. Elevation 10–760 meters.	**Absent.** This shrub is identifiable year round and it has not been observed onsite.
Montiaceae			
Calandrinia breweri Brewer's calandrinia	Fed: - State: - CNPS: 4.2	Chaparral; coastal scrub [sandy or loamy, disturbed sites and burns]. Elevation 10–1220 meters.	**Absent.** No suitable habitat is present.
Onagraceae			
Clarkia concinna ssp. *automixa* Santa Clara red ribbons	Fed: - State: - CNPS: 4.3	Chaparral; cismontane woodland. Elevation 90–1500 meters.	**Absent.** No suitable habitat is present.
Orobanchaceae			
Chloropyron maritimum ssp. *palustre* Point Reyes bird's-beak	Fed: - State: - CNPS: 1B.2	Marshes and swamps (coastal salt). Elevation 0–10 meters.	**Absent.** No suitable habitat is present.
Plantaginaceae			
Collinsia multicolor San Francisco collinsia	Fed: - State: - CNPS: 1B.2	Closed-cone coniferous forest; coastal scrub [sometimes serpentinite]. Elevation 30–250 meters.	**Absent.** No suitable habitat is present.
Polemoniaceae			
Leptosiphon acicularis Bristly leptosiphon	Fed: - State: - CNPS: 4.2	Chaparral; cismontane woodland; coastal prairie; valley and foothill grassland. Elevation 55–1500 meters.	**Absent.** No suitable habitat is present. .
Navarretia myersii ssp. *myersii* Pincushion navarretia	Fed: - State: - CNPS: 1B.1	Vernal pools (often acidic). Elevation 20–330 meters.	**Absent.** No suitable habitat is present.
Navarretia prostrata Prostrate vernal pool navarretia	Fed: - State: - CNPS: 1B.1	Coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Elevation: 15–700 meters.	**Absent.** No suitable habitat is present.

Name	*Status	Habitat	Potential for Occurrence on Site
Polemonium carneum Oregon polemonium	Fed: - State: - CNPS: 2.2	Coastal prairie, coastal scrub, lower montane coniferous forest. Elevation 0–1830 meters.	**Absent.** No suitable habitat is present.
Potamogetonaceae			
Stuckenia filiformis Slender-leaved pondweed	Fed: - State: - CNPS: 2.2	Marshes and swamps (assorted shallow freshwater). Elevation 300–2150 meters.	**Absent.** Plant is found in freshwater ponds and lakes. No freshwater aquatic habitat onsite. Wetland areas are brackish to saline.
Primulaceae			
Androsace elongata ssp. *acuta* California androsace	Fed: - State: - CNPS: 4.2	Chaparral; cismontane woodland; coastal scrub; meadows and seeps; pinyon and juniper woodland; valley and foothill grassland. Elevation 150–1200 meters.	**Absent.** No suitable habitat is present.
Thymelaeaceae			
Dirca occidentalis Western leatherwood	Fed: - State: - CNPS: 1B.2	Broadleaved upland forest, coniferous forest, chaparral, cismontane woodland, riparian forest and woodland (mesic). Elevation 50–395 meters.	**Absent.** No suitable habitat is present.

Special-Status Species Code Designations

CNPS Rank 1B = Plants rare, threatened, or endangered in California and elsewhere
CNPS Rank 2 = Plants rare, threatened, or endangered in California, but more common elsewhere
CNPS Rank 3 = Plants about which information is needed - a review list
CNPS Rank 4 = Plants of limited distribution-a watch list
.1 = seriously endangered in California
.2 = fairly endangered in California
.3 = not very endangered in California

4.2 Special-status Animal Species

The Specific Plan EIR (2011) evaluated the potential for occurrence of 23 special-status wildlife species (see Table 4.3-1 of the Specific Plan EIR). The following species were determined to be absent from the Specific Plan area: vernal pool tadpole shrimp (*Lepidurus packardi*), monarch butterfly (*Danaus plexippus*), Central California Coast steelhead (*Oncorhynchus mykiss*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), California black rail (*Laterallus jamaicensis coturniculus*), California clapper rail (*Rallus longirostris obsoletus*), western snowy plover (*Charadrius alexandrinus nivosus*), California least tern (*Sterna antillarum brownii*), bank swallow (*Riparia riparia*), Alameda song sparrow (*Melospiza melodia pusillula*), and salt marsh wandering shrew (*Sorex vagrans halicoetes*). For those species determined to potentially be present in the Specific Plan area, Table 3 provides the current listing status, species description, and potential for occurrence in the Project study area. Descriptions of the life history of these species are provided in the Specific Plan EIR and are not repeated herein. However, expanded discussions of the potential for occurrence in the study area of the western burrowing owl and salt marsh harvest mouse, based on the results of the reconnaissance and focused site surveys, are provided below.

Western burrowing owl (*Athene cunicularia*) Federal Listing Status: None; State Listing Status: California Species of Special Concern. Burrowing owls have been documented at multiple locations near the study area, including multiple nesting pairs approximately 2.2 mi southwest of the study area at Ohlone College as recently as 2005, and 3.0 mi southwest of the study area at Stevenson Boulevard and Cherry Street in 1999 (CNDDB 2013). Additionally, a burrowing owl has been documented using burrows immediately adjacent to Site A as recently as 23 January 2013 (Michael Rhoades, pers. comm.).

During the site visit, wildlife ecologist Nellie Thorngate conducted a focused survey for burrowing owls or secondary evidence of burrowing owl use of the study area (i.e., feathers, droppings, or pellets), as well as suitable burrows that could be used by burrowing owls for nesting or roosting. No burrowing owls were observed within the study area. However, the study area provides suitable habitat for burrowing owls, with several well-established ground squirrel colonies creating ample burrows in dirt mounds and berms on Sites A and, to a lesser extent, Site B. In addition, small amounts of bird droppings consistent with those of a burrowing owl were observed at a few burrow entrances on Site B during the wildlife survey, although no burrowing owl pellets or feathers were found.

Salt marsh harvest mouse (*Reithrodontomys raviventris*). Federal Listing Status: Endangered; State Listing Status: Endangered and Fully Protected. On 15 February 2013, Howard Shellhammer, Ph.D., visited the study area to determine if it provides suitable habitat for the salt marsh harvest mouse. Dr. Shellhammer, holds a federal Section 10(a)(1)(A) permit for conducting activities related to the salt marsh harvest mouse as well as an Memorandum of Understanding (MOU) from the CDFW authorizing him to conduct work related to the salt marsh harvest mouse. As described above, ruderal habitat is the most

common habitat in the study area and the brackish/freshwater seasonal wetlands that are present occur in highly disturbed habitats. .No pickleweed (*Sarcocornia* sp.) or other halophytes that might offer appropriate vegetative cover and food resources for the salt marsh mouse are present on or immediately adjacent to the study area. Although a fairly deep drainage ditch runs along the west side of Willow Street and goes underground 30 or more yards before the southwest corner of Site B, the ditch is not close enough to Site B to allow harvest mice to move onto the study area should they be present in the ditch. Harvest mice are highly dependent on cover, and open areas as small as 16.4 feet wide may act as barriers to their movement (Shellhammer and Duke 2004). In addition, the ditch does not support pickleweed or other halophytes or complex, deep, or dense enough cover for harvest mice. Finally, Willow Street and Enterprise Drive, which border both Sites A and B on two sides, are broad, barren areas sufficient to be a barrier to mouse movement onto the study area from any suitable habitat that might be present in portions of the Specific Plan area to the west.. Thus, salt marsh harvest mice are determined to be absent from the study area.

Table 3. Special-status Animal Species, Their Status, and Potential Occurrence in the Study Area

Name	*Status	+Habitat	Potential for Occurrence on Site
Birds			
Elanus leucurus White-tailed kite	Fed: - State: SP	Found in lower foothills and valley margins with scattered oaks and along river bottomlands or marshes adjacent to oak woodlands. Nests in trees with dense tops.	**May be Present.** Individual trees in the study area may provide nesting opportunities. Foraging habitat is present.
Circus cyaneus Northern harrier	Fed: - State: CSSC (nesting)	Found in or near freshwater and salt marshes. Nests on the ground or in shrubby vegetation.	**Absent as Breeder.** No suitable nesting habitat occurs in the study area; however, suitable foraging habitat is present.
Buteo jamaicensis *Red-tailed hawk*	Fed: - State: -	Found in a wide variety of habitats. Nests in oaks, eucalyptus, cypress trees, among others. Forages over grasslands, agricultural fields, woodlands, marshes.	**May be Present.** Individual trees in the study area may provide nesting opportunities. Foraging habitat is present.
Athene cunicularia Burrowing owl	Fed: - State: CSSC	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	**Present.** Burrowing owls have been observed immediately adjacent to the study area, which contains suitable breeding and foraging habitat for burrowing owls.
Geothlypis trichas sinuosa San Francisco (saltmarsh) common yellowthroat	Fed: - State: CSSC (nesting)	Resident in the freshwater and salt-water marshes of the San Francisco Bay region. Requires thick, continuous cover for foraging and tall grasses, tules, or willows for nesting.	**Absent as Breeder.** No suitable nesting habitat is present in the study area. Occasional dispersing individuals may forage on the site during the non-nesting season.
Agelaius tricolor Tricolored blackbird	Fed: - State: CSSC (nesting)	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	**Absent as Breeder.** No suitable nesting habitat is present. Occasional foraging individuals may occur onsite during the non-nesting season.
Mammals			
Reithrodontomys raviventris Salt marsh harvest mouse	Fed: FE State: SE	Inhabits saline emergent wetlands in the San Francisco Estuary. Prefers pickleweed marshes. Requires higher areas for escaping high water.	**Absent.** No suitable habitat is present.

*Special-Status Species Code Designations

FE = Federally listed Endangered
SE = State listed Endangered
CSSC = California Species of Special Concern
SP = State Fully Protected Species

+Habitat descriptions are provided verbatim from the Specific Plan EIR (RBF Consulting 2011)

4.3 Sensitive and Regulated Plant Communities and Habitats

The CDFW ranks certain rare or threatened plant communities, such as wetlands, meadows, and riparian forest and scrub, as 'threatened' or 'very threatened'. These communities are tracked in the CNDDB. Impacts on CDFW sensitive plant communities, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under CEQA (California Code of Regulations: Title 14, Div. 6, Chap. 3, Appendix G). Furthermore, aquatic, wetland and riparian habitats are also afforded protection under applicable federal, state, or local regulations, and are generally subject to regulation, protection, or consideration by the USACE, RWQCB, CDFW, and/or the USFWS.

CDFW Sensitive Habitats. No CDFW-regulated sensitive habitats occur in the study area.

Waters of the U.S./State. As discussed under *Regulatory Setting* above, several areas in the study area are likely to be considered waters of the U.S. under the Clean Water Act and Waters of the State under the Porter-Cologne Water Quality Control Act. This wetland habitat is also important habitat for a variety of animal species.

Section 5.0 Impacts and Mitigation Measures

The Specific Plan EIR included a comprehensive assessment of habitat and wildlife resources in the Specific Plan area and identified potential impacts related to the general effects of potential development in the area including habitat loss and loss or degradation of sensitive habitat (Impact 4.3-6). The Specific Plan EIR also identified potential impacts related to wildlife species such as the salt marsh harvest mouse (Impact 4.3-1), burrowing owl (Impact 4.3-3), and others. Mitigation measures were adopted to, among other things, prepare a salt marsh harvest mouse habitat assessment, conduct pre-construction surveys for sensitive plants and animals, and avoid or minimize impacts on sensitive habitats. All mitigation measures adopted upon approval of the Specific Plan EIR continue to apply to the proposed Trumark Residential Project.

Section 5.1 details the mitigation measures for which no new circumstances have arisen since the 2011 EIR, although additional detail regarding the distribution of biological resources (and thus additional detail regarding the extent of impacts) is provided below. No new impacts (i.e., impact not addressed in the 2011 Specific Plan EIR) were identified for the proposed Project.

5.1 Impacts and Mitigations from the Specific Plan EIR

Impact Bio-1. Impacts on the salt marsh harvest mouse (Less than Significant)

As discussed under Impact 4.3-1 of the Specific Plan EIR, it is considered unlikely that the Specific Plan area provides the necessary habitat components to support a salt marsh harvest mouse population. Nevertheless, per Specific Plan Mitigation Measure 4.3-1, in order to avoid potentially impacting the salt marsh harvest mouse, prior to any site grading or development, a federal and state permitted salt marsh harvest mouse biologist shall conduct a "Habitat Assessment" to determine if the parcel where work is proposed provides suitable habitat for the salt marsh harvest mouse. If a qualified, CDFW and USFWS permitted salt marsh harvest mouse biologist renders a conclusion that no impacts to the salt marsh harvest mouse would occur from development of the Project site, the standards of care dictated by CEQA will be met and no further action shall be warranted.

As described under Section 4.2, above, Dr. Howard Shellhammer visited the study area to determine if it provides suitable habitat for the salt marsh harvest mouse. Dr. Shellhammer, who holds a federal Section 10(a)(1)(A) permit for conducting activities related to the salt marsh harvest mouse as well as an Memorandum of Understanding (MOU) from the CDFW authorizing him to conduct work related to the salt marsh harvest mouse, determined that suitable habitat for the salt marsh harvest mouse is not present in the study area and that no impacts on the salt marsh harvest mouse would occur from development of the Project site. Thus, this impact is considered less than significant and no further mitigation is required.

Impact Bio-2. Impacts on nesting raptors (Less than Significant with Mitigation)

As discussed under Impact 4.3-3 of the Specific Plan EIR, the Specific Plan area contains suitable nesting habitat for white-tailed kites, red-tailed hawks, and northern harriers, and future development that resulted in impacts on these species would be potentially significant. However, the study area discussed herein does not contain sufficiently large areas of marsh habitat to support nesting northern harriers; although the species may nest in other portions of the Specific Plan area and forage within the study area.

White-tailed kites and red-tailed hawks could potential nest in eucalyptus trees in or immediately adjacent to the study area. Potential Project impacts on these species include loss of nesting habitat, disturbance of nesting birds, and possibly death of adults and/or young. Both species are regionally common, and due to territorial constraints no more than one pair of each species would be likely to nest in the study area at any given time. Project activities resulting in take of individuals or loss of habitat would therefore not result in a substantial reduction in regional populations or habitat. Thus, it is our opinion that such effects would not constitute a significant impact under the CEQA. Nevertheless, the destruction of active nests with eggs or young could result in a violation of the MBTA and disturbance of an active nest would be a violation of Fish and Game Code, which the 2011 Specific Plan EIR determined was a potentially significant impact. Implementation of Specific Plan Mitigation Measure 4.3-2, which includes pre-construction surveys and the establishment of buffers around active nests, would reduce this impact to a less-than-significant level.

Impact Bio-3. Impacts on the western burrowing owl (Less than Significant with Mitigation)

As described above, the Project site contains suitable nesting habitat for the western burrowing owl, and any future development activities may result in impacts on the burrowing owl that are potentially significant, such as disturbing owls to the point of abandoning burrows containing active nests with eggs or young. The Specific Plan EIR specified Mitigation Measure 4.3-3 to mitigate impacts on burrowing owls. However, the CDFW guidelines have been updated since this was prepare, as a result this measure is not entirely consistent with the most recent CDFW approved protocol (California Department of Fish and Game [CDFG] 2012). Thus, this measure has been updated to include a presence/absence survey during the breeding season and the number of visits required, as well as the timing of such visits, for the pre-construction survey have been revised to be consistent with the current CDFW guidelines.

Specific Plan EIR Mitigation Measure 4.3-3:

4.3-3a Presence/Absence Survey. A breeding season presence/absence survey for burrowing owls will be completed in conformance with the CDFW 2012 protocol to determine whether burrowing owls nest in the study area. A qualified biologist will conduct the survey during the burrowing owl peak nesting season (April 15 through July 15). During the initial site visit, the qualified biologist will survey the entire Project site and (to the extent that access allows) the area within 500 feet of the site for burrowing owl habitat (i.e., burrows). Because suitable burrows are known to be present in the study area; a qualified biologist will visit the site an additional three times, with each visit separated by a minimum of three weeks, to investigate each burrow for

signs of owl use and to determine whether owls are present in areas where they could be affected by the proposed activities.

4.3-3b Pre-construction Survey. A pre-construction survey for burrowing owls will be completed in conformance with the CDFW 2012 protocol. The initial survey will be conducted no less than 14 days (e.g., 2-4 weeks) prior to the initiation of construction. During the initial site visit, a qualified biologist will survey the entire Project site and (to the extent that access allows) the area within 500 feet of the site for suitable burrows that could be used by burrowing owls for nesting or roosting. If no suitable burrowing owl habitat is present, no additional surveys will be required. If suitable burrows are determined to be present on the site, a qualified biologist will visit the site an additional three times to investigate each burrow for signs of owl use and to determine whether owls are present in areas where they could be affected by the proposed activities. The final survey shall be conducted within the 24 hour-period prior to the initiation of construction.

4.3-3c Buffer Zones. If burrowing owls are present during the non-breeding season (generally 1 September to 31 January), a 150-ft buffer zone shall be maintained around the occupied burrow(s) if practicable. If maintaining such a buffer is not feasible, then the buffer must be great enough to avoid injury or mortality of individual owls, or else the owls should be passively relocated as described below. During the breeding season (generally 1 February to 31 August), a 250-ft buffer, within which no new activity will be permissible, will be maintained between Project activities and occupied burrows. Owls present on site after 1 February will be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area will remain in effect until 31 August, or at the CDFW's discretion and based upon monitoring evidence, until the young owls are foraging independently.

4.3-3d Passive Relocation. If construction will directly impact occupied burrows, eviction of owls, by a qualified biologist, should occur outside the nesting season. No burrowing owls will be evicted from burrows during the nesting season (1 February through 31 August) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season).

4.3-3e Compensatory Habitat Mitigation. If the surveys determine that owls are present in the study area, compensatory mitigation for Project impacts on nesting habitat will be provided in the form of habitat preservation and management. Mitigation will consist of providing 6.5 ac of suitable habitat off-site for every pair (or single owl, if unpaired) of owls displaced by the Project. The protected lands shall be adjacent to occupied burrowing owl habitat if possible, and at a location selected in collaboration with CDFW. Land identified to offset impacts on burrowing owls shall be protected in perpetuity by a suitable property instrument (e.g., a conservation easement or fee title acquisition). A Mitigation Plan shall be prepared in consultation with CDFW for review and approval by the City. The Mitigation Plan shall identify the mitigation site and any activities proposed to enhance the site, including the construction of artificial burrows and maintenance of California ground squirrel populations on the mitigation site. In addition, for each pair of burrowing owls found in the study area, two artificial nesting burrows shall be created at the mitigation

site. The Plan shall also include a description of monitoring and management methods proposed at the mitigation site. Monitoring and management of any lands identified for mitigation purposes shall be the responsibility of the applicant for at least five years. An annual report shall be prepared for submittal to CDFW and the City by December 31 of each monitoring year. Contingency measures for any anticipated problems will be identified in the plan.

Impact Bio-4. Impacts on the tricolored blackbird, San Francisco (saltmarsh) common yellowthroat, and other nesting birds (Less than Significant with Mitigation)

As discussed under Impact 4.3-4 of the Specific Plan EIR, the Specific Plan area contains suitable nesting habitat for common passerine nesting birds as well as the San Francisco common yellowthroat and tricolored blackbirds, which are both California species of special concern. Impact 4.3-4 concludes that development in the Specific Plan area could result in potentially significant impacts on these species as a result of loss of nesting habitat, disturbance to nesting birds, and possibly death of adults and/or young.

However, suitable breeding habitat is not present in the Project study area for either the San Francisco common yellowthroat or the tricolored blackbird. Thus, the proposed Project would not result in the loss of nesting habitat for, or the disturbance of nesting individuals of, these species.

Other species expected to nest in the study area are regionally common, and only a limited number of any given species would be likely to nest on the site at any given time. Project activities resulting in take of individuals or loss of habitat would therefore not result in a substantial reduction in regional populations or habitat. Thus, it is our opinion that such affects would not constitute a significant impact under the CEQA. Nevertheless, the destruction of active nests with eggs or young could result in a violation of the MBTA and disturbance of an active nest would be a violation of Fish and Game Code, which the 2011 Specific Plan EIR determined was a potentially significant impact. Implementation of Specific Plan Mitigation Measure 4.3-4, which includes pre-construction surveys and the establishment of buffers around active nests, would reduce this impact to a less-than-significant level.

Impact Bio-5. Impacts on special-status plant species (Less than Significant with Mitigation)

As described under Impact 4.3-5 of the Specific Plan EIR, the study area provides potentially suitable habitat for several special-status plant species. Eight plant species were originally classified as having low to high probability of occurrence in the study area (see Specific Plan EIR, Appendix C, Table 3). However, two species that were considered potentially present within the larger Specific Plan area, California sea-blite (*Suaeda californica*) and Point Reyes bird's beak (*Chloropyron maritimum* ssp. *palustre*), are considered absent from the study area based on a lack of saltwater marsh habitat. Additionally, one species that was not originally evaluated in the Specific Plan EIR, lesser saltscale, was added to the list of potentially occurring plant species within the study area. Thus, the following seven special-status plant species have the potential to occur in the study area: brittlescale, San Joaquin spearscale, lesser saltscale, Congdon's tarplant, Hoover's button-celery,

caper-fruited tropidocarpum, and saline clover. Future development activities within the study area could result in the loss of these species. Until such time that formal surveys are conducted that prove absence of these species, impacts on these species are regarded as potentially significant pursuant to CEQA. Implementation of Specific Plan Mitigation Measure 4.3-5, which includes focused special-status plant surveys, avoidance, and mitigation will reduce this impact to a less-than-significant level.

Impact Bio-6. Impacts on wetlands and waters of the State/U.S. (Less than Significant with Mitigation)

Due to the extensive soil remediation needed for development of the study area, avoidance of wetlands within the Project boundary is not feasible. Hence, development of the Specific Plan area would result in impacts on waters of the State/U.S. as described under Impact 4.3-6 of the Specific Plan EIR. Per Specific Plan Mitigation Measure 4.3-6, a wetland delineation was conducted for the site following the guidelines outlined in the *U.S. Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008). Based on the results of the delineation (H. T. Harvey & Associates 2013), development of the proposed Project would result in the fill of up to 0.24 ac of waters of the U.S./State, a significant impact.

Implementation of Specific Plan Mitigation Measure 4.3-6 will reduce this impact to a less-than-significant level through the purchase of mitigation credits from an approved mitigation bank or an approved in-lieu fee mitigation entity at a minimum 1:1 ratio (impacts:mitigation).

Impact Bio-7. Impacts on wildlife corridors (Less than Significant)

As discussed in the 2011 Specific Plan EIR, the open space within the study area does not constitute a wildlife movement corridor per se, although local wildlife likely use the area to move to and from the ruderal habitat within the study area to local subdivisions. The loss of this area for wildlife movement is not a significant adverse impact as these common species are capable of moving through developed areas.

Impact Bio-8. Impacts on protected trees (Less than Significant with Mitigation)

As described under Impact 4.3-8 of the Specific Plan EIR, trees protected under the City's Municipal Code are present in the study area, and removal of such trees would constitute a potentially significant impact. Implementation of Specific Plan Mitigation Measure 4.3-8 will reduced this impact to a less-than-significant level.

Impact Bio-9. Development of the study area could have a cumulatively considerable contribution to the loss of vegetation and wildlife resources (Less than Significant with Mitigation)

The cumulative impact on biological resources resulting from the Project in combination with other projects in the Project area and larger region would be dependent on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit to these resources of impact avoidance and minimization efforts prescribed by planning documents, CEQA mitigation measures, and permit requirements for each project; and compensatory mitigation and proactive conservation measures associated with each project. As described under Impact 4.3-9, in the absence of mitigation, development of the study area would have few, if any, indirect and interrelated impacts on adjacent undeveloped lands. However, implementation of the Project along with other developments within the Specific Plan area would contribute to a cumulative loss of seasonal brackish/freshwater marsh habitats, and ruderal grassland (anthropogenic) communities in the region. Implementation of the proposed Project along with other developments within the Specific Plan area would also result in cumulative impacts on common plant and animal species. Additionally, the marsh habitats, ornamental trees, and ruderal grassland communities of the Specific Plan area may also be important for several special-status plant and animal species such as the burrowing owl, San Joaquin salt bush, brittlescale, Congdon's tarplant, and Hoover's button-celery. There are also other proposed projects in Alameda County that would/are impacting similar resources to those that would be impacted by the Project.

Although such projects will result in impacts on biological resources similar to those on the Project site, it is expected that most current and future projects will have to mitigate these impacts through the CEQA, Fish and Game Code 1602, or Clean Water Act Section 404/401 permitting process, as well as through the FESA Section 7 consultation process. Projects that are covered activities under the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (Habitat Plan) will mitigate impacts on sensitive habitats and many special-status species through that program once the Habitat Plan has been approved. Moreover, the Habitat Plan (if implemented) will help to ensure the conservation of these habitats and species in the region. As a result, most projects in the region will mitigate their impacts on biological resources, minimizing cumulative impacts on these species.

Thus, provided that the Project successfully incorporates the mitigation measures prescribed above, it will not contribute to substantial cumulative effects on special-status species, wetlands, trees, and plant communities/wildlife habitats.

Section 6.0 Compliance with Additional Laws and Regulations Applicable to Biotic Resources of the Project Site

6.1 Regulatory Overview for Nesting Birds

Construction disturbance during the breeding season (1 February through 31 August, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. This type of impact would not be significant under CEQA for the species that could potentially nest in the study area due to the local and regional abundances of these species and/or the low magnitude of the potential impact of the Project to these species (i.e., the Project is only expected to impact one or two individual pairs of these species, which is not a significant impact to their regional populations). However, we recommend that the following measures be implemented to ensure that Project activities comply with the MBTA and California Fish and Game Code:

Measure 1. Avoidance. To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in the Project area extends from 1 February through 31 August.

Measure 2. Pre-construction/Pre-disturbance Surveys. If it is not possible to schedule construction activities between 1 September and 31 January then pre-construction surveys for nesting birds should be conducted by a qualified ornithologist to ensure that no nests will be disturbed during Project implementation. We recommend that these surveys be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 ft for raptors and 100 ft for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during Project implementation.

Measure 3. Inhibition of Nesting. If construction activities will not be initiated until after the start of the nesting season, we recommend that all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the Project be removed prior to the start of the nesting season (e.g., prior to 1 February). This will preclude the initiation of nests in this vegetation, and prevent the potential delay of the Project due to the presence of active nests in these substrates.

Section 7.0 References

Calflora. 2013. Website: http://www.calflora.org/index.html.

[CNPS] California Native Plant Society. 2013. Inventory of Rare and Endangered Plants (online edition, v7-10b). California Native Plant Society. Sacramento, CA. [online]: http://www.cnps.org/inventory.

[CNDDB] California Natural Diversity Data Base. 2013. Rarefind. California Department of Fish and Wildlife.

Consortium of California Herbaria. 2013. Regents of the University of California. [online]: http://ucjeps.berkeley.edu/consortium/.

Dunk, Jeffrey R. 1995. White-tailed Kite (Elanus leucurus), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/178 doi:10.2173/bna.178

Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

H. T. Harvey & Associates. 2013. Trumark Residential Project Alameda County, California Preliminary Delineation of Wetlands and Other Waters. Prepared for David J. Powers & Associates. May 2013.

Hickman, J. C. 1993. The Jepson manual: Higher plants of California. University of California Press, Berkeley.

[NRCS] Natural Resource Conservation Service. 2012. National List of Hydric Soils. http://soils.usda.gov/use/hydric/. Accessed February 2013.

[PRISM] Parameter-elevation Regressions on Independent Slopes Model. 2013. PRISM Products Matrix., http://prism.oregonstate.edu. Accessed February 2013.

Preston, C. R. and R. D. Beane. 2009. Red-tailed Hawk (*Buteo jamaicensis*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/052 doi:10.2173/bna.52

RBF Consulting. 2011. Dumbarton Transit Oriented Development Specific Plan Final Environmental Impact Report. Prepared for City of Newark. July 2011.

Shellhammer, H. S., and R. Duke. 2004. Salt Marsh Harvest Mouse Habitat of the South San Francisco Bay: An Analysis of Habitat Fragmentation and Escape Cover. San Francisco Estuarine Institute.

[SWRCB] State Water Resources Control Board. 2013. Preliminary Draft Water Quality Control Policy for Wetland Area Protection and Dredged or Fill Permitting. 28 January 2013.

[USACE] U.S. Army Corps of Engineers. 2008. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). September 2008. U.S. Army Engineer Research and Development Center.

[USFWS] U.S. Fish and Wildlife Service. 2005. Draft list of bird species to which the Migratory Bird Treaty Act does not apply. Federal Register 70:372-377.

Appendix B-2

Preliminary Delineation of Wetlands and Other Waters

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

Trumark Residential Project

Alameda County, California
Preliminary Delineation of Wetlands and Other Waters

Project # 3348-02

Prepared for:

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6 May 2013

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Executive Summary

H. T. Harvey & Associates (HTH) surveyed the Trumark Residential Project (Project) site in Alameda County, California, for jurisdictional features that may be subject to regulation under the Clean Water Act (CWA), administered by the U.S. Army Corps of Engineers (USACE). Specifically, the approximately 23.46-acre (ac) site was surveyed for jurisdictional waters (wetlands and other waters).

Approximately 0.24 ac of potential jurisdictional waters were identified within the Project boundary. All potential jurisdictional waters were seasonal wetlands; no Section 404 other waters were present on site. The remaining areas within the Project boundary (approximately 23.22 ac) met none of the regulatory definitions of jurisdictional waters.

The on-site determination assumed normal circumstances and the results are based upon existing conditions present at the time of the surveys. The 30-year average annual precipitation (1970-2000) for the site has been estimated at 15.78 inches, with the majority falling during the growing season from October to June (PRISM Climate Group 2013). During the 2012/2013 growing season preceding the April 2013 delineation survey, the site received only 10.39 inches of precipitation (Union City Gauge, Station ID = C3109). The below-average rainfall resulted in the blurring of wetland boundaries in some locations. In these cases, wetland boundaries were adjusted in an attempt to approximate conditions during a "normal" rainfall year.

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List of Preparers

Patrick J. Boursier, Ph.D., Principal-In-Charge
Ginger Bolen, Ph.D., Project Manager
Christopher Gurney, M.S., Plant/Wetland Ecologist

Section 1.0 Introduction

1.1 Study Area Description

The Trumark Residential Project (Project) is located off Enterprise Way in the City of Newark, Alameda County, California (Figure 1). The Project study area totals 23.46 acres (ac) and includes two sites. Site A is a single 2.14-ac parcel (APN 092-0140-008) located at 8333 Enterprise Way. It is located adjacent to the Dumbarton Rail Corridor, and includes a portion of the Hetch Hetchy pipeline right-of-way. A portion of Site A has been used by the adjacent chemical blending and distribution facility (Gallade) for parking and storage. Site B is located at 8400 Enterprise Way, and comprises three parcels (APNs 092-0116-060, -058, and -059) that total 21.27 ac in size. The western half of the property was formerly developed as a chemical manufacturing facility (Jones-Hamilton) and is mostly paved while the eastern half has remained undeveloped. The study area is located in Township 5 South, Range 2 West, Sections 2 and 11 and is within the *Newark*, *California* 7.5-minute U.S. Geological Survey (USGS) quadrangle.

Elevations in the study area range from approximately 10 to 15 feet (ft) above mean sea level. Topography is mostly flat, with a gentle slope to the southwest towards San Francisco Bay. The site has an estimated mean annual temperature of 59 degrees Fahrenheit and an estimated mean annual precipitation of 15.78 inches (PRISM Climate Group 2013). Habitats within the study area are composed of anthropogenic/ruderal (23.22 ac) and brackish/freshwater wetlands (0.24 ac).

Only one soil type, Marvin silt loam (saline-alkali), underlies the BSA (Figure 3). This soil type is classified as a hydric soil on the Alameda County List of Hydric Soils (NRCS 2013). It is somewhat poorly drained, has an available water holding capacity of about 10 to 12 inches, and has moderately slow permeability (Soil Conservation Service 1981). However, significant portions of the Project site consist of imported fill material and asphalt.

The U.S. Fish and Wildlife Service, as part of the National Wetland Inventory Program (NWI), has mapped aquatic resources for the study area and surrounding regions (Figure 4). One wetland feature, a 2.60-ac freshwater pond, has been mapped within the study area. However, this pond no longer exists and the area has been capped in asphalt to minimize groundwater contamination.

1.2 Project Description

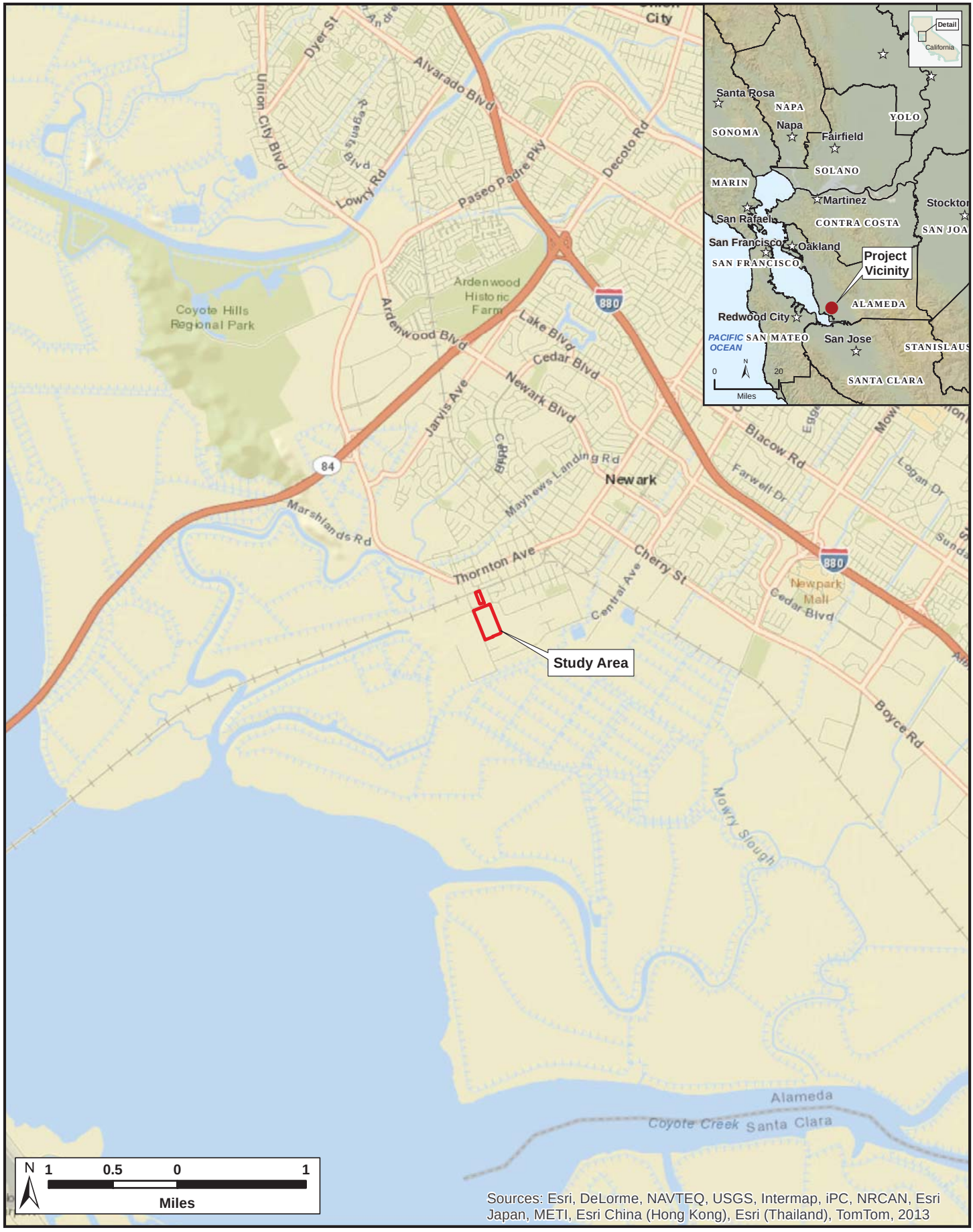
The Project applicant (Trumark) has proposed the implementation of a Corrective Action Plan (CAP) and residential development on two sites (Figure 2) within the larger Dumbarton Transit Oriented Development Specific Plan (Specific Plan) area. The first Project component will be implementation of a CAP for both sites. Industrial activities that historically occupied the Specific Plan area have resulted in impacts on

groundwater, soil vapor, and soil within the study area, and on some of the surrounding properties. The CAPs will present clean-up and mitigation measures to prepare the Project sites for residential use with oversight from the Regional Water Quality Control Board (RWQCB). For Site A, it is anticipated that ground water remediation associated with contamination originating from the adjacent parcel will continue, and mitigation measures will be implemented to control potential soil vapor intrusion into future residences. Based on the preliminarily approved CAP for Site B, implementation of the CAPs will require excavation and off-site disposal of approximately 138,000 cubic yards (yd^3) of contaminated soil and import of over 86,000 yd^3 of replacement fill.

The second Project component will be development of Site A with 27 detached single-family residential units, and Site B with 217 detached single-family residential units. The proposed residential development is consistent with the approved Specific Plan Area Medium Density Residential (MRD) land use designation for the two sites.

1.3 Survey Purpose

H. T. Harvey & Associates (HTH) surveyed the Project site for areas that may meet the physical criteria and regulatory definition of "Waters of the United States" (jurisdictional waters) on 19 and 29 April 2013. The purpose of the field surveys was to identify the extent and distribution of potential jurisdictional waters such as wetlands and other waters occurring within the Project site boundaries under conditions existing at the time of the survey.



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

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H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

Figure 1: Vicinity Map

Trumark Residential Project Preliminary Delineation of Wetlands and Other Waters (3448-02)

May 2013

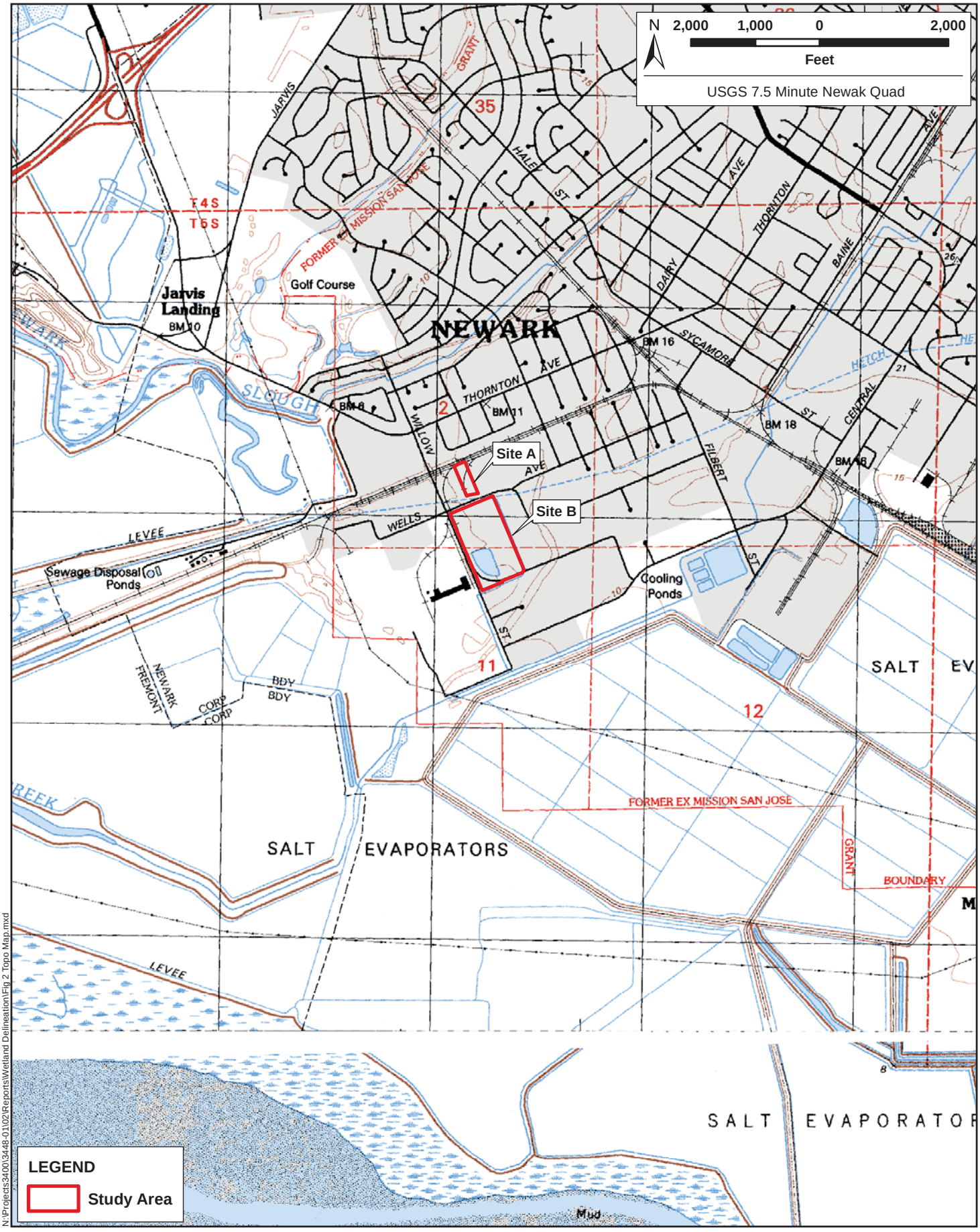

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Figure 2: USGS Topographic Map
Trumark Residential Project Preliminary Delineation of Wetlands and Other Waters (3448-02)
May 2013

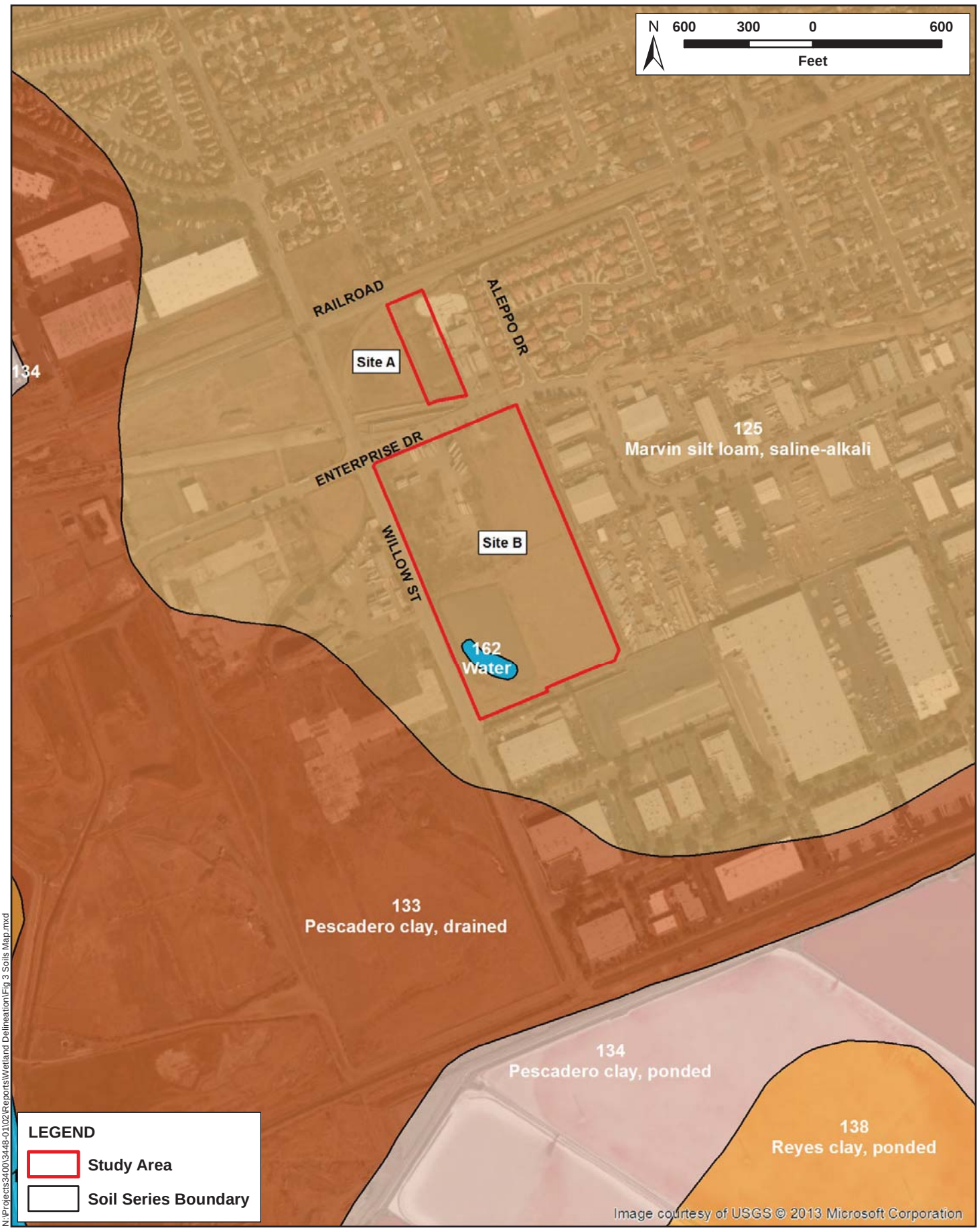

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Figure 3: Soils Map
Trumark Residential Project Preliminary Delineation of Wetlands and Other Waters (3448-02)
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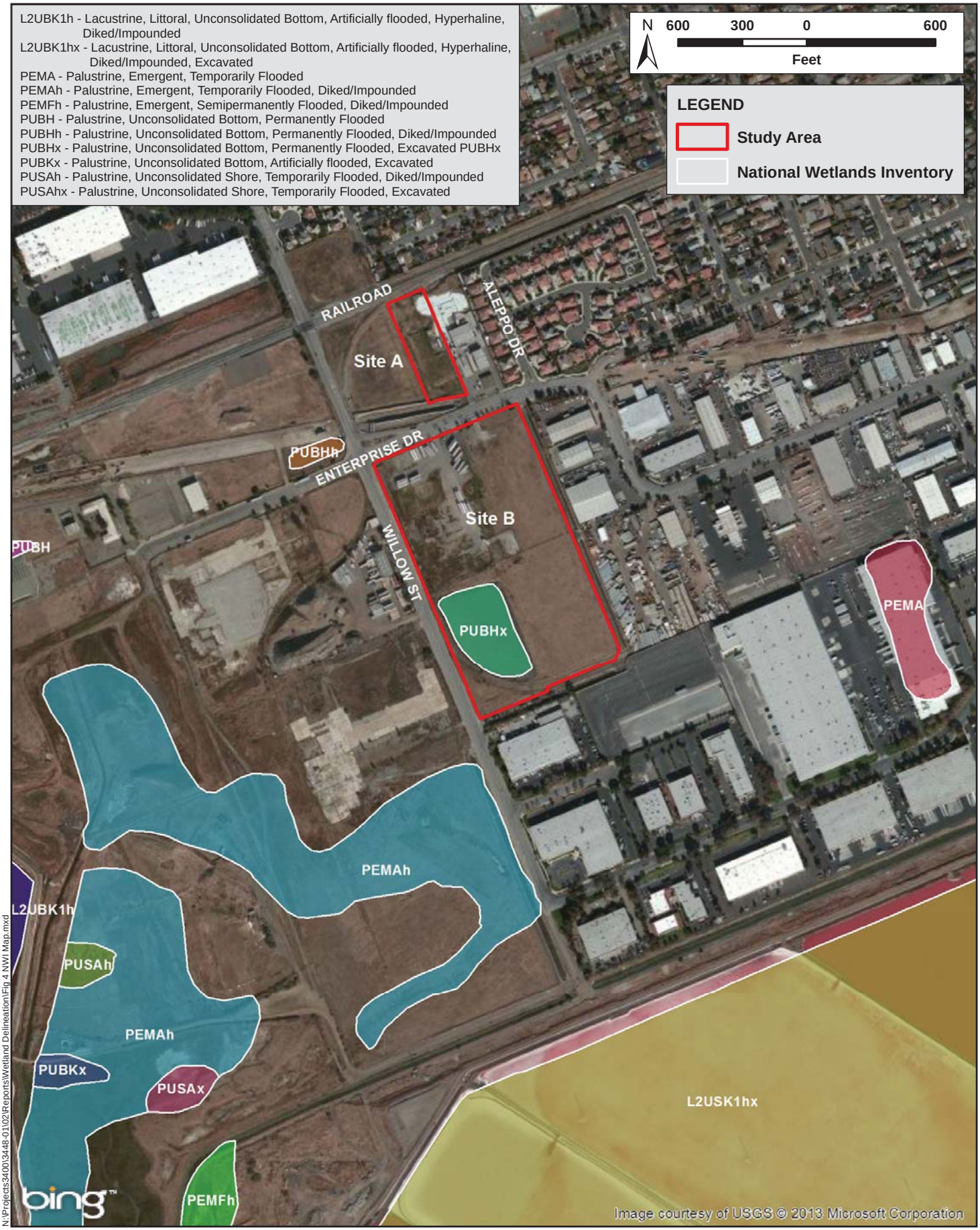

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H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

Figure 4: National Wetlands Inventory Map
Trumark Residential Project Preliminary Delineation of Wetlands and Other Waters (3448-02)
May 2013

Section 2.0 Survey Methods

In order to map the extent and distribution of potential jurisdictional waters on the approximately 23.46-ac Project site HTH plant/wetland ecologist Christopher Gurney, M.S., conducted a survey of the Project site on 19 and 29 April 2013.

No winter hydrology monitoring was conducted prior to the delineation. During the April survey the entire BSA was covered on foot, to find all potential features on the site, map these features using sub-meter Global Positioning System (GPS), and to detect any areas of ephemeral ponding and/or saturated soils. The site was assessed for vegetation, soils, and hydrology.

Wetland delineation field work was performed during a drier year than normal on the site. Total precipitation received in the 2012 – 2013 growing season was approximately 10.39 inches (Union City Gauge, Station ID = C3109), which is below the 15.78-inch 30-year average for annual precipitation for this area as modeled by the PRISM Climate Group (PRISM Climate Group 2013).

2.1 Identification of Jurisdictional Waters

The vegetation, soils, and hydrology of the Project site were examined following the guidelines outlined in the *Routine Determination Method* in the Corps of Engineers 1987 Wetlands Delineation Manual (Environmental Laboratory 1987). In addition, the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (*Regional Supplement* USACE 2008b) was followed to document site conditions relative to hydrophytic vegetation, hydric soils, and wetland hydrology. As noted in the latter report, the *Regional Supplement* is designed for use with the current version of the *Corps 1987 Manual*, except where superseded by instruction issued in the more recent and location-specific *Regional Supplement* (USACE 2008b). This report was also compiled in accordance with guidance provided in *Information Needed for Verification of Corps Jurisdiction* (USACE San Francisco District 2000), *Draft Map and Drawing Standards for the South Pacific Division Regulatory Program* (USACE 2012), and *Final Map and Drawing standards for the South Pacific Regulatory Division Regulatory Program* (USACE 2012b). These documents list information that must be submitted as part of a request for a Jurisdictional Determination. This information includes: locality map (Figure 1), USGS quad sheets (Figure 2), site map (Figure 5), aerial photo (Figure 5), data forms (Appendix C), written rationale for sample point choice, color photos (Appendix D), and copy of applicable sections of the current soil survey report (Appendix B).

The Project site was examined for topographic features, drainages, alterations to site hydrology or vegetation, and areas of significant recent disturbance. A determination was then made as to whether normal environmental conditions were present at the time of the field surveys. Data were used to document which

portions of the Project site were wetlands. Generally, surveys examined the vegetation, soils, and hydrology using the "Routine Determination Method, On-Site Inspection Necessary (Section D)" outlined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), and using the updated data forms, vegetation sampling methods, and hydric soil and hydrology indicators developed for the *Regional Supplement* (USACE 2008b). This three-parameter approach to identifying wetlands is based upon the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Alternatively, a two-parameter approach to identifying wetlands is utilized in situations where vegetation, soils, or hydrology indicators are absent due to human activities or natural events (*Difficult Wetland Situations in the Western Mountains, Valleys, and Coast Region* (Chapter 5) of the Regional Supplement (2008b).

Prior to site surveys, topographic maps and aerial photographs of the Project site were obtained from several sources and reviewed. These sources included the USGS Map and National Wetlands Inventory Map for the Chittenden USGS quadrangle, and aerial photographs including Google Earth (2013), Bing Maps Aerial (Microsoft 2010) and NAIP (2005).

Overall, the approach used to identify wetlands included digging soil pits to sample soil from various depths, observing vegetation growing in proximity to the soil sample area, and determining current surface and subsurface hydrologic features present near the sample area. Features meeting these criteria were then mapped in the field using a Trimble GeoXT™ GPS unit capable of sub-meter accuracy (Trimble GPS unit) by delineating the boundary in the case of wetlands (and augmented by aerial interpretation).

A brief overview of the USACE methodology specifically applicable to the identification of jurisdictional waters on the site is summarized below.

2.2 Identification of Section 404 Wetlands

2.2.1 Vegetation

Plants observed at each of the sample sites were identified to species, when possible, using *The Jepson Manual, Vascular Plans of California, Second Edition* (Baldwin et al. 2012). The wetland indicator status of each species was obtained from the 2012 National Wetland Plant List (NWPL) Final Draft Ratings (Lichvar and Kartesz 2012). The recent revision of plant names within *The Jepson Manual, Vascular Plans of California, Second Edition* (Baldwin et al. 2012) has led to several differences in nomenclature between the latest Jepson Manual and the 2012 Wetland Plant List. In these cases, synonyms recognized by Calflora (2012) were also searched for their indicator status.

A list of species for each observation area was then compiled and a visual estimate of the percent cover of plant species was made following guidance provided in the *Regional Supplement*. It was then determined which

of the observation areas supported wetland vegetation using the applicable Indicator (*i.e.*, 1-Dominance Test; 2-Prevalence Test; or, 3-Morphological Adaptations) as described in the *Regional Supplement*.

Wetland indicator species are designated according to their frequency of occurrence in wetlands. For instance, a species with a presumed frequency of occurrence of 67 to 99 percent (%) in wetlands is designated a facultative wetland indicator species. The five basic levels of wetland indicator status described in the *Regional Supplement* do not include plus (+) or minus (-) indicators. The wetland indicator groups, indicator symbol, and the frequency of occurrence of species within them in wetlands are as follows:

Table 1. Wetland Indicator Status Categories for Vascular Plants.

Indicator Category	Symbol	Frequency of Occurrence
Obligate	OBL	greater than 99%
Facultative Wetland	FACW	67 - 99%
Facultative	FAC	34 - 66%
Facultative Upland	FACU	1 - 33%
Upland	UPL	less than 1%

* Based upon information contained in *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). "NOL" = not on the list; "NI" = not an indicator.

Obligate and facultative wetland indicator species are hydrophytes that occur "in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present" (Environmental Laboratory 1987). Facultative indicator species may be considered wetland indicator species when found growing in hydric soils that experience periodic saturation. A complete list of the vascular plants observed within the BSA, and their current indicator status has been provided in Appendix A. Plants species that are not on the regional list of wetland indicator species are upland species.

2.2.2 Soils

Where possible, the top 22 inches of the soil profile was examined for hydric soil indicators. Diagnostic features include numerous indicators defined and described by the National Technical Committee for Hydric Soils. These indicators include the presence of organic soils (Histosols, A1), histic epipedons (A2), depleted matrix (F3), redox depressions (F8), redox dark surface (F6), and mottling indicated by the presence of gleyed or bright spots of colors (in the former case, blue grays; in the latter case, orange red, or red brown) within the soil horizons observed, among other features. Mottling of soils usually indicates poor aeration and lack of good drainage. Munsell Soil Notations (Munsell Color X-rite 2009) were recorded for the soil matrix for each soil sample. The last digit of the Munsell Soil Notation refers to the chroma of the sample. This notation consists of numbers beginning with 0 for neutral grays and increasing at equal intervals to a maximum of about 20. Soil matrix chroma values that are one (1) or less, or two (2) or less when mottling is present, are

typical of soils which have developed under anaerobic conditions. The first digit of the Munsell Soil notation refers to the value of the sample, with numbers beginning from 2 for saturated colors to a maximum of about 8 for faded or light colors. Hydric soils often show low value colors when soils have accumulated sufficient organic material to indicate development under wetland conditions, but can show high value colors when iron depletion has occurred, removing color value from the soil matrix.

The Soil Survey of Alameda County, Western Part, California (SCS 1981) was consulted to determine which soil types have been mapped on the Project site. All soils on the Project site are Marvin silt loam, saline-alkaline. Descriptions of soil mapping units and the list of hydric soils in Alameda County is in Appendix B.

2.2.3 Hydrology

Each of the sample sites was examined for positive field indicators (primary and secondary) of wetland hydrology following the guidance provided in the *Regional Supplement*. Such indicators might include visual observation of inundation (A1) and/or soil saturation (A3), watermarks (B1), drift lines (B3), water-borne sediment deposits (B2), water-stained leaves (B9), and drainage patterns within wetlands (B10).

2.3 Identification of Section 404 Other Waters

In concert with the USACE's efforts to revise the wetland delineation manuals, making them more specific to different geographic regions of the United States, as described above, efforts have been initiated by the USACE to develop an OHW delineation manual. In particular, five relatively recent publications have attempted to further refine the definition of OHW and the delineation of the OHW mark in the arid west (including California):

- Review of Ordinary High Water Mark Indicators for Delineating Arid Streams in the Southwestern United States (USACE 2004);
- Distribution of Ordinary High Water Mark (OHWM) Indicators and Their Reliability in Identifying the Limits of "Waters of the United States" in Arid Southwestern Channels (USACE 2006);
- Review and Synopsis of Natural and Human Controls on Fluvial Channel Processes in the Arid West (USACE 2007);
- A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008a); and
- Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2010).

Historically, in non-tidal waters, USACE jurisdiction extends to the OHW mark which is defined in 33 CFR Part 328.3 as "the line on the shore established by the fluctuations of water and indicated by physical characteristics, such as a clear, natural line impressed on the bank, shelving, changes in the character of the

soil, destruction of terrestrial vegetation or the presence of litter and debris." This guidance is based upon the identification of the OHW mark by examining physical evidence of surface flow in the stream channel; there is no hydrologic definition of the OHW mark.

In addition, *Regulatory Guidance Letter 05-05* (dated: 7 December 2005) deals specifically with the topic of ordinary high water mark identification. That publication lists the following physical characteristics that should be considered when making an OHW mark determination: (1) natural line impressed on the bank, (2) shelving, (3) changes in the character of the soil, (4) destruction of terrestrial vegetation, (5) wracking, (6) vegetation matted down, bent, or absent, (7) sediment sorting, (8) leaf litter disturbed or washed away, (9) scour, (10) deposition, (11) multiple observed flow events, (12) bed and banks, (13) water staining, (14) and change in plant community.

Just as with the *Corps 1987 Manual*, development of the definition of the OHW mark and description of the field indicators to be used were primarily based on environmental conditions present in more temperate climates of the United States. In these areas, rain distribution and amounts are more consistent from one year to the next and the channel geomorphology has responded to develop field characteristics that reflect a system in relative equilibrium. Such "ordinary" precipitation events occurring in these temperate climates are more likely to cause the development of "ordinary" features commonly used by the USACE in identifying the OHW mark as defined under 33 CFR Part 328.3.

The difficulty with this approach is that the environmental conditions present in the arid west are very different than those encountered in temperate climates. In particular, the Mediterranean climate present throughout central California is characterized by a high degree of seasonal and interannual variability in precipitation. Occurrences of drought conditions followed by extreme discharges are more common in the arid west. Thus, much of what is observed in the field in terms of geomorphic features such as channel down-cutting, erosion, and channel formation, is not in response to "ordinary" precipitation events but to relatively high rainfall events.

For purposes of the current study, the identification of the OHW mark in the field was based upon observation of a suite of natural geomorphic field indicators that have formed during channel forming events. These features included: staining of rocks and culverts, debris deposits, exposed roots, and channel bed morphology, among other factors.

The presence of one or more of the natural geomorphic field indicators listed above, taking into consideration such factors as size of watershed, channel slope, landscape setting, elevation, gradient, land use practices, and soil type, were taken as direct evidence of an OHW mark and such channels were identified as "other waters."

Section 3.0 Survey Results

Twelve formal sample points were taken throughout the Project site during the April 2013 delineation (Figure 5, Appendix C). Within the Project site boundaries, approximately 0.24 ac of potential jurisdictional waters were identified (Figure 5). This included roughly 0.24 ac of Section 404 seasonal wetlands. No section 404 other waters were identified in the Project site.

Table 2. Summary of Jurisdictional Waters within the BSA.

Potential Jurisdictional Waters		Acres*
Section 404 Wetlands		**0.24**
Seasonal Wetland		0.24
Section 404 Other Waters		**0.00**
	Total of Jurisdictional Waters	**0.24**
Upland		**23.22**
	Total Area of BSA	**23.46**

*Values are approximate due to rounding errors.

Information pertinent to the identification of jurisdictional waters assembled during this investigation is presented in four appendices attached to this report.

Appendices in this report:

- Appendix A — Plant Species Observed
- Appendix B — Soils Information
- Appendix C — USACE Arid West Data Forms
- Appendix D — Photographs of Project site Conditions
- Appendix E — USACE Aquatic Resources Tables

3.1 Observations / Rationale / Assumptions

- This on-site determination assumed normal circumstances and results are based upon existing conditions present at the time of the 2013 delineation surveys. Surveys were performed using the "Routine Method of Determination" utilizing three parameters as outlined in the *1987 Corps of Engineers Wetland Delineation Manual* and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.*
- Seasonal precipitation preceding the delineation was below-average. The vicinity received approximately 10.39 inches (Union City Gauge, Station ID = C3109) during the 2012-2013 wet

season (Oct-Apr), roughly 33% lower than the long term average if 15.78 inches (PRISM Climate Group 2013). Additionally, the BSA was not monitored throughout the rainy season. However, wetland boundaries were adjusted in an attempt to approximate conditions during a "normal" rainfall year.

- Several species that are classified as facultative or facultative wetland species on the Arid West Final Regional Wetland Plant List (2012) were found widely scattered across the Project site, often in association with upland species. Common and widely scattered facultative and facultative wetland plant species on the site include: Italian ryegrass (*Festuca perennis*, FAC), seaside barley (*Hordeum marinum*, FAC), saltgrass (*Distichlis spicata*, FAC), alkali heath (*Frankenia salina*, FACW), and cut leaf plantain (*Plantago coronopus*, FACW). In most cases, these species were not considered reliable wetland indicators as they often occurred in areas lacking hydric soils and/or wetland hydrology. Many of these species have an affinity for (or are tolerant of) strongly alkaline soils, and the distribution of these species is likely more indicative of soil alkalinity than wetland hydrology.
- A swale feature was identified around the periphery of the asphalt cap in the southwestern corner of Site B (Appendix D, Photograph 1. Several wetland hydrology indicators were present in the swale including surface soil cracks (B6) and biotic crust (B12). However, the feature was not incised and was hydrologically isolated from any other jurisdiction waters. Additionally, the swale supported few hydrophytes and no hydric soil indicators. Soil in the swale was only 2-3 inches deep and was underlain by asphalt. As such, the swale was not considered to be potentially jurisdictional waters under Section 404.
- The formerly developed portion of Site B contained numerous small and widely scattered microdepressions and cracks in the asphalt that supported hydrophytic vegetation including rabbit's foot grass (*Polypogon monspeliensis*, FACW) and common brassbuttons (*Cotula coronopifolia,* OBL; Appendix D, Photographs 2 and 3). Soils were typically extremely shallow, poorly developed, and contained no hydric soil indicators. Hydrology indicators were also generally absent, although soil surface cracks (B6) were occasionally present. The types of surface hydrologic indicators observed were indicative of very short ponding duration extending a few days after rainfall events. In contrast to larger topographic depressional wetland on site, these small depressions did not exhibit algal mats or presence of aquatic invertebrate shells, which only develop after prolonged ponding. Due to their small size and lack hydric soil indicators these areas were not considered to be potentially jurisdiction waters under Section 404.

3.2 Areas Meeting the Regulatory Definition of Jurisdictional Waters

3.2.1 Identification of Section 404 Potential Jurisdictional Wetlands (Special Aquatic Sites)

Approximately 0.24 ac of potential wetlands were identified on the Project site (Figure 5). Three parameters identifying Section 404 wetlands were observed at four sample points: SP1, SP3, SP7, and SP11 (Appendix C) as shown on Figure 5. A fifth sample point (SP5) was identified as a wetland despite a lack of hydric soil

indicators since the soils were considered to be "significantly disturbed." Wetlands within the Project site were all classified as seasonal wetlands based on relatively brief ponding during the rainfall season.

Seasonal Wetlands. Seasonal wetlands cover 0.24 ac in the Project site (see Appendix D, Photographs 4 & 5 for examples). These seasonally-flooded areas are inundated for extended periods during the early growing season, but are dry by the end of the growing season in most years. Due to their highly variable hydrology, they support a mixture of wetland and upland plant species but are typically dominated by annual hydrophytic plant species. Most wetlands were dominated by non-native species including seaside barley (FAC), rabbit's foot grass (FACW), and Italian ryegrass (FAC). However, these wetlands also contained a number of native species including saltgrass (FAC), button celery (*Eryngium* sp., FACW or OBL), flatface calicoflower (*Downingia pulchella*, OBL), smooth goldfields (*Lasthenia glaberrima*, OBL), and water pygmyweed (*Crassula aquatica*, OBL). Soil pits in these wetlands contained approximately 2-15% prominent redox concentration in the matrix and/or pore lining, indicative of redox dark surface (F6; Appendix D, Photograph 6) and/or redox depressions (F8) hydric soil indicators. Hydrology indicators included surface soil cracks (B6; Appendix D, Photograph 7), biotic crust (B12; Appendix D, Photograph 8), and aquatic invertebrates (B13).

3.2.2 Identification of Other Waters

No Section 404 other waters were identified in the Project site.

3.3 Areas not Meeting the Regulatory Definition of Jurisdictional Waters

The remainder of the Project site, approximately 23.22 ac, is upland habitat that does not meet the regulatory definitions of jurisdictional waters (Figure 5). Information on plants, soils, and hydrology from seven soil pits (SP2, SP4, SP6, SP8; SP9, SP10, and SP12; Figure 5) occurring in non-wetland habitats are found in data forms in Appendix C. These areas were dominated by non-native annual grasses including wild oats (*Avena fatua*, UPL), ripgut brome (*Bromus diandrus*, UPL), foxtail barley (*Hordeum murinum*, FACU), and Italian ryegrass (FAC). Other common species included seaside barley (FAC), wild radish (*Raphanus sativus*, UPL), field bindweed (*Convolvulus arvensis*, UPL), cheeseweed (*Malva parviflora*, UPL), and common beet (*Beta vulgaris*, UPL). Occasional hydrophytes including alkali heath (FACW), and cutleaf plantain (FACW) were also present. However, these upland sites lacked hydric soil indicators and/or wetland hydrology indicators and were thus not identified as jurisdictional wetlands.

N:\Projects\3400\3448-01\02\Reports\Wetland Delineation\Fig 5 Preliminary Waters.mxd

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Figure 5: Preliminary Identification of Waters of the U.S.

Trumark Residential Project Preliminary Delineation of Wetlands and Other Waters (3448-02)
May 2013

Section 4.0 Discussion

As described above, several areas possessing the field characteristics generally used by the USACE in identifying jurisdictional waters were observed within the Project site. These included 0.24 ac of season wetlands (Figure 5). No Section 404 other waters were identified in the Project site. Although precipitation preceding the survey was below normal, wetland boundaries were adjusted in an attempt to approximate conditions during a normal rainfall year.

Section 5.0 Literature Cited

Baldwin, B. G., Goldman, D. H., Keil, D. J., Patterson, R., Rosatti, T. J., and Wilken, D. H. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press, Berkeley, 1568 pp.

Calflora. 2013. Website: http://www.calflora.org/index.html. Accessed October 2012.

Environmental Laboratory. 1987. U.S. Corps of Engineers Wetlands Delineation Manual. Department of the Army.

Google Inc. 2013. Google Earth (Version 6). Available from: http://www.google.com/earth/download/ge/agree.html.

Lichvar, R. W. and Kartesz, J. T. 2012. North American Digital Flora: National Wetland Plant List, version 2.4.0 (http://rsgisias.crrel.usace.army.mil/apex/f?p=703:1:). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC. (Accessed October 2012)

Microsoft Corporation and its data suppliers. 2010. Bing Maps Aerial Photograph.

Munsell. 2009. Soil Color Charts, Munsell Color X-rite, Grand Rapids, MI.

[NAIP] National Agriculture Inventory Program. 2005. Aerial Photograph.

[NRCS] Natural Resource Conservation Service 2008. Soil Survey Geographic (SSURGO) database for Publication Information: Publication_Place: Fort Worth, Texas. U.S. Department of Agriculture, Natural Resources Conservation Service. Online: http://SoilDataMart.nrcs.usda.gov/

[NRCS] Natural Resource Conservation Service. 2013. National List of Hydric Soils. http://soils.usda.gov/use/hydric/. Accessed April 2013.

PRISM Climate Group. 2013. PRISM Products Matrix., http://prism.oregonstate.edu. Accessed April 2013.

[SCS] Soil Conservation Service, National Cooperative Soil Survey. 1981. Soil Survey of Alameda County, Western Part, California. U.S. Department of Agriculture.

[USACE] U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter, Ordinary High Water Mark Identification (No. 05-05).

[USACE] U.S. Army Corps of Engineers. 2006. Distribution of Ordinary High Water Mark (OHWM) Indicators and Their Reliability in Identifying the Limits of "Waters of the United States" in Arid Southwestern Channels.

[USACE] U.S. Army Corps of Engineers. 2007a. Information Requested for Verification of Corps Jurisdiction, San Francisco District.

[USACE] U.S. Army Corps of Engineers. 2007b. Review and Synopsis of Natural and Human Controls on Fluvial Channel Processes in the Arid West.

[USACE] U.S. Army Corps of Engineers. 2008a. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. August 2008. U.S. Army Engineer Research and Development Center.

[USACE] U.S. Army Corps of Engineers. 2008b. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). September 2008. U.S. Army Engineer Research and Development Center.

[USACE] U.S. Army Corps of Engineers. 2008c. Regulatory Guidance Letter, Jurisdictional Determinations (No. 08-02).

[USACE] U.S. Army Corps of Engineers. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. July 2010.

[USACE] U.S. Army Corps of Engineers. 2011. Ordinary High Flows and the State-Discharge Relationship in the Arid West Region. July 2011.

[USACE] U.S. Army Corps of Engineers. 2012. Special Public Notice. Final Map and Drawing Standards for the South Pacific Division Regulatory Program.

[USFWS] U.S. Fish and Wildlife Service. 2013. National Wetlands Inventory Program. Wetlands Mapper. Online. http://www.fws.gov/wetlands/data/mapper.html. April 2013.

[USGS] U.S. Geological Society. 2013. Water Resources of the U.S. Accessed online at http://water.usgs.gov/GIS/huc_name.html. . (accessed April 2013).

Appendix A. Plant Species Observed

Family	Scientific Name	Common Name	Wetland Indicator Status[1]
Apiaceae	*Eryngium* sp.	Button Celery	FACW or OBL
Arecaceae	*Washingtonia robusta*	Washington Fan Palm	FACW
Asteraceae	*Baccharis pilularis*	Coyote Brush	NOL/UPL
Asteraceae	*Carduus pycnocephalus*	Italian Thistle	NOL/UPL
Asteraceae	*Centaurea* sp.	NA	NOL/UPL
Asteraceae	*Centromadia* sp.	Tarplant	NOL/UPL
Asteraceae	*Cotula coropifolia*	Common Brassbuttons	OBL
Asteraceae	*Dittrichia graveolens*	Stinkwort	NOL/UPL
Asteraceae	*Helminthotheca echioides*	Bristly Ox-Tongue	FACU
Asteraceae	*Lactuca serriola*	Prickly Lettuce	FACU
Asteraceae	*Lasthenia glaberrima*	Smooth Goldfields	OBL
Asteraceae	*Lasthenia californica*	California Goldfields	NOL/UPL
Asteraceae	*Pseudognaphalium luteoalbum*	Jersey Cudweed	FAC
Asteraceae	*Senecio vulgaris*	Old-Man-in-the Spring	FACU
Asteraceae	*Sonchus oleraceus*	Common Sow-Thistle	UPL
Asteraceae	*Taraxacum officinale*	Common Dandelion	FACU
Asteraceae	*Tragopogon porrifolius*	Purple Salsify	NOL/UPL
Asteraceae	*Xanthium strumarium*	Rough Cocklebur	FAC
Brassicaceae	*Brassica nigra*	Black Mustard	NOL/UPL
Brassicaceae	*Lepidium draba*	Whitetop	NOL/UPL
Brassicaceae	*Raphanus sativus*	Wild Radish	NOL/UPL
Campanulaceae	*Downingia pulchella*	Flatface Calicoflower	OBL
Chenopodiaceae	*Atriplex rosea*	Tumbling Saltweed	FACU
Chenopodiaceae	*Beta vulgaris*	Common Beet	NOL/UPL
Chenopodiaceae	*Chenopodium album*	White Goosefoot	FACU
Chenopodiaceae	*Rumex* sp.	NA	NA
Chenopodiaceae	*Salsola tragus*	Prickly Russian-Thistle	FACU
Convolvulaceae	*Convolvulus arvensis*	Field Bindweed	NOL/UPL
Crassulaceae	*Crassula aquatica*	Water Pygmyweed	OBL
Fabaceae	*Acacia* sp.	NA	NA
Fabaceae	*Lotus corniculatus*	Broadleaf Birdsfoot Trefoil	FAC
Fabaceae	*Medicago polymorpha*	Bur Clover	FACU
Fabaceae	*Melilotus indicus*	Annual Yellow Sweetclover	FACU
Fabaceae	*Trifolium hirtum*	Rose Clover	NOL/UPL

Family	Scientific Name	Common Name	Wetland Indicator Status[1]
Fabaceae	*Vicia sativa*	Garden Vetch	FACU
Frankeniaceae	*Frankenia salina*	Alkali Sea-Heath	FACW
Geraniaceae	*Erodium moshcatum*	White-Stemmed Filaree	NOL/UPL
Geraniaceae	*Geranium dissectum*	Cutleaf Geranium	NOL/UPL
Malvaceae	*Malva parviflora*	Cheeseweed	NOL/UPL
Orobanchaceae	*Castilleja exserta*	Owlclover	NOL/UPL
Plantaginaceae	*Plantago coronpus*	Cut Leaf Plantain	FACW
Plantaginaceae	*Plantago lanceolata*	English Plantain	FAC
Poaceae	*Avena fatua*	Wild Oats	NOL/UPL
Poaceae	*Bromus catharticus*	Rescue Grass	NOL/UPL
Poaceae	*Bromus diandrus*	Ripgut Brome	NOL/UPL
Poaceae	*Cortaderia jubata*	Pampas Grass	FACU
Poaceae	*Cynodon dactylon*	Bermuda Grass	FACU
Poaceae	*Distichlis spicata*	Saltgrass	FAC
Poaceae	*Festuca perennis*	Italian Ryegrass	FAC
Poaceae	*Hordeum marinum*	Seaside Barley	FAC
Poaceae	*Hordeum murinum*	Foxtail Barley	FACU
Poaceae	*Polypogon monspeliensis*	Rabbit's-Foot Grass	FACW
Rosaceae	*Rubus armeniacus*	Himalayan Blackberry	FACU
Salicaceae	*Salix lasiolepis*	Arroyo Willow	FACW
Solanaceae	*Nicotiana glauca*	Tree Tobacco	FAC

The species are arranged alphabetically by family name for all vascular plants encountered during the plant survey. Plants are also listed alphabetically within each family. Species nomenclature is from Baldwin (2012).

[1] Wetland Indicator Status Key:

OBL = Obligate wetland species, occur almost always in wetlands (>99% probability).

FACW = Facultative Wetland species, usually occur in wetlands (67 to 99% probability), but occasionally found in non-wetlands.

FAC = Facultative species, equally likely to occur in wetlands or non-wetlands (34 to 66% probability).

FACU = Facultative Upland, usually occur in non-wetlands (67% to 99%), but occasionally found in wetlands.

UPL = Obligate Upland species, occur almost always in non-wetlands (>99% probability).

NI = Non Indicator, not present on list.

Appendix B. Soils Information

SOIL SURVEY OF
ALAMEDA COUNTY, CALIFORNIA, WESTERN PART

United States Department of Agriculture
Soil Conservation Service
in cooperation with
University of California Agricultural Experiment Station

These soils have many limitations for use as building sites. The Los Osos soil is subject to slippage if it is wet, especially if slopes have been altered and the natural grade has been increased. The shrink-swell potential is high; as a result, foundations can shift and crack. Building pads should be shaped so that water is drained away from the building site, thus keeping the soil beneath the foundation dry and reducing the hazards of differential settlement and shrink-swell. The high shrink-swell potential and low strength affect the construction of roads and streets. Suitable base material is needed. In sloping areas, interceptor drains should be provided to keep moisture from beneath the roads. Because the Millsholm soil is shallow to bedrock, installing buried utility lines is difficult.

The steep banks that result from shaping these soils for use as building sites are highly erodible. They should be seeded to a fast-growing cover as soon as possible to reduce the hazard of erosion. Using straw mulch or jute netting helps to reduce the hazard of erosion during establishment of the grass cover. If runoff from higher areas is a problem, diversions may be needed at the head of these slopes.

Because the available water capacity is low, lawns should be watered frequently and lightly to reduce runoff. Shrubs and trees can be drip irrigated to encourage deeper rooting. Lawn grasses grow best if 1 pound of elemental nitrogen per 1,000 square feet is applied every 8 weeks, from April through October. Adding organic matter to the soil can improve the rate of water intake, aeration, and soil tilth.

If used for recreation, the soils in this complex are best suited as sites for paths and trails that are established across the slope to reduce the hazard of erosion. Natural vegetation should be protected from fire and excessive foot traffic to control erosion and to maintain its esthetic value.

Capability subclass VIe(15), nonirrigated.

124—Los Osos-Millsholm complex, 50 to 75 percent slopes. This complex consists of very steep soils on uplands at an elevation between 300 and 1,500 feet. The average annual precipitation is 20 inches, and the mean annual temperature is 57 degrees F. The average frost-free season ranges from 300 to 320 days. This complex is about 50 percent Los Osos silty clay loam and 30 percent Millsholm silt loam. The components of this map unit are so intricately intermingled that it was not practical to map them separately at the scale used. Included in mapping, and making up about 20 percent of this map unit, are Los Gatos loam and Rock outcrop.

The Los Osos soil is moderately deep and well drained. It formed in material that weathered from sedimentary rock. This soil is on side slopes. Typically, the surface layer is grayish brown, medium acid silty clay loam about 8 inches thick. The subsoil is dark grayish brown, slightly acid silty clay loam and heavy silty clay loam and extends to a depth of 30 inches. It is underlain by weathered shale.

Permeability of the Los Osos soil is slow. The available water capacity is 3.5 to 6.5 inches. The root zone is 24 to 40 inches deep. Runoff is very rapid, and the hazard of erosion is very high.

The Millsholm soil is shallow and well drained. It formed in material that weathered from sedimentary rock. This soil is on ridges. Typically, the surface layer is grayish brown, medium acid silt loam about 7 inches thick. The subsoil is light olive brown, medium acid silt loam and extends to a depth of 20 inches. It is underlain by shale bedrock.

Permeability of the Millsholm soil is moderate. The available water capacity is 1.5 to 3.5 inches. The root zone is 10 to 20 inches deep. Runoff is very rapid, and the hazard of erosion is very high.

These soils are used mainly for recreation. The steep slopes limit the potential for recreation uses to a few paths and trails. To reduce the hazard of erosion, natural vegetation should be protected from fire, and paths and trails should be established across the slope.

Capability subclass VIIe(15), nonirrigated.

125—Marvin silt loam, saline-alkali. This is a very deep, somewhat poorly drained soil on low alluvial terraces. This soil is slightly affected by alkali. It formed in alluvium that derived mainly from sedimentary rock. Elevation ranges from 10 to 40 feet. Slopes are 0 to 2 percent. The average annual precipitation ranges from 16 to 18 inches, and the mean annual temperature is 57 degrees F. The average frost-free season is 300 to 320 days.

Typically, the surface layer is grayish brown, neutral silt loam about 4 inches thick. The subsoil extends to a depth of 36 inches. It is grayish brown, moderately alkaline heavy silty clay loam and clay. The substratum is mottled, light brownish gray and light yellowish brown heavy clay loam extending to a depth of 60 inches or more.

Included in mapping are small areas of Pescadero clay and Willows clay.

Permeability is slow. The available water capacity is 8.0 to 9.0 inches. The root zone for water-loving plants is 60 inches deep; for most of the commonly grown cultivated crops, the water table restricts the root zone to a depth of about 50 inches. Drainage has been improved by flood control structures. The water table is below a depth of 50 inches. Five percent of this map unit is not suited to most crops because of excess alkali.

This soil is used for urban development. A few small areas are used for vegetable crops.

Urban structures require special design because of the low strength and the high shrink-swell potential. Most of the plants used in landscaping should be tolerant of saline-alkali salts. Irrigation water should be applied slowly. Lawns respond to 1 pound of elemental nitrogen

per 1,000 square feet every 6 to 8 weeks, from April through October. Adding organic matter to the soil can improve the rate of water intake, aeration, and soil tilth.

Salt accumulation is a hazard on this slowly permeable soil if it is used for irrigated crops. Water should be applied slowly, and drainage is needed to remove excess surface and subsurface water and to maintain the water table below a depth of 50 inches. All crops respond to nitrogen and phosphate fertilizer.

Capability unit IVs-6(14), nonirrigated; IIIw-6(14), irrigated.

126—Maymen loam, 30 to 75 percent slopes. This is a shallow, somewhat excessively drained soil on uplands. It formed in material that weathered from sedimentary rock. Elevation ranges from 100 to 2,000 feet. The average annual precipitation is 22 inches, and the mean annual temperature is 56 degrees F. The average frost-free season ranges from 300 to 320 days.

Typically, the surface layer and subsoil are light brownish gray, strongly acid loam underlain by shale bedrock at a depth of 19 inches.

Included in mapping are small areas of Millsholm silt loam, Los Gatos loam, and a few areas of a very strongly acid, moderately deep, loamy soil.

Permeability is moderate. The available water capacity is 1 to 3 inches. The root zone is 10 to 20 inches deep. Runoff is rapid to very rapid, and the hazard of erosion is high to very high.

This soil is used for urban development, recreation, and watershed. If it is used for urban development, steep slopes and shallowness to bedrock are the main limitations. The steep banks that result from shaping this soil for use as building sites are highly erodible. They should be seeded to a fast-growing cover as soon as possible to reduce the hazard of erosion. Using straw mulch or jute netting helps to reduce the hazard of erosion during establishment of the grass cover. If runoff from higher areas is a problem, diversions may be needed at the head of these slopes. Tall trees used in landscaping are susceptible to windthrow because the soil is shallow. This soil is best suited to short trees. Lawn grasses grow best if about 1 pound of elemental nitrogen per 1,000 square feet is applied every 8 weeks, from April through October. Some ornamental plants respond to sulfur and to iron and aluminum chelates. Adding organic matter to the soil can improve the rate of water intake, aeration, and soil tilth.

The natural vegetation in recreation areas needs to be protected from fire and other destructive forces. To reduce the hazards of erosion and sedimentation, thick stands of eucalyptus trees should be thinned and regrowth controlled to reduce the fire hazard. The natural vegetation provides cover and food for deer, bush rabbits, quail, and songbirds.

Capability class VIIe(15), nonirrigated.

127—Maymen-Los Gatos complex, 30 to 75 percent slopes. This complex consists of steep and very steep soils on uplands at an elevation of 400 to 1,500 feet. Slopes range from 30 to 75 percent but are mainly 50 to 75 percent. The average annual precipitation is 21 inches, and the mean annual temperature is 56 degrees F. The average frost-free season ranges from 300 to 320 days.

This complex is about 50 percent Maymen soils and 35 percent Los Gatos soils. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used. Included in mapping, and making up 15 percent of this complex, are small areas of Millsholm silt loam and some Rock outcrop.

The Maymen soil is shallow and somewhat excessively drained. This soil is on the upper part of slopes and on ridges. It formed in material that weathered from sedimentary rock. Typically, the surface layer and subsoil are light brownish gray, strongly acid loam. They are underlain by shale at a depth of 19 inches.

Permeability of the Maymen soil is moderate. The available water capacity is 1 to 3 inches. The root zone is 10 to 20 inches deep. Runoff is rapid to very rapid, and the hazard of erosion is high to very high.

The Los Gatos soil is moderately deep and well drained. It is on lower slopes and north-facing slopes. Typically, the surface layer is brown, neutral loam about 11 inches thick. The subsoil extends to a depth of 40 inches. It is brown and reddish brown, neutral and slightly acid loam and heavy loam and is underlain by sandstone.

Permeability of the Los Gatos soil is moderately slow. The available water capacity is 3.5 to 8.0 inches. The root zone is 24 to 40 inches deep. Runoff is rapid to very rapid, and the hazard of erosion is high to very high.

These soils are used for low density urban development, recreation, and watershed.

Urban development is limited by steep slopes and shallowness or moderate depth to bedrock. The steep banks that result from shaping these soils for use as building sites are highly erodible. They should be seeded to a fast-growing cover as soon as possible to reduce the hazard of erosion. Using straw mulch or jute netting helps to reduce the hazard of erosion during establishment of the grass cover. If runoff from higher areas is a problem, diversions may be needed at the head of these slopes.

The Maymen soil is best suited to short trees. Tall trees are susceptible to windthrow. Shrubs and trees can be drip irrigated to encourage deeper rooting. Lawn grasses grow best if about 1 pound of elemental nitrogen per 1,000 square feet is applied every 8 weeks, from April through October. Some ornamental plants respond to sulfur and to iron and aluminum chelates. Adding organic matter to the soil can improve the rate of water intake, aeration, and soil tilth.

Appendix C. USACE Arid West Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/19/13
Applicant/Owner: Trumark State: CA Sampling Point: SP1
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec 2
Landform (hillslope, terrace, etc.): slight depression Local Relief (concave, convex, none): concave Slope (%): 0-2
Subregion (LRR): California Lat: 37.5204 Long: 122.0463 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No
Is the Sampled Area within a Wetland? Yes X No

Remarks:
Vegetation mowed annually, precip is ~66% of normal

VEGETATION

Tree Stratum (Plot size:)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size: *5' radius*)			
1. *Festuca perennis*	20	X	FAC
2. *Eryngium sp.*	10		NA
3. *Helminthotheca echioides*	8		FACU
4. *Hordeum marinum*	5		FAC
5. *Pseudognaphalium luteoalbum*	1		FAC
6. *Centromadia sp.*	1		NA
7. *Downingia pulchella*	1		OBL
8. *Cotula coronopifolia*	1		OBL
Total Cover:	47		
Woody Vine Stratum (Plot size:)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 53 % Cover of Biotic Crust

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL Species		x 5 =	
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
X Dominance Text is >50%
Prevalence Index is ≤3.0[1]
Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes X No**

Remarks:
Shorter, less dense vegetation surrounded by tall upland annual grasses (Avena fatua and Festuca perennis). Wetland/upland boundary blurred due to low rainfall this year.

SOIL

Sampling Point: SP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	95	7.5YR 5/8	5	C	M	silty clay loam	
4-10	10YR 3/2	100					silty clay loam	
10								bottom of pit

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___	Histosol (A1)	___	Sandy Redox (S5)
___	Histic Epipedon (A2)	___	Stripped Matrix (S6)
___	Black Histic (A3)	___	Loamy Mucky Mineral (F1)
___	Hydrogen Sulfide (A4)	___	Loamy Gleyed Matrix (F2)
___	Stratified Layers (A5) **(LRR C)**	___	Depleted Matrix (F3)
___	1 cm Muck (A9) (**LRR D**)	X	Redox Dark Surface (F6)
___	Depleted Below Dark Surface (A11)	___	Depleted Dark Surface (F7)
___	Thick Dark Surface (A12)	___	Redox Depressions (F8)
___	Sandy Mucky Mineral (S1)	___	Vernal Pools (F9)
___	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

___	1 cm Muck (A9) (**LRR C**)
___	2 cm Muck (A10) (**LRR B**)
___	Reduced Vertic (F18)
___	Red Parent Material (TF2)
___	Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No X

Remarks:

~66 annual precip, soil very dry

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)				Secondary Indicators (2 or more required)	
___	Surface Water (A1)	___	Salt Crust (B11)	___	Water Marks (B1) (**Riverine**)
___	High Water Table (A2)	___	Biotic Crust (B12)	___	Sediment Deposits (B2) (**Riverine**)
___	Saturation (A3)	___	Aquatic Invertebrates (B13)	___	Drift Deposits (B3) (Riverine)
___	Water Marks (B1) (**Nonriverine**)	___	Hydrogen Sulfide Odor (C1)	___	Drainage Patterns (B10)
___	Sediment Deposits (B2) (**Nonriverine**)	___	Oxidized Rhizospheres along Living Roots (C3)	___	Dry-Season Water Table (C2)
___	Drift Deposits (B3) (**Nonriverine**)	___	Presence of Reduced Iron (C4)	___	Crayfish Burrows (C8)
X	Surface Soil Cracks (B6)	___	Recent Iron Reduction in Plowed Soils (C6)	___	Saturation Visible on Aerial Imagery (C9)
___	Inundation Visible on Aerial Imagery (B7)	___	Thin Muck Surface (C7)	___	Shallow Aquitard (D3)
___	Water-stained Leaves (B9)		Other (Explain in Remarks)	___	FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/19/13
Applicant/Owner: Trumark State: CA Sampling Point: SP2
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec2
Landform (hillslope, terrace, etc.): upland grassland Local Relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): California Lat: 37.5203 Long: -122.0464 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation X Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
Hydric Soil Present? Yes No X
Wetland Hydrology Present? Yes No X

Is the Sampled Area within a Wetland? Yes No X

Remarks:
Vegetation is mowed annually, annual precip is ~66% of normal.

VEGETATION

Tree Stratum (Plot size:)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size: *5' radius*)			
1. *Avena fatua*	80	X	UPL
2. *Horduem marinum*	5		FAC
3. *Medicago polymorpha*	5		FACU
4. *Frankenia salina*	5		FACW
5. *Geranium dissectum*	1		UPL
6.			
7.			
8.			
Total Cover:	96		
Woody Vine Stratum (Plot size:)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL Species		x 5 =	
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Dominance Text is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** **No** **X**

Remarks:

SOIL

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	98	7.5YR 5/8	2	C	M	silty clay loam	
4-10	10YR 3/2	100						
10								bottom of pit

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Deep soil cracks present, but no shallow surface soil cracks.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP3
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec2
Landform (hillslope, terrace, etc.): wet depression Local Relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR): California Lat: 37.5229 Long: -122.0488 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____
Are Vegetation ____ Soil ____ or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No _____
Hydric Soil Present? Yes X No _____
Wetland Hydrology Present? Yes X No _____

Is the Sampled Area within a Wetland? Yes X No _____

Remarks:

VEGETATION

Tree Stratum (Plot size: _____)

	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum (Plot size: _____)

1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum (Plot size: *5' radius*)

1. *Crassula aquatica*	35	X	OBL
2. *Distichlis spicata*	30	X	FAC
3. *Lasthenia glaberrima*	6		OBL
4. *Hordeum marinum*	5		FAC
5. *Cotula coronopifolia*	5		OBL
6. *Polypogon monspeliensis*	3		FACW
7. *Festuca perennis*	1		FAC
8. *Plantago coronopus*	1		FACW
Total Cover:	86		

Woody Vine Stratum (Plot size: _____)

1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 14 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL Species	_____	x 5 =	_____
Column totals	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

X Dominance Text is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes X No** _____

Remarks:

SOIL

Sampling Point: SP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	95	7.5YR 5/8	5	C	M	silty clay loam	
8								bottom of pit

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___	Histosol (A1)	___	Sandy Redox (S5)
___	Histic Epipedon (A2)	___	Stripped Matrix (S6)
___	Black Histic (A3)	___	Loamy Mucky Mineral (F1)
___	Hydrogen Sulfide (A4)	___	Loamy Gleyed Matrix (F2)
___	Stratified Layers (A5) **(LRR C)**	___	Depleted Matrix (F3)
___	1 cm Muck (A9) (**LRR D**)	X	Redox Dark Surface (F6)
___	Depleted Below Dark Surface (A11)	___	Depleted Dark Surface (F7)
___	Thick Dark Surface (A12)	___	Redox Depressions (F8)
___	Sandy Mucky Mineral (S1)	___	Vernal Pools (F9)
___	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

___	1 cm Muck (A9) (**LRR C**)
___	2 cm Muck (A10) (**LRR B**)
___	Reduced Vertic (F18)
___	Red Parent Material (TF2)
___	Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

___	Surface Water (A1)	___	Salt Crust (B11)	___	Water Marks (B1) (**Riverine**)
___	High Water Table (A2)	X	Biotic Crust (B12)	___	Sediment Deposits (B2) (**Riverine**)
___	Saturation (A3)	___	Aquatic Invertebrates (B13)	___	Drift Deposits (B3) (Riverine)
___	Water Marks (B1) (**Nonriverine**)	___	Hydrogen Sulfide Odor (C1)	___	Drainage Patterns (B10)
___	Sediment Deposits (B2) (**Nonriverine**)	___	Oxidized Rhizospheres along Living Roots (C3)	___	Dry-Season Water Table (C2)
___	Drift Deposits (B3) (**Nonriverine**)	___	Presence of Reduced Iron (C4)	___	Crayfish Burrows (C8)
X	Surface Soil Cracks (B6)	___	Recent Iron Reduction in Plowed Soils (C6)	___	Saturation Visible on Aerial Imagery (C9)
___	Inundation Visible on Aerial Imagery (B7)	___	Thin Muck Surface (C7)	___	Shallow Aquitard (D3)
___	Water-stained Leaves (B9)		Other (Explain in Remarks)	___	FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP4
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec2
Landform (hillslope, terrace, etc.): rim of depression Local Relief (concave, convex, none): convex Slope (%): 2
Subregion (LRR): California Lat: 37.5228 Long: -122.0487 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation ____ Soil ____ or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No X
Hydric Soil Present? Yes _____ No X
Wetland Hydrology Present? Yes _____ No X

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks:

VEGETATION

Tree Stratum (Plot size: ____)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size: *5' radius*)			
1. *Festuca perennis*	25	X	FAC
2. *Melilotus indicus*	20	X	FACU
3. *Hordeum murinum*	20	X	FACU
4. *Hordeum marinum*	5		FAC
5. *Lasthenia caliornica*	1		FACU
6. *Helminthotheca echioides*	1		FACU
7.			
8.			
Total Cover:	72		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL Species	_____	x 5 =	_____
Column totals	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Text is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:

SOIL

Sampling Point: SP4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	99	7.5YR 5/8	1	C	M	silty clay loam	
8								bottom of pit

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Deep soil cracks present, but no shallow surface cracks.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP5
Investigator(s): C. Gurney Section/Township/Range: T5S, R3W, sec2
Landform (hillslope, terrace, etc.): minor depression Local Relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): California Lat: 37.5223 Long: -122.0481 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification non
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ____ Soil X or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation ____ Soil ____ or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No _____
Hydric Soil Present? Yes _____ No X
Wetland Hydrology Present? Yes X No _____
Is the Sampled Area within a Wetland? Yes X No _____

Remarks:
Very slight depression/low point on disturbed gravelly fill soils.

VEGETATION

Tree Stratum (Plot size: ____)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size: *5' radius*)			
1. *Plantago coronopus*	35	X	FACW
2. *Unk. forb*	5		NA
3. *Centromadia sp.*	1		NA
4. *Beta vulgaris*	1		UPL
5. *Avena fatua*	1		UPL
6. *Hordeum murinum*	1		FACU
7.			
8.			
Total Cover:	44		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL Species	_____	x 5 =	_____
Column totals	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
X Dominance Text is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes X No** _____

Remarks:

SOIL

Sampling Point: SP5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	100					loam	
2								bottom of pit, rock/gravel fill material

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ___ No X

Remarks:

Soil is fill material consisting of high proportion of gravel/rock, couldn't dig more than 2 inches deep.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP6
Investigator(s): C. Gurney Section/Township/Range: T5S, R3W, sec2
Landform (hillslope, terrace, etc.): flat grassland Local Relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): California Lat: 37.5223 Long: -122.0481 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ____ Soil X or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation ____ Soil ____ or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No X
Hydric Soil Present? Yes _____ No X
Wetland Hydrology Present? Yes _____ No X

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks:

VEGETATION

Tree Stratum (Plot size: ____)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size: *5' radius*)			
1. *Hordeum marinum*	20	X	FAC
2. *Medicago polymorpha*	20	X	FACU
3. *Plantago coronopus*	10		FACW
4. *Festuca perennis*	10		FAC
5. *Hordeum murinum*	5		FACU
6. *Avena fatua*	5		UPL
7. *Centromadia sp.*	3		NA
8. *Beta vulgaris*	2		UPL
Total Cover:	75		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL Species	_____	x 5 =	_____
Column totals	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

____ Dominance Text is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:

SOIL

Sampling Point: SP6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	100					loam	
2								bottom of pit, rock/gravel fill material

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:
Soil is fill material consisting of high proportion of gravel/rock, couldn't dig more than 2 inches deep.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP7
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec2
Landform (hillslope, terrace, etc.): anthropogenic depression Local Relief (concave, convex, none): concave Slope (%): 2
Subregion (LRR): California Lat: 37.5208 Long: -122.0479 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation X Soil X or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation ____ Soil ____ or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No _____
Hydric Soil Present? Yes X No _____
Wetland Hydrology Present? Yes X No _____

Is the Sampled Area within a Wetland? Yes X No _____

Remarks:
Anthropogenic depression on formerly developed portion of the project site. Most of the surrounding area is paved.

VEGETATION

Tree Stratum (Plot size: ____)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size: ____)			
1. *Polypogon monspeliensis*	30	X	FACW
2. *Festuca perennis*	20	X	FAC
3. *Dittrichia graveolans*	15	X	NI
4. *Stipa miliacea*	5		UPL
5. *Lactuca serriola*	2		FACU
6.			
7.			
8.			
Total Cover:	72		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL Species	_____	x 5 =	_____
Column totals	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

X Dominance Text is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes X No** _____

Remarks:

SOIL

Sampling Point: SP7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	95	7.5YR 5/8	5	C	M	silty clay loam	
2								bottom of pit, rock/gravel fill material

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___	Histosol (A1)	___	Sandy Redox (S5)
___	Histic Epipedon (A2)	___	Stripped Matrix (S6)
___	Black Histic (A3)	___	Loamy Mucky Mineral (F1)
___	Hydrogen Sulfide (A4)	___	Loamy Gleyed Matrix (F2)
___	Stratified Layers (A5) **(LRR C)**	___	Depleted Matrix (F3)
___	1 cm Muck (A9) (**LRR D**)	___	Redox Dark Surface (F6)
___	Depleted Below Dark Surface (A11)	___	Depleted Dark Surface (F7)
___	Thick Dark Surface (A12)	X	Redox Depressions (F8)
___	Sandy Mucky Mineral (S1)	___	Vernal Pools (F9)
___	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Soil is fill material consisting of high proportion of gravel/rock, couldn't dig more than 2 inches deep.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

___	Surface Water (A1)	___	Salt Crust (B11)	___	Water Marks (B1) (**Riverine**)
___	High Water Table (A2)	X	Biotic Crust (B12)	___	Sediment Deposits (B2) (**Riverine**)
___	Saturation (A3)	___	Aquatic Invertebrates (B13)	___	Drift Deposits (B3) (Riverine)
___	Water Marks (B1) (**Nonriverine**)	___	Hydrogen Sulfide Odor (C1)	___	Drainage Patterns (B10)
___	Sediment Deposits (B2) (**Nonriverine**)	___	Oxidized Rhizospheres along Living Roots (C3)	___	Dry-Season Water Table (C2)
___	Drift Deposits (B3) (**Nonriverine**)	___	Presence of Reduced Iron (C4)	___	Crayfish Burrows (C8)
___	Surface Soil Cracks (B6)	___	Recent Iron Reduction in Plowed Soils (C6)	___	Saturation Visible on Aerial Imagery (C9)
___	Inundation Visible on Aerial Imagery (B7)	___	Thin Muck Surface (C7)	___	Shallow Aquitard (D3)
___	Water-stained Leaves (B9)		Other (Explain in Remarks)	___	FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Algal mats present

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP8
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec2
Landform (hillslope, terrace, etc.): rim around depression Local Relief (concave, convex, none): convex Slope (%): 2
Subregion (LRR): California Lat: 37.5208 Long: -122.0479 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation X Soil X or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation ____ Soil ____ or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No X
Hydric Soil Present? Yes _____ No X
Wetland Hydrology Present? Yes _____ No X

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks:
Located on formerly developed portion of the project site. Most of the surrounding area is paved.

VEGETATION

Tree Stratum (Plot size: ____)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size: *5' radius*)			
1. *Avena fatua*	50	X	UPL
2. *Dittrichia graveolans*	10		NI
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	60		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL Species	_____	x 5 =	_____
Column totals	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

____ Dominance Text is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:

SOIL

Sampling Point: SP8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	100					loam	
2								bottom of pit, rock/gravel fill material

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP9
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec2
Landform (hillslope, terrace, etc.): low point adjacent to asphalt Local Relief (concave, convex, none): concave Slope (%): 0-1
Subregion (LRR): California Lat: 37.5210 Long: -122.0474 Datum: WGS84
Soil Map Unit Name: Marvin silty clay loam NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ____ Soil ____ or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation ____ Soil ____ or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No _____
Hydric Soil Present? Yes X No _____
Wetland Hydrology Present? Yes _____ No X

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks:
Slight low point adjacent to paved area dominated by Hordeum marinum. Area likely receives run-off from pavement. Vegetation is marginally hydrophytic, no hydrology indicators are present, and hydrology is likely anthropgenically influenced.

VEGETATION

Tree Stratum (Plot size: ____)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size: *5' radius*)			
1. *Hordeum marinum*	95	X	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	95		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL Species	_____	x 5 =	_____
Column totals	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

X Dominance Text is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes X No** _____

Remarks:

SOIL

Sampling Point: SP9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	85	7.5YR 5/8	15	C	M, PL	silt loam	
6								bottom of pit

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___	Histosol (A1)	___	Sandy Redox (S5)
___	Histic Epipedon (A2)	___	Stripped Matrix (S6)
___	Black Histic (A3)	___	Loamy Mucky Mineral (F1)
___	Hydrogen Sulfide (A4)	___	Loamy Gleyed Matrix (F2)
___	Stratified Layers (A5) **(LRR C)**	___	Depleted Matrix (F3)
___	1 cm Muck (A9) (**LRR D**)	X	Redox Dark Surface (F6)
___	Depleted Below Dark Surface (A11)	___	Depleted Dark Surface (F7)
___	Thick Dark Surface (A12)	___	Redox Depressions (F8)
___	Sandy Mucky Mineral (S1)	___	Vernal Pools (F9)
___	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)				Secondary Indicators (2 or more required)	
___	Surface Water (A1)	___	Salt Crust (B11)	___	Water Marks (B1) (**Riverine**)
___	High Water Table (A2)	___	Biotic Crust (B12)	___	Sediment Deposits (B2) (**Riverine**)
___	Saturation (A3)	___	Aquatic Invertebrates (B13)	___	Drift Deposits (B3) (Riverine)
___	Water Marks (B1) (**Nonriverine**)	___	Hydrogen Sulfide Odor (C1)	___	Drainage Patterns (B10)
___	Sediment Deposits (B2) (**Nonriverine**)	___	Oxidized Rhizospheres along Living Roots (C3)	___	Dry-Season Water Table (C2)
___	Drift Deposits (B3) (**Nonriverine**)	___	Presence of Reduced Iron (C4)	___	Crayfish Burrows (C8)
___	Surface Soil Cracks (B6)	___	Recent Iron Reduction in Plowed Soils (C6)	___	Saturation Visible on Aerial Imagery (C9)
___	Inundation Visible on Aerial Imagery (B7)	___	Thin Muck Surface (C7)	___	Shallow Aquitard (D3)
___	Water-stained Leaves (B9)		Other (Explain in Remarks)	___	FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP10
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec11
Landform (hillslope, terrace, etc.): Local Relief (concave, convex, none): concave Slope (%): 0-1
Subregion (LRR): California Lat: 37.5202 Long: -122.0476 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
Hydric Soil Present? Yes No X
Wetland Hydrology Present? Yes X No
Is the Sampled Area within a Wetland? Yes No X

Remarks:
Shallow swale surrounded paved area.

VEGETATION

Tree Stratum (Plot size: ___)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size: *15' radius*)			
1. *Baccharis pilularis*	2	X	UPL
2.			
3.			
4.			
5.			
Total Cover:	2		
Herb Stratum (Plot size: *5' radius*)			
1. *Helminthotheca echioides*	20	X	FACU
2. *Festuca perennis*	6		FAC
3. *Stipa miliacea*	5		UPL
4. *Geranium dissectum*	5		UPL
5. *Avena fatua*	4		UPL
6. *Pseudognaphalium luteoalbum*	1		FAC
7. *Medicago polymorpha*	1		FACU
8.			
Total Cover:	42		
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 56 % Cover of Biotic Crust

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL Species		x 5 =	
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
___ Dominance Text is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** **No** **X**

Remarks:

SOIL

Sampling Point: SP10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	100					loam	
2								bottom of pit, asphalt

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:

Asphalt from paved area extends out below swale, hit asphalt 2 inches down.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP11
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec2
Landform (hillslope, terrace, etc.): depression Local Relief (concave, convex, none): concave Slope (%): 0-2
Subregion (LRR): California Lat: 37.5238 Long: -122.0490 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No
Is the Sampled Area within a Wetland? Yes X No

Remarks:

VEGETATION

Tree Stratum (Plot size: ___)

	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum (Plot size: ___)

1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum (Plot size: *5' radius*)

1. *Polypogon monspeliensis*	60	X	FACW
2. *Cynodon dactylon*	10		FACU
3. *Stipa miliacea*	5		UPL
4. *Convolvulus arvensis*	2		UPL
5. *Plantago coronopus*	1		FACW
6. *Atriplex sp.*	1		NA
7.			
8.			
Total Cover:	79		

Woody Vine Stratum (Plot size: ___)

1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 21 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL Species		x 5 =	
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X Dominance Text is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** X **No**

Remarks:

SOIL

Sampling Point: SP11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	98	7.5YR 5/8	2	C	M	silty clay loam	
8								bottom of pit

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___	Histosol (A1)	___	Sandy Redox (S5)
___	Histic Epipedon (A2)	___	Stripped Matrix (S6)
___	Black Histic (A3)	___	Loamy Mucky Mineral (F1)
___	Hydrogen Sulfide (A4)	___	Loamy Gleyed Matrix (F2)
___	Stratified Layers (A5) **(LRR C)**	___	Depleted Matrix (F3)
___	1 cm Muck (A9) (**LRR D**)	X	Redox Dark Surface (F6)
___	Depleted Below Dark Surface (A11)	___	Depleted Dark Surface (F7)
___	Thick Dark Surface (A12)	___	Redox Depressions (F8)
___	Sandy Mucky Mineral (S1)	___	Vernal Pools (F9)
___	Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils[3]:

___	1 cm Muck (A9) (**LRR C**)
___	2 cm Muck (A10) (**LRR B**)
___	Reduced Vertic (F18)
___	Red Parent Material (TF2)
___	Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)				Secondary Indicators (2 or more required)	
___	Surface Water (A1)	___	Salt Crust (B11)	___	Water Marks (B1) (**Riverine**)
___	High Water Table (A2)	X	Biotic Crust (B12)	___	Sediment Deposits (B2) (**Riverine**)
___	Saturation (A3)	X	Aquatic Invertebrates (B13)	___	Drift Deposits (B3) (Riverine)
___	Water Marks (B1) (**Nonriverine**)	___	Hydrogen Sulfide Odor (C1)	___	Drainage Patterns (B10)
___	Sediment Deposits (B2) (**Nonriverine**)	___	Oxidized Rhizospheres along Living Roots (C3)	___	Dry-Season Water Table (C2)
___	Drift Deposits (B3) (**Nonriverine**)	___	Presence of Reduced Iron (C4)	___	Crayfish Burrows (C8)
X	Surface Soil Cracks (B6)	___	Recent Iron Reduction in Plowed Soils (C6)	___	Saturation Visible on Aerial Imagery (C9)
___	Inundation Visible on Aerial Imagery (B7)	___	Thin Muck Surface (C7)	___	Shallow Aquitard (D3)
___	Water-stained Leaves (B9)		Other (Explain in Remarks)	___	FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Aquitic invertebrate shells present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Dumbarton City/County: Newark/Alameda Sampling Date: 4/29/13
Applicant/Owner: Trumark State: CA Sampling Point: SP12
Investigator(s): C. Gurney Section/Township/Range: T5S, R2W, sec2
Landform (hillslope, terrace, etc.): rim around depression Local Relief (concave, convex, none): convex Slope (%): 5
Subregion (LRR): California Lat: 37.5238 Long: -122.0490 Datum: WGS84
Soil Map Unit Name: Marvin silt loam, saline-alkaline NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation ____ Soil ____ or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No X
Hydric Soil Present? Yes _____ No X
Wetland Hydrology Present? Yes _____ No X

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks:

VEGETATION

Tree Stratum (Plot size: ____)	Absolute Cover %	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size: *5' radius*)			
1. *Avena fatua*	85	X	UPL
2. *Lactuca serriola*	5		FACU
3. *Helminthotheca echioides*	5		FACU
4.			
5.			
6.			
7.			
8.			
Total Cover:	95		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL Species	_____	x 5 =	_____
Column totals	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Text is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:

SOIL

Sampling Point: SP12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					loam	
8								bottom of pit

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix D. Photographs of Project site Conditions

Photograph 1. Swale surrounding the asphalt cap in the southwest corner of Site B.

Photograph 2. Common brassbuttons (OBL) growing through cracked asphalt on the formerly developed western side of Site B.

Photograph 3. Patches of rabbit's foot grass (FACW) growing in microdepressions and cracks in the pavement on the formerly developed western side of Site B.

Photograph 4. Part of Wetland 1. The shorter, more sparsely vegetated area supports hydrophytic plant species including button celery (OBL), flatface calicoflower (OBL), and common brass buttons (OBL) while the surrounding vegetation is dominated by wild oats (UPL).

Photograph 5. Wetland 4 on Site A, a depressional feature that supports native hydrophytic plant species including button celery (FACW or OBL), smooth goldfields (OBL), and water pygmyweed (OBL).

Photograph 6. Redox concentrations in the matrix indicative of redox dark surface (Hydric Soil Indicator F6).

Photograph 7. Surface soil cracks (Hydrology Indicator B6) in Wetland 4.

Photograph 8. Biotic crust (Hydrology Indicator B12) in Wetland 5.

Appendix E. USACE Aquatic Resources Spreadsheet

Waters_Name	Cowadin_Code	HGM_Code	Measurement_Type	Amount	Units	Waters_Types	Latitude	Longitude	Local_Waterway
W1	PUB		Area	0.06	ACRE	RPWNN	37.5204 N	(-)122.0463 W	
W2	PUB		Area	0.01	ACRE	RPWNN	35.5208 N	(-)122.0479 W	
W3	PUB		Area	0.01	ACRE	RPWNN	37.5223 N	(-)122.0481 W	
W4	PUB		Area	0.10	ACRE	RPWNN	37.5229 N	(-)122.0488 W	
W5	PUB		Area	0.05	ACRE	RPWNN	37.5238 N	(-)122.0490 W	

Appendix B-3

Burrowing Owl Breeding Season Protocol-level Survey

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

18 July 2013

Michael Rhoades
David J. Powers & Associates
1871 The Alameda, Suite 200
San Jose, CA 95126

RE: Trumark Residential - Burrowing Owl Breeding Season Protocol-level Survey Report (HTH #3448-03)

Dear Mr. Rhoades:

Per your request, H. T. Harvey & Associates has completed breeding season protocol-level surveys for burrowing owls (*Athene cunicularia*) at the Trumark Residential Project site located at 8333 and 8400 Enterprise Drive in Newark, California. The purpose of these surveys was to determine whether the Project site is occupied by breeding owls, for the purpose of impact assessment. The site consists of two undeveloped parcels: 8333 Enterprise Drive features low ruderal vegetation with mounds of fill forming two berms that occupy much of the parcel, while 8400 Enterprise drive is characterized by a flat expanse covered by tall, dense ruderal vegetation and in some areas by concrete.

We conducted four site visits for burrowing owls according to the California Department of Fish and Wildlife's (CDFW) *2012 Staff Report on Burrowing Owl Mitigation*. On 16 May 2013, H. T. Harvey & Associates wildlife ecologist Nellie Thorngate, M.S., conducted an initial site assessment and pre-construction survey. She then conducted three follow-up surveys on 6 June, 27 June and 18 July 2013. Nellie is an ornithologist with a B.S. in Wildlife from Humboldt State University and an M.S. in Ecology and Conservation Biology from San Jose State University. Since 2008, Nellie has conducted protocol-level surveys for burrowing owls according to CDFW guidelines at over 10 sites in Santa Cruz, Santa Clara, and Alameda, and Contra Costa counties. Nellie has observed at least 40 individual burrowing owls in the field including nesting pairs, chicks, and individual roosting, wintering, and foraging owls. In addition, she has observed dozens of active burrowing owl burrows with signs of owl use (e.g., whitewash, feathers, and pellets).

Nellie conducted all surveys during the early morning to maximize the probability of detecting owls if they were present. During the initial habitat assessment and survey on 16 May 2013, Nellie walked all areas within the site boundaries, as well as areas within 500 feet (ft), as access allowed, looking for owls and for evidence of recent owl occupation at burrows (i.e., whitewash, pellets, feathers, and/or prey remains). She did not observe any burrowing owls on the site or within 500 ft during the initial survey. However, the site, particularly the 8333 Enterprise Drive parcel, supported numerous well-established ground-squirrel (*Spermophilus beecheyi*) burrows on the berms and other small mounds of fill, as well as in flatter areas where the vegetation was short and the soil was sufficiently friable. These burrows provide potential roosting or nesting

sites for burrowing owls. Thus, three additional surveys were conducted, per the CDFW protocol, to determine whether owls were present on the site. During these three subsequent site visits, Nellie again walked all areas of the site, as well as accessible areas within 500 ft, to determine whether owls occupied any of the burrows at the site. No owls or any evidence of owl use of burrows within the survey area was observed, and it is our opinion that burrowing owls did not nest on the Project site during the 2013 breeding season. Further, it is our opinion that no burrows within the Project site or within 500 ft of the site boundary are currently being used by burrowing owls.

Please feel free to contact me at gbolen@harveyecology.com or (408) 458-3246 with any questions you may about the survey results. Thank you very much for contacting H. T. Harvey & Associates about this survey.

Sincerely,

Ginger Bolen, Ph. D.
Senior Wildlife Ecologist

Appendix B-4

Rare Plant Survey Report

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

Trumark Residential Project
Rare Plant Survey Report

Project # 3348-03

Prepared for:

Michael Rhoades
David J. Powers & Associates
1871 The Alameda, Suite 200
San Jose, CA 95126

Prepared by:

H. T. Harvey & Associates

17 July 2013

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Section 1.0 Introduction

Trumark proposes the implementation of a Corrective Action Plan (CAP) and residential development on two sites (Figure 1) within the Dumbarton Transit Oriented Development Specific Plan area. Site A is a single 2.14-acre (ac) parcel (APN 092-0140-008) located at 8333 Enterprise Way, Newark, California (Figure 2). It is adjacent to the Dumbarton Rail Corridor, and includes a portion of the Hetch Hetchy pipeline right-of-way. Site B is located at 8400 Enterprise Way, Newark, California and comprises three parcels (APNs 092-0116-060, -058, and -059) that total 21.27 ac in size. The 23.46-ac Trumark Residential Project (Project) study area encompasses both Sites A and B. The study area is located in Township 5 South, Range 2 West, Sections 2 and 11 and is within the Newark, California 7.5-minute U.S. Geological Survey (USGS) quadrangle.

As described under Impact 4.3-5 of the *Dumbarton Transit Oriented Development Specific Plan Environmental Impact Report* (EIR; RBF Consulting 2011), the study area provides potentially suitable habitat for several special-status plant species. Thus, per the requirements of Specific Plan Mitigation Measure 4.3-5, protocol-level plant surveys have been completed within the Project study area.

Section 2.0 Methods

Special-status plant surveys were conducted within the entirety of the Project study area in accordance with recommended protocols (California Department of Fish and Game [CDFG] 2009) as follows:

- They included extensive background review of relevant botanical information (including California Natural Diversity Database [CNDDB] records);
- They were floristic in nature (every plant taxon that occurs on site was identified to the level necessary to determine rarity and listing status);
- They were comprehensive over the entire site; and
- They included multiple, targeted re-visits at the times of the year when species were evident and identifiable.

2.1 Identification of Target Species

Based on CNDDB (2013) records and the California Native Plant Society's Rare Plant Inventory tool (CNPS 2013), we initially identified 46 special-status plant species that are known to occur in the vicinity of the Project area (H. T. Harvey & Associates 2013a). Of these, all but seven were eliminated as potentially occurring based on a lack of suitable habitat. The remaining species are summarized in Table 1 below.

Table 1. Special-status Plant Species with Potential to Occur in the Project Study Area

Species	Status	Habitat	Blooming Period
Brittlescale (*Atriplex depressa*)	CNPS 1B.2	Chenopod scrub; playas; meadows and seeps; vernal pools [alkaline or clay]; valley and foothill grassland.	April–October
San Joaquin spearscale (*Atriplex joaquiniana*)	CNPS 1B.2	Chenopod scrub; meadows and seeps; valley and foothill grassland (alkaline); playas.	April–October
Lesser saltscale (*Atriplex minuscula*)	CNPS 1B.1	Chenopod scrub; playas; valley and foothill grassland [alkaline, sandy].	May–October
Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*)	CNPS 1B.1	Valley and foothill grassland (alkaline).	June–November
Hoover's button celery (*Eryngium aristulatum* var. *hooveri*)	CNPS 1B.1	Vernal pools.	July
Caper-fruited tropidocarpum (*Tropidocarpum capparideum*)	CNPS 1B.1	Valley and foothill grassland (alkaline hills).	March–April
Saline clover (*Trifolium depauperatum* var. *hydrophilum*)	CNPS 1B.1	Marshes and swamps; valley and foothill grassland (mesic, alkaline); vernal pools.	April–June

2.2 Survey Dates, Timing, and Precipitation

Surveys were conducted on two dates, 13 May and 12 July 2013. These dates include the blooming periods of all target species except for caper-fruited tropidocarpum (*Tropidocarpum capparideum*). However, the fruits of caper-fruited tropidocarpum are unique and should have still been identifiable at the time of the first survey on May 13.

Precipitation during the growing season was below-average this year. Total estimated precipitation at the site during the 2012–2013 growing season (Oct–May) was 11.25 inches (PRISM Climate Group 2013; Table 2). This is approximately 74 percent of the 1981–2010 long-term mean of 15.25 inches per year (PRISM Climate Group 2013; Table 2). However, based on the ecological requirements of the species potentially occurring in the study area and observations of other species present both on the Project study area and adjacent habitats, the lower than average rainfall is not expected to have adversely affected the detectability of the seven special-status plants potentially occurring on the study area, if present.

Table 2. Estimated Precipitation during the 2012–2013 Growing Season Compared to the Long-term Average

Month	2012–2013 Precipitation (inches)	Long-term Average Precipitation (inches)
October	0.81	0.80
November	2.77	1.75
December	5.96	2.65
January	0.41	3.04
February	0.43	3.04
March	0.58	2.43
April	0.29	1.07
May	0.00	0.47
Total	11.25	15.25

Section 3.0 Results

3.1 Habitats

Two habitat types were identified in the Project study area, anthropogenic (23.22 ac) and brackish/freshwater seasonal marsh (0.24 ac). These habitats are described in detail below (Table 3; Figure 2).

Anthropogenic. Anthropogenic (ruderal) habitat is the most common habitat in the study area (Photograph 1). This habitat type contains assemblages of plants that thrive in waste areas, roadsides, and other sites that have been disturbed by human activity. Weeds will grow through cracks in asphalt, in fields that are routinely disturbed by mowing or disking, or other frequent disturbances. Common ruderal species detected on the parcels in the study area include wild oats (*Avena* spp.), Italian ryegrass (*Festuca perennis*), prickly lettuce (*Lactuca serriola*), sweet fennel (*Foeniculum vulgare*), short-podded mustard (*Hirschfeldia incana*), common vetch (*Vicia sativa*), milk thistle (*Silybum marianum*), common knotweed (*Polygonum aviculare*), and horseweed (*Erigeron canadensis*).

Photograph 1. Ruderal habitat.

Photograph 2. Brackish/freshwater seasonal wetland.

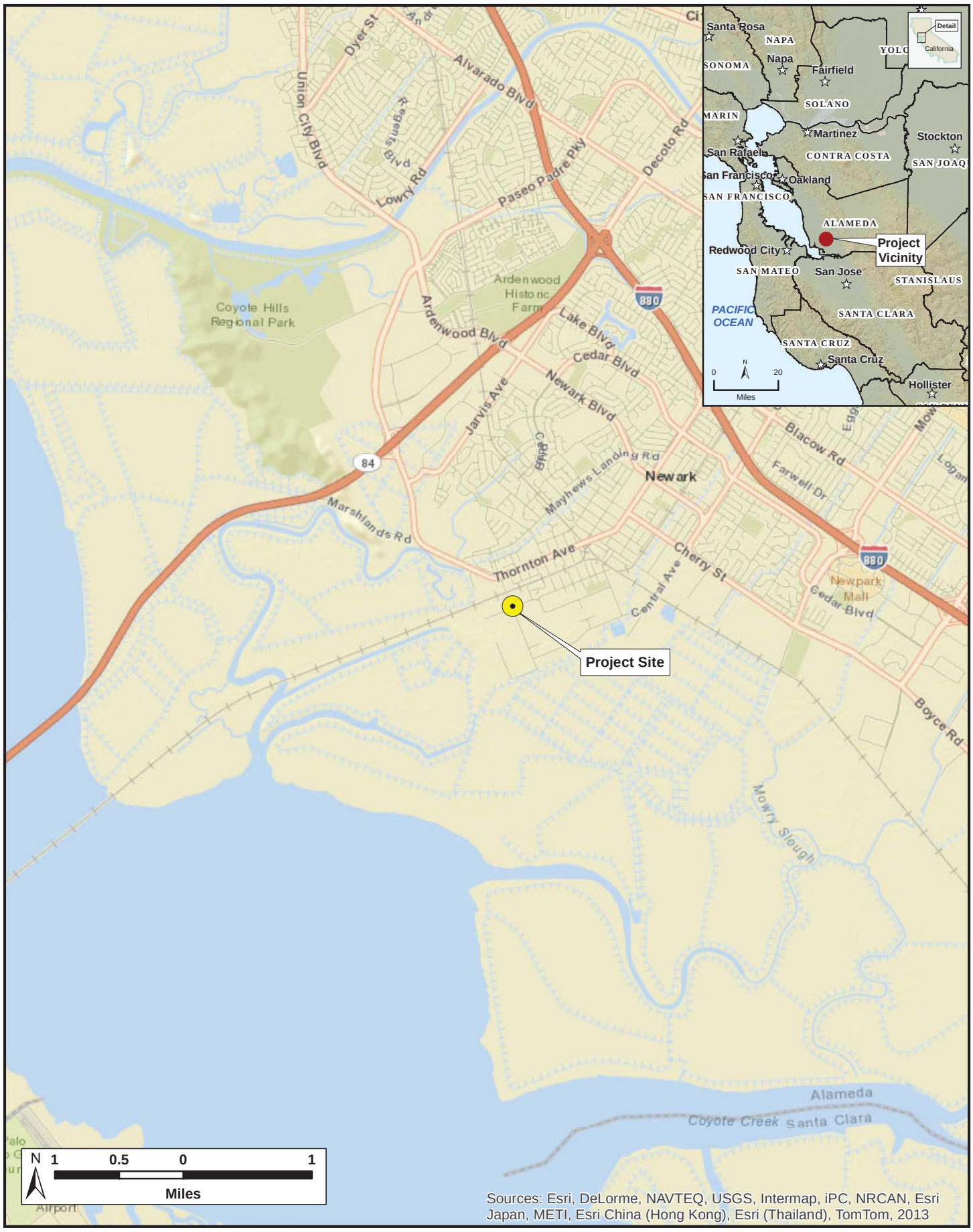
Brackish/Freshwater Seasonal Wetlands. Seasonal wetlands in the study area (Photograph 2) are inundated for extended periods during the early growing season, but are dry by the end of the growing season in most years. Due to their highly variable hydrology, they support a mixture of wetland and upland plant species but are typically dominated by hydrophytic plant species. Most of the seasonal wetlands are dominated by non-native species including seaside barley, rabbit's foot grass (*Polypogon monspeliensis*), and Italian ryegrass (*Festuca perennis*). However, these wetlands also contained a number of native species including saltgrass (*Distichlis spicata*), button celery (*Eryngium aristulatum* var.

aristulatum), flatface calicoflower (*Downingia pulchella*), smooth goldfields (*Lasthenia glaberrima*), and water pygmyweed (*Crassula aquatica*).

3.2 Survey Results

Six of the seven rare plant species potentially occurring in the study area were determined to be absent. One target species, Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), was identified in one of the seasonal wetlands located within Site B (Photograph 3). Approximately 10 individuals of this species were present at this location (Figure 1).

Photograph 3. Congdon's tarplant.



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

N:\Projects3400\3448-01\03\Reports\Rare Plant Survey Report\Figure 1 Vicinity Map.mxd

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Figure 1: Vicinity Map
Trumark Residential Project Rare Plant Survey Report (3448-03)
July 2013

N:\Projects3400\3448-01\03\Reports\Rare Plant Survey Report\Figure 2 Habitat Map.mxd

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ECOLOGICAL CONSULTANTS

Figure 2: Habitat Map

Trumark Residential Project Rare Plant Survey Report (3448-03)

July 2013

Section 4.0 Literature Cited

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley.

[CDFG] California Department of Fish and Game. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Revised November 2009. Sacramento, California. Accessed May 2013 (and other dates) from http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/protocols_for_surveying_and_evaluating_impacts.pdf .

[CNDDB] California Natural Diversity Database. 2013. Rarefind 4.0, a program created by the California Department of Fish and Game, allowing access to the CNDDB.

[CNPS] California Native Plant Society. 2013. Inventory of Rare and Endangered Plants (online edition, v7-09d). California Native Plant Society. Sacramento, California. Accessed through May 2013 (and other dates) from http://www.cnps.org/inventory.

H. T. Harvey & Associates. 2013a. Trumark Residential Project Alameda County, California Biological Resources Report. Prepared for David J. Powers & Associates. May 2013.

H. T. Harvey & Associates. 2013b. Trumark Residential Project Alameda County, California Preliminary Delineation of Wetlands and Other Waters. Prepared for David J. Powers & Associates. May 2013.

PRISM Climate Group. 2013. PRISM Products Matrix., http://prism.oregonstate.edu. Accessed July 2013.

RBF Consulting. 2011. Dumbarton Transit Oriented Development Specific Plan Final Environmental Impact Report. Prepared for City of Newark. July 2011.

Appendix A. Plant Species Observed

Family	Scientific Name	Common Name
Apiaceae	*Eryngium aristulatum* var. *aristulatum*	California eryngo
Arecaceae	*Washingtonia robusta*	Washington Fan Palm
Asteraceae	*Baccharis pilularis*	Coyote Brush
	Carduus pycnocephalus	Italian Thistle
	Centaurea solstitialis	Yellow Star Thistle
	Centromadia fitchii	Spikeweed
	Centromadia parryi ssp. *congdonii*	Congdon's Tarplant
	Centromadia pungens ssp. *pungens*	Common Tarplant
	Cirsium vulgare	Bull Thistle
	Cotula coronopifolia	Common Brassbuttons
	Dittrichia graveolens	Stinkwort
	Erigeron canadensis	Horseweed
	Helminthotheca echioides	Bristly Ox-Tongue
	Lactuca serriola	Prickly Lettuce
	Lasthenia glaberrima	Smooth Goldfields
	Lasthenia californica	California Goldfields
	Pseudognaphalium luteoalbum	Jersey Cudweed
	Pseudognaphalium stramineum	Cottonbatting Plant
	Senecio vulgaris	Old-Man-in-the Spring
	Sonchus oleraceus	Common Sow-Thistle
	Taraxacum officinale	Common Dandelion
	Tragopogon porrifolius	Purple Salsify
	Xanthium strumarium	Rough Cocklebur
Boraginaceae	*Heliotropium curassavicum*	Salt Heliotrope
Brassicaceae	*Brassica nigra*	Black Mustard
	Hirschfeldia incana	Short Podded Mustard
	Lepidium draba	Whitetop
	Raphanus sativus	Wild Radish
Campanulaceae	*Downingia pulchella*	Flatface Calicoflower
Chenopodiaceae	*Atriplex prostrata*	Fat-hen
	Atriplex rosea	Tumbling Saltweed
	Beta vulgaris	Common Beet
	Chenopodium album	White Goosefoot
	Rumex crispus	Common Sheep Sorrel
	Salsola tragus	Prickly Russian-Thistle

Family	Scientific Name	Common Name
Convolvulaceae	*Convolvulus arvensis*	Field Bindweed
Crassulaceae	*Crassula aquatica*	Water Pygmyweed
Fabaceae	*Acacia* sp.	NA
	Lotus corniculatus	Broadleaf Birdsfoot Trefoil
	Medicago polymorpha	Bur Clover
	Melilotus indicus	Annual Yellow Sweetclover
	Trifolium hirtum	Rose Clover
	Vicia sativa	Garden Vetch
Frankeniaceae	*Frankenia salina*	Alkali Sea-Heath
Geraniaceae	*Erodium moschatum*	White-Stemmed Filaree
	Geranium dissectum	Cutleaf Geranium
Malvaceae	*Malva nicaeensis*	Bull mallow
Orobanchaceae	*Castilleja exserta*	Owlclover
Plantaginaceae	*Plantago coronopus*	Cut Leaf Plantain
	Plantago lanceolata	English Plantain
Poaceae	*Avena fatua*	Wild Oats
	Bromus catharticus	Rescue Grass
	Bromus diandrus	Ripgut Brome
	Bromus hordeaceus	Soft Chess
	Cortaderia jubata	Pampas Grass
	Cynodon dactylon	Bermuda Grass
	Digitaria sanguinalis	Crabgrass
	Distichlis spicata	Saltgrass
	Festuca perennis	Italian Ryegrass
	Hordeum marinum	Seaside Barley
	Hordeum murinum	Foxtail Barley
	Koeleria macrantha	June Grass
	Polypogon monspeliensis	Rabbit's-Foot Grass
	Stipa miliacea	Smilo Grass
Polygonaceae	*Polygonum aviculare*	Prostrate knotweed
Rosaceae	*Rubus armeniacus*	Himalayan Blackberry
Salicaceae	*Salix lasiolepis*	Arroyo Willow
Solanaceae	*Nicotiana glauca*	Tree Tobacco
	Solanum americanum	Nightshade

The species are arranged alphabetically by family name for all vascular plants encountered during the plant survey. Plants are also listed alphabetically within each family. Species nomenclature is from Baldwin (2012).