TOWN OF DISCOVERY BAY
COMMUNITY SERVICES DISTRICT

RESOLUTION 2013-17

**RESOLUTION OF THE BOARD OF DIRECTORS
OF THE TOWN OF DISCOVERY BAY,
A CALIFORNIA COMMUNITY SERVICES DISTRICT,
ADOPTING THE NEW WATER SUPPLY WELL NUMBER 7 MITIGATED NEGATIVE DECLARATION,
FOR WHICH AN INITIAL STUDY WAS PREPARED, ALL IN ACCORDANCE
WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AND ADOPTING A
RELATED MITIGATION MONITORING AND REPORTING PROGRAM**

WHEREAS, prior to adoption of this resolution, the General Manager of the Town of Discovery Bay Community Services District prepared and circulated to the public for review and comment an Initial Study and Mitigated Negative Declaration for New Water Supply Well Number 7 (Well 7) project, all in accordance with the California Environmental Quality Act of 1970, together with state and local guidelines implementing said Act, as amended to date (collectively, "CEQA"); and

WHEREAS, the Town of Discovery Bay Community Services District considered the development of the Well 7 project, analyzed under the Initial Study/Mitigated Negative Declaration, which consists of the construction and operation of new municipal water supply Well 7 for system reliability and emergencies; and

WHEREAS, the Initial Study/Mitigated Negative Declaration concluded that implementation of the Project could result in a number of significant effects on the environment and identified mitigation measures that would reduce the significant effects to a less-than-significant level; and

WHEREAS, in connection with the approval of a project involving the preparation of an Initial Study/Mitigated Negative Declaration that identifies one or more significant environmental effects, CEQA requires the decision-making body of the lead agency to incorporate feasible mitigation measures that would reduce those significant environment effects to a less-than-significant level; and

WHEREAS, whenever a lead agency approves a project requiring the implementation of measures to mitigate or avoid significant effects on the environment, CEQA also requires a lead agency to adopt a mitigation monitoring and reporting program to ensure compliance with the mitigation measures during project implementation; and

WHEREAS, such a mitigation monitoring and reporting program (the "Mitigation Monitoring and Reporting Program") has been prepared for the Project for consideration by the decision-making body of the Town of Discovery Bay Community Services District as lead agency for the Project; and

WHEREAS, the Town of Discovery Bay Community Services District is the lead agency on the Project, and the Community Services District Board of Directors is the decision-making body for the proposed approval to construct the Project; and

WHEREAS, the Town of Discovery Bay Community Services District and its Board of Directors have reviewed and considered the Initial Study/Mitigated Negative Declaration and related Mitigation Monitoring and Reporting Program for the Project and intends to take actions on the Project in compliance with CEQA; and;

WHEREAS, the Initial Study/Mitigated Negative Declaration and related Mitigation Monitoring and Reporting Program for the Project are, by this reference, incorporated into this Resolution as if fully set forth herein.

NOW THEREFORE BE IT RESOLVED THAT THE BOARD OF DIRECTORS OF THE TOWN OF DISCOVERY BAY COMMUNITY SERVICES DISTRICT DOES AS FOLLOWS:

1. That the above recitals are true and correct, and are incorporated as part of this Resolution.
2. That it has independently reviewed and analyzed the Initial Study/Mitigated Negative Declaration and other information in the record and has considered the information contained therein, prior to acting upon or approving the Project.
3. That the Initial Study/Mitigated Negative Declaration prepared for the Well 7 Project has been completed in compliance with CEQA; and
4. That the Initial Study/Mitigated Negative Declaration represents the independent judgment and analysis of the Town of Discovery Bay Community Services District as lead agency for the Well 7 Project.

THAT THE BOARD OF DIRECTORS OF THE TOWN OF DISCOVERY BAY COMMUNITY SERVICES DISTRICT does hereby adopt the Mitigated Negative Declaration and adopt the related Mitigation Monitoring and Reporting Program prepared for the Well 7 Project. The Initial Study/Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program are: (1) on file in the Office of the General Manager, located at 1800 Willow Lake Road, Discovery Bay CA 94505 and (2) available for inspection by any interested person.

PASSED, APPROVED AND ADOPTED THIS 21st DAY OF AUGUST, 2013.

Mark Simon
Board President

I hereby certify that the foregoing Resolution was duly adopted by the Board of Directors of the Town of Discovery Bay Community Services District at a regularly scheduled meeting, held on August 21, 2013, by the following vote of the Board:

AYES: 5
NOES: 0
ABSENT: 0
ABSTAIN: 0

Richard J. Howard
Board Secretary

Town of Discovery Bay
Community Services District
New Water Supply Well Number 7

Discovery Bay, California

Initial Study
&
Environmental Determination

PREPARED BY

HURLBERT CONSULTING

July 2013

ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:

a) I find that the proposed project could not have a significant effect on the environment, and a negative declaration will be prepared. [ ]

b) I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described within the attached Initial Study have been added to the project. A mitigated negative declaration will be prepared. [x]

c) I find that the proposed project may have a significant effect on the environment, and an environmental impact report is required. [ ]

d) I find that the proposed project may have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An environmental impact report is required, but it must analyze only the effects that remain to be addressed. [ ]

The Town of Discovery Bay Community Services District has determined that the subject project, further defined and discussed in the attached Environmental Checklist/Initial Study, will not have any residual significant effects on the environment. As a result thereof, the preparation of an environmental impact report pursuant to the California Environmental Quality Act (Division 13 of the Public Resource Code of the State of California) is not required.

The attached Environmental Checklist/Initial Study has been prepared by the Town of Discovery Bay Community Services District in support of this Negative Declaration. Further information including the project file and supporting reports and studies may be reviewed at the Town of Discovery Bay Community Services District, 1800 Willow Lake Road, Discovery Bay, California 94505. MITIGATION MEASURES: No mitigation measures have been identified for the project.

Signature

Date

Rick Howard
General Manager

Town of Discovery Bay
Community Services District

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INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND ENVIRONMENTAL EVALUATION

Project Title:	Well 7
Entitlements Requested:	Obligation of Public Funds; Construction Contracting
Lead Agency Name and Address:	Town of Discovery Bay Community Services District 1800 Willow Lake Road Discovery Bay, California 94505
Contact Person and Phone Number:	Mr. Virgil Koehne (925) 634-1131
General Plan Designation:	Open Space
Zoning Designation:	Planned Unit (P-1)

This Initial Study focuses on whether the proposed project may cause significant effects on the environment. In particular, consistent with Section 21083.3 of the Public Resources Code, this Initial Study is intended to assess any effects on the environment, which are peculiar to the proposed project or to the parcel on which the project would be located. The Initial Study is also intended to assess whether any environmental effects of the project are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or by other means [Section 15152(b)(2) of the Guidelines for the California Environmental Quality Act (CEQA)]. If such revisions, conditions or other means are identified, they will be identified as mitigation measures.

This initial study relies on CEQA Guidelines §15064 in its determination of the significance of environmental effects. According to §15064, the finding as to whether a project may have one or more significant effects shall be based on substantial evidence in the record, and that controversy alone, without substantial evidence of a significant effect, does not trigger the need for an EIR.

1. PROJECT OBJECTIVES

The Town of Discovery Bay Community Services District (CSD) is proposing within its service area the construction and operation of a new municipal water supply Well number 7 (Well 7). The purpose of the Well 7 Project is to provide water supply reliability to the CSD in accordance with the California Department of Public Health (CDPH) Waterworks Standards.

Well 7 water would be treated at the Newport Water Treatment Plant (WTP) along with water from Wells 4A and 5A. The new well is anticipated to have a pumping capacity of approximately 2,000 gallons per minute. The proposed Well 7 Project is intended to

serve the Town of Discovery Bay CSD water system with an added source of supply for municipal uses as determined by the CSD to:

1. Enhance the reliability and redundancy of water supplies when existing Well 5A or Well 4A are out of service for maintenance or other reasons; and
2. Serve as a source of water supply in the event of a water infrastructure or water supply emergency.

The proposed project is consistent with and implements elements of the CSD's adopted Water Master Plan (January 2012) and the recommendations contained in technical reports by the District's engineer (LSCE 2013a and 2013b). The proposed Well 7 Project encourages water supply reliability, especially given water quality concerns with Well 5A (maintenance issues arising from contamination with brackish water). The facility constructed under the proposed project directly serves to maintain the surety of the District's water supply in the event of a water supply emergency. The proposed Well 7 site would meet well setback requirements under CDHP and County regulations.

2. PROJECT LOCATION

The Town of Discovery Bay is an unincorporated community in Contra Costa County approximately 10 miles southeast from Brentwood off of Byron Highway Interstate 4. Discovery Bay is a network of man-made lakes and channels that connect to the Delta. Residential construction is on the levees that form the man-made lakes and water canals. Figure 1 shows the regional location of the Town of Discovery Bay.

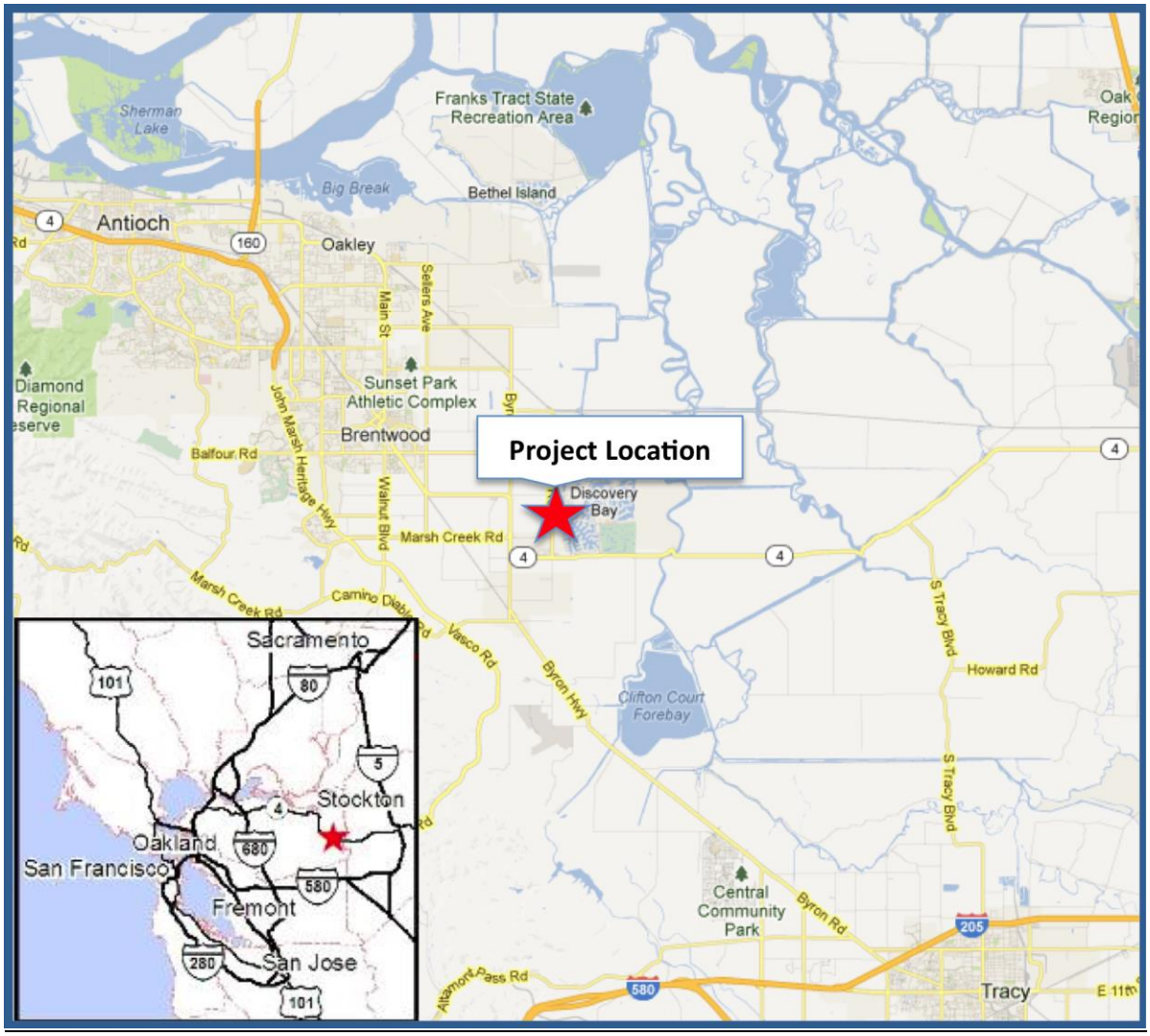
The proposed Well 7 Project would be at 2200 Newport Drive, Discovery Bay, California 94505. Well 7 would be approximately 2,300 feet south of the Newport WTP, west of Newport Drive and Capstan Place. Figure 2 shows the Well 7 Project vicinity along the existing western developed edge of the Town of Discovery Bay.

The proposed Well 7 Project would be located on portions of two existing parcels (Contra Costa County Assessor's Parcel Numbers (APNs) 008-010—029 and -037). APN 008-010-029 is already owned by the Town of Discovery Bay. APN 008-010-037 is owned by a private party. The proposed well portion of existing APN 008-010-037 would eventually be granted to the Town of Discovery Bay after either a parcel map or lot line adjustment application with Contra Costa County is processed.

The specific site plan for Well 7 is shown in Figure 3. The well site abuts Kellogg Creek, a Reclamation District (RD) 800 drainage ditch and a pedestrian path. To the north of the proposed project site is open space, the drainage ditch, Newport Drive, and residences. To the east is Newport Drive and residences. To the south is Kellogg Creek and residences. To the west is a pedestrian path, an energy transmission corridor, and open space.

The project site is designated by the Contra Costa General Plan as Open Space (OS). Wetlands and tidelands and other areas of significant ecological resources, canals, and safety zones around hazards or low intensity recreation (e.g., pedestrian paths) are allowed by this General Plan category. The property is zoned P-1 (Planned Unit District)

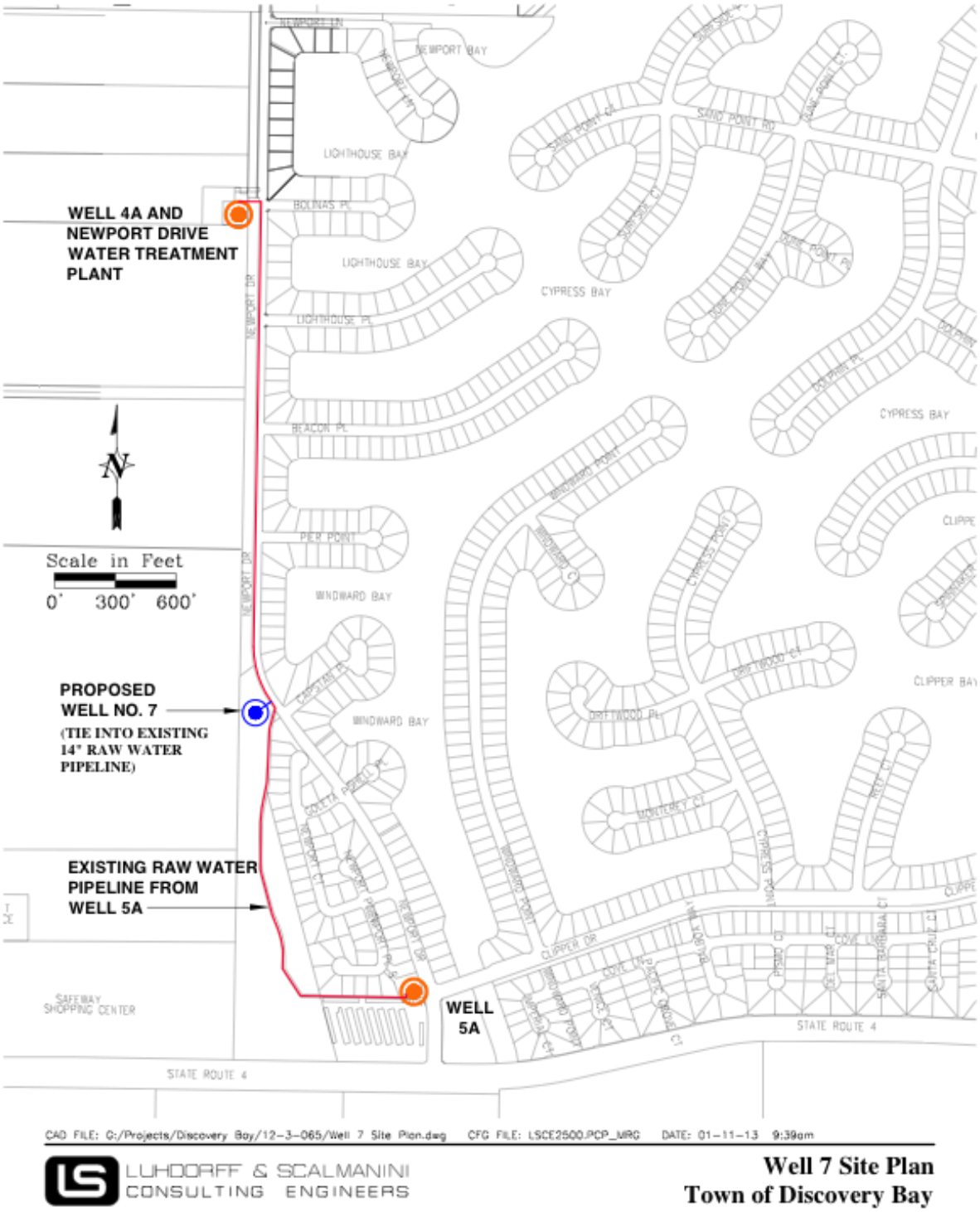
by the Contra Costa Municipal Code. The development and operation of a municipal water well and associated facilities is a permitted use consistent with the final development plan approved for the Town of Discovery Bay (Contra Costa County Municipal Code, Section 84-66.402).



Town of Discovery Bay Well Project

SOURCE: Hurlbert Consulting, May 2013

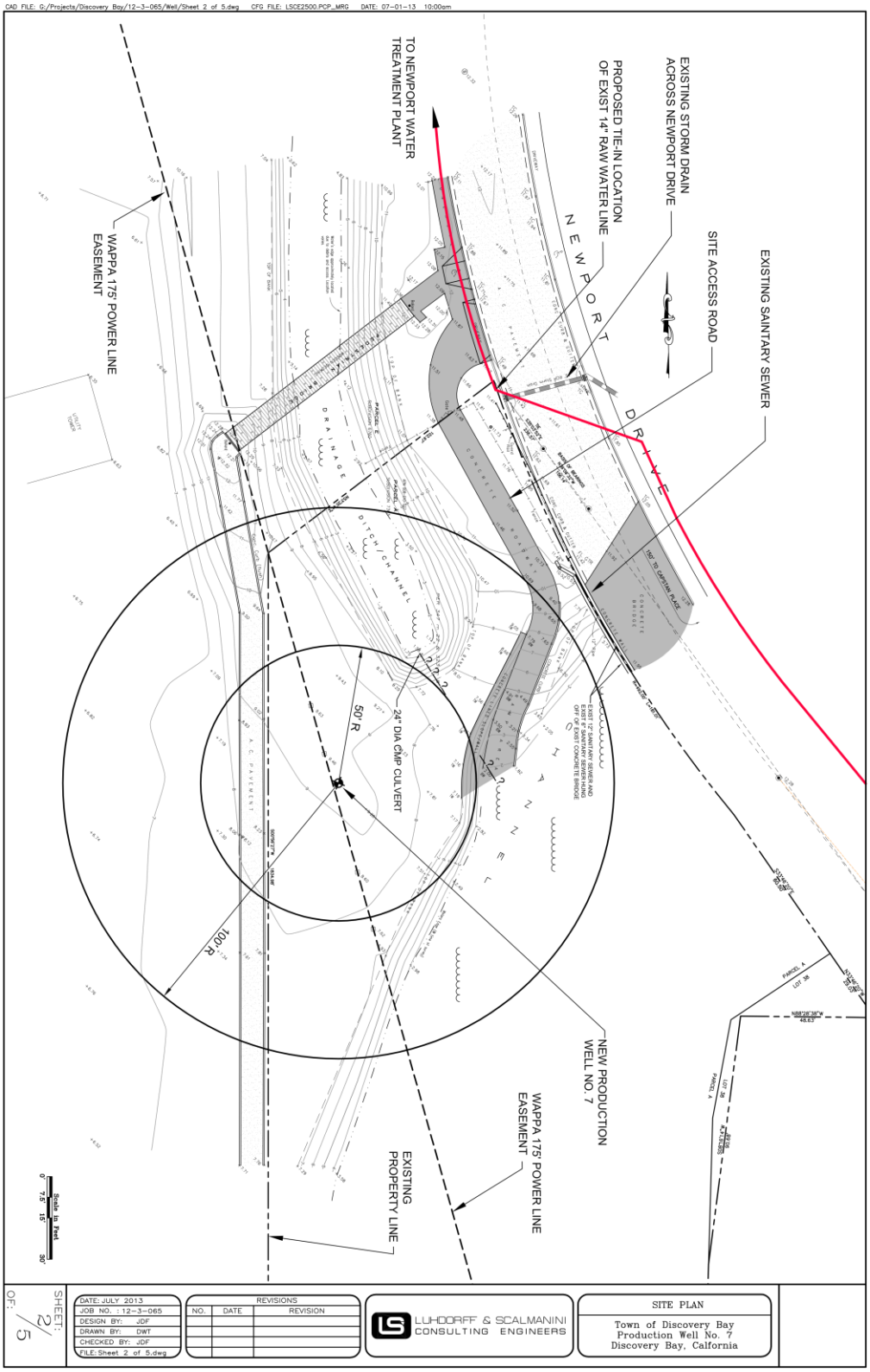
Figure 1
Regional Location



Town of Discovery Bay Well Project

SOURCE: LSCE 2013

Figure 2- Project Vicinity



Town of Discovery Bay Well Project

SOURCE: LSCE 2013

Figure 3- Project Site Plan

3. PROJECT DESCRIPTION

WATER SOURCE

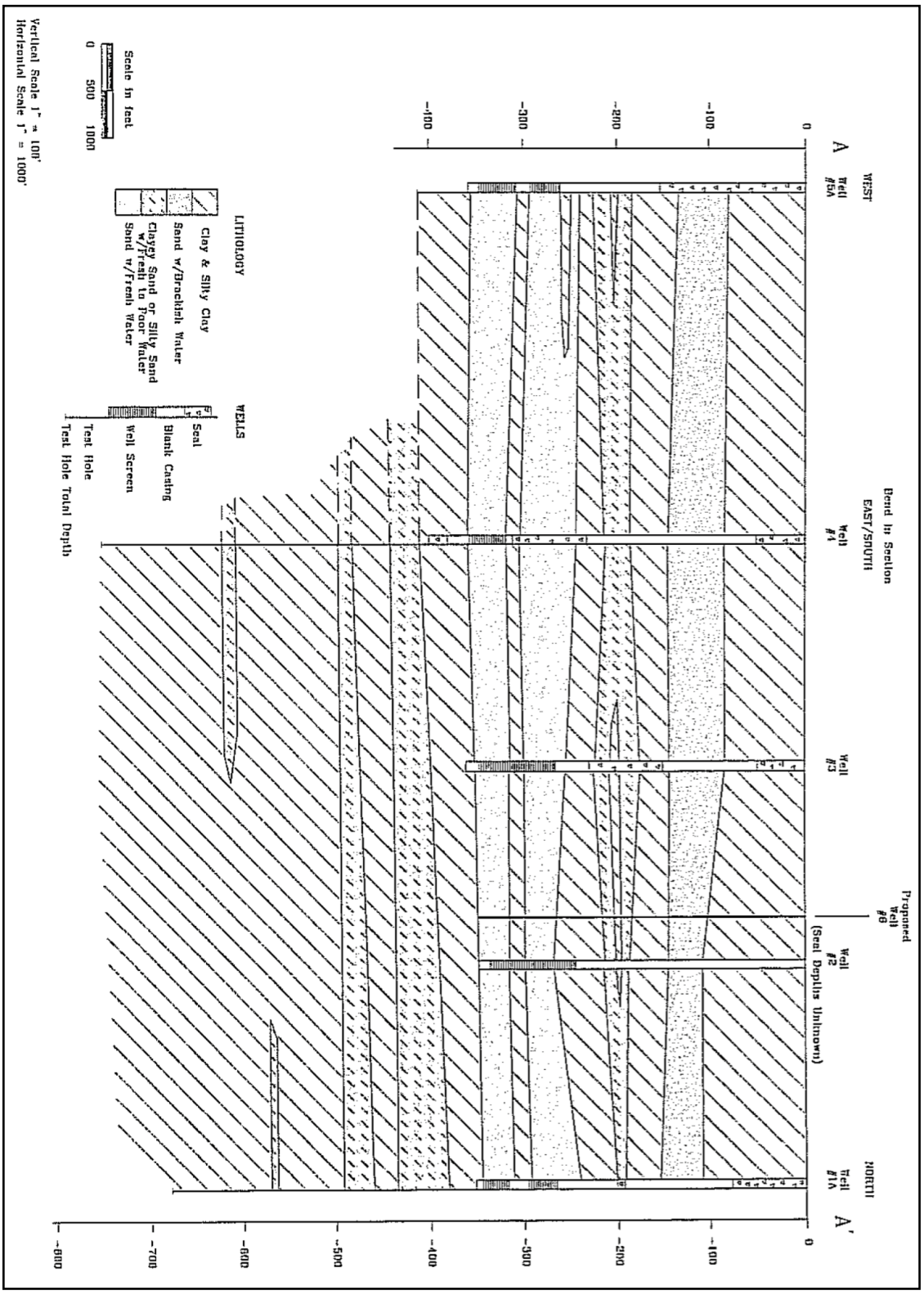
The CSD's drinking water source is groundwater. The CSD's wells extract groundwater from the greater San Joaquin Valley Groundwater Basin. Groundwater occurs in upper alluvial fan deposits and sands of the Tulare Formation. The upper alluvial sand, encountered at a depth of approximately 80 to 120 feet, is likely recharged from runoff from the Coast Range located 30 miles southwest of Discovery Bay. This shallow sand is also intruded by surface water from San Francisco Bay and water quality in this sand is typically brackish and not suitable for domestic or irrigation water supply. The Tulare Formation sands are the source of water supply for the Discovery Bay wells.

The geology beneath Discovery Bay is illustrated in Figure 4, which is a geologic cross-section through Discovery Bay Wells 1A, 2, 3 (abandoned), 4, 5A and 6. A test hole drilled at the Well 7 site revealed consistent geologic relationships with that illustrated in Figure 4. All the Discovery Bay water supply wells are completed in sand lithologies between about 240 feet and 360 feet. Aquifer characteristics give the ability to pump at capacities up to 2,000 gallons per minute (gpm).

Groundwater levels in the Discovery Bay wells fluctuate due to climate and seasonal pumping; all the wells generally follow the same pattern, with static water levels between 15 and 40 feet below the ground surface, depending on time of year.

The CSD currently pumps groundwater from five existing wells (Wells 1B, 2, 4A, 5A and 6). The water system has two water treatment plants – the Willow Lake WTP, which receives water from Wells 1B, 2 and 6; and the Newport WTP, which receives water from Wells 4A and 5A. The proposed new Well 7 is located between Wells 4A and 5A and would tie into the existing Well 4A/5A pipeline that currently connects to the existing Newport WTP.

The Newport WTP facility includes: two 2,000 gpm greensand treatment filters; two 275,000-gallon treated water storage tanks; booster pumps; an 800-gallon a sodium hypochlorite treatment/disinfection unit; and one 100,000 gallon backwash settling tank. The Newport WTP site is completely enclosed by an eight-foot tall chain link security fence. Security cameras allow for the visual monitoring of the WTP facilities. No substantial changes to the Newport WTP would be required with implementation of the Well 7 Project other than minor electrical controls and possible piping changes.



Town of Discovery Bay Well Project

SOURCE: Luhdorff & Scalmanini Consulting Engineers, April 1998

Figure 4
Geologic Cross Section

FACILITIES AND OPERATIONS

It is anticipated that the new Well 7 pump station would have a design capacity of approximately 2,000 gpm. This flow rate would be consistent with that of Well 5A, allowing the new well to replace Well 5A to improve water quality (or as back up to Well 4A when Well 4A requires well rehabilitation and/or pump repairs). No expansion of the existing Newport WTP capacity is proposed as part of this project. The well station piping would connect Well 7 to the existing raw water line in Newport Drive feeding into the Newport WTP. Existing treatment, storage, and conveyance facilities at Newport WTP would be adequate to serve the proposed Well 7 as it would only be used to replace, rather than augment, existing groundwater supplies from Well 5A.

SITE ACTIVITIES

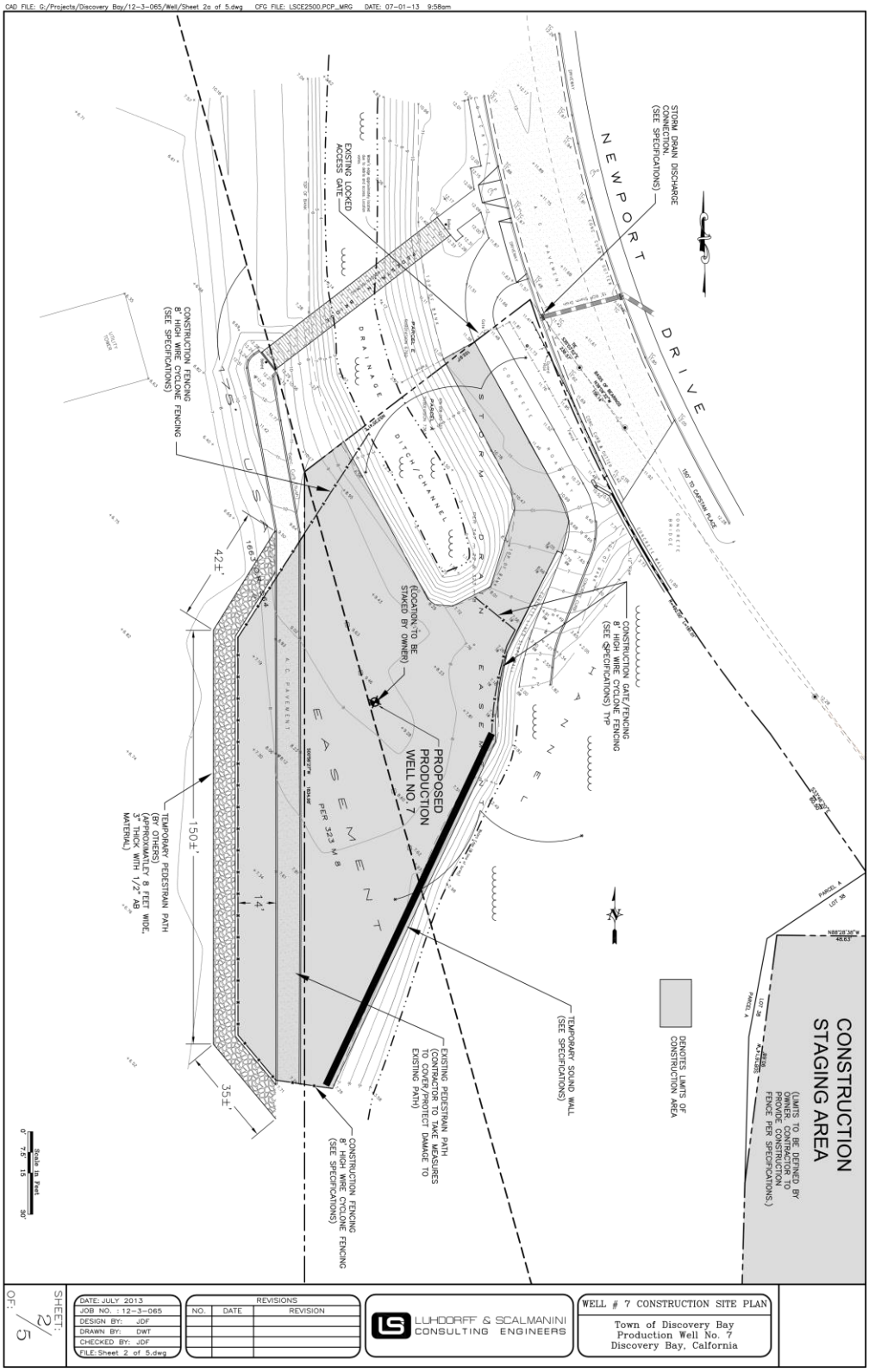
All activities associated with development of the proposed project would generally be focused within the fenced area of the subject parcel(s) presented in Figure 3 (above). The exception would be the temporary relocation of the pedestrian path during construction phase 1 (discussed below). An existing paved driveway from Newport Drive would continue to provide regular access to the project site. Site activities would be focused on the immediate well head area (approximately 12 by 20 feet) and the alignment for the new water line connecting the well to the existing raw water line in Newport Drive, as shown in Figure 3.

CONSTRUCTION PHASING

The Well 7 Project would be constructed in two phases.

Phase 1 would include: well drilling, construction, development, pump testing, and water quality testing. Overall construction of the Well 7 facilities under Phase 1 would occur over 45 work days. However, the well drilling activities would occur around the clock for a limited period of approximately six to ten calendar days out of the 45 total work days. Phase 1 would include a temporary re-routing of the pedestrian path to allow room needed for the well drilling equipment on-site while also maintaining public access to the pedestrian path (as depicted in Figure 5, Well Construction Site Plan).

Phase 2 would include construction of the permanent well pump station including installation of a new submersible well pump, station piping, overboard piping, manhole, controls, and an electrical transformer and motor control panal. Phase 2 would also include minor piping modifications to the existing Newport WTP. These activities would also consist of construction of the security fencing, associated landscaping, and repair of any damaged paving. Construction of Phase 2 would take approximately four to five months.



Town of Discovery Bay Well Project
SOURCE: Luhdorff & Scalmanini Consulting Engineers, June 2013

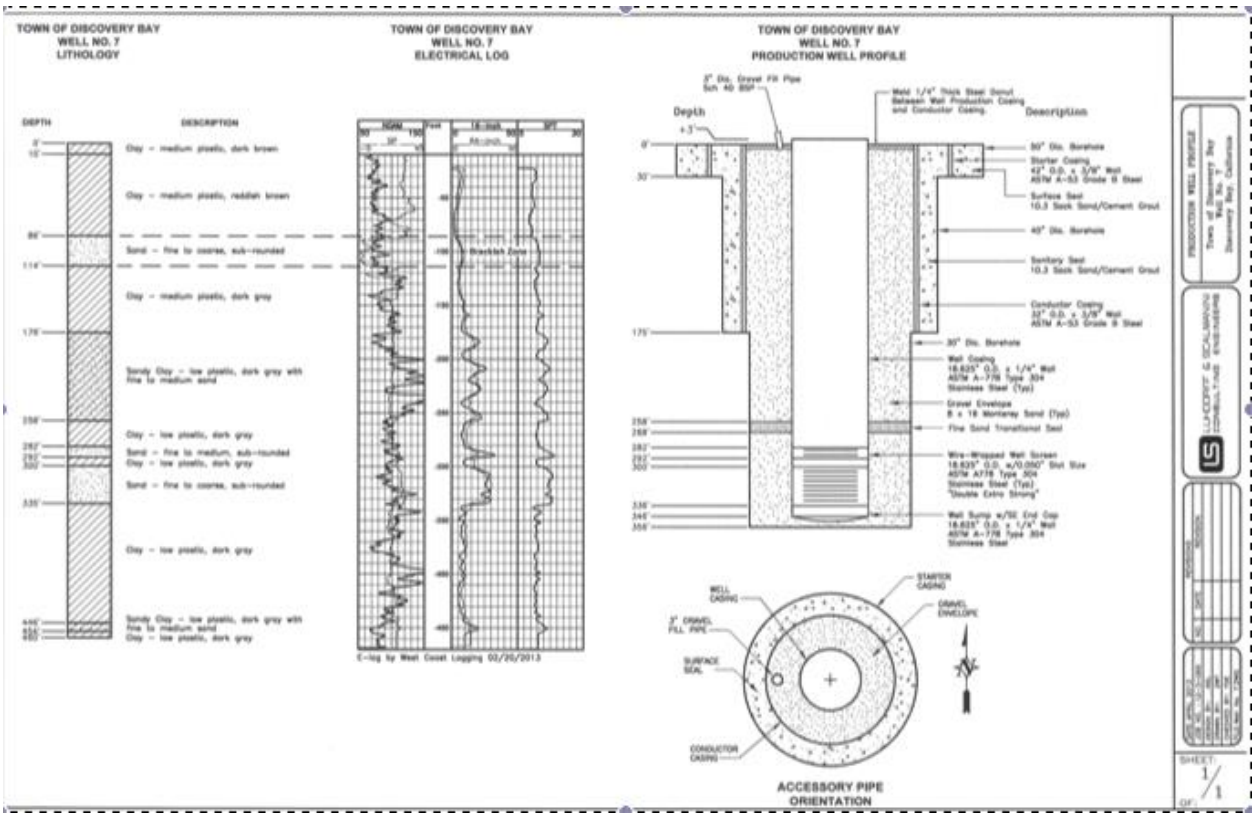
Figure 5- Well Construction Site Plan

The total time for completing both Phases 1 and 2 is estimated at six to eight months, when allowing for contract bidding and start up for each phase.

WELL CONSTRUCTION AND TESTING

The project design is based on information collected from an exploratory boring drilled at the site. The design would be in accordance with standards for municipal well construction under CDHP and County regulations. The construction of Well 7 would consist of installing and sealing a conductor casing in a 40-inch diameter hole to an approximate depth of 175 feet. This casing string would provide the primary sanitary protection of the well in accordance with CDPH and County regulations. The production borehole beneath the conductor casing would be drilled at a diameter of 30 inches to a depth of approximately 330 feet. A casing assembly, consisting of 18-inch blank well casing and well screen, would be installed in the production borehole. A gravel envelope installed around the well screen would serve to retain the unconsolidated aquifer materials (sand and gravel) and allow sand-free production from the well. An electric engine-driven deep well turbine test pump would be installed for final well development and testing. A well profile based on information from the exploratory boring is shown on Figure 6.

Water for the well drilling and construction operations would be obtained from the CSD water system in Newport Drive. No hazardous or toxic substances would be employed in the drilling process. During development and testing of the well, all discharge water would be disposed of in such a manner as to avoid adverse impacts to the site and vicinity in accordance with Best Management Practices (BMP) as discussed below. Clean water produced during well development and testing would be discharged to a municipal storm drain inlet located within an existing valley gutter within Newport Drive. Development water containing solids including sand and silts would be contained in settling tank(s) before being discharged into the storm drain. Water discharged into the storm drain system would comply with municipal discharge requirements. All other well construction waters would be conveyed in tanks to the municipal wastewater treatment plant located approximately 3 miles east of the proposed project site; or via an existing sewer manhole and line located within Newport Drive just east of the well site. All construction activities would implement stormwater pollution prevention BMPs (discussed further under BMP below).



Town of Discovery Bay Well Project

SOURCE: Luhdorff & Scalmanini Consulting Engineers, May 2013

Figure 6- Preliminary Well Profile

Except for the drilling phase, all other work would be performed between 7 a.m. and 7 p.m., Monday through Saturday. Borehole drilling and well casing installation require continuous operation for 24 hours per day in order to protect the integrity of the well as it is being constructed. It is expected that this phase of work would take about six to ten days to complete.

Construction of Well Pump Station

Phase 2 pump station construction work would be initiated upon completion of Phase 1 well construction activities. This would include: the installation of a pump pedistal; a 12-foot by 20-foot concrete pad; an electrically driven submersible well pump; station piping to include valves, flanges, gages and flow meter; a PG&E transformer and transformer pad; an electrical control cabinet; and a run of underground piping that would connect Well 7 to the existing raw Well 4A/5A water supply line which connects to the Newport WTP treatment filters. A well overboard structure would be installed at the Well 7 site or at the Newport WTP to convey pumped groundwater at start-up and shut-down to an existing storm water system in Newport Drive. The overboard structure is needed to allow hydraulic surges into the filter units and permit routine controlled testing and rehabilitation of the well. No modification to the existing storm water system pipelines, outfall or floodwater basin would occur as a result of the project. A new PG&E electrical service consisting of a new transformer pad and transformer would be installed near the entrance of the Well 7 site. Underground primary and secondary conduits and conductors from the transformer pad to the motor control center would be installed to provide power for the pump and operation of associated controls and monitoring equipment.

The duration of the well pump station construction activity is expected to last approximately four to five months. The bulk of the construction time relates with the long lead time on the well pump and electrical equipment. All work would be performed between the hours of 7 a.m. and 7 p.m. Monday through Saturday.

Water Treatment and Distribution

Well 7 would be tied to the existing Well 4A and 5A raw water pipeline. The existing Newport WTP provides treatment of raw water from Wells 4A and 5A. The raw water supply will be treated by injection of sodium hypochlorite at the Newport WTP followed by removal of the oxidized iron and manganese using two existing greensand filter units. Only two wells would be allowed to operate at the same time. The design capacity of the Newport WTP, the size and number of greensand filtration units, the treated water storage tanks, and the booster pumps that pump into the CSD distribution system will not change.

Standby Power

The proposed Well 7 will be capable of hooking up to a portable generator in the event of a power outage. The CSD already has an adequate number of portable generators; no new portable generators would be acquired.

Fencing and Landscaping

The Well 7 site is accessed via an existing concrete driveway off of Newport Drive (See Figure 3 above). The driveway is currently used by Reclamation District 800 to access the existing surface water channels to provide cleaning/clearing of debris, and channel maintenance. An existing concrete roadway extends down to the surface water channels; the proposed Well 7 location would be located in an existing gravel pad just past the channels. Access off Newport Drive is restricted by an existing chain link fence and locked gate.

The final stage of Phase 2 of the project would be for the CSD to install wrought iron steel security fencing and drought tolerant landscaping.

The area within the Well 7 enclosure will remain as gravel.

4. BEST MANAGEMENT PRACTICES (BMPS)

Construction of the Well 7 Project would implement BMPs to manage and minimize potential construction-related disturbances. Well 7 BMPs would include, but not be limited to, the following measures:

1. Construction activities shall be limited to the project area as evaluated in this Initial Study. The work area will be clearly identified on the construction drawings and will be staked and flagged prior to initiation of construction activities.

2. The project construction contractors shall comply with all rules and regulations by the Bay Area Air Quality Management District (BAAQMD) and prepare a fugitive dust control plan that at least includes, but is not limited to:

    a) Prompt removal of mud, dirt, or similar debris from paved surfaces and roadways;
    b) Water flushing and /or vacuum sweeping of paved surfaces and roadways at least once a day;
    c) Control of trackout of soil materials through the application of gravel to unpaved surfaces adjacent to paved access roadways;
    d) Wetting of unpaved surfaces with water or suitable stabilizing agent to prevent the creation of dust plumes;
    e) Limiting vehicle speeds on unpaved services to 15 miles per hour; and
    f) Use construction equipment, diesel trucks and generators equiped with Best Available Control Technology for emission reductions of nitrogen oxides and particulate matter.

3. The project shall be designed to reduce potential impacts to water quality during construction in accordance with the guidelines of the Contra Costa County Storm Water Management Program as follows:
    a) Installation and maintenance of on-site storm drain protection;

b) Installation and maintenance of sandbags and other erosion control measures at the edges of Kellogg Creek and the drainage ditch;
c) Keeping outdoor areas swept and clean;
d) Covering and tarping oily, dirty items that must be stored outdoors;
e) Moving waste oil storage indoors or placing it under permanent coverage where/when practical;
f) Providing secondary containment for stored fluids;
g) Covering outdoor dumpsters, bins, etc;
h) Properly disposing of pressure washing discharges and silt from settling tanks; and
i) Cleaning spills promptly with dry methods (as opposed to hosing into a storm drain).

4. Prior to initiation of construction on the project site, the CSD shall require that any construction or improvement plans contain a notation: "If any archaeological, cultural, historical resources, artifacts or other features are discovered during the course of construction anywhere on the project site, work shall be suspended in that location until a qualified professional archaeologist assesses the significance of the discovery and provides consultation with CSD staff. Appropriate mitigation for curation or protection of the resources, as recommended by the archaeologist, shall be implemented upon approval by the CSD. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken. "

5. Prior to initiation of construction on the project site, the CSD shall require that any construction or improvement plans contain a notation: "Pursuant to §5097.98 of the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of any human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains."

6. The CSD shall provide notification to all neighbors within at least 1,000 feet of the project construction zone of the construction schedule and include a name and 24-hour accessible telephone number of a contact person they may call if necessary. The CSD shall post a publicly visible sign with the telephone number and contact person throughout the construction period.

5. REQUIRED APPROVALS

This environmental document is intended to address the environmental impacts associated with all of the following decision actions and approvals.

TOWN OF DISCOVERY BAY COMMUNITY SERVICES DISTRICT (LEAD AGENCY)

- Approval of the Negative Declaration - The CSD will act as the lead agency as defined by CEQA, and will have authority to determine if the Negative Declaration

is adequate under CEQA.

- Approval of Plans/Issuance of Construction Contracts – The District will facilitate the preparation and will approve the construction plans and specifications for the Well 7 Project, and will issue contracts for its construction.

- The plans will be further reviewed and approved as appropriate by the CDPH.

COUNTY OF CONTRA COSTA (RESPONSIBLE AGENCY)

- Well Drilling Permit – The Contra Costa County Department of Environmental Health will issue a well drilling permit.

- Process Parcel Map or Lot Line Adjustment Application – The Contra Costa County Department of Conservation and Development will process an application for a parcel map to split APN 080-010-037 into two parcels or adjust the lot line between parcels 080-010-029 and -037 so that all of the Well 7 site is within property owned by the Town of Discovery Bay.

CALIFORNIA DEPARTMENT OF HEALTH SERVICES (RESPONSIBLE AGENCY)

- Water Supply Permit – The CDPH will issue a water supply permit to allow operation of a public water system. This entitlement will be an amendment to the District's existing Water Supply Permit to allow the addition of a new water source to the District's system.

6. PRELIMINARY REVIEW

This preliminary review indicates that:

A. The proposed action constitutes a project.
B. The project is not a Ministerial Project.
C. The project is not an Emergency Project.
D. The project does not constitute a feasibility or planning study.
E. The project is not statutorily exempt under CEQA.
F. The project is not categorically exempt.
G. The project does not involve another public agency that is the lead agency.

7. PRELIMINARY FINDINGS

The Town of Discovery Bay CSD, having undertaken and completed a preliminary review of the Well 7 Project, has determined that:

A. The project is discretionary and is not otherwise exempt.

B. The Town of Discovery Bay CSD is the agency with primary responsibility for approval of the project and is, therefore, the Lead Agency.
C. Contra Costa County is a responsible agency with permitting responsibilities.
D. CDPH is a responsible agency with permitting responsibilities.
E. An initial study will be undertaken for the purpose of ascertaining whether the proposed project may have a significant effect on the environment.

8. ENVIRONMENTAL SETTING

The Well 7 Project would be located on the western edge of the Town of Discovery Bay. The Town is characterized by medium-density suburban development. Existing and planned surrounding land uses would continue to be medium-density residential to the east and north and open space to the west and south.

Well 7 would be located on portions of two parcels (Contra Costa County Assessor's Parcel Number APN 008-010—029 and 037). APN 008-010-029 is owned by the Town of Discovery Bay. APN 008-010-037 is owned by a private party; the well portion would be owned by the Town of Discovery Bay after a parcel map or lot line adjustment application with Contra Costa County is processed and ownership of the well parcel is granted to the Town of Discovery Bay.

The specific site plan for Well 7 is shown in Figure 3. The well site abuts Kellogg Creek, a RD 800 drainage ditch and a pedestrian path. To the north of the proposed project site is open space, a drainage ditch, Newport Drive, and residences. To the east is Newport Drive and residences. To the south is Kellogg Creek and residences. To the west is a pedestrian path, an energy transmission corridor and open space. All of the residential parcels receive potable water from the CSD water system.

The project site is designated by the Contra Costa General Plan as Open Space (OS). Wetlands and tidelands and other areas of significant ecological resources, safety zones around hazards or low intensity recreation (e.g., pedestrian paths) are allowed by this General Plan category. The property is zoned P-1 (Planned Unit District) by the Contra Costa Municipal Code. The development and operation of a municipal water well and associated facilities is a permitted use consistent with the final development plan approved for the Town of Discovery Bay (Contra Costa County Municipal Code, Section 84-66.402). All of the residential parcels receive potable water from the District.

9. ENVIRONMENTAL EVALUATION

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. The evaluation found thee areas with "potentially significant" impacts requiring mitigation: aesthetics, noise and recreation. Mitigation measures have been proposed to reduce potentially significant impacts to a less than significant level.

☒ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gases	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☒ Noise
☐ Population / Housing	☐ Public Services	☒ Recreation
☐ Transportation/Traffic	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance

Evaluation Of Environmental Impacts:

1) A brief explanation is required for all answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following: a) Earlier Analysis Used. Identify and state where they are available for review. b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis. c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify: a) the significance criteria or threshold, if any, used to evaluate each question; and b) the mitigation measure identified, if any, to reduce the impact to less than significant.

ISSUES

I. AESTHETICS *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

The project site and surrounding region are relatively flat, with little variation in topography, set between a pedestrian path the west and Newport Drive to the East, Kellogg Creek to the south and a pedestrian bridge to the north. Because of this, views to and from the site are limited to the short- and medium-range (to the west acoss the open space). Long-range views are blocked by intervening vegetation and developed uses. No designated scenic resources or scenic highways are located in the project vicinity, nor are such resources visible to or from the site. Figure 7, Well 7 Vicinity Aerial Photograph, depicts the aesthetic landscape of the proposed Well 7 Project area.

Figure 7 – Well 7 Vicinity Aerial Photograph

Question Ia) Based on this assessment, even though implementation of the proposed Well 7 Project would result in temporary changes in the visual character of the site during construction, because: no scenic vistas are within the viewshed of the project; and the project is not within a scenic view; then implementation of the proposed projects would not interfere with scenic vistas. This would be a less than significant aesthetic impact; no mitigation measures would be required.

Question Ib) There are no state or locally designated scenic highways in the vicinity of the proposed project. Thus, implementation of the project would not adversely affect scenic resources within a designated scenic highway. There would be no scenic resource nor scenic highway impact.

Question Ic) Implementation of the project would result in temporary changes to the visual character of the site by disturbing the proposed Well 7 area along Newport Drive and the existing pedestrian path. However, the project does not propose any structures or facilities that would be out of scale or appearance with the existing uses around the project area. The final Well 7 would include an approximate 12 by 20-foot pump house and wrought iron fencing to secure the well area. New wrought iron security fencing and new landscaping (consistent with existing drought tolerant landscaping in the area) would be installed in the final phase of the project. Because the proposed project facilities would be the same size and of a similar visual appearance to the existing facilities and uses, the proposed project upon completion would be aesthetically similar to its existing condition. Thus, with implementation of the wrought iron security fencing and drought tolerant landscaping, there would be less than significant impacts to visual character or quality from implementation of the Well 7 Project. No mitigation measures would be necessary.

Question Id) Lighting proposed for the project would include temporary lights employed during the continuous work associated with the well drilling phase. The temporary lighting would consist of hazard lights and a lighted drilling platform. It is expected that the temporary lighting for the drilling activities would be used for a period of up to eight days. The potential light and glare from the night time drilling would create a potentially significant aesthetic impact during construction. Implementation of Mitigation Measure 1 would reduce this potential impact to a less than significant level because it would shield light and glare impacts from adacjent neighbors.

> ***Mitigation Measure 1*** – Light shields will be installed on the night time construction hazard lights and the lighted drilling platform to direct light and glare towards the ground, blocking light from shining on nearby residents to the south and east of Well 7 Project area.

Low level security lighting would be installed during project operations. While new permanent lighting is proposed as part of the Well 7 Project, it would be shielded towards the ground and would be low level focused only around the well site. Thus, operations-related lighting associated with the project would not be a major change from the urban light levels already experienced in the neighborhood. Implementation of the Well 7 Project with Mitigation Measure 1 above would result in less than significant light and glare impacts on the surrounding neighborhood during construction because it would require shields to protect adjacent neighbors from light and glare during construction. No additional mitigation measures would be required.

II. AGRICULTURE AND FOREST RESOURCES *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☒	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☒	☐

Questions IIa-e) The project site is located along the western edge the Town of Discovery Bay, a master planned recreational community. All of the existing and possible future uses in the project vicinity would be suburban in nature in conformance with the Contra Costa General Plan and zoning regulations. The project site is identified as open space and is not prime or unique farmlands nor farmlands of statewide importance. The proposed project would not conflict with any existing agricultural use or a Williamson Act contract because none exist on the project site. There are no changes associated with the project that would result in the conversion of farmland to non-agricultural uses because the project would only include the development of a municipal well to provide potable water resources to users in the District. Because the project does not exist in an area of prime, unique, or important farmland, would not conflict with agricultural uses, nor provide for the conversion of existing farmland, impllementation of the Well 7 Project would result in a less than significant agricultural impact. No mitigation measures would be required.

III. AIR QUALITY *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

SETTING

The U.S. Environmental Protection Agency (EPA) has set National Ambient Air Quality Standards (NAAQS) for ozone, nitrogen dioxide, carbon monoxide (CO), sulfur dioxide, respirable particulate matter (PM_{10} and $PM_{2.5}$), and airborne lead. Similarly, the California Air Resources Board (CARB) has established State Ambient Air Quality Standards (SAAQS) to protect public health and welfare. The CARB is responsible for control program oversight activities, while regional Air Pollution Control Districts and Air Quality Management Districts are responsible for air quality planning and enforcement.

The Well 7 site lies within the Bay Area Air Basin on the eastern edge of Contra Costa County. The Bay Area Air Quality Management District (BAAQMD) is responsible for implementing emissions standards and other requirements of federal and state laws in the project area.

Ambient air quality is described in terms of compliance with state and national standards, and the levels of air pollutant concentrations considered safe to protect the public health and welfare. These standards are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Although the EPA has established NAAQS for the air pollution constituents listed above, states have the option to add other pollutants, to require more stringent

compliance, or to include different exposure periods. NAAQS and SAAQS are listed in Table 1.

Table 1 - Federal & State Ambient Air Quality Standards

		Federal Standards	California Standards
Pollutant	**Averaging Time**	**Concentration**	
Ozone (O_3)	8 Hour	0.075 ppm (147 µg/m^3)[d]	0.070 ppm (137 µg/m^3)
	1 Hour	---	0.09 ppm (180 µg/m^3)
Carbon Monoxide (CO)	8 Hour	9 ppm (10 mg/m^3)	9.0 ppm (10 mg/m^3)
	1 Hour	35 ppm (40 mg/m^3)	20 ppm (23 mg/m^3)
Nitrogen Dioxide (NO_2)	Annual Average	53 ppb (100 µg/m^3)	0.030 ppm (57 µg/m3)
	1 Hour	100 ppb (188.68 µg/m^3)	0.18 ppm (338 µg/m^3)
Sulfur Dioxide (SO_2)	24 Hour	---	0.04 ppm (105 µg/m^3)
	3 Hour	0.5 ppm (1300 µg/m^3)	---
	1 Hour	75 ppb (365 µg/m^3)	0.25 ppm (655 µg/m^3)
Particulate Matter (PM_{10})	Annual Arithmetic Mean	[c]---	20 µg/m^3
	24 Hour	150 µg/m^3	50 µg/m^3
Fine Particulate Matter ($PM2_{.5}$)[b]	Annual Arithmetic Mean	12 µg/m^3	12µg/m^3
	24 Hour	35 µg/m^3	---
Sulfates	24 Hour	---	25 µg/m^3
Lead[e]	Calendar Quarter	1.5 µg/m^3	---
	30 Day Average	---	1.5 µg/m^3
Hydrogen Sulfide	1 Hour	---	0.03 ppm (42 µg/m^3)
Vinyl Chloride (chloroethene)	24 Hour	---	0.01 ppm (26 µg/m^3)
Visibility Reducing particles	8 Hour (1000 to 1800 PST)	---	(See Note 1)
ppm = parts per million	mg/m3 = milligrams per cubic meter		µg/m ^{3}= micrograms per cubic meter

Source: CARB 2013

[a] 1-Hour ozone standard revoked effective June 15, 2005.
[b] The 1997 PM 2.5 standards were replaced by the 2006 PM 2.5 standards, effective December 18, 2006. The 2008 PM 2.5 Plan due to EPA in April 2008 addresses attainment of the 1997 PM 2.5 standards. For this reason, the District continues to list the 1997 24-hour PM 2.5 standard.
[c] Annual PM 10 standard revoked effective December 17, 2006.
[d] EPA finalized the revised (2008) 8-hour ozone standard of 0.075 ppm on March 27, 2008. The 1997 8-hour ozone standard of 0.08 ppm has not been revoked.
[e] On October 15, 2008, EPA strengthened the lead standard.
Notes
(1) Extinction coefficient of 0.23 per kilometer —visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.

National and state air quality standards consist of two parts: an allowable concentration of a pollutant, and an averaging time over which the concentration is to be measured. Allowable concentrations are based on the results of studies on the effects of the pollutants on human health, crops and vegetation, and, in some cases, damage to paint and other materials. The averaging times are based on whether the damage caused by the pollutant is more likely to occur during exposures to a high concentration for a short time (i.e., one hour), or to a relatively lower average concentration over a longer period (i.e., eight hours, 24 hours, or one month). For some pollutants, there is more than one air quality standard, reflecting both its short-term and long-term effects.

The CARB is required to designate areas of the state as attainment, non-attainment, or unclassified for any state standard. An “attainment” designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A “non-attainment” designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An “unclassified” designation signifies that data does not support either an attainment or non-attainment status. An area where the standard for a pollutant is exceeded is considered in non-attainment and is subject to planning and pollution control requirements that are more stringent than normal requirements. The California Clean Air Act (CCAA) divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category. Table 2 summarizes the attainment status of Contra Costa County for ambient air quality standards. Of the criteria pollutants, the project area is in non-attainment for ozone, PM_{10}, and $PM_{2.5}$.

Table 2 – Contra Costa County Ambient Air Quality Attainment Status

Pollutant	Federal Standards[a]	State Standards[b]
Ozone, 1 hour	No Federal Standard	Nonattainment
Ozone, 8 hour	Nonattainment	Nonattainment

PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$	Attainment-annual/ Nonattainment- 24 hour	Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur dioxide	Attainment	Attainment
Lead (Particulate)	No Designation/Classification	Attainment

[a] See 40 CFR Part 81
[b] See CCR Title 17 Sections 60200-60210
Nonattainment = does not meet primary standards
Unclassified = can not be classified or better than national standards
Source: BAAQMD, 2013 *http://www.baaqmd.gov/planning.htm*

As required by the CCAA, the BAAQMD has published its 2001 Air Quality Attainment Plan, which addresses requirements to bring the District into compliance with the federal and state ambient air quality standards. The Bay Area 2005 Ozone Strategy proposes expanded implementation of transportation control measures and programs such as Spare the Air. Spare the Air is a public outreach program designed to educate the public about air pollution in the Bay Area and promote individual behavior changes that improve air quality. Some of these measures or programs rely on local governments for implementation. The clean air planning efforts for ozone also will reduce PM10 and PM2.5, as a substantial amount of particulate matter comes from combustion emissions such as vehicle exhaust.

The area's air quality monitoring network provides information on ambient concentrations of air pollutants in the Bay Area Air Basin. The BAAQMD operates a monitoring station on Bethel Island, the station nearest the project area, where the air quality data for ozone was obtained. Table 3 compares a five-year summary of the highest annual criteria air pollutant emissions collected at these monitoring stations with applicable SAAQS, which are more stringent than the corresponding NAAQS (2007 being the most recent year for which annual data has been summarized by the BAAQMD). O3 and PM10 are expected to be fairly representative of the project site, due to the regional nature of these pollutants. The monitoring data is not a good representation of expected carbon monoxide levels for the project area, as it is rapidly dispersed and primarily a local concern.

As indicated in Table 3, during the 5-year period reported, O3 and PM10 standards have been exceeded; however, CO standards were not exceeded.

Table 3 – Summary of Annual Air Quality Monitoring Data – Bethel Island

Pollutant	2008	2009	2010	2011	2012
Ozone (O_3)					
State Standard (1-hr avg. 0.09 ppm)					
Number of Days State Standard Exceeded	4	2	3	0	1
State Standard (8-hr avg. 0.070 ppm)					
Number of Days State Standard Exceeded	10	6	7	4	4
Federal Standard (8-hr avg. 0.075 ppm)					
Number of Days Federal Standard Exceeded	4	3	4	2	2
Suspended Particulates (PM_{10})					
State Standard (24-hr avg. 50 µg/m3)					
Days Exceeding State Standards	18	*	6	0	6
Federal Standard (24-hr avg. 150 µg/m3)					
Number of Days Federal Standard Exceeded	0	0	0	0	0
Carbon Monoxide (CO)					
State Standard (1-hr/8-hr avg. 20/9.1 ppm)					
Number of Days State 8-hr Standard Exceeded	0	0	0	0	0
Federal Standard (1-hr/8-hr avg. 35/9.5 ppm)					
Number of Days Federal 8-hr Standard Exceeded	0	0	0	0	0

Source: CARB 2013, www.arb.ca.gov/adam; note: * = no data available

The BAAQMD recommends quantification of construction emissions for land development projects or roadway construction projects; the proposed Well 7 Project, however, falls outside the scope of those types of developments. Thus the construction emissions for the proposed Well 7 Project will not be quantified. Instead, Best Management Practices including fugitive dust control measures would be implemented (BMP 2). As described under Section 4. Best Management Practices, the project would incorporate measures to reduce fugitive dust and nitrogen oxides to avoid potential impacts to air quality during construction.

Construction activities would also generate emissions of ozone precursors, CO, and PM10. As discussed above, the BAAQMD has not established significance thresholds for these construction-related emissions, nor does the BAAQMD require quantification of such emissions, as they are already included in the emission inventory that is the basis for the BAAQMD's regional air quality plans and are not expected to impede the BAAQMD's attainment or maintenance of ozone and CO standards.

IMPACT ANALYSIS

Potential air quality impacts are assessed for both construction and operational phases of the Well 7 Project:

- Phase I Construction – drilling, installation, and testing of the well;
- Phase II Construction – installation of well pump and associated well pump piping and valving, and overboard piping, reinstallation of security fencing and landscaping; and
- Operations emissions affecting ozone and particulates.

Construction

Employee trips are generated from commute trips to and from the work site, business throughout the day, and lunch trips. Emissions are released through the evaporation of solvents contained in materials used during the construction phases. Emissions from stationary construction equipment occur when machinery, such as generators or gas-powered saws, is used at the construction site. Emissions from mobile construction equipment such as forklifts and dump trucks constitute the primary components of construction emissions. Emissions would also result from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings that may be used during any phase of construction.

Construction Emissions would not exceed the BAAQMD's thresholds because the project will implement BMP 2 to reduce fugitive dust management emissions.

Ozone and Particulate Operational Emissions

The proposed Well 7 would generate less than 2 daily vehicle trips once completed. The proposed project daily traffic would generate less than a significant impact to ozone and particulate operational emissions, no significant impacts would result, and no mitigation would be necessary.

Regulations for Diesel Engines

Diesel particulate matter (PM) was identified by the ARB as a toxic air contaminant in 1998. To reduce public exposure to diesel PM, in 2000 the ARB approved the "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles" (Risk Reduction Plan). Integral to this Plan is the implementation of control measures to reduce diesel PM. As of April 2005, the following Airborne Toxic Control Measures (ATCM) have been adopted to reduce emissions of diesel PM from numerous sources, including diesel engines, such as the project's backup generator.

The diesel ATCM requires that stationary and portable engines within 500 feet of a school shall not operate during school hours for maintenance and testing (this does not limit emergency operations). The ATCM also requires that new engines meet a PM emissions standard of 0.15 grams per brake horsepower per hour (g/bhp-hr) and imposes a 50 hours/year limit on non-emergency use such as testing and maintenance. For non-emergency engines a PM standard of 0.01 g/bhp-hr must be met, but hours of operation are not limited by the ATCM.

California Health & Safety Code 42301.6 requires the District to prepare a public notice to all residents within 1,000 feet of a source emitting hazardous air pollutants. The District is also required to provide notice to each school within ¼ mile of the source. Although there are schools located within ¼ mile of the project site, no new diesel engines would be required as part of the project. A portable diesel generator would provide alternate power to the facilities in the event of a power emergency.

Questions IIIa through IIIc) The project would result in air emissions during the construction process. Construction emissions for all phases of the project were determined to be less than significant with implementation of best management practices

for fugitive dust and nitrogen oxides (BMP 2). Operational emissions were found to be less than signignificant given the very low emissions levels from operations. Thus, the project would not conflict with or obstruct attainment of any attainment plan adopted by the BAAQMD; it would not violate any air quality standard or contribute substantially to an existing violation; and it would not result in a cumulatively considerable net increase in any criteria air pollutant. This would result in less than significant air quality impacts; no mitigation measures would be required.

Question IIId) With implementation of the project, sensitive receptors would not be exposed to air toxics emissions because no new diesel engines would be necessary to implement the project. Existing CSD mobile diesel generator(s) would be sufficient to meet emergency power needs at the proposed Well 7 site. The emergency use of a back up generator would not exceed air toxics thresholds (which require approximately 70 years of continuous use of a permanently installed engine to be exceeded), and potential impacts to sensitive receptors would be less than significant. No mitigation measures would be necessary.

Question IIIe) The proposed Well 7 Project would not generate any odors. There would be no odor impacts.

IV. BIOLOGICAL RESOURCES *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

The project site is dominated by non-native annual grasses and other weedy forbs, interspersed with bare areas and trash. Dominant species include Mediterranean barley (*Hordeum marinum ssp. gussoneanum*), Italian ryegrass (*Lolium multiflorum*), wild oats (*Avena fatua*), rip-gut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), cut-leaf geranium (*Geranium dissectum*), and Italian thistle (*Carduus pycnocephalus*). Other species, including mustard (*Brassica sp*.), yellow nutsedge (*Cyperus esculentus*), yellow

star-thistle (*Centaurea solstitialis*), curly dock (*Rumex crispus*), and ice plant (*Carpobrotus edulis*) grow in the adjacent field and along the drainage ditch and Kellogg Creek. Portions of the project site have been graded in the past, probably during construction of the pedestrian path.

The only wildlife species observed on the project site during a May 14, 2013 survey were red-winged blackbirds; two birds were observed perching intermittently on a log and were likely nesting in the vegetation along the drainage ditch. Other birds observed flying overhead in the vicinity or foraging nearby in the drainage ditch included American kestrel, northern mockingbird, cliff swallow, northern green heron, and California towhee. Several cliff swallow nests were located under the Newport Drive bridge that extends over the tributary of Kellogg Creek.

Tables 4 and 5, respectively, provide information on special-status plants and animal species that may occur in the project area. Previous biological surveys were conducted for the Pantages Bay Development by Miriam Green Associates (MGA) (2002, 2003, 2004, 2006) and Eric Hansen, in association with MGA (2010). This proposed development lies within a mile to the north and east of the project site. While detailed biological surveys were undertaken for all species during these field surveys, an emphasis was placed on determining whether any of the special-status species that were known from the general geographic area were present. Based on the results of previous surveys and the existing habitat on the project site, there is no potential for any of these special-status species to inhabit the proposed Well 7 Project site.

GIANT GARTER SNAKE - A search of the California Natural Diversity Database (CNDDB) (2013) shows only two records of giant garter snakes within 10 miles of the project site. These records represent single observations; no permanent [breeding] populations of giant garter snakes are recognized within the western or central Delta despite intensive survey efforts (MGA 1993, 1995; G. Hansen unpublished data; E. Hansen unpublished data; Swaim Biological, Inc. 2004). The nearest extant population identified lies within the White Slough Wildlife Area, which lies at least 15 air miles northeast of the project site along the eastern Delta fringe. The project site lies beyond the southernmost limit of the snake's documented northern range, and is situated well within the recognized gap spanning Stanislaus County that delimits the northern and southern populations of this species (USFWS 1999). The nearest record of a giant garter snake to the north of the project site occurs more than 9 miles northeast at Medford Island: the nearest record south of the project site occurs approximately 57 miles south in Merced County (CNDDB 2013).

Question IVa) The project site is extremely disturbed and has been partially graded in the past for construction of the pedestrian path. It does not support any special-status plant species and does not contain any suitable habitat for sensitive wildlife species listed by state and/or federal regulatory agencies known to occur in the vicinity of the proposed project. Single-family homes are located across the street (Newport Drive) from the project site and a paved pedestrian path, located on the opposite side of the project site, connects the subdivision with the Safeway shopping center located less than 0.5 mile to the southwest.

No potential for direct impacts in the form of "incidental take" of an endangered, threatened, sensitive, or otherwise protected animal species or associated habitat, which could occur as a result of the development of this project, would occur. Because no undisturbed native habitat exists on the site, development of this project would not result in the loss of any undisturbed native habitat; this would result in less than significant effects to special status species. No mitigation measures would be required.

Question IVb) The project site does not support any riparian community or other sensitive habitat; therefore, development of this project would not result in the loss of either habitat type. As there would be less than significant project impacts to riparian communities; no mitigation measures would be required.

Question IVc) The project site does not support any wetland habitat; it consists entirely of upland. Therefore, the project would not have any direct or indirect impacts on federally protected wetlands. As there would be less than significant wetland effects, no mitigation measures would be required.

Question IVd) The project would not interfere with the movement of any native resident or migratory fish or wildlife species. The project site is at the edge of an urban area and offers little in the way of suitable habitat for wildlife species. Once the well has been constructed and the area has been fenced resident birds would still be able to perch on the fences and lizards would be able to travel through the fenced area. Construction and operation of the proposed project would have no direct or indirect impacts to wildlife corridors. As there would be less than significant effects on resident or migratory fish or wildlife species, no mitigation measures would be required.

Question IVe) The project does not conflict with any local policies or ordinances protecting biological resources. Also, there are no trees on the project site. Because there would be less than significant effects on local policies or ordinances protection biological resources, no mitigation measures would be required.

Question IVf) No Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans are in place that include the project site. Therefore, the proposed project would not conflict with any local, regional or state habitat conservation plans. This would be a less than significant impact and no mitigation measures would be required.

Table 4. Special-Status Plant Species Potentially Occurring on the Project Site

Scientific Name (Common Name)	Status[1] Federal/State/CNPS	Habitat and Bloom Time	Potential to Occur on Project Site

Scientific Name (Common Name)	Status[1] Federal/State/CNPS	Habitat and Bloom Time	Potential to Occur on Project Site
Aster chilensis var. *lentus* Suisun Marsh aster	-- / -- / 1B.2	Marshes and swamps May to November	No suitable habitat present, species not observed
Astragalus tener var. tener Alkali milk-vetch	-- / -- / 1B.2	Seasonally inundated alkaline clay bottoms or barrens March to June	No suitable habitat present, species not observed
Atriplex depressa Brittlescale	-- / -- / 1B.2	Seasonally inundated alkaline (saltgrass) or clay meadows or barrens May to October	No suitable habitat present, species not observed
Atriplex joaquiniana San Joaquin spearscale	-- / -- / 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland/alkaline April to October	No suitable habitat present, species not observed
Blepharizonia plumosa ssp. plumosa Big Tarplant	-- / -- / 1B.1	Valley and foothill grassland July to October	Potential habitat, species not observed
Carex comosa Bristly sedge	-- / -- / 2.1	Marshes and swamps May to September	No suitable habitat present, species not observed
Cordylanthus mollis ssp. mollis Soft bird's-beak	E / R / 1B.2	Coastal salt marsh, Suisun Marsh July to November	No suitable habitat present, species not observed
Delphinium recurvatum Recurved larkspur	-- / -- / 1B.2	Alkaline valley and foothill grassland, oak woodland March to June	No suitable habitat present, species not observed
Erodium macrophyllum Round-leaved filaree	-- / -- / 1B.1	Cismontane woodland, valley and foothill grassland March to May	No suitable habitat present, species not observed
Eryngium racemosum Delta button-celery	-- / E / 1B.1	Riparian scrub [vernally mesic clay depressions] June to October	No suitable habitat present, species not observed
Eschscholzia rhombipetala Diamond-petaled California poppy	-- / -- / 1B.1	Valley and foothill grassland. clay soils March to April	Potential habitat, species not observed
Hibiscus lasiocarpus Wooly rose-mallow	-- / -- / 1B.2	Freshwater marshes and swamps June to September	No suitable habitat present, species not observed

Scientific Name (Common Name)	Status[1] Federal/State/CNPS	Habitat and Bloom Time	Potential to Occur on Project Site
Isocoma arguta Carquinez goldenbush	-- /-- /1B.1	Valley and foothill grasslands, alkaline soils August to December	No suitable habitat present, species not observed
Lasthenia conjugens Contra Costa goldfields	E / -- / 1B.1	Valley and foothill grassland, vernal pools, playas March to June	No suitable habitat present, species not observed
Lathyrus jepsonii var. *jepsonii* Delta tule pea	-- / -- / 1B.2	Freshwater and brackish marshes May to September	No suitable habitat present, species not observed
Lilaeopsis masonii Mason's lilaeopsis	-- / R / 1B.1	Tidally inundated mudbanks April to November	No suitable habitat present, species not observed
Limosella australis Delta mudwort	-- / -- / 2.1	Tidally inundated mudbanks, marshes and swamps May to August	No suitable habitat present, species not observed
Oenothera deltoides ssp. *howellii* Antioch Dunes evening-primrose	E / E / 1B.1	Interior dunes, only in Contra Costa and Sacramento counties March to September	No suitable habitat present, species not observed
Plagiobothrys hystriculus Bearded popcorn-flower	-- / -- / 1B.1	Vernal pools, valley and foothill grassland April to May	No suitable habitat present, species not observed
Potamogeton zosteriformis Eel-grass pondweed	-- / -- / 2.2	Marshes and swamps June to July	No suitable habitat present, species not observed
Scutellaria galericulata Marsh skullcap	-- /-- /2.2	Marshes and swamps, lower montane coniferous forest, meadows and seeps June to September	No suitable habitat present, species not observed
Scutellaria lateriflora Side-flowered skullcap	-- / -- / 2.2	Marshes and swamps, meadows and seeps July to September	No suitable habitat present, species not observed
Senecio aphanactis Chaparral ragwort	-- / -- / 2.2	Chaparral, cismontane woodland, coastal scrub January to April	No suitable habitat present, species not observed
Tropidocarpum capparideum Caper-fruited tropidocarpum	-- / -- / 1B.1	Valley and foothill grassland; alkaline hills March to April	Potential habitat, species not observed

Scientific Name (Common Name)	Status[1] Federal/State/CNPS	Habitat and Bloom Time	Potential to Occur on Project Site

(1) Legal Status Codes:
E = Federally or State listed as endangered
T = Federally or State listed as threatened
R = State listed as Rare
1B.1 = CNPS List 1B: Plants rare, threatened, or endangered in California and elsewhere; .1 seriously endangered in California
1B.2 = CNPS List 1B: Plants rare, threatened, or endangered in California and elsewhere; .2 fairly endangered in California
2.1 = CNPS List 2: Plants rare, threatened, or endangered in California, but more common elsewhere; .1 seriously endangered in California
2.2 = CNPS List 2: Plants rare, threatened, or endangered in California, but more common elsewhere; .2 fairly endangered in California

Source: Miriam Green & Associates 2013

Table 5. Special-Status Wildlife Species Potentially Occurring on the Project Site

Common Name (Scientific Name)	Legal Status* Federal/ State	Habitat Requirements	Presence on Project Site
BIRDS			
California black rail (*Laterallus jamaicensis coturniculus*)	-- / T	Typically found in brackish and salt marshes, although can also occur in freshwater marshes with tules, cattails, and salt grass	No suitable habitat on or adjacent to project site; closest known occurrences in Middle and Old rivers; not observed
Swainson's hawk (*Buteo swainsoni*)	--/ T	Nests in valley oaks, cottonwoods, willows and a variety of other trees often in, or near, riparian habitats; forages in grasslands, irrigated pastures, and a variety of agricultural row and field crops. Shows a preference for alfalfa	Nests in the Delta; no recorded nests within one mile of project site; no suitable habitat on or adjacent to project site; not observed
Northern harrier (*Circus cyaneus*)	-- / CSC	Frequents meadows, grasslands, open rangelands, agricultural row and field crops; nests on the ground in shrubby vegetation, often near marshes	Suitable foraging habitat in nearby open fields; no known nest sites nearby; not observed during May 2013 survey
White-tailed kite (*Elanus leucurus*)	-- / FP	Low foothill or valley areas with trees of various sizes, riparian areas, and marshlands near open grasslands and agricultural habitats for foraging	Suitable foraging habitat in nearby open fields; no known nest sites nearby; not

			observed
Burrowing owl (*Athene cunicularia*)	-- / CSC	Occupies abandoned mammal burrows, especially those of California ground squirrels, along fencelines and in open grasslands with sparse vegetation	Suitable habitat in open fields with short grass; none observed
Short-eared owl (*Asio flammeus*)	-- / CSC	Typically found in open areas with elevated sites for perches (fence lines, shrubs, etc.) and dense vegetation for nesting and roosting; nests on the ground in grasslands or at the edges of wetlands	No suitable habitat; not observed
Loggerhead shrike (*Lanius ludovicianus*)	-- / CSC	Frequents open habitats with sparse shrubs and trees and/or other suitable perches, bare ground, and low or sparse herbaceous cover	May occur in general area; not observed during May 2013 survey
California horned lark (*Eremophila alpestris actia*)	-- / CSC	Frequents grasslands and other open habitats with low, sparse vegetation	May occur in project area; not observed during May 2013 survey
Tricolored blackbird (*Agelaius tricolor*)	-- / CSC	Typically nests colonially in dense stands of cattails and tules, or in upland sites with blackberries, nettles, or thistles	No suitable habitat on project site; not observed
REPTILES			
Western pond turtle (*Actinemys marmorata*)	-- / CSC	Occurs near a variety of aquatic habitats (e.g., ponds, marshes, sloughs, irrigation ditches, and wetlands) providing adequate basking sites from which turtles may readily escape to the water; females have been found to nest as far as 0.5 km from water	May occur in portions of Kellogg Creek and drainage ditches; not observed on project site or adjacent waterways
Alameda striped racer (*Coluber lateralis euryxanthus*)	T / T	Associated with grassy scrub and chaparral, rocky hillsides, gullies, and stream courses; prefers foothills and pine or deciduous woodland habitats; generally absent from Valley floor; occurrences are mostly within the foothills of the Diablo Range	Not observed on project site; closest occurrence is approximately 12 miles to the southwest
Giant garter snake (*Thamnophis gigas*)	T / T	Occupies habitats containing permanent or seasonal water, mud bottoms, and vegetated dirt banks; requires sufficient water during the active summer season to supply food and cover, emergent vegetation, bank side burrows, and upland refugia	Project site lies outside of the southernmost limit of species' documented range; not observed during previous surveys undertaken for Pantages Bays property or other Delta surveys in this area (see text)

AMPHIBIANS			
California tiger salamander (*Ambystoma californiense*)	T / T	Typically found in annual grasslands of lower hills and valleys; breeds in temporary and permanent ponds and in streams; uses rodent burrows and other subterranean retreats in surrounding uplands for shelter; appears to be absent in waters containing predatory game fish	No suitable habitat on project site; not observed
Western spadefoot (*Spea hammondii*)	-- / CSC	Primarily a lowland species associated with valley and foothill grasslands; inhabits areas containing washes, floodplains of rivers, alluvial fans, and alkali flats; eggs may hatch within as little as 2 days and metamorphosis may be attained in 4 to 6 weeks, allowing this species to use shallow, temporary pools formed by heavy winter rains that may be unsuitable for predatory species such as bullfrogs	No records within 20 miles of project site; no suitable breeding habitat; not observed
California red-legged frog (*Rana draytonii*)	T / CSC	Inhabits permanent, cool waters of ponds, lakes, reservoirs, and streams offering dense shrubbery and emergent vegetation; may disperse far from water following breeding; larvae typically require 4 to 5 months to attain metamorphosis	No records within 5 miles of project site; no suitable habitat on project site

Source: Miriam Green & Associates 2013
* Legal Status Definitions

Federal
E = listed as endangered under the federal Endangered Species Act
T = listed as threatened under the federal Endangered Species Act
-- = no designation

State
E = listed as endangered under the California Endangered Species Act
T = listed as threatened under the California Endangered Species Act
CSC = California Species of Special Concern
FP = fully protected under the California Fish and Game Code (fully protected species may not be taken or possessed without a permit from the Fish and Game Commission and/or the Department of Fish and Game)
-- = no designation

V. CULTURAL RESOURCES *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

State and Federal legislation requires the protection of historical and cultural resources. In 1971, the President's Executive Order No. 11593 required that all Federal agencies initiate procedures to preserve and maintain cultural resources by nomination and inclusion on the National Register of Historic Places. In 1980, the Governor's Executive Order No. B-64-80 required that State agencies inventory all "significant historic and cultural site, structures, and objects under their jurisdiction which are over 50 years of age and which may qualify for listing on the National Register of Historic Places." Likewise, Section 15064.5(b) of the CEQA Guidelines specifies that "projects that cause the physical demolition, destruction, relocation, or alteration of a historical resource or its immediate surroundings such that the significance of the historic resource would be materially impaired" shall be found to have a significant impact on the environment.

According to agency definitions, implementation of the proposed Well 7 Project would constitute an "undertaking." CEQA requires the evaluation of the potential effects to cultural resources (i.e., historic and archaeological) that may be caused by a particular "undertaking."

Q*uestions Va, Vb, and Vd*) Areas near known historic features, communities or dwellings generally would be of high sensitivity for historic resources. Areas near bodies of water such as creeks and sloughs would be most sensitive for prehistoric resources. The Contra Costa General Plan Archeological Sensitivity map designates the project site and the surrounding community as highly urbanized lands excluded from the archeological sensitivity survey. The General Plan notes that archeological resources may still be present in urbanized areas and the lands immediately surrounding the community are designated as both moderately sensitive (all lands excluding the Kellogg Creek area to the northeast) and extremely sensitive (Kellog Creek area only). Although the site of the proposed Well 7 Project is near areas designated as sensitive, the previous construction

activities and municipal uses of the site have greatly disturbed the area, a preconstruction survey for cultural resources was not deemed necessary for the project. Even though project construction could result in the destruction or degradation of unknown cultural or historic resources, implementation of BMPs 4 and 5 would avoid this potentially significant impact. Thus, with implementation of BMPS 4 and 5, Well 7 effects to cultural resources would be found to be less than significant. No mitigation measures would be necessary.

Question VIc) Since the Town's immediate area, including the proposed location of the Well 7, is not a known location of paleontological resources, nor are there any unique geological features present within the area, no adverse effects to these resources would occur. This would be a less than significant impact; no mitigation measures would be necessary.

VI. GEOLOGY AND SOILS *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

d) Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

The Well 7 Project is located at the eastern margin of Contra Costa County, in an area with historically low seismic activity. The Contra Costa County General Plan (2005) states that there are no known active faults within the project area, nor is the area within an Alquist-Priolo Special Studies Zone. However, the General Plan states that a thrust fault is believed to exist in the projects vicinity. Thrust faults are not considered to pose a risk of surface fault rupture, but are considered a potential seismic source which could generate ground shaking.

Soil liquefaction is a phenomenon in which saturated soil loses shear strength and deforms from ground shaking during an earthquake. The soils that underlie the project site are modern sediments of the San Francisco Bay estuary and delta lowlands. These soils are soft, water saturated mud, peat and loose sands. Mud and peat are subject to differential settlement under load. Often the mud contain expansive clays and those containing sands may liquefy under earthquake stresses; making these soils highly susceptible to earthquake damage and ground failure.

The project site has been previously developed with the pedestrian path, the drainage ditch and Newport Road. Further, the District has already installed a test well and has previously conduct soil samples and geotechnical studies (Kleinfelder 1999). Therefore, the Well 7 Project would be designed to ensure the existing subsurface conditions are capable of supporting all foundations and pipelines associated with the proposed project.

The proposed project would comply with District and County standards for seismic protection, consistent with California Building Code requirements for the State of California. Implementation of the site specific geotechnical design and construction standards and seismic safety procedures would limit seismic hazards to levels deemed acceptable in the state and region.

Questions VIa and c) The project site and vicinity have nearly level topography that would not subject to landslide hazards or unstable soil conditions. Further the area is not located near any active faults. However, the General Plan states that a thrust fault is believed to exist in the projects vicinity. Even though the thrust faults are considered a potential seismic source which could generate ground shaking, thrust faults are not considered to pose a risk of surface fault rupture. Further, compliance with California Building Code and the results of geotechnical investigations reduce any potential impacts

to a less than significant seismic risk and unstable soil conditions impact. No mitigation measures would be necessary.

Question VIb) Construction at the proposed Well 7 would disturb a very limited area of a parcel that is relatively level in topography. However, the site is immediately adjacent to Kellogg Creek and a drainage ditch. Avoidance of the creek and drainage ditch edges are included in BMP 3 (use of sand bags etc); the site's existing surfaces would be maintained to protect silt from draining into Kellogg Creek and the drainage ditch while allowing access for construction, operation and maintenance of the proposed facilities and the existing pedestrian path. Due to the gentle topography, construction best management practice techniques (BMP 3), implementation of the project would result in less than significant impacts to soil erosion or loss of topsoil. No mitigation would be needed. Any potential construction phase impacts to water quality are discussed separately in Section IX of this Initial Study.

Question VId) Shrink/swell potential refers to the soils ability to expand and contract. Shrinking and swelling of soil can damage roads, dams, building foundations, and other structures. The native soils on the project site are composed of expansive clays alternating with silts. These soils exhibit severe shrink/swell characteristics. However, the project does not propose any new buildings or structures intended for human use or occupancy. The only new structures proposed would be the new well and associated piping. All new construction and site work associated with the project would be consistent with the area specific geotechnical recommendations prepared by Kleinfelder (1999) for the CSD. Conformance with the area specific geotechnical recommendations that have been prepared for the site will ensure the safety of the facility. This would result in a less than significant soils impact and no mitigation measures would be required.

Question VIe) The project site and features would not require wastewater service or facilities. No impact from or to soil and groundwater from septic systems would occur. No mitigation measures would be required.

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
VII. GREENHOUSE GAS EMISSIONS *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☒	☐

Environmental Setting

The Earth's atmosphere naturally includes a number of gases, including water vapor, carbon dioxide (CO2), methane, and nitrous oxide (N2O), that are referred to as "greenhouse gases" (GHGs). These gases trap some amount of solar radiation and the Earth's own radiation, preventing it from passing through Earth's atmosphere and into space. GHGs are produced from: electricity generation, road transportation, and other energy sources; industrial processes; agriculture, forestry, and other land uses; solid waste disposal; and wastewater treatment and discharge.

The United States has the highest emissions of greenhouse gases of any nation on Earth, though CO2 emissions in California are less than the national average, both in per capita emissions and in emissions per gross state product. Transportation is the largest source of CO2 emissions in California, accounting for approximately 41 percent of total emissions. Electricity generation accounts for approximately 22 percent of CO2 emissions in California, and the industrial sector accounts for approximately 20.5 percent.

Regulatory Setting

The U.S Supreme Court on April 2, 2007 ruled that CO2 is an air pollutant as defined under the Clean Air Act and that Environmental Protection Agency has the authority to regulate emissions of GHGs (Massachusetts v. U.S. Environmental Protection Agency [2007] 549 U.S. 05-1120) propels the development of new rules and regulations to further control greenhouse gas emissions from vehicles as well as other sources.

Global warming and climate change have received substantial public attention for more than 15 years. For example, the United States Global Change Research Program was established by the Global Change Research Act of 1990 to enhance the understanding of natural and human-induced changes in the Earth's global environmental system, to monitor, understand and predict global change, and to provide a sound scientific basis for national and international decision-making. Even so, the analytical tools have not been developed to determine the effect on worldwide global warming from a particular increase in greenhouse gas emissions, or the resulting effects on climate change in a particular locale. The scientific tools needed to evaluate the impacts that a specific project may have on the environment are even farther in the future.

However, there is currently no specific local or statewide significance threshold developed to evaluate the impacts of the proposed plant expansion project on global climate change in California.

Significance Criteria

In accordance with CEQA, §15064.4(a), Determining the Significance of Impacts from Greenhouse Gas Emissions, a lead agency should consider the following, where applicable, in assessing the significance of impacts from GHG emissions, if any, on the environment:

(1) The extent to which the project could help or hinder attainment of the State's goals of reducing greenhouse gas emissions to 1990 levels by the year 2020, as stated in the Global Warming Solutions Act of 2006. A project may be considered to help attainment of the State's goals by being consistent with an adopted statewide 2020 greenhouse gas emissions limit or the plans, programs, and regulations adopted to implement the Global Warming Solutions Act of 2006;

(2) The extent to which the project may increase the consumption of fuels or other energy resources, especially fossil fuels that contribute to greenhouse gas emissions when consumed;

(3) The extent to which the project may result in increased energy efficiency of and a reduction in overall greenhouse gas emissions from an existing facility;

(4) The extent to which the project impacts or emissions exceed any threshold of significance that applies to the project.

For the purposes of this IS/ND, the project's contribution to GHG emissions would be considered significant if:

- The project would impede the emissions reduction targets developed by the state pursuant to AB 32, and therefore make a cumulatively considerable GHG emission net increase and fail to fully apply all feasible GHG reduction strategies. "Cumulatively considerable" means "that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of current projects, and the effects of probable future projects" (CEQA Guidelines §15065(a)(3)).
- The project would be inconsistent with applicable AB 32 Proposed Scoping Plan measures as evaluated using the Cal-EPA's Climate Action Team list of all early action strategies to comply with AB 32.
- The project makes a cumulatively considerable contribution towards the consumption of fuels or other energy resources by not complying with CEC's 2005 Energy Efficiency Standards.

The primary source of GHG emissions would be from Well 7 construction. Given the short-term nature of the construction phase and implementation of BMP 2 for reducing fugitive dust and air emissions (in accordance with the BAAQMD requirements), construction emissions were not estimated for the proposed Well 7 Project.

Question VIIa) Because the proposed Well 7 Project would include BMP 2 to reduce construction-related emissions, and the project scope is very focused in nature, the

project's GHG emissions were found to be less than significant. No mitigation measures would be required.

Question VIIb) Because the proposed Well 7 Project would include BMP 2 to reduce construction-related emissions, and these measures would be in compliance with the BAAQMD requirements, the project would have a less than significant impact on applicable plans, policies or regulations adopted for the purpose of reducing greenhouse gases emissions. No mitigation measures would be required.

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
VIII. HAZARDS AND HAZARDOUS MATERIALS *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Question VIIIa) The existing Newport WTP provides treatment of raw water from Wells 4A and 5A. The raw water piping would be modified to allow for the addition of the groundwater to be pumped from Well 7. The raw water supply from the three wells would be treated to remove iron and manganese using greensand filtration. Existing treatment facilities would not change as a result of the project and would continue to comply with federal and state regulations that govern material handling and storage protocols. Residual amounts of sodium hypochlorite (bleach), used as a disinfectant, would remain in the water when it is pumped to the end users for the purpose of chlorination, which is not hazardous. Implementation of the proposed project would have less than significant effects on hazards and hazardous emissions; no mitigation measures would be necessary.

Q*uestion VIIIb*) Standard construction techniques would be used to construct the proposed new municipal water well and associated facilities. During construction, oil, diesel fuel, paints, solvents, and other hazardous materials would be used at the site. If spilled, these substances could pose a localized risk to the environment and to human health. Both federal and state laws include special provisions for the safe handling of hazardous substances. Because the routine transport, use, and disposal are subject to local, state, and federal regulations, and BMP 3 would include use of sand bags and other measures to protect Kellogg Creek and the drainage ditch, this would be considered a less than significant hazardous impact. No mitigation measures would be necessary.

Q*uestion VIIIc*) The Well 7 Project site is not located within one-quarter mile of any school. Further, project operations would not expose any sensitive receptors to hazardous emissions because the project is limited to the development of a new water supply well, for the purpose of replacing an existing water supply well or in the event of an emergency. Implementation of the proposed project would pose a less than significant hazardous emissions impact and no mitigation measures would be necessary.

Question VIIId) The Well 7 Project site is located approximately 3/4 mile from the site of a former gas station located at 1700 Discovery Bay Blvd. In 1998, three leaking underground storage tanks (USTs) were removed from the gas station site. Soil samples collected during removal of the USTs contained Methyl-tert-butyl ether (MtBE), an ingredient of unleaded gasoline, which is classified as a potential human carcinogen by the EPA. Observation wells and deep soil borings taken at and near the former gas station site have indicated that the extent of the MtBE contaminated water is limited to a shallow aquifer, which is confined at approximately 25.5 feet below ground level (bgl) by a layer of lower permeability. This layer of lower permeability extends from 25.5 feet bgl to approximately 38 feet bgl and effectively prevents vertical migration of the MtBE into the lower ground water aquifers, located at approximately 280 - 370 feet below ground level, that would provide source water for Well 7. In addition, a 2008 letter from the Central Valley Regional Water Quality Control Board states that the MtBE contamination does not pose a threat to existing or future residents because the groundwater plume is stable and the aquifer to which it is confined is not suitable for any beneficial use. Because the MtBE contamination is located nearly 3/4 mile from the proposed project site, has a stable groundwater plume with little potential for vertical migration, and is confined to an aquifer approximately 340 feet above the groundwater source for the Well 7, the potential hazardous materials impacts would be considered less than significant. No mitigation measures would be required.

Questions VIIIe and f) There are no existing airports within two miles of the proposed project site. The site facility may experience infrequent over-flights from airplanes traveling to or from regional airports; however, the project does not require or attract people to the site and does not include facilities or processes that create hazards to aircraft. The project site is not located within the vicinity of a private airstrip. The project facilities and personnel would not be exposed to or contribute to safety hazards. The project would have a less-than-significant impact to existing or future nearby residents within public or private airport safety zones and no mitigation would be necessary.

Question VIIIg) The project would not result in the modification or blockage of any evacuation route, or result in an increased concentration of large numbers of persons in an at-risk location. The facility would not impact emergency response or evacuation plans. This would result in a less than significant impact and no mitigation measures would be necessary. (For more information about roadway conditions in the project area, see Section XVI of this Initial Study.)

Q*uestion VIIIh*) The project site is located within the Town of Discovery Bay, an existing medium density, suburban master planned recreational community. The project site would be located adjacent to an open space area managed as open space and agricultural areas; it could be subject to wildfires. The Well 7 site would be provided with

urban levels of fire protection as well as it is a source of emergency water for the Town of Discovery Bay. Further the proposed well area is actively managed to reduce the potential of wildland fires through weed abatement. In addition, fire hydrants are located along Newport Drive. The construction and operation of the proposed Well 7 Project would not increase the risk of nor hazards from wildland fire. This would result in a less than significant impacts from wildland fires; no mitigation measures would be necessary.

IX. HYDROLOGY AND WATER QUALITY *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Question IXa) The project would be consistent with legally adopted standards and programs to protect the quality of groundwater in the subterranean aquifers underlying the site, as well as surface waters that may be impacted by the well facility discharges. The Well 7 Project would consist of extracting groundwater at the project site, the use of liquid sodium hypochlorination/oxidation for iron and manganese removal and use of the same sodium hypochlorite disinfection system to re-chlorinate the treated water prior to being pumped into the water distribution system. The groundwater source for the Well 7 would be the same as that currently providing raw water to Wells 4A and 5A, also connected to the Newport WTP. Because the water produced by Well 7 would only be used in replacement of water normally produced by the two existing municipal wells, the quality of its water would be similar to (and possibly even an improvement over) that produced by Wells 4A and 5A. No violations of water quality standards or discharge would occur. Further, implementation of BMP 3 (storm water pollution prevention) would reduce any potential impacts to water quality during construction. Implementation of the Well 7 Project would result in a less than significant effect on water quality; no mitigation measures would be necessary.

Q*uestion IXb*) Groundwater occurs as part of a regional aquifer system known as the San Joaquin Valley Groundwater Basin. The Well 7 Project is proposed to produce approximately 2,000 gpm, equivalent to the production capacity of Well 5A. Implementation of the Well 7 Project would not adversely affect groundwater recharge to the production aquifers since it would be a replacement to Well 5A and would not increase in overall extraction in the area. This would be a less than significant impact on groundwater supplies and no mitigation would be necessary.

Q*uestions IXc to IXe*) The Well 7 Project would involve construction in close proximity to Kellogg Creek and the drainage canal. All construction activities would implement stormwater pollution prevention (BMP 3) designed in accordance with the guidelines of the Contra Costa County Storm Water Management Program to reduce potential impacts to water quality during construction. The final well structure would create small areas of additional impervious surfaces on the well site (approximately a 12 by 20-foot area or less than 250 square feet). The project would involve the construction of overboard piping into the wastewater system in Newport Drive and connection to an existing raw water line in Newport Drive. The proposed project would not require any modifications to the existing outfall structure or the floodwater control basin. The existing stormwater pipeline is of adequate size to accommodate excess groundwater pumped by Well 7 during start

up and testing procedures in conformance with CDPH Waterworks Standards. Clean water produced during well development and testing would be discharged to a municipal storm drain inlet located within Newport Drive less than 100 feet from the proposed well head. Development water containing solids including sand and silts would be contained in settling tank(s) or other means on-site before being discharged into the storm drain. Only "clear water" would be discharged into the storm drain system in compliance with municipal discharge requirements. All other waters would be transported in tanks to the municipal wastewater treatment plant located approximately 2 miles east of the project site via an existing sewer manhole and line also located in Newport Drive. The project's site drainage facilities and existing off-site municipal stormwater drainage system are designed with capacity to accommodate the increase in runoff volumes and peak flows from the occasional well testing. No uncontrolled runoff would discharge from the site that could result in erosion and siltation along adjacent surface drainageways. Thus, implementation of the proposed Well 7 Project would have less than significant effects on drainage patterns, facilities or capacity; no mitigation measures would be necessary.

Q*uestion IXf*) Temporary increases in erosion of exposed soils during construction of the facility could result in minor on or off site water quality impacts, particularly if rainfall events occur during the active construction phase. The Well 7 Project site would be less than one acre in area and would not require specific permits. Based on the gentle site topography, implementation of storm water pollution prevention (BMP 3), and site planning to avoid creating new adverse drainage patterns, this would result in a less than significant water quality impacts; no mitigation measures would be necessary.

Question IXg) The Well 7 Project site would not include any residential housing. Therefore no impact to placement of housing within a 100-year floodplain would occur.

Q*uestions IXh and i*) The project site would be located within the FEMA designated 100-year floodplain. The project facilities are small, and so would not exert an effect on the direction of flood flows, given that the site would only be affected from a major event. The CDHP requires that these well facilities be above 10 feet (mean sea level (msl)); given the site is at 9.5 feet, the well and well pad would be built up to just over 10 feet. Implementation of the Well 7 Project would result in less than significant floodwater flow impacts because the well site and pad, by engineering design, would be above the 10 foot msl. The project as proposed would be consistent with the requirements and standards of RD 800, the special district charged with oversight of flood protection activities for the Town of Discovery Bay. Thus, potential hazards or losses from flooding would be less than significant significant impact; no mitigation measures would be necessary.

Q*uestion IXj)* The Well 7 Project would not be located in an area subject to inundation hazards from seiche, tsunami, or mudflow. No impacts from such phenomena would occur.

X. LAND USE AND PLANNING *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒	☐

The Town of Discovery Bay is a master planned recreational community characterized by medium-density suburban residential development. Existing and planned surrounding land uses would continue to be medium-density suburban in nature.

Well 7 would be located on portions of two parcels (Contra Costa County Assessor's Parcel Number APN 008-010—029 and 037). APN 008-010-029 is owned by the Town of Discovery Bay. APN 008-010-037 is owned by a private party; the well portion would be owned by the Town of Discovery Bay after a parcel map or lot line adjustment application with Contra Costa County is processed and ownership of the well parcel is granted to the Town of Discovery Bay.

The Well 7 site includes portions of a pedestrian path and a drainage ditch; immediately adjacent are Kellogg Creek to the south, electrical power lines to the west, and a drainage ditch and Newport Drive to the north and east (see Figures 2, 3 and 4).

The project site is designated by the Contra Costa General Plan as Open Space. The property is zoned P-1 (Planned Unit District) by the Contra Costa Municipal Code. The development and operation of a municipal water well and associated facilities is a permitted use consistent with the approved final development plan approved for the Town of Discovery Bay (Contra Costa County Municipal Code, Section 84-66.402).

Question Xa) The Well 7 Project is proposed to be developed on an open space parcel which is already developed with a pedestrian path and a drainage ditch. The developed community is east of Newport Drive and south of Kellogg Creek. The proposed activities are consistent with the normal and customary operation of a water supply well. Bescause the proposed Well 7 Project is set along the western edge of the Town of Discovery Bay, the project would not divide an established community. Implementation of

the Well 7 Project would result in a less than significant land use impact; no mitigation measures would be necessary.

Question Xb) The property is zoned P-1 (Planned Unit District) by the Contra Costa Municipal Code. The development and operation of a municipal water well and associated facilities is a permitted use consistent with the approved final development plan approved for the Town of Discovery Bay (Contra Costa County Municipal Code, Section 84-66.402). Proposed project activities are consistent with the project site's land use and zoning designations and their requirements. Implementation of the Well 7 Project would result in a less than significant land use impact; no mitigation measures would be necessary.

Question Xc) As noted above in Section IV, there are no approved or adopted Natural Community Conservation Plans or Habitat Conservation Plans (NCCP/HCP) for the project site or its vicinity. Therefore, the project would not conflict with any local ordinances or plans. Implementation of the Well 7 Project would result in a less than significant land use impact; no mitigation measures would be necessary.

XI. MINERAL RESOURCES *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Question XIa and b) The Well 7 Project area is not located in a zone of known for mineral or aggregate resources (Contra Costa County General Plan, Mineral Resource Area Map, 2005). No active mining operations are present in, or near, the project area. Implementation of the proposed projects would not interfere with the extraction of any known mineral resource. Thus, there would be no mineral resource impacts.

XII. NOISE *Would the project result in:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

The Well 7 Project would be located in an area that currently experiences suburban noise sources. Newport Drive is immediately east to the well site; Highway 4 is approximately ½ mile to the south of the proposed well site. Traffic noise from vicinity roads during peak hours may be noticeable in the project area. The predominant noises at the proposed project site are characterized as medium density neighborhood, consisting of noise from existing residences to the east and south. The project proposes to complete Phase 1 during September/October of 2013 and Phase 2 by Spring 2014.

Noise impacts from a project can be categorized as those resulting from construction and operational activities. Construction noise would have a short-term effect (continuously for approximately eight days and intermittently for a total of 30 days during Phase 1; and intermittently for approximately three to four months during Phase 2). Operational noise would continue throughout the project life; the project, however, includes a submersible pump and motor which would have an almost undiscernable noise impact. Implementation of the proposed project would temporarily increase noise levels during

construction; and continuously during operations from a barely audible submersible pump and motor. Since there are adjacent residences to the proposed project site that may be affected, the following discussion considers these noise sources in more depth.

Environmental noise usually is measured in A-weighted decibels (dBA). An A-weighted decibel is a decibel corrected for the variation in frequency response of the typical human ear at commonly encountered noise levels. Environmental noise typically fluctuates over time, and different types of noise descriptors are used to account for this variability. Typical noise descriptors include the energy-equivalent noise level (Leq) and the day-night average noise level (Ldn).[1] The Ldn is commonly used in establishing noise exposure guidelines for specific land uses. In areas where noise is dominated by traffic, the Leq during the peak-hour is generally equivalent to the Ldn at that location.

Generally, a three-dBA increase in ambient noise levels represents the threshold at which most people can detect a change in the noise environment; an increase of 10 dBA is perceived as a doubling of loudness. In areas where existing noise levels are dominated by traffic, a doubling in the volume of vehicular traffic would cause ambient noise levels to increase by three dBA.

The noise level experienced at a receptor depends on the distance between the source and the receptor, presence or absence of noise barriers and other shielding devices, and the amount of noise attenuation (lessening) provided by the intervening terrain. For line sources, such as motor or vehicular traffic, noise decreases by about 3.0 to 4.5 dBA for every doubling of the distance from the roadway. For point or stationary noise sources, such as electric motors, a noise reduction of 6.0 to 9.0 dBA is experienced for each doubling of the distance from the source.

Construction noise would have a short-term effect; operational noise, primarily from the production well pump, would continue throughout the lifetime of the project. A project would have a significant adverse impact on the environment if it substantially increased the ambient noise levels for adjoining areas, unless the area under consideration were already noise-impacted. For the purposes of this Initial Study, a 5 dBA increase in Ldn or Leq, or more, or a change from one noise compatibility standard category to the next higher category in the Noise Element (e.g., from “normally acceptable” to “conditionally acceptable”) would be considered to be a significant impact.

Construction Noise

Construction of the proposed Well 7 Project would temporarily increase noise levels in the vicinity of construction activities intermittently over the construction periods that encompass both phases of the project. Currently, noise sensitive land uses (existing residences) are located in the immediate vicinity, which could be subjected to noise from construction activities associated with the proposed project.

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1 Leq, the energy equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level actually measured during the same period. Ldn, the day-night average noise level, is a weighted 24-hour average noise level. With the Ldn descriptor, noise levels between 10:00 p.m. and 7:00 a.m. are adjusted upward by ten dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise.

Construction activities would be considered an intermittent noise impact throughout the construction of the projects and would vary in their effects on sensitive receptors, depending on the presence of intervening barriers or other insulating materials.

Although construction activities would for the most part occur would only during daytime hours, uncontrolled construction noise could still be considered disruptive to local residents adjacent to the proposed project. Typical composite noise levels for construction activities, and distances of various noise contours from construction site, are presented in Table 6.

Table 6 Typical Noise Levels During Construction

		Approximate Distance (ft.) to Reduce Noise to Given Level (dBA, Leq) /b/		
Construction Activity	**Noise Level at 50 feet (dBA, Leq) /a/**	**60**	**65**	**70**
Ground Clearing	84	790	450	250
Excavation	89	1,400	800	450
Foundations	78	400	220	130
Erection	85	890	500	280
Finishing (exterior)	89	1,400	800	450

/a/ U.S. Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, updated December 1995.

/b/ Calculations assume a 6 dBA reduction for each doubling of distance from the noise source.

In order to regulate such noise, the Contra Costa County General Plan, Noise Element (2005) has established acceptable noise levels to be experience by various land use types. The General Plan states that it is normally acceptable for residential uses to experience an ambient noise level of 60 dBA and conditionally acceptable for them to experience noise levels up to 70 dBA. General Plan Policy 11-8 also states that "construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods."

Questions XIIa, b and d) Existing sensitive noise receptors include the adjacent residences and recreation uses. Sensitive noise receptors remaining throughout all phases of construction would consist of residents of the homes east and south of the project site. The nearest residences (approximately ten homes) are located approximately 200 feet from the proposed project site with most of the nearby residences more than 300 to 500 feet away. As demonstrated by Table 6 above, a distance of 300 feet from the noise generating uses of the project site would serve to attenuate noise volumes to nearly conditionally acceptable levels. However, the neighbors closer than 300 feet would be exposed to potentially significant construction-related noise impacts. To reduce this potential construction-related noise impact to a less than significant level, the project application will implement Mitigation Measure 2, as follows:

Mitigation Measure 2 - All work will be performed between the hours of 7 a.m. and 7 p.m. Monday through Saturday. The only exception to the designated work hours would be made for the purpose of drilling the well (approximately six to ten days days of Phase 1). For this operation, continuous work (up to 24 hours per day) would be necessary in order to protect the integrity of the well structure. Temporary sound curtains/walls and appropriate muffler devices would be used to mitigate the noise impacts of the drilling operation on the immediately surrounding residences (depicted in Figure 5). In addition, the use of impact wrenches would only be allowed between the hours of 7 a.m. and 7 p.m.

With implementation of Mitigation Measure 2, all work necessary to implement the project construction would be performed between the hours of 7 a.m. and 7 p.m. Monday through Saturday, with the only exception being made for the purpose of drilling the well. During the six to ten days of continuous drilling, additional noise attenuation measures would include: sound curtains/walls, mufflers on equipment, and limited use of impact wrenches to daytime hours. In addition, the Town of discovery Bay will ensure that all nearby residences are notified of the well drilling before construction begins and will provide a contact number for a community liaison (BMP 6). Because: (1) implementation of Mitigation Measure 2 would reduce construction related noise levels; (2) implementation of Best Management Practices (BMPs 6) would ensure adjacent neighbors would be informed of potential construction impacts; and (3) total construction would be temporary, construction related noise levels would be reduced to a less than significant level and no additional mitigation measures would be required.

Operational Noise

Question XIIc) Implementation of the project would not increase the number of vehicle trips to and from the project area. The proposed project would not create the need for additional facility staff or trips. A doubling of traffic volumes would be necessary to increase ambient noise levels by three dBA. No or nominal traffic increases for project operations would occur and as a result the ambient noise environment would not be affected

On-site facilities and processes that could result in operational noise would include noises from the opening and closing of valves associated with the normal operation of the new well. There will also be some limited noise associated with the well discharge to the overboard manhole during well start-up and shutdown operations. Normally the well pump and electric well motor would be expected to contribute to operational noise levels; however, the project proposes a submersible pump and motor, which would be located approximately 160 feet below ground and under water. No audible noise would result from the operation of the submersible well pump and motor. The nearest sensitive receptor would be located approximately 150 feet from the proposed well and pump facilities. No adverse levels of vibration would be generated during project operations.

For simple tone noise such as that produced by the motor, performance standards are generally reduced by five dBA to account for the greater annoyance of simple tones versus more complex noises such as traffic. The County's Noise Elements protects the residential receptors (the most sensitive of those adjacent to the project site) from

experiencing noise levels in excess of 70 dBA, the conditionally acceptable noise maximum. Since the simple tone pump noise is below ground, it would be barely audible. Operations of the proposed Well 7 Project would be within the applicable performance noise standard of approximately 65 dBA at any point at least one foot inside the property line of the affected residential property, 36 inches above the ground based for single family residential uses.

Given the distance from the project's permanent operational noise sources to existing sensitive receivers and the nature of the noise source, implementation of the Well 7 Project would result in a less than significant operational noise impact; no mitigation measures would be necessary.

Questions XIIe and f) Since the proposed project site would be located more than 2 miles from the nearest airport, and noise levels from airport operations do not exceed County General Plan standards at the project site, workers at the proposed Well 7 site would not be exposed to adverse levels of aircraft noise. No impact would result and no mitigation would be necessary.

XIII. POPULATION AND HOUSING *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Question XIIIa) The Well 7 Project would be located in the Town of Discovery Bay on the western edge of the planned community. The Town is a master planned recreational community characterized by medium-density suburban development. Existing and planned surrounding land uses would continue to be medium-density suburban in nature. The objective of the proposed project is to provide the District with additional water

resources in the event of a water emergency and enhance the redundancy and reliability of the District's system. However, because implementation of the project would not include facilities which could increase the WTP water treatment capacity, the project will not induce substantial growth in housing or urban uses within the District's distribution area. This would result in a less than significant growth inducing impact and no mitigation would be necessary.

Question XIIIb) The proposed project would not provide any housing units. Implementation of the project would create short-term employment opportunities. While construction employment would be created during the project construction phase, the necessary employees could be expected to be provided by the local/regional labor pool. No long-term employment opportunities would be created as existing employees would operate the Well 7 in rotation with the existing wells during regular maintenance activities or in the event of a water emergency.

Question XIIIc) The proposed project would provide an additional source of potable water for the Town of Discovery Bay Community Services District's service area in the event of a water supply or infrastructure emergency. The water provided by the proposed project would be used to supplant existing raw water supplies from Wells 4A in the event of a water emergency, and would eventually replace Well 5A as noted in *Section 1. Project Objectives.* However, since the project is for intermittent use only, and no increased water supply during normal conditions would result, no direct or indirect population growth beyond that currently anticipated by the CSD is expected to result from project completion. Thus, implementation of the Well 7 Project would result in less than significant impacts to population or housing; no mitigation measures would be required.

XIV. PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Question XIV) The Well 7 Project site is within an area already serviced by urban utilities and services. Public services being provided to the project area include domestic water, wastewater treatment, storm water drainage, solid waste disposal, and police, fire, and park services. Private utilities include electric, gas, telephone, and cable television services. All of the surrounding parcels receive potable water from the District. The project would not create or facilitate land use intensification beyond that already anticipated and planned for by the District, Contra Costa County and other providers because the project would only serve to replace existing raw water supplies, produces by the two existing on-site wells, in the event of a water supply emergency. No new utility systems would be necessary to serve the proposed uses on the site. This would be a less than significant public services impact and no mitigation measures would be required.

XV. RECREATION	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☒	☐	☐

Questions Xva and b) The proposed project does not directly involve construction of housing or facilities that could increase the demand for neighborhood or regional parks or other recreational facilities. Development of the Well 7 Project would not involve the creation of new recreation facilities.

The Well 7 Project is directly adjacent to a pedestrian path and would require temporary relocation during Phase 1 of construction and occasional blockage during movement of equipment during construction process (depicted in Figure 5). This would result in a potentially significant impact on recreation resources. To reduce this impact to a less-than-significant level, implement Mitigation Measure 3, as follows:

> ***Mitigation Measure 3*** – The project applicant will provide informational and directional signage at the pedestrian bridge notifying users of the path of the temporary construction impacts, the schedule and reassuring the public that the path would remain open during the temporary construction period.

Because: (1) the proposed pedestrian path relocation would be temporary; (2) the path would generally remain open; and (3) implementation of Mitigation Measure 3 would ensure a sign informing the public of the path relocation would be posted, potential impacts from implementation of the Well 7 Project would be reduced to a less than significant impact on recreation facilities; no further mitigation measures would be necessary.

XVI. TRANSPORTATION/TRAFFIC *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the importance of the circulatory system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulatory system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities?	☐	☐	☒	☐

An existing driveway from Newport Drive would continue to provide regular access to the project site. Regional access would be provided via Newport Drive from State Route 4 and local roads throughout the Town. The CSD's existing employees would continue to access the project site, via the existing paved driveway from Newport Drive. The project would not generate any additional daily trips because existing staff would operate and service the proposed project facilities once in operation.

Questions XVIa, b, d and f) Roadways in the project vicinity are programmed and maintained, by the Town of Discovery Bay CSD and Contra Costa County, in a manner to adequately handle the traffic generated by suburban uses within the project area. Implementation of the project would not require modifications to the project's frontage on Newport Drive. Thus, no encroachment permit and road improvements along the properties frontage on Newport Drive would be required by Contra Costa County or the CSD. Implementation of the Well 7 Project would not have an adverse effect on traffic operations, roadway safety or alternative modes of transportation, including pedestrian safety and circulation. All roadways, paved areas and curbing damaged during

implementation of the project would be repaired and returned to their existing conditions. This would be a less than significant impact; no mitigation measures would be necessary.

Question XVIc) The proposed project would not result in any changes in air traffic patterns. The nearest airport is located over 7 miles from the project site, and the project includes no features such as bright lighting, tall structures, or activities that attract substantial numbers of birds that would adversely affect aircraft operations. There would be no air traffic pattern impacts.

Question XVIe) No modification or obstruction to designated emergency access routes would be necessary to implement the proposed project, thus no impacts to such routes would occur. As noted above, implementation of the Well 7 Project would not adversely affect any transportation facility. This would be a less than significant impact; no mitigation measures would be necessary.

XVII. UTILITIES AND SERVICE SYSTEMS *Would the project:*	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Questions XVIIa and e) The Well 7 Project would be equipped with an electrically driven submersible well pump, station piping to include valves, flanges, gages and meter, a disinfection system utilizing sodium hypochlorite and all other related appurtenances necessary to connect Well 7 in-line to Wells 4A and 5A, as an integral portion of the CSD's existing raw water supply line that connects the supply wells to the Newport WTP treatment filters. The proposed project would not generate new wastewater as a result of the disinfection system or pumping process. No new wastewater treatment plant capacity would be necessary to service the project. Implementation of the proposed Well 7 would have a less than significant wastewater impacts; no mitigation measures would be necessary.

Question XVIIc) The proposed Well 7 Project consists of the construction and operation of a new municipal water supply well and associated facilities, including the connection to the existing raw water pipeline to accommodate access for Well 7 to Newport WTP. The proposed Well 7 Project would create some additional impervious surfaces, limited to the construction of an approximately 12 by 20-foot well foundation pad. The existing storm water drainage system would account for any added runoff. Therefore, expansion or creation of stormwater facilities would not be necessary for the proposed projects. Implementation of the proposed Well 7 Project would have less than significant stormwater impacts; no mitigation measures would be necessary. (For additional discussion of stormwater generation and management, see Section IX of this Initial Study.)

Questions XVIIb and d) The Well 7 Project facilitates implementation of the District's adopted Water Systems Master Plan (2012) and the recommendations of the CDPH (2013) and would not result in an increase in water demand beyond that anticipated by the Contra Costa County General Plan. Implementation of the proposed project would result in less than significant water demand impacts; no mitigation measures would be necessary. (For additional discussion of water supply, see Section IX of this Initial Study.)

Questions XVIIf and g) The proposed project consists of the construction and operation of a municipal water well and associated facilities, which are not anticipated to generate solid waste beyond that planned for in the Contra Costa General Plan. Implementation of the proposed project would result in less than significant solid waste impacts; no mitigation measures would be necessary.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Question XVIIIa) The proposed well project is already within an existing disturbed open space area with other public facilities and would have less than significant impacts to protected biological resources. No mitigation measures would be required.

Question XVIIIb) All of the project's effects were evaluated in Sections 1 through XVII above. There were no areas where there would be the potential for a cumulatively considerable effect, that have not already been addressed by the Contra Costa County General Plan or the CSD Water Master Plan. The project would accommodate the District, County, regional, and statewide environmental goals to provide for adequate sources of water. While the project would provide an additional source or raw water, the project would not directly or indirectly contribute to cumulative impacts associated with increased urban development within the District's service area because no additional water treatment capacity is being added. Implementation of the project would only provide replacement water in the event that a water supply or infrastructure emergency rendered one of the existing wells inactive. The limitation on existing water treatment capacity ensure that the project would not be growth inducing and no impact would exist. No new mitigation measures would be required to address less than significant cumulative effects.

Question XVIIIc) The proposed Well 7 Project has been evaluated in its entirety in Sections I through XVIII of this Initial Study/Negative Declaration (IS/MND). Based on the record established above, the proposed Well 7 Project would have potential direct or indirect environmental effects that would cause substantial adverse effects on human beings that have not been addressed through project design or best management practices (BMPs 1 through 6) in the areas of: aesthetics, Noise and recreation. The following mitigation measures would be required to reduce these impacts to a less than significant level:

Mitigation Measure 1 – Light shields will be installed on the night time construction hazard lights and the lighted drilling platform to direct light and glare towards the ground, blocking light from shining on nearby residents to the south and east of Well 7 Project area.

Mitigation Measure 2 - All work will be performed between the hours of 7 a.m. and 7 p.m. Monday through Saturday. The only exception to the designated work hours would be made for the purpose of drilling the well (approximately six to ten days days of Phase 1). For this operation, continuous work (up to 24 hours per day) would be necessary in order to protect the integrity of the well structure. Temporary sound curtains/walls and appropriate muffler devices would be used to mitigate the noise impacts of the drilling operation on the immediately surrounding residences (depicted in Figure 5). In addition, the use of impact wrenches would only be allowed between the hours of 7 a.m. and 7 p.m.

Mitigation Measure 3 – The project applicant will provide informational and directional signage at the pedestrian bridge notifying users of the path of the temporary construction impacts, the schedule and reassuring the public that the path would remain open during the temporary construction period.

10. LIST OF PREPARERS

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12. ACRONYMS

Acronym/Abbreviation	***Definition***
APN	*Assessor's Parcel Number*
ATCM	*Airborne Toxic Control Measures*
BAAQMD	*Bay Area Air Quality Management District*
bgl	*Below Ground Level*
BMP	*Best Management Plan*
CARB	*California Air Resources Board*
CCAA	*California Clean Air Act*
CDPH	*California Department of Public health*
CEQA	*California Environmental Quality Act*
CH_4	*Methane*
CNDDB	*California Natural Diversity Database*
CO	*Carbon Monoxide*
CO_2	*Carbon Dioxide*
CO_2e	*Carbon Dioxide Equivalencies*
CSD	*Community Services District*
EIR	*Environmental Impact Report*
gpm	*Gallons Per Minute*
GHG	*Greenhouse gases*
HFC	*Hydrofluorocarbon*
H_2S	*Hydrogen Sulfide*
IS/ND	*Initial Study/Negative Declaration*
LUST	*Leaking Underground Storage Tank*
MtBE	*Methyl-tert-butyl ether*
MGA	*Miriam Green Associates*

Acronym/Abbreviation	*Definition*
$MMTCO_2e$	*Million Metric Tons of Carbon Dioxide equivalent*
ND	*Negative Declaration*
NAAQS	*National Ambient Air Quality Standards*
N_2O	*Nitrous Oxide*
NO	*Nitric Oxide*
NO_2	*Nitrogen Dioxide*
NO_x	*Nitrogen Oxides*
OS	*Open Space*
O_3	*Ozone*
OPR	*Office of Planning and Research*
PM_{10}	*Suspended Particulate Matter; Ten micron Particulates*
$PM_{2.5}$	*Fine Particulate Matter*
Ppm	*Parts per million*
RD	*Reclamation District*
SAAQS	*State Ambient Air Quality Standards*
SF_6	*Sulfur Hexafluoride*
SO_2	*Sulfur Dioxide*
UST	*Underground Storage Tank*
VOC	*Volatile Organic Compounds*
WTP	*Water Treatment Plant*