



TOWN OF DISCOVERY BAY

A COMMUNITY SERVICES DISTRICT



SDLF Platinum-Level of Governance

President – Bill Pease • Vice-President – Bryon Gutow • Director – Kevin Graves • Director – Robert Leete • Director – Bill Mayer

**NOTICE OF THE REGULAR MEETING
OF THE BOARD OF DIRECTORS
OF THE TOWN OF DISCOVERY BAY
Wednesday May 6, 2020
REGULAR MEETING 7:00 P.M.**

Community Center
1601 Discovery Bay Boulevard, Discovery Bay, California
Website address: www.todb.ca.gov

NOTICE
Coronavirus COVID-19

In accordance with the Governor's Executive Order N-33-20, and for the period in which the Order remains in effect, the Town of Discovery Bay Community Services District Board Chambers will be closed to the public.

To accommodate the public during this period of time that the Board's Chambers are closed to the public, the Town of Discovery Bay Community Services District Board of Directors has arranged for members of the public to observe and address the meeting telephonically.

TO ATTEND BY TELECONFERENCE:
Toll-Free Dial-In Number: (877) 778-1806
CONFERENCE CODE **891949**

Download Agenda Packet and Materials at www.todb.ca.gov/

REGULAR MEETING 7:00 P.M.

A. ROLL CALL AND PLEDGE OF ALLEGIANCE

1. Call business meeting to order 7:00 p.m.
2. Pledge of Allegiance.
3. Roll Call.

B. PUBLIC COMMENTS (Individual Public Comments will be limited to a 3-minute time limit)

During Public Comments, the public may address the Board on any issue within the District's jurisdiction which is not on the Agenda. The public may comment on any item on the Agenda at the time the item is before the Board for consideration. Any person wishing to speak will have 3 minutes to make their comment. There will be no dialog between the Board and the commenter as the law strictly limits the ability of Board members to discuss matters not on the agenda. We ask that you refrain from personal attacks during comment, and that you address all comments to the Board only. Any clarifying questions from the Board must go through the President. Comments from the public do not necessarily reflect the viewpoint of the Directors.

C. CONSENT CALENDAR

All matters listed under the CONSENT CALENDAR are considered by the District to be routine and will be enacted by one motion.

1. Approve DRAFT minutes of Regular Meeting for April 15, 2020.
2. Approve DRAFT minutes of Special Meeting for April 16, 2020.
3. Approve Register of District Invoices.

D. AREA AGENCIES REPORTS / PRESENTATION

1. Supervisor Diane Burgis, District III Report.
2. Sheriff's Office Report.
3. CHP Report.
4. East Contra Costa Fire Protection District Report.

E. LIAISON REPORTS

F. PRESENTATIONS

G. BUSINESS AND ACTION ITEMS

1. Discussion and Possible Action to Approve Draft Annual Water Quality Report/Consumer Confidence Report - Reporting year 2019.
2. Discussion and Possible Action to Adopt Resolution 2020-10 Adopting the Mitigated Negative Declaration and Approving the Old River Diffuser Outfall Repair Project.
3. Discussion and Possible Action to Approve Resolution No. 2020-09, Approving the Installation of a Groundwater Test Well on Parcel C of the Pantages Subdivision Number 9010, Adopting a CEQA Exemption and Directing Filing of the Notice of Exemption.
4. Discussion and Possible Action Authorizing Luhdorff & Scalmanini to Construct a Test Well, Perform Soil and Water Testing and Obtain Regulatory Siting Concurrence on Parcel C of the Pantages Subdivision in the Amount of \$172,775 for Future Well 8 Project.

H. MANAGER'S REPORT

1. Parks and Landscape Manager, -Bill Engelman- Update on Parks and Landscape.
2. Recreation Manager, Monica Gallo- Update on Recreation.

I. DIRECTORS' REPORTS

1. Standing Committee Reports.
 - a. Communications Committee Meeting (Committee Members Bill Pease and Bryon Gutow)
May 6, 2020.
 - b. Parks and Recreation Committee Meeting (Committee Members Kevin Graves and Bryon Gutow)
May 6, 2020.
 - c. Water and Wastewater Committee Meeting (Committee Members Bill Pease and Bill Mayer)
May 6, 2020.
2. Other Reportable Items.

J. GENERAL MANAGER'S REPORT

K. CORRESPONDENCE RECEIVED (Information Only)

L. FUTURE AGENDA ITEMS

M. ADJOURNMENT

1. Adjourn to the next regular meeting of May 20, 2020 beginning at 7:00 p.m. at the Community Center located at 1601 Discovery Bay Boulevard.

"This agenda shall be made available upon request in alternative formats to persons with a disability, as required by the American with Disabilities Act of 1990 (42 U.S.C. § 12132) and the Ralph M. Brown Act (California Government Code § 54954.2). Persons requesting a disability related modification or accommodation in order to participate in the meeting should contact the Town of Discovery Bay, at (925) 634-1131, during regular business hours, at least forty-eight hours prior to the time of the meeting."

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**MINUTES OF THE REGULAR MEETING
OF THE BOARD OF DIRECTORS
OF THE TOWN OF DISCOVERY BAY
Wednesday April 15, 2020
REGULAR MEETING 7:00 P.M.
Community Center
1601 Discovery Bay Boulevard, Discovery Bay, California
Website address: www.todb.ca.gov**

NOTICE **Coronavirus COVID-19**

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REGULAR MEETING 7:00 P.M.

A. ROLL CALL AND PLEDGE OF ALLEGIANCE

1. Call business meeting to order 7:00 p.m. - By President Pease.
2. Pledge of Allegiance- Led by Vice President Gutow.
3. Roll Call- All Present.

B. PUBLIC COMMENTS (Individual Public Comments will be limited to a 3-minute time limit)

Public Comment Regarding:

- Requesting transcriptions be done for future meetings. Also request to conduct Board Meetings through video conference.

C. CONSENT CALENDAR

All matters listed under the CONSENT CALENDAR are considered by the District to be routine and will be enacted by one motion.

1. Approve DRAFT minutes of regular meeting for April 1, 2020. - Corrections were made to the minutes. Minutes were then approved with the edits.
Motion to approve minutes with edits by: Director Leete
Second by: Director Graves
Vote: Motion Carried – AYES: 5, NOES: 0, ABSTAINED: 0, ABSENT: 0
2. Approve Register of District Invoices.
Motion to approve Register of District Invoices by: Director Leete
Second by: Director Graves
Vote: Motion Carried – AYES: 5, NOES: 0, ABSTAINED: 0, ABSENT: 0

4. Approve Report of Delinquencies and authorize staff to record a certificate of lien in the Contra Costa County Recorder's Office declaring the amount of charges and penalties due. – Removed

D. PRESENTATIONS

None

E. MONTHLY WATER AND WASTEWATER REPORT – VEOLIA

1. Veolia Report – Months of February 2020 and March 2020
Power Point presentation conducted by Berney Sadler, Project Manager. Director Mayer questioned legality of business running as bakeries from their home. Project Manager Sadler indicated that legality is undetermined. Director Mayer also questioned if there has been any changes to water productions lately. Project Manager Sadler responded that water production hasn't changed much since the stay at home order was issued. Vice President Bryon Gutow questioned the amount of wipes in the pipes and Project Manager Sadler replied no real changes have been noted. Director Graves reminded us that no wipes are disposable or appropriate to flush.
2. Customer Letter Update – Letter from Veolia to its customers regarding process of its practices during COVID-19 pandemic.

F. BUSINESS AND ACTION ITEMS

1. Discussion and Possible Action to Approve the Proposed Water and Wastewater Rates Study for Fiscal Years 2020 through 2025; Approve the Proposition 218 Rate Study Mailer; Set a Public Hearing Date of June 3, 2020 for the Adoption of the Proposed Rate Increases; and Authorize Staff to Advertise the Notice of Public Hearing Meeting. Assistant General Manager, Dina Breitstein discussed the previous decision to move forward with option 3 for water rate increase, and option 4 for wastewater rate increase. General Manager Breitstein requested to move forward with rate study and Proposition 218 process.

Public comment regarding:

- Water and wastewater rate study conducted a year early. Expressed dissatisfaction with using bonds. Also, requested the Board discontinue citing 'future state mandated products.' Voiced concern regarding increases for water and wastewater rates and revenue bond debt.

Motion to 1) Approve the Proposed Water and Wastewater Rates Study for Fiscal Years 2020 through 2025; 2) Direct staff to set a Public Hearing on the adoption of the propose rate increases for June 3, 2020; (3) Direct staff to mail the Notice of Public Hearing to all affected property owners at least 45 days prior to the Public Hearing; 4) Direct staff to advertise the notice of the Public Hearing once a week for two weeks prior to the date set for the Public Hearing in a newspaper of general circulation; and 5) Direct staff to prepare the necessary Adoption Resolution pursuant to the Public Hearing date of June 3, 2020 by: Director Mayer

Second by: Director Leete

Vote – Motion Carried – AYES: 5, NOES: 0, ABSTAINED: 0, ABSENT: 0

2. Discussion and Possible Action to Approve Resolution No 2020-08, Approving Installation of Playground Equipment Replacement at Ravenswood Park, Adopting a CEQA Exemption and Directing a Filing of the Notice of Exemption. Parks and Landscape Manager Bill Engelman discussed the cost of installation for playground equipment. Cost was originally estimated to be between \$45,000-\$55,000. New estimate for equipment installation is now between \$60,000-\$65,000 due to larger footing measurements. Parks and Landscape Manager Engelman also mentioned that Ravenswood Park's parking lot would need to be closed during construction. Clarification requested by Vice President Gutow as to why parking lot will also need to be closed. Parks and Landscape Manager Engelman indicated the closure was due to the need for space for the equipment and for the safety of everyone. Director Graves indicated that quality and safety were major components in making a decision to move this motion.

Motion to authorize the General Manager to execute all documents required to secure bids for the installation of new play equipment at Ravenswood Park, approve Resolution No. 2020-08, adopting a CEQA exemption, approving the project, and directing filing of the Notice of Exemption.

by: Director Graves

Second by: Director Mayer

Vote: Motion Carried – AYES: 5, NOES: 0, ABSTAINED: 0, ABSENT: 0

G. DIRECTORS' REPORTS

None

H. MANAGER'S REPORT

None

I. GENERAL MANAGER'S REPORT

None

J. CORRESPONDENCE RECEIVED

None

K. FUTURE AGENDA ITEMS

L. ADJOURNMENT

1. Adjourned at 7:21 p.m. to the regular meeting on May 6, 2020 beginning at 7:00 p.m. at the Community Center located at 1601 Discovery Bay Boulevard.

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ym//04/16/2020



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**MINUTES OF THE SPECIAL MEETING
OF THE BOARD OF DIRECTORS
OF THE TOWN OF DISCOVERY BAY
Thursday April 16, 2020 SPECIAL
MEETING 2:00 P.M.**

Website address: www.todb.ca.gov

NOTICE Coronavirus COVID-19

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TO ATTEND BY TELECONFERENCE:

Toll-Free Dial-In Number: (877) 778-1806

CONFERENCE CODE: **891949**

To view the Agenda and Presentation Materials go to
Agenda Packet and Materials at: www.todb.ca.gov/

SPECIAL MEETING 2:00 P.M.

A. ROLL CALL AND PLEDGE OF ALLEGIANCE

1. Call business meeting to order 2:00 p.m. – By President Pease.
2. Pledge of Allegiance – Led by President Pease.
3. Roll Call -All Present.

B. PUBLIC COMMENTS (Individual Public Comments will be limited to a 3-minute time limit)

Public Comment Regarding:

- Clarification on Closed Meeting process

C. OPEN SESSION DISCLOSURE OF CLOSED SESSION AGENDA

(Government Code Section 54957.7)

Legal Counsel Rod Attebery - The Town of Discovery Bay will now adjourn to closed session to discuss the item identified on the Agenda as D-1.

D. CLOSED SESSION:

1. Conference with Real Property Negotiators Pursuant to Government Code Section 54956.8
Property: 1535 Discovery Bay Boulevard, Discovery Bay, CA 94505 (APN 008-200-010)
Agency Negotiator: Bill Pease/Mike Davies/Rod Attebery
Negotiating Parties: East Contra Costa Fire Protection District
Under Negotiation: Price and Terms

E. RETURN TO OPEN SESSION; REPORT ON CLOSED SESSION

(Government Code Section 54957.1)

Legal Counsel Rod Attebery- Reporting from Closed Session and there is no reportable action.

F. ADJOURNMENT

1. The meeting adjourned at 2:22 p.m. to the next regular meeting of May 6, 2020 beginning at 7:00 p.m.

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Town of Discovery Bay

"A Community Services District"

STAFF REPORT

Meeting Date

May 6, 2020

Prepared By: Julie Carter, Finance Manager & Lesley Marable, Accountant
Submitted By: Michael R. Davies, General Manager

MRD

Agenda Title

Approve Register of District Invoices.

Recommended Action

Staff recommends that the Board approve the listed invoices for payment.

Executive Summary

District invoices are paid on a regular basis, and must obtain Board authorization prior to payment. Staff recommends Board authorization in order that the District can continue to pay warrants in a timely manner.

Fiscal Impact:

Amount Requested \$ 229,243.21

Sufficient Budgeted Funds Available?: Yes (If no, see attached fiscal analysis)

Prog/Fund # See listing of invoices. **Category:** Operating Expenses and Capital Improvements

Previous Relevant Board Actions for This Item

Attachments

Request For Authorization to Pay Invoices for the Town of Discovery Bay CSD 2019/2020

AGENDA ITEM: C-3

For The Meeting On May 6, 2020
Town of Discovery Bay CSD
Fiscal Year 7/19 - 6/20

Pacific Gas & Electric	\$68,452.15
Veolia Water North America	\$38,089.66
Town of Discovery Bay CSD	\$37,492.03
Luhdorff & Scalmanini	\$14,180.37
U.S. Bank Corporate Payment System	\$13,939.98
J.W. Backhoe & Construction, Inc.	\$10,704.46
City Of Brentwood	\$10,398.52
Precision IT Consulting	\$8,556.45
Badger Meter	\$5,622.13
Brentwood Press & Publishing	\$4,688.00
Mt. Diablo Resource Recovery	\$2,979.04
Freedom Mailing Service, Inc	\$2,827.06
ParcelQuest	\$1,799.00
SDRMA	\$1,777.11
Upper Case Printing, Inc.	\$1,259.25
Univar Solutions USA Inc.	\$1,190.17
Matrix Trust	\$1,073.83
TASC	\$995.83
Underground Service Alert	\$706.79
Office Depot	\$537.02
Pacific Display	\$486.82
ReliaStar Life Insurance Company	\$325.00
Quadient Leasing USA, Inc.	\$300.00
Community Center Refund Customer	\$170.00
UniFirst Corporation	\$120.00
Alhambra	\$109.73
Discovery Pest Control	\$99.00
Cintas	\$71.57
Shred-It USA-Concord	\$70.59
Bailey Bautista	\$64.19
County Clerk - CCC	\$50.00
Department of Justice	\$49.00
Big B Lumber	\$33.44
Verizon Wireless	\$25.02
	\$229,243.21



Town of Discovery Bay

"A Community Services District"

STAFF REPORT

Meeting Date

May 6, 2020

Prepared By: Maddie Kibriya, Executive Assistant

Submitted By: Michael R. Davies, General Manager

MPD

Agenda Title

Discussion and Possible Action to Approve Draft Annual Water Quality Report/Consumer Confidence Report - Reporting year 2019.

Recommended Action

Accept the Annual Water Quality Report/Consumer Confidence Report - Reporting year 2019.

Executive Summary

The preparation of a Consumer Confidence Report (CCR) is required by Health & Safety Code §116470 and California Code of Regulations, Title 22, Article 20. In 1996, Congress amended the Safe Drinking Water Act (SDWA), adding a requirement that water systems deliver to their customers a brief Annual Water Quality Report.

The attached draft Annual Water Quality/Consumer Confidence Report for 2019 includes information on the Town's source water, levels of any detected contaminants, and compliance with drinking water regulations (including monitoring requirements), along with some educational information. We are pleased to highlight that the Town's reporting levels are all within normal parameters and there are no reportable violations.

In addition to providing our customers with mandated water quality reporting, the Consumer Confidence Report also provides helpful sign up information to customers by providing details on a free-of-charge water usage monitoring program, TODB's "Eye on Water".

Once accepted by the Board, the Annual Water Quality/Consumer Confidence Report will be bulk printed and mailed to our residential and commercial water customers for delivery on or before July 1, 2020.

Previous Relevant Board Actions for This Item

Attachments:

Draft Annual Water Quality Report/Consumer Confidence Report - Reporting year 2019.

AGENDA ITEM: G-1



Presented By

REPORTING YEAR 2019

ANNUAL WATER QUALITY REPORT

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

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CA001154-1

Town of Discovery Bay CSD
1800 Willow Lake Road
Discovery Bay, CA 94505-9376

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. California law also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA Safe Drinking Water Hotline at (800) 426-4791.

- **Microbial Contaminants**, such as viruses and bacteria that may come from wastewater treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic Contaminants**, such as salts and metals that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and Herbicides** that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
- **Radioactive Contaminants** that can be naturally occurring or be the result of oil and gas production and mining activities.

Basic Information about Drinking Water Contaminants that may be present in source water include the following:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

Sources of Supply

PR SRT STD
U.S. Postage
PAID
Gemini Group
22901



A MESSAGE TO OUR VALUED CUSTOMERS

Thank you for taking the time to read our 2019 Annual Water Quality Report. This report covers all testing performed between January 1 and December 31, 2019 and summarizes the quality of your water. The Town of Discovery Bay Community Services District (CSD) continues to comply with or surpass federal and state standards for safe drinking water. This report includes details about water sources, what the water from your tap contains, and how it compares to standards set by regulatory agencies. We hope you find this report useful in illustrating the high quality of your water service. You can be confident your tap water is among the best in the country.

Getting Involved with the Community

The Town of Discovery Bay CSD Board of Directors meets on the first and third Wednesday of each month at 7:00 p.m. at the Community Center, 1601 Discovery Bay Boulevard, Discovery Bay. Members of the community are encouraged to attend.

Our website, www.toddb.ca.gov is your best resource for community news, board meeting agendas and minutes, paying your water bill, and managing your water usage with Eye on Water.

Board Members for 2019

- Bill Pease, President
- Bryon Gutow, Vice President
- Kevin Graves, Director
- Bob Leete, Director
- Bill Mayer, Director



Finding leaks just got easier with EyeOnWater

Create your FREE account today!



- Free of cost
- Easy to read dashboard
- Connects you to us!

1. Visit www.EyeOnWater.com/signup on your computer using a supported web browser OR download the mobile app to your cell phone.
2. Enter your service area zip code: 94505
3. Enter account number on your water bill including dashes and periods.
4. Review the account and verify it is in your name. If it is not your account, contact TODB's Water Department (925) 634-1131 to update your account info.
5. Create and confirm your account password.
6. You will receive a confirmation email from Badger Meter, Inc. Verify your email address by clicking the link to activate your EyeOnWater account.
7. Sign in to EyeOnWater using your email login and password.
8. You're all set to start monitoring your water usage!

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater/lead.

Health-Related Notice

Precautions for Vulnerable Populations

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer actively undergoing chemotherapy, persons that have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by *cryptosporidium* and other microbial contaminants are available from the U.S. EPA's Safe Drinking Water Hotline, (800) 426-4791, or <http://water.epa.gov/drink/hotline>.

OBTAINING INFORMATION

Although the report lists only those regulated substances that were detected in your water, we test for more than what is reported. This report is only a summary of our activities during 2019. If you have any questions about the information in this report or have a concern or inquiry about your drinking water quality, please contact the Town of Discovery Bay water and wastewater manager at (925) 634-1131 or visit our website at www.toddb.ca.gov.

You may request a summary of the assessment by contacting CA State Water Resources Control Board, Division of Drinking Water, 850 Marina Bay Parkway, Bldg. P-2, Richmond, CA 94804.

How to Read the Table in Your Water Quality Report

The Water Quality Report, also called the Consumer Confidence Report, lets you know what, if any, are in your drinking water and how these constituents may affect your health. It lists all the regulated that were detected.

Although the average readings on all the substances listed within these tables are under the maximum contaminant level (MCL), we feel it is important that water consumers know exactly what was detected and how much of the substance was present in the water.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL (MCLG) [MRDL]	PHG AMOUNT DETECTED (MCLG) (90TH %ILE)	AMOUNT DETECTED AL/TOTAL SITES ABOVE	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2018	10	0.004	3	ND-5	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2018	1	2	ND	ND-0.30	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2019	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.49	0.38-0.61	By-product of drinking water disinfection
Fluoride (ppm)	2018	2.0	1	0.3	0.2-0.4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2018	15	(0)	2.54	ND-5.27	Erosion of natural deposits
Haloacetic Acids (ppb)	2019	60	NA	11	7-14	By-product of drinking water disinfection
Selenium (ppb)	2018	50	30	ND	ND-8	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
THMAs [Total Trihalomethanes] (ppb)	2019	80'	NA	73	46-91	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL (MCLG)	PHG AMOUNT DETECTED (MCLG)	AMOUNT DETECTED RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2018	500	NS	189	86-594	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2018	15	NS	3	ND-10	Naturally occurring organic materials
Iron (ppb)	2018	300	NS	ND	ND-140	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2019	50	NS	0.54	0.5-0.58	Leaching from natural deposits
Odor-Threshold (TON)	2018	3	NS	ND	ND-1	Naturally occurring organic materials
Specific Conductance (umho/cm)	2018	1,600	NS	1,301	937-2,660	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2018	500	NS	79.5	40.8-108	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2018	1,000	NS	745	540-1,470	Runoff/leaching from natural deposits
Turbidity (NTU)	2018	5	NS	0.3	0.1-0.5	Soil runoff

UNREGULATED AND OTHER SUBSTANCES²

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Aggressiveness Index (Units)	2018	12.5	12.2-12.6	NA
Alkalinity (ppm)	2018	295	250-350	NA
Bromide (ppb)	2019	470	260-940	NA
Calcium (ppm)	2018	47	29-75	NA
Gross Alpha Particles (pCi/L)	2018	2.54	ND-5.27	Erosion of natural deposits
HAA9 (ppb)	2019	108.73	100.91-115.42	NA
Hardness, Total [as CaCO ₃] (ppm)	2018	214	130-356	Sum of polyvalent cations present in the water, generally magnesium and calcium, usually naturally occurring
Langelier Index (Units)	2018	0.6	0.4-0.7	NA
Magnesium (ppm)	2018	24	14-41	NA
pH (Units)	2018	8	7.8-8.2	NA
Sodium (ppm)	2018	208	126-442	Salt present in the water and naturally occurring in the environment
Total Organic Carbon (ppb)	2019	250	ND-1,500	NA

¹ Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer. Unregulated contaminant monitoring helps U.S. EPA and the SWRCB determine where certain contaminants occur and whether the contaminants need to be regulated.

² Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Source Water—Vulnerability Assessment

We participated in the fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

Sources of Supply

The Town of Discovery Bay CSD obtains its water from six groundwater wells in the community. The groundwater flows through two water treatment facilities that remove iron and manganese. The average depth of our wells is approximately 400 feet.

Vulnerability assessments are required for all new sources under the California Waterworks Standards (Chapter 16 of Title 22, CA Code of Regulations). There have been no contaminants detected in the water supply to date; however, the source is still considered vulnerable to potentially contaminating activities due to proximity.

GROUND WATER WELL #	POSSIBLE CONTAMINATING ACTIVITIES (PCA) DUE TO PROXIMITY	ASSOCIATED CONTAMINANTS DETECTED?	PHYSICAL BARRIER EFFECTIVENESS
18	Automobile-gas station, dry cleaners	No	High
2	Automobile-gas stations, historic gas stations, known contaminant plumes, unauthorized dumping, and photo processing/printing waste	No	High
4A	Automobile-gas stations, unauthorized dumping, and agricultural drainage	No	High
5A	A source assessment is not available	NA	NA
6	Known contaminant plumes, dry cleaners, and unauthorized dumping	No	High
7	Known contaminant plumes, dry cleaners, unauthorized dumping	No	High

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL: Regulatory Action Level. The concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow.

DLR: Detection Limit for purposes of Reporting. Detections above this level must be reported.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected as the highest LRAAs.

MCL: Maximum Contaminant Level. The highest level of contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

MCLG: Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MFL: million fibers per liter

MRDL: Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health.

MRDLG: do not reflect the benefits of the use of disinfectants to control microbial contaminants

NA: Not applicable.

ND: Not detected. Constituent was not detected at the reporting level.

NS: No standard. Officials have not developed a Public Health Goal or MCLG standard.

NTU: Nephelometric Turbidity Units. A measure of the clarity of water. Turbidity of 5 NTU is just noticeable to the average person

PC/L: picocuries per liter

PDS: Primary Drinking Water Standard. MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG: Public Health Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb: parts per billion (or micrograms per liter). One ppb is equal to 1 teaspoon in 1.3 million gallons.

ppm: parts per million (or milligrams per liter). One ppm is equal to 1 teaspoon in 1,500 gallons.

ppb: parts per trillion (or nanograms per liter)

SMCL: Secondary Maximum Contaminant Levels are set to protect the odor, taste and appearance of drinking water.

TON: (Threshold Odor Number): A measure of odor in water.

umho/cm (microhmhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.

WATER WELL #

POSSIBLE CONTAMINATING ACTIVITIES (PCA) DUE TO PROXIMITY

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PHYSICAL BARRIER EFFECTIVENESS

GROUND WATER WELL #

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GROUND WATER WELL #

POSSIBLE CONTAMINATING ACTIVITIES (PCA



Town of Discovery Bay

"A Community Services District"

STAFF REPORT

Meeting Date

May 6, 2020

Prepared By: Gregory Harris, District Engineer, HERWIT Engineering
Submitted By: Mike Davies, General Manager

Agenda Title

Discussion and Possible Action to Adopt Resolution 2020-10 Approving the Mitigated Negative Declaration and Approving the Old River Diffuser Outfall Repair Project

Recommended Action

Approve Resolution 2020-10 Adopting the Mitigated Negative Declaration and Approving the Old River Diffuser Outfall Repair Project

Executive Summary

The Town's wastewater effluent leaving Treatment Plant No. 2 is pumped approximately one mile to Old River where it is discharged through diffusers with multiple diffuser ports to mix the effluent into Old River. The diffuser was constructed in December 2004 to comply with previous Notice of Violation by the Regional Water Quality Control Board.

A portion of the diffuser has become plugged and no longer operates properly.

Based on this information, the Town hired Advisian to prepare a report on options and costs to repair the diffuser. This report was completed in June 2018. From this report, Option 4 to repair the diffuser in place with a larger header pipe was selected as the best alternative going forward by Town Staff. The Town set a CIP budget cost of \$500,000 for the permits, engineering, and construction of the diffuser repairs. (the "Project")

The Town also hired Advisian to complete the CEQA and environmental work necessary to support a full permit application to the Army Corps. Advisian has completed the Initial Study and Mitigated Negative Declaration (ISMND). The ISMND was circulated for public comment and received one comment letter from the CA Department of Fish and Wildlife. Advisian prepared a response letter with changes to the project to address this comment and Advisian with Town Staff had a meeting with Fish and Wildlife to discuss their comments. Based on this meeting, Fish and Wildlife have accepted the response letter and recommended revisions to the ISMND, and Advisian has revised the ISMND to incorporate the changes proposed and accepted in the response letter. A copy of the Comment letter from CA Fish and Wildlife, the Advisian Response letter, and the Final ISMND is attached to this report. Also, Fish and Wildlife have been provided separate notice of the May 6, 2020 meeting where the revised ISMND will be considered by the Town's Board.

Some mitigation measures have changed in the revised ISMND. The changes are considered to equivalent to, more effective in mitigating environmental impacts than the previously proposed mitigation specified in the Draft ISMND.

The ISMND prepared for the Project contains a complete and accurate reporting of the environmental impacts associated with the Project. Additionally, the ISMND has been completed in compliance with CEQA statute and guidelines and is otherwise certified as adequate and completed. Mitigation monitoring and reporting shall be carried out in accordance with Section 5 of the MND.

The Town needs to adopt the ISMND and issue a Notice of Determination to complete the CEQA and processes and proceed with regulatory permitting as part of carrying out the Project.

Previous Relevant Board Actions for This Item -

Authorization for construction of outfall diffuser in 2004,
Authorization to hire Advisian to prepare a diffuser report October 2017.
Authorized public notification and Notice of Intent with comment period to Adopt ISMND December 18, 2019.

Attachments -

1. Comment Letter from California Fish and Wildlife
2. Advisian Response Letter
3. Final ISMND
4. Resolution 2020-10

AGENDA ITEM: G-2



State of California – Natural Resources Agency

DEPARTMENT OF FISH AND WILDLIFE

Bay Delta Region

2825 Cordelia Road, Suite 100

Fairfield, CA 94534

(707) 428-2002

www.wildlife.ca.gov

GAVIN NEWSOM, Governor

CHARLTON H. BONHAM, Director



March 20, 2020

Mr. Len Marino
Advisian, Worley Group Inc.
2330 E. Bidwell Street, Suite 120
Folsom, CA 95630

Subject: Town of Discovery Bay-Diffuser Outfall Repairs, Initial Study/Mitigated Negative Declaration, SCH #2020020418, Town of Discovery Bay, Contra Costa County

Dear Mr. Marino:

The California Department of Fish and Wildlife (CDFW) received an Initial Study/Mitigated Negative Declaration (IS/MND) from the Town of Discovery Bay for the Town of Discovery Bay-Diffuser Outfall Repairs (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. [Fish and Game Code, §§ 711.7, subd. (a) and 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish and Game Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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Endangered Species Act (CESA) (Fish and Game Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: Town of Discovery Bay

Objective: The objective of the Project is to remove 10-inch and 6-inch high-density polyethylene (HDPE) pipe segments and replace them with an 18-inch piping of the same combined length. This will result in a structure with a constant 18-inch diameter throughout the entire length of the outfall pipe body and with the same number of diffuser ports at the Discovery Bay Sanitary Outfall. The replacement pipe would meet modelled discharge requirements, which would not be increased after pipe replacement. Primary Project activities include trench excavation in the riverbed to uncover the 10-inch and 6-inch diffuser pipe segments. The pipe segments will be removed, leaving the original 18-inch segment installed in the riverbed. Replacement segments of 18-inch HDPE pipe will be installed and bolted to the original 18-inch segment. The trench will be backfilled with granular material.

Location: Discovery Bay, eastern Contra Costa County, within Old River on the west levee (left river bank), south of the Contra Costa Water District Los Vaqueros Pump Station, cross streets at 2500 Channel Road and Highway 4, Latitude 37°53'08"N, Longitude -121°34'30"W.

Timeframe: Two to three weeks, starting June 2020

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Town of Discovery Bay in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on the Project's avoidance of significant impacts on the biological resources with implementation of mitigation measures, including those CDFW recommends in Attachment A, CDFW concludes that a Mitigated Negative Declaration is appropriate for the Project.

Comment 1: Section IV. Biological Resources does not define floristic survey protocol

Section IV of the IS/MND does not include defined survey protocols for floristic surveys or require a qualified botanist to conduct the surveys.

To correct this, CDFW recommends Section IV. Biological Resources be revised to include adherence to CDFW's *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2018), including the reporting requirements contained in those protocols, and to indicate a qualified botanist shall conduct the surveys according to the protocols. See <https://wildlife.ca.gov/conservation/survey-protocols#377281280-plants>.

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Comment 2: Revision needed to mitigate impacts to special-status plants to less-than-significant

The IS/MND does not identify any special-status plants as occurring on or near the Project site, although it states that sixteen species of sensitive plants and their habitats have potential to occur within the U.S. Geological Survey 7.5-minute quadrangle map (Woodward Island). It also states that field surveys were conducted in 2003. CDFW recommends adding plant avoidance measures in the event special-status plants are discovered. CDFW also recommends the addition of a mitigation measure in the revised IS/MND with the following language:

“Special-Status Plant Assessment and Avoidance: A Qualified Botanist shall conduct a minimum of two (2) surveys for each special-status plant species with potential to occur within the Project Site prior to initiation of Project Activities during the appropriate blooming period in accordance with CDFW’s Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities (<https://www.wildlife.ca.gov/conservation/survey-protocols>). Report of survey findings shall be done in accordance to the guidance in these protocols and submitted to CDFW prior to Project construction.”

CDFW also recommends the measure state the following:

“A Qualified Botanist shall develop and implement a restoration/remediation and mitigation plan according to CDFW guidelines and in coordination with CDFW. At a minimum, the plan shall include collection of reproductive structures from affected plants, a full description of microhabitat conditions necessary for each affected species, seed germination requirements, restoration techniques for temporarily disturbed occurrences, assessments of potential transplant and enhancement sites, success and performance criteria, and monitoring programs, as well as measures to ensure long-term sustainability.”

In addition, the measure should be revised to require conservation and management in perpetuity through recordation of conservation easements on lands where mitigation occurs to ensure impacts to special-status plant species are mitigated to a level of less-than-significant. Conservation lands should be placed under a Conservation Easement, an endowment should be funded for managing the lands for the benefit of the conserved species in perpetuity, and a long-term management plan should be prepared and implemented by a land manager. The Grantee of the Conservation Easement should be an entity that has gone through the due diligence process for approval by CDFW to hold or manage conservation lands.

Comment 3: Revisions needed to mitigate impacts to Swainson’s hawk (*Buteo swainsoni*) to less-than-significant

The IS/MND states that a cottonwood tree occurs along the Reclamation District 800 drainage canal west of the Project area, which could provide nesting and perching/roosting structure for Swainson’s hawk and that no nests were observed in this tree during the 2003 field observations. Also, the grasslands of the Project area provided foraging habitat for Swainson’s hawk.

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CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include 3503 (regarding unlawful take, possession or needless destruction of the nests or eggs of any bird), 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). Swainson's hawks are designated as a State of California Threatened Species and impacts to the species and its habitat is prohibited without meeting certain conditions. Swainson's hawk often nest peripheral to riparian systems. They also use lone trees in agricultural fields or pastures and roadside trees, when available and adjacent to suitable foraging habitat. The loss and conversion of native grasslands and agricultural lands to urbanization and orchard and vineyard agriculture is the primary threat to Swainson's hawk populations throughout California. The Project's potential impacts to this species is a significant impact that warrants mitigation to less-than-significant through the IS/MND.

The IS/MND does not mitigate potential impacts to Swainson's hawk to less-than-significant because the IS/MND lacks an evaluation of impacts to Swainson's hawks and does not include mitigation measures requiring pre-construction surveys conducted according to CDFW's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (2000). The IS/MND does not define avoidance measures in the event Swainson's hawks are discovered or reduce impacts from indirect impacts of nesting hawks from construction activity to a level of less-than-significant, nor does it offset those impacts with a compensatory mitigation requirement.

To correct this, CDFW recommends the IS/MND is revised to include an impacts analysis that provides an evaluation and discussion of potential impacts of the Project to Swainson's hawk and their habitats according to CDFW's *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California* (1994) (Staff Report). If impacts are identified, CDFW recommends the IS/MND be revised to include adherence to the mitigation strategies defined in the Staff Report in addition to adherence to the CDFW's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (2000) survey protocol. Both documents are available online at <https://www.wildlife.ca.gov/Conservation/Survey-Protocols>. CDFW recommends the IS/MND be updated to include a measure requiring compensatory mitigation for impacts to Swainson's hawk nesting and foraging habitat at a minimum of a 3:1 mitigation ratio (conserved habitat to impacted habitat) for permanent impacts and a 1:1 ratio for temporary impacts. If impacts to Swainson's hawk cannot be fully avoided, then CDFW recommends language defining the Project's obligation to obtain take coverage through an Incidental Take Permit (ITP) issued by CDFW.

CDFW recommends the following specific and enforceable measure to Swainson's hawk be incorporated into a revised IS/MND to minimize and avoid impacts:

"Pre-construction Survey for Swainson's Hawk. If work is to be conducted during the nesting season (February 15 – September 15), focused surveys for active Swainson's hawk nests shall be conducted by a qualified biologist in a manner consistent with the Recommended Timing and Methodology of Swainson's Hawk Nesting Surveys in California's Central Valley. At least two surveys shall be completed within two survey periods immediately prior to a Project's initiation. If

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a lapse in Project-related work of 15 days or longer occurs, another focused survey shall be performed, and the results sent to CDFW prior to resuming work. Surveys shall be conducted in all suitable habitat located at the Project work site, in staging, storage, and stockpile areas, and along transportation routes. Surveys shall be conducted within ½-mile of the Project area. If any active Swainson's hawk nests are found within ½-mile of the Project site, CDFW shall immediately be contacted and additional survey measures may be required for Project activities."

Comment 4: Revisions needed to fully avoid impacts to white-tailed kite (*Elanus leucurus*)

The IS/MND states that breeding of white-tailed kite occurs immediately adjacent to the western side of the proposed Project site and that suitable foraging habitat is present.

Proposed Project activities may indirectly impact white-tailed kite. The white-tailed kite is a fully protected species under State law and may not be taken or possessed at any time.

To correct this, CDFW recommends the IS/MND include an analysis of the Project's potential impacts to this fully protected species, including raptor surveys prior to the start of Project activities and during the breeding and nesting seasons when detection is most likely to identify white-tailed kite nests and roosts. If impacts are identified, CDFW recommends the IS/MND is revised to adhere to Fish and Game Code to fully avoid impacts to the species and to require immediate notification to CDFW if the species is detected during Project activities.

Comment 5: Revisions needed to mitigate impacts to burrowing owls (*Athene cunicularia*) to a level of less-than-significant

Section 3.5.3 Proposed Mitigation Measures states that burrowing owls have occurred in the southwestern part of the Project site and weed control through disking and mowing have reduced the potential for burrows occur on the Project site, and that owls have not recently been observed by maintenance personnel. Mowing creates conditions conducive to burrowing owl habitation, as they prefer short grass areas habitats which gives them an opportunity to see predators. Disking collapses burrows, but only within the first couple of feet of earth. Deeper burrows remain untouched and squirrel populations persist to create more burrows which burrowing owls may utilize.

The burrowing owl is listed by the State of California to be a Species of Special Concern, defined as a species with declining population levels, limited ranges, and/or continuing threats which make them vulnerable to extinction (<https://wildlife.ca.gov/Conservation/SSC>). Habitat loss, degradation, and fragmentation are the greatest threats to burrowing owls in California. Loss of agricultural and other open lands (such as grazed landscapes) also negatively affect burrowing owl populations. Because of their need for open habitat with low vegetation, burrowing owls are unlikely to persist in agricultural lands dominated by vineyards and orchards or urbanized lands. Also, fossorial mammal burrows are important habitat to burrowing owl. Therefore, loss of burrowing owl habitat can be considered a significant impact that warrants mitigation to less-than-significant through the IS/MND.

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The Project has the potential to adversely impact the species through temporary losses of potential nesting and foraging habitat. The Project may also result in additional impact to burrowing owl through nest abandonment, loss of young, and reduced health and vigor of chicks (resulting in reduced survival rates) and breeding and foraging disturbance through Project activities. Burrowing owls may also use unnatural features such as debris piles, culverts and pipes for nesting, roosting or cover.

The IS/MND does not mitigate potential impacts to burrowing owls to less-than-significant because the IS/MND lacks an evaluation of impacts to burrowing owls and does not include avoidance and mitigation measures requiring 1) pre-construction surveys conducted according to CDFW'S *Staff Report on Burrowing Owl Mitigation* (2012) and 2) avoidance measures determined by CDFW if and when burrowing owls are discovered at the Project site. The IS/MND does not define avoidance measures in the event burrowing owls are discovered or reduce impacts from permanent loss of burrowing owl nesting or foraging habitats to a level of less-than-significant as it does not offset those impacts with a compensatory mitigation requirement.

To correct this, CDFW recommends the IS/MND be revised to include an impacts analysis that provides an evaluation and discussion of potential impacts of the Project to burrowing owls and their habitats. If impacts are identified, CDFW recommends the IS/MND be revised to include pre-construction surveys following the methodology described in *Appendix D: Breeding and Non-breeding Season Surveys* of the CDFW *Staff Report on Burrowing Owl Mitigation* (Staff Report) and adherence to the mitigation strategies defined in the CDFW *Staff Report on Burrowing Owl Mitigation* (2012) in addition to adherence to the survey protocol. Both documents can be found at <https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds>. CDFW recommends the IS/MND be updated to include a measure requiring compensatory mitigation for impacts to burrowing owl foraging habitat at a minimum of a 3:1 mitigation ratio (conserved habitat to impacted habitat) for permanent impacts and a 1:1 ratio for temporary impacts. Mitigation lands for owls should include presence of burrows, burrow surrogates, presence of fossorial mammal dens, well-drained soils, abundant and available prey within close proximity to burrows, as well as foraging, wintering, and dispersal areas. The location of mitigation areas for burrowing owls should be approved by CDFW prior to the start of Project-related activities.

Please be advised that that CDFW does not consider exclusion of burrowing owls or "passive relocation" as a "take" avoidance, minimization, or mitigation method, and considers exclusion as a significant impact. The long-term demographic consequences of exclusion techniques have not been thoroughly evaluated, and the survival rate of evicted or excluded owls is unknown. All possible avoidance and minimization measures should be considered before temporary or permanent exclusion and closure of burrows is implemented in order to avoid "take."

CDFW recommends the following specific and enforceable measure to burrowing owl be incorporated into a revised IS/MND to minimize and avoid impacts:

"A Qualified Biologist shall perform a burrowing owl habitat assessment, pre-construction surveys, and impact assessments. The Qualified Biologist is an individual who shall have a minimum of five years of academic training and professional experiences in biological sciences

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and related resource management activities with a minimum of two years conducting habitat assessments, pre-construction surveys for breeding and non-breeding seasons, and impact assessments for burrowing owl. The Qualified Biologist shall be familiar with burrowing owl and its local ecology; shall be familiar with appropriate State and federal statutes, scientific research, and conservation of burrowing owl; and shall have experience with analyzing impacts of development on burrowing owls and their habitat.

The Qualified Biologist shall conduct a habitat assessment to determine if burrowing owl habitat is present and if occupancy surveys are required. If the Qualified Biologist determines that potential burrowing owl habitat is present on the Project site, the Qualified Biologist shall conduct burrowing owl surveys. The surveys shall be conducted during the breeding season from February 1 to August 31 when detection probability is the highest. The Qualified Biologist shall conduct a minimum of three surveys during daylight hours and each survey shall occur at least three weeks apart during the peak of the breeding season (between April 15 and July 15), during the nesting period, and during the late nestling period.

If surveys confirm occupied burrowing owl habitat in or adjoining the Project area, the Qualified Biologist shall complete an impact assessment for burrowing owl. The impact assessment shall evaluate all factors that could affect burrowing owls on the Project site. The impact assessment shall suggest mitigation methods, if appropriate. Examples include, but are not limited to, avoidance of occupied burrows during the nesting period of February 1 to August 31, avoidance of occupied burrows during non-breeding season, pre-construction surveys, site surveillance, use of buffer zones or visual screens, and burrow exclusion.

If habitat loss or degradation occur on the Project site, the impacts to burrowing owl shall be mitigated. A mitigation monitoring and reporting plan shall be developed and implemented prior to project implementation.

All habitat assessment, pre-construction survey protocols, impact assessment, reporting requirements, and mitigation guidance can be found in the Staff Report on Burrowing Owl Mitigation dated March 7, 2012. The document can be found at <https://www.wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds>. For more information, see <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline>.

Comment 5: Revisions needed to mitigate impacts to nesting birds to a level of less-than-significant

Section IV. Biological Resources does not include nesting survey protocols or avoidance measures for nesting birds that may be utilizing the Project site prior to the start of Project activities.

To ensure impacts to nesting birds are mitigated to a level of less-than-significant, CDFW recommends that the IS/MND is revised to include the addition of the following and enforceable nesting bird assessment and avoidance mitigation measure in the event nesting birds are detected:

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“Nesting Bird Assessment and Avoidance. Prior to the initiation of Project activities, including ground-disturbing activities scheduled to occur between February 15 and September 15, a Qualified Biologist shall conduct a habitat assessment and nesting survey for nesting bird species no more than five days prior to the initiation of work. Surveys shall be conducted throughout the Project site, in staging, storage, and soil stockpile areas, and along transportation routes. The minimum survey radii surrounding the work area shall be the following: 1) 250 feet for passerines, 2) 500 feet for small raptors such as accipiters, and 3) 1,000 feet for larger raptors such as buteos. The Qualified Biologist conducting the surveys shall be familiar with the breeding behaviors and nest structures for birds known to nest in the Project vicinity. Surveys shall be conducted during periods of peak activity (early morning, dusk), shall be of sufficient duration to observe movement patterns and shall concentrate on areas of suitable habitat. Survey results, including all descriptions of timing, duration, and methods used, shall be submitted to CDFW for review 48 hours prior to the initiation of the Project. If a lapse in Project activity of 14 days or more occurs, the survey shall be repeated, and no work shall proceed until the results have been submitted to CDFW.

If nesting birds are found, then no work shall be initiated until nest-specific buffers have been established with written approval from CDFW. The buffer area(s) shall be fenced off from work activities and avoided until the young have fledged, as determined by the Qualified Biologist. Active nests within or adjacent to the Project site shall be monitored by the Qualified Biologist daily throughout the duration of Project activities for changes in bird behavior or signs of distress related to Project activities. If nesting birds are showing signs of distress or disruption to nesting behaviors, then that nest shall have the buffer immediately increased by the Qualified Biologist until no further interruptions to breeding behavior are detectable.”

Comment 6: Revisions needed to mitigate impacts to fish to a level of less-than-significant

Proposed Project activities are likely to result in impacts to special-status fish species within the Project area, especially Delta smelt (*Hypomesus transpacificus*), longfin smelt (*Spirinchus thaleichthys*), and fall- and winter-run Chinook salmon (*Oncorhynchus tshawytscha*). The middle of the rearing and migration of fall-run Chinook salmon and the spawning and incubation of winter-run Chinook salmon fall within the months of June and July. Allowing the in-water work window to start before August 1 increases the possibility of impacts to these protected species during a vulnerable life stage. This includes direct and indirect take from suction dredging and long-term decrease of water quality due to consistent release of urban effluent over time.

To correct this, CDFW recommends that Mitigation Measure BIO 3: FISH be revised to incorporate the in-water work window of August 1 to November 30 to avoid impacts to Delta smelt, longfin smelt, and Chinook salmon. In the event Project logistics require work outside of the recommended in-water work window, CDFW recommends inclusion of language defining the Project’s obligation to obtain CESA-listed fish take coverage through an ITP issued by CDFW that would allow for Project-related work to occur outside the restrict work window.

CDFW also recommends the IS/MND be updated to include a measure requiring compensatory mitigation for impacts to shallow water habitat for fish species at a minimum of a 3:1 mitigation ratio (conserved habitat to impacted habitat) for permanent impacts from Project activities to

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mitigate impacts to less-than-significant. CDFW also recommends identifying either the specific CDFW-approved mitigation bank from which credits will be purchased or outline an additional enforceable mitigation strategy in the event appropriate credits are not available for purchase.

CDFW recommends the following specific and enforceable measure to fish be incorporated into a revised IS/MND to minimize and avoid impacts:

“Designated Work Period. Project activities within the Old River shall be confined to the period of August 1 through November 30 when listed fish are less likely to occur within and/or near the Project area.”

Comment 7: Additional suggested measures to mitigate project impacts to fish and wildlife to a level less-than-significant

CDFW recommends the following specific and enforceable measures to fish and wildlife be incorporated into a revised IS/MND to minimize and avoid impacts:

“Hydraulic Dredge Operation. The hydraulic dredge shall be operated so that the intake is at or below the surface of the material being removed. The hydraulic dredge intake may be a raised a maximum of three (3) feet above the river bottom for brief periods for the purpose of purging or flushing of the intake system.”

“CDFW Fish Screening Criteria. When pumping water, a water pump with a CDFW-approved fish screen must be used. See the CDFW fish screen criteria from the California Salmonid Stream Habitat Restoration Manual, 4th edition, California Department of Fish and Wildlife, located at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=22610&inline>.”

“Open Trenches. Any open trenches, pits, or holes with a depth larger than one (1) foot shall be covered at the conclusion of work each day with a hard, non-heat conductive material (e.g., plywood). No netting, canvas, or material capable of trapping or ensnaring wildlife shall be used to cover open trenches. If use of a hard cover is not feasible, multiple wildlife escape ramps shall be installed, constructed of wood or installed as an earthen slope, in each open trench, hole, or pit that is capable of allowing large (e.g., deer) and small (e.g., snakes) wildlife to escape on their own accord. Prior to the initiation of construction each day and prior to the covering of the trench at the conclusion of work each day, the Designated Biologist or Qualified Biological Monitor shall inspect the open trench, pit, or whole for wildlife. If wildlife is discovered, it shall be allowed to leave. If wildlife does not leave, and the animal is a State-listed species, consultation is required before work can be initiated.”

“Open Pipes Restriction. All pipes, culverts, hoses, or similar structures that are stored at the construction site, vertically or horizontally, for one or more overnight periods shall be securely capped, screened, or filled with material on both ends prior to storage and thoroughly inspected for wildlife by the Qualified Biological Monitor, in consultation with the Designated Biologist, prior to use. Only the Designated Biologist shall relocate special-status species wildlife, if necessary. All hollow pipes or posts installed as part of the Project and exposed to the environment shall be

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capped, screened, or filled with material by Permittee prior to the end of the workday in which installation occurs.”

CDFW has attached a Mitigation and Monitoring Reporting Program (MMRP) with the recommended measures that should be included in the Lead Agency’s revised IS/MND and MMRP.

ENVIRONMENTAL DATA

CEQA requires that information developed in draft environmental impact reports be incorporated into a data base which may be used to make subsequent or supplemental environmental determinations. [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data#44524420-pdf-field-survey-form>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

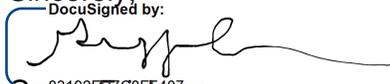
FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish and Game Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

CDFW appreciates the opportunity to comment on the IS/MND to assist the Town of Discovery Bay in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Ms. Andrea Boertien, Environmental Scientist, at (209) 234-3449 or Andrea.Boertien@wildlife.ca.gov; or Ms. Melissa Farinha, Senior Environmental Scientist (Supervisory), at (707) 944-5579 or Melissa.Farinha@wildlife.ca.gov.

Sincerely,
DocuSigned by:

82402F77C95E487
Gregg Erickson
Regional Manager
Bay Delta Region

cc: State Clearinghouse – state.clearinghouse@opr.ca.gov
Aaron Goldsworthy, Town of Discovery – agoldsworthy@todb.ca.gov

Attachment 1

**Mitigation Monitoring and Reporting Program for California Department of Fish and
Wildlife's Recommended Mitigation Measures Under the California Environmental Quality
Act: Town of Discovery Bay – Diffuser Outfall Repairs**

STATE CLEARINGHOUSE NO.: 2020020418

PROJECT PROPONENT: Town of Discovery Bay
Aaron Goldsworthy, Project Manager
Len Marino, Contact

PROJECT: Town of Discovery Bay – Diffuser Outfall Repairs

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
BEFORE DISTURBING SOIL OR VEGETATION					
1	Special-Status Plant Assessment and Avoidance. A Qualified Botanist shall conduct a minimum of two (2) surveys for each special-status plant species with potential to occur within the Project site prior to initiation of Project Activities during the appropriate blooming period in accordance with CDFW's Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities (https://www.wildlife.ca.gov/conservation/survey-protocols). Report of survey findings shall be done in accordance to the guidance in these protocols and submitted to CDFW prior to Project construction.	CDFW CEQA Comment Letter	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Project Proponent	
2	A Qualified Botanist shall develop and implement a restoration/remediation and mitigation plan according to CDFW guidelines and in coordination with CDFW. At a minimum, the plan shall include collection of reproductive structures from affected plants, a full description of microhabitat conditions necessary for each affected species, seed germination requirements, restoration techniques for temporarily disturbed occurrences, assessments of potential transplant and enhancement sites, success and performance criteria, and monitoring programs, as well as measures to ensure long-term sustainability.	CDFW CEQA Comment Letter	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Project Proponent	
3	Pre-construction Survey for Swainson's Hawk. If work is to be conducted during the nesting season (February 15 – September 15), focused surveys for active Swainson's hawk nests shall be conducted by a qualified biologist in a manner consistent with the Recommended Timing and Methodology of Swainson's Hawk Nesting Surveys in California's Central Valley. At least two surveys shall be completed within two survey periods immediately prior to a Project's initiation. If a lapse in Project-related work of 15 days or longer occurs, another focused survey shall be performed, and the results sent to CDFW prior to resuming work. Surveys shall be conducted in all suitable habitat located at the Project work site, in staging, storage, and stockpile areas, and along transportation routes. Surveys shall be conducted within ½-mile of the Project area. If any active Swainson's hawk nests are found within ½-mile of the Project site, CDFW shall immediately be contacted and additional survey measures may be required for Project activities.	CDFW CEQA Comment Letter	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Project Proponent	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
4	<p>A Qualified Biologist shall perform a burrowing owl habitat assessment, pre-construction surveys, and impact assessments. The Qualified Biologist is an individual who shall have a minimum of five years of academic training and professional experiences in biological sciences and related resource management activities with a minimum of two years conducting habitat assessments, pre-constructions surveys for breeding and non-breeding seasons, and impact assessments for burrowing owl. The Qualified Biologist shall be familiar with burrowing owl and its local ecology; shall be familiar with appropriate State and federal statutes, scientific research, and conservation of burrowing owl; and shall have experience with analyzing impacts of development on burrowing owls and their habitat.</p> <p>The Qualified Biologist shall conduct a habitat assessment to determine if burrowing owl habitat is present and if occupancy surveys are required. If the Qualified Biologist determines that potential burrowing owl habitat is present on the Project site, the Qualified Biologist shall conduct burrowing owl surveys. The surveys shall be conducted during the breeding season from February 1 to August 31 when detection probability is the highest. The Qualified Biologist shall conduct a minimum of three surveys during daylight hours and each survey shall occur at least three weeks apart during the peak of the breeding season (between April 15 and July 15), during the nesting period, and during the late nestling period.</p> <p>If surveys confirm occupied burrowing owl habitat in or adjoining the Project area, the Qualified Biologist shall complete an impact assessment for burrowing owl. The impact assessment shall evaluate all factors that could affect burrowing owls on the Project site. The impact assessment shall suggest mitigation methods, if appropriate. Examples include, but are not limited to, avoidance of occupied burrows during the nesting period of February 1 to August 31, avoidance of occupied burrows during non-breeding season, pre-construction surveys, site surveillance, use of buffer zones or visual screens, and burrow exclusion.</p> <p>If habitat loss or degradation occur on the Project site, the impacts to burrowing owl shall be mitigated. A mitigation monitoring and reporting plan shall be developed and implemented prior to Project implementation.</p> <p>All habitat assessment, pre-construction survey protocols, impact assessment, reporting requirements, and mitigation guidance can be found in the Staff Report on Burrowing Owl Mitigation dated March 7, 2012. The document can be found at https://www.wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds. For more information, see https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline.</p>	CDFW CEQA Comment Letter	Before commencing ground- or vegetation-disturbing activities	Project Proponent	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
5	<p>Nesting Bird Assessment and Avoidance. Prior to the initiation of Project activities, including ground-disturbing activities scheduled to occur between February 15 and September 15, a Qualified Biologist shall conduct a habitat assessment and nesting survey for nesting bird species no more than five days prior to the initiation of work. Surveys shall be conducted throughout the Project site, in staging, storage, and soil stockpile areas, and along transportation routes. The minimum survey radii surrounding the work area shall be the following: 1) 250 feet for passerines, 2) 500 feet for small raptors such as accipiters, and 3) 1,000 feet for larger raptors such as buteos. The Qualified Biologist conducting the surveys shall be familiar with the breeding behaviors and nest structures for birds known to nest in the project vicinity. Surveys shall be conducted during periods of peak activity (early morning, dusk), shall be of sufficient duration to observe movement patterns and shall concentrate on areas of suitable habitat. Survey results, including all descriptions of timing, duration, and methods used, shall be submitted to CDFW for review 48 hours prior to the initiation of the Project. If a lapse in Project activity of 14 days or more occurs, the survey shall be repeated, and no work shall proceed until the results have been submitted to CDFW.</p> <p>If nesting birds are found, then no work shall be initiated until nest-specific buffers have been established with written approval from CDFW. The buffer area(s) shall be fenced off from work activities and avoided until the young have fledged, as determined by the Qualified Biologist. Active nests within or adjacent to the Project site shall be monitored by the Qualified Biologist daily throughout the duration of Project activities for changes in bird behavior or signs of distress related to Project activities. If nesting birds are showing signs of distress or disruption to nesting behaviors, then that nest shall have the buffer immediately increased by the Qualified Biologist until no further interruptions to breeding behavior are detectable.</p>	CDFW CEQA Comment Letter	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Project Proponent	
DURING CONSTRUCTION					
6	Hydraulic Dredge Operation. The hydraulic dredge shall be operated so that the intake is at or below the surface of the material being removed. The hydraulic dredge intake may be a raised a maximum of three (3) feet above the river bottom for brief periods for the purpose of purging or flushing of the intake system.	CDFW CEQA Comment Letter	Entire Project	Project Proponent	
7	CDFW Fish Screening Criteria. When pumping water, a water pump with a CDFW-approved fish screen must be used. See the CDFW fish screen criteria from the California Salmonid Stream Habitat Restoration Manual, 4th edition, California Department of Fish and Wildlife, located at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=22610&inline .	CDFW CEQA Comment Letter	Entire Project	Project Proponent	
8	Open Trenches. Any open trenches, pits, or holes with a depth larger than one (1) foot shall be covered at the conclusion of work each day with a hard, non-heat conductive material (e.g., plywood). No netting, canvas, or material capable of trapping or ensnaring wildlife shall be used to cover open trenches. If use of a hard cover is not feasible, multiple wildlife escape ramps shall be installed, constructed of wood or installed as an earthen slope, in each open trench, hole, or pit that is capable of allowing large (e.g., deer) and small (e.g., snakes) wildlife to escape on their own accord. Prior to the initiation of construction each day and prior to the covering of the trench at the conclusion of work each day, the Designated Biologist or Qualified Biological Monitor shall inspect the open trench, pit, or whole for wildlife. If wildlife is discovered, it shall be allowed to leave. If wildlife does not leave, and the animal is a State-listed species, consultation is required before work can be initiated.	CDFW CEQA Comment Letter	Entire Project	Project Proponent	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
9	Open Pipes Restriction. All pipes, culverts, hoses, or similar structures that are stored at the construction site, vertically or horizontally, for one or more overnight periods shall be securely capped, screened, or filled with material on both ends prior to storage and thoroughly inspected for wildlife by the Qualified Biological Monitor, in consultation with the Designated Biologist, prior to use. Only the Designated Biologist shall relocate special status species wildlife, if necessary. All hollow pipes or posts installed as part of the Project and exposed to the environment shall be capped, screened, or filled with material by Permittee prior to the end of the workday in which installation occurs.	CDFW CEQA Comment Letter	Entire Project	Project Proponent	

7 April 2020

Ref: 308010-00221

Gregg Erickson
Regional Manager, Bay Delta Region
State of California, Natural Resources Division
Department of Fish and Wildlife
2825 Cordelia Road, Suite 100
Fairfield, CA 94534

Dear Mr. Erickson

TOWN OF DISCOVERY BAY-DIFFUSER OUTFALL REPAIRS, INITIAL STUDY/MITIGATED NEGATIVE DECLARATION, SCH #2020020418, TOWN OF DISCOVERY BAY, CONTRA COSTA COUNTY

This letter is in response to the comments and recommendations provided in your letter of March 20, 2020 (March 20 Letter) by the California Department of Fish and Wildlife (CDF&W) from the staff review of the Town of Discovery Bay Diffuser Outfall Repairs Project (Project) Initial Study Mitigated Negative Declaration (ISMND). We are responding to each comment individually for the purpose and intent to respectfully address the concerns and advise on the *comments* received in order to achieve a thorough understanding of the Project components, logistical planning, and full completion efforts.

We are hoping that with a thorough description of the area of concern or construction details for each CDF&W comment of the resource discussed, and by providing clarification of either the non-existence or non-applicability of the individual concerns, all parties can reach a collaborative understanding and expectation of the lack of impact, or cooperative monitoring and mitigation efforts to satisfy CDF&W laws, ordinances and regulations (LORs) under California Environmental Quality Act (CEQA) and CEQA Guidelines.

Thank you for the review and please do not hesitate to contact me if you have questions or require additional information. We look forward to collaborating in this effort to construct a successful project and support our client, Town of Discovery Bay, with these applications and requisite review process.

Sincerely,



Len Marino, P.E., CFM

Senior Consultant

Hydroelectric Power / Dam Safety / Flood Management

M: +1 916-605-9751

O: +1 916-817-3974

E: len.marino@advisian.com

Enc

Cc A. Boertien, CDF&W
(via email only) M. Farinha, CDF&W
 J. Starr, CDF&W
 D. Hultman, CDF&W
 State Clearinghouse
 A. Goldsworthy, Town of Discovery Bay
 G. Harris, Town of Discovery Bay
 E. Giron-Maglioni, Advisian Worley Group
 M. Santangelo, Advisian Worley Group
 L. Hettinger, Advisian Worley Group
 L. Marino, Advisian Worley Group

Town of Discovery Bay-Diffuser Outfall Repairs, Initial Study/Mitigated Negative Declaration, Responses to CFDW Comments

Comment 1: Section IV. Biological Resources does not define floristic survey protocol

Town of Discovery Bay (Town) has determined all offsite activity including construction planning and preparation, materials and equipment storage, tooling, and commissioning activities will be done within the fenced perimeter of the Town's wastewater treatment plant facility located nearby the construction area. This will eliminate surface and ground activities and thereby eliminate all potential impacts to terrestrial biological resources. This planning procedure obviates the necessity to conduct a floristic survey under the protocol indicated as the land usage will be confined to currently disturbed service roads/access areas used during normal maintenance activities. Therefore, the impacts will be non-existent, and surveys are not applicable.

Comment 2: Revision needed to mitigate impacts to special-status plants to less-than significant

Referencing the response to Comment 1, by the Town implementing the construction planning alternative to use the Town's wastewater treatment plant located near the construction area eliminates all potential impacts to special-status plants.

Additionally, we propose the mitigation measures included in Comment 2 to retain a Qualified Botanist to conduct two (2) special-status plant species surveys as well as to develop and implement a restoration/remediation and mitigation plan be removed as the staging area indicated in the ISMND has been eliminated from the Project planning.

Comment 3: Revisions needed to mitigate impacts to Swainson's hawk (*Buteo swainsoni*) to less-than-significant

The cottonwood tree along the Reclamation Ditch 800 drainage canal was observed by Town of Discovery Bay maintenance staff on March 25, 2020, and no nests were observed at this time. This tree was judged to be approximately 0.5 to 0.75 miles from the proposed Project site. It is possible that this tree could serve as a roosting/perching site. Project scheduling has been adjusted whereby construction would not occur until after September 15 so that the nesting period will be avoided. Perching/roosting concerns should be ameliorated by the distance of the tree from the construction activity, and staging has been changed to occur at the Town's wastewater treatment plant and not on the surface 0.5 acres as designated in the IS/MND. Moreover, the activities associated with transfer of construction material from the wastewater treatment plant to barges will be conducted within the fenced perimeter of the wastewater treatment plant. Barges will be launched at a public boat launch site, thereby eliminating the need for equipment transfer at a shoreline access point. The equipment transfer process would occur two or three times over a two-week period and would be consistent with normal maintenance activities at the site.

Comment 4: Revisions needed to fully avoid impacts to white-tailed kite (Elanus leucurus)

The data on breeding sites of white-tailed kites from Contra Costa County Breeding Bird Atlas indicated confirmed breeding status west of the Project area. These data are reported on a relatively coarse, township-reporting unit and from 1998. This information on breeding status and nest sites of white-tailed kite for Contra Costa County has apparently not been updated.

This species usually nests in broad-leafed deciduous trees adjacent to riparian habitat near open areas and in stands of oaks in oak woodland habitat, but more often in single, isolated trees in large stands or in larger shrubs (Davis, C.L. 2014. White-tailed Kite, Spector of the California Skies. San Francisco Bay National Wildlife Refuge Complex. Vol. 37, No. 4). Thus, the cottonwood tree along the RD-800 drainage canal that occurs 0.5 to 0.75 miles from the proposed Project site could serve as a suitable nest site. No nest sites were observed in this tree on March 25, 2020 by Town of Discovery Bay maintenance staff. However, to avoid any nesting impacts to white-tailed kite, the Project schedule has been changed to occur after September 15.

A second potential impact includes the restriction or disruption of white-tailed kites from potential hunting in grassland areas that occur on a section of the 0.5-acre of the proposed staging area. The staging area and preparation of materials and equipment needed for the Project have been changed and will be conducted within the fenced perimeter of the Town's wastewater treatment plant. The construction material would be moved from the wastewater treatment plant to barges over a period of several days, but this activity would be consistent with normal daily maintenance activities at the site using existing service roads.

Comment 5 shown on Page 5 of the March 20 Letter: Revisions needed to mitigate impacts to burrowing owls (Athene cunicularia) to a level of less-than significant

Referencing the response to Comment 1, by the Town implementing the construction planning alternative to use the Town's wastewater treatment plant located near the construction area eliminates all potential impacts to burrowing owls.

Additionally, we propose the mitigation measures included in Comment 5 (shown on Page 5 of the March 20 CDF&W Letter) to retain a Qualified Biologist to perform a burrowing owl habitat assessment, pre-construction surveys, and impact assessments as well as to develop and implement a mitigation monitoring and reporting plan be removed as the staging area indicated in the ISMND has been eliminated from the Project planning.

Comment 5 shown on Page 7 of the March 20 Letter: Revisions needed to mitigate impacts to nesting birds to a level of less-than significant

Referencing the response to Comment 1, by the Town implementing the construction planning alternative to use the Town's wastewater treatment plant located nearby the construction area eliminates all potential impacts to nesting birds.

Additionally, in order to ensure complete avoidance and mitigation measures are implemented, the Town has revised the scheduling to start construction, including all requisite commissioning activities, beginning after September 15, 2020 to avoid disturbance to any nearby nesting birds not in the vicinity of the Project.

In consideration of the above Project details and staging location changes, we propose the mitigation measures included in Comment 5 (shown on Page 7 of the March 20 Letter) to retain a Qualified Biologist to perform a habitat assessment and nesting survey for nesting bird species be removed, as the staging area indicated in the ISMND has been eliminated from the Project planning.

Comment 6: Revisions needed to mitigate impacts to fish to a level of less-than-significant

The Town has changed the Project schedule to start after September 15, 2020 and as the milestone tasks are coordinated to be completed within 2 weeks, the Project completion will occur prior to November 30, 2020 to comply with all biological resource habitat components including special-status fish species with the Project area. The Town will be in full compliance of the regulations referenced in Comment 6 and impact mitigation including the work window of August 1 to November 30 to avoid impacts to Delta smelt, longfin smelt and Chinook salmon. Because of Project scheduling changes, the Project will not necessitate obtaining California Endangered Species Act (CESA)-listed fish take coverage through an Incidental Take Permit (ITP) issued by CDF&W. As this is a repair Project to existing facilities in previously impacted areas under previous permitting guidelines and approvals, no additional impact to shallow water habitat for fish species is anticipated, negating the 3:1 mitigation ratio as indicated.

Comment 7: Additional suggested measures to mitigate Project impacts to fish and wildlife to a level less-than-significant

The Town agrees to operate the hydraulic dredge in a manner consistent with recommendations included in Comment 7, as it is a necessary tool needed to excavate the damaged pipe section from the trench in the river bottom. The Town will use a smaller-scale hydraulic dredge, also known as a suction excavator, which will be operated so that the contact point is at or below the surface of the material being moved. The suction excavator will be hand operated by divers present underwater and will be maneuvering the suction nozzle to remove material and uncover the damaged pipe section. Material removed will be temporarily stored on the barge and replaced in the trench once the replacement pipe section is installed.

In accordance with the Project construction details and therefore in compliance of the mitigation measures discussed in Comment 7, a water pump will not be employed for any of the repair elements necessary,

thereby eliminating the need or potential of pumping water and negating the CDF&W Fish Screening Criteria mitigation measure.

In accordance with the Project construction details and therefore in compliance of the mitigation measures discussed in Comment 7, there will be no open trenches on land required for this Project. The only trench constructed will be underwater in the river bottom.

In accordance with the Project construction details and as detailed in response to Comment 1 and therefore in compliance of the mitigation measures discussed in Comment 7, all materials and equipment, including pipes, culverts, hoses, or similar equipment, will be stored within the fenced plant perimeter of the Town's wastewater treatment plant.

Response to Mitigation Monitoring and Reporting Program for California Department of Fish and Wildlife's Recommended Mitigation Measures Under the California Environmental Quality Act: Town of Discovery Bay – Diffuser Outfall Repairs

Mitigation Measure 1: Special-Status Plant Assessment and Avoidance. A Qualified Botanist shall conduct a minimum of two (2) surveys for each special-status plant species with potential to occur within the Project site prior to initiation of Project Activities during the appropriate blooming period in accordance with CDF&W's Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities (<https://www.wildlife.ca.gov/conservation/surveyprotocols>). Report of survey findings shall be done in accordance to the guidance in these protocols and submitted to CDF&W prior to Project construction.

Response:

Not applicable per Responses to Comment 1 and Comment 2.

Mitigation Measure 2: A Qualified Botanist shall develop and implement a restoration/remediation and mitigation plan according to CDF&W guidelines and in coordination with CDF&W. At a minimum, the plan shall include collection of reproductive structures from affected plants, a full description of microhabitat conditions necessary for each affected species, seed germination requirements, restoration techniques for temporarily disturbed occurrences, assessments of potential transplant and enhancement sites, success and performance criteria, and monitoring programs, as well as measures to ensure long-term sustainability.

Response:

Not applicable per Responses to Comment 1 and Comment 2.

Mitigation Measure 3: Pre-construction Survey for Swainson's Hawk. If work is to be conducted during the nesting season (February 15 – September 15), focused surveys for active Swainson's hawk nests shall be conducted by a qualified biologist in a manner consistent with the Recommended Timing and Methodology of Swainson's Hawk Nesting Surveys in California's Central Valley. At least two surveys shall be completed within two survey periods immediately prior to a Project's initiation. If a lapse in Project-

related work of 15 days or longer occurs, another focused survey shall be performed, and the results sent to CDF&W prior to resuming work. Surveys shall be conducted in all suitable habitat located at the Project work site, in staging, storage, and stockpile areas, and along transportation routes. Surveys shall be conducted within ½-mile of the Project area. If any active Swainson's hawk nests are found within ½-mile of the Project site, CDF&W shall immediately be contacted, and additional survey measures may be required for Project activities.

Response:

Not applicable per Response to Comment 3.

Mitigation Measure 4: A Qualified Biologist shall perform a burrowing owl habitat assessment, pre-construction surveys, and impact assessments. The Qualified Biologist is an individual who shall have a minimum of five years of academic training and professional experiences in biological sciences and related resource management activities with a minimum of two years conducting habitat assessments, pre-constructions surveys for breeding and non-breeding seasons, and impact assessments for burrowing owl. The Qualified Biologist shall be familiar with burrowing owl and its local ecology; shall be familiar with appropriate State and federal statutes, scientific research, and conservation of burrowing owl; and shall have experience with analyzing impacts of development on burrowing owls and their habitat.

Response:

Not applicable per Response to Comment 5 shown on Page 5 of the March 20 CDF&W Letter.

Mitigation Measure 5: Nesting Bird Assessment and Avoidance. Prior to the initiation of Project activities, including ground-disturbing activities scheduled to occur between February 15 and September 15, a Qualified Biologist shall conduct a habitat assessment and nesting survey for nesting bird species no more than five days prior to the initiation of work. Surveys shall be conducted throughout the Project site, in staging, storage, and soil stockpile areas, and along transportation routes. The minimum survey radii surrounding the work area shall be the following: 1) 250 feet for passerines, 2) 500 feet for small raptors such as accipiters, and 3) 1,000 feet for larger raptors such as buteos. The Qualified Biologist conducting the surveys shall be familiar with the breeding behaviors and nest structures for birds known to nest in the project vicinity. Surveys shall be conducted during periods of peak activity (early morning, dusk), shall be of sufficient duration to observe movement patterns and shall concentrate on areas of suitable habitat. Survey results, including all descriptions of timing, duration, and methods used, shall be submitted to CDF&W for review 48 hours prior to the initiation of the Project. If a lapse in Project activity of 14 days or more occurs, the survey shall be repeated, and no work shall proceed until the results have been submitted to CDF&W.

Response:

Not applicable per Response to Comment 5 shown on Page 7 of the March 20 CDF&W Letter.

Mitigation Measure 6: Hydraulic Dredge Operation. The hydraulic dredge shall be operated so that the intake is at or below the surface of the material being removed. The hydraulic dredge intake may be a raised a maximum of three (3) feet above the river bottom for brief periods for the purpose of purging or flushing of the intake system.

Response:

The Town concurs with Mitigation Measure 6 and will implement as described in the Response to Comment 7.

Mitigation Measure 7: CDF&W Fish Screening Criteria. When pumping water, a water pump with a CDF&W-approved fish screen must be used. See the CDF&W fish screen criteria from the California Salmonid Stream Habitat Restoration Manual, 4th edition, California Department of Fish and Wildlife, located at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=22610&inline>

Response:

Not applicable per Response to Comment 7.

Mitigation Measure 8: Open Trenches. Any open trenches, pits, or holes with a depth larger than one (1) foot shall be covered at the conclusion of work each day with a hard, non-heat conductive material (e.g. plywood). No netting, canvas, or material capable of trapping or ensnaring wildlife shall be used to cover open trenches. If use of a hard cover is not feasible, multiple wildlife escape ramps shall be installed, constructed of wood or installed as an earthen slope, in each open trench, hole, or pit that is capable of allowing large (e.g. deer) and small (e.g. snakes) wildlife to escape on their own accord. Prior to the initiation of construction each day and prior to the covering of the trench at the conclusion of work each day, the Designated Biologist or Qualified Biological Monitor shall inspect the open trench, pit, or whole for wildlife. If wildlife is discovered, it shall be allowed to leave. If wildlife does not leave, and the animal is a State-listed species, consultation is required before work can be initiated.

Response:

Not applicable per Response to Comment 7.

Mitigation Measure 9: Open Pipes Restriction. All pipes, culverts, hoses, or similar structures that are stored at the construction site, vertically or horizontally, for one or more overnight periods shall be securely capped, screened, or filled with material on both ends prior to storage and thoroughly inspected for wildlife by the Qualified Biological Monitor, in consultation with the Designated Biologist, prior to use. Only the Designated Biologist shall relocate special status species wildlife, if necessary. All hollow pipes or posts installed as part of the Project and exposed to the environment shall be capped, screened, or filled with material by Permittee prior to the end of the workday in which installation occurs

Response:

Not applicable per Response to Comment 7.



Initial Study/Mitigated Negative Declaration (IS/MND)

Town of Discovery Bay – Diffuser Outfall Repairs

Town of Discovery Bay

23 April 2020

308010-00221-19200

Advisian
Worley Group

advisian.com



Disclaimer

This report has been prepared on behalf of and for the exclusive use of Town of Discovery Bay, and is subject to and issued in accordance with the agreement between Town of Discovery Bay and Advisian. Advisian accepts no liability or responsibility whatsoever for it in respect of any use of or reliance upon this report by any third party. Copying this report without the permission of Town of Discovery Bay and Advisian is not permitted.

Company details

Advisian, Worley Group Inc.
 2330 E. Bidwell Street, Suite 120
 Folsom, CA 95630
 T: +1 (916) 605-9751

308010-00221-19200-WW-REP-0001: Initial Study/Mitigated Negative Declaration (IS/MND) - Town of Discovery Bay – Diffuser Outfall Repairs

Rev	Description	Author	Review	Advisian approval	Revision date
0	Issued as Final	<i>M. Santangelo</i> M. Santangelo/ L. Hettinger/ L. Marino	<i>E. Giron-Maglioni</i> E. Giron-Maglioni	<i>E. Giron-Maglioni</i> E. Giron-Maglioni	23-Apr-20



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Mitigated Negative Declaration

Project: Town of Discovery Bay – Diffuser Outfall Repairs

Lead Agency: Town of Discover Bay, 1800 Willow Lake Road, Discovery Bay, CA 94514

Availability of Documents: The Initial Study for this Mitigated Negative Declaration has been made available for review at:

Town of Discovery Bay
1800 Willow Lake Road
Discovery Bay, CA 94514
<https://www.todb.ca.gov/>

Project Description:

Herwit Engineering (Herwit), on behalf of the Town of Discovery Bay California (TDB), commissioned Advisian Worley Group, Inc. (Advisian) to complete an assessment of their sanitary sewage outfall diffuser (outfall) in December of 2017. The outfall is used to discharge treated effluent from the TDB wastewater treatment plant into the Old River and in past years has experienced diminishing discharge capacity. In addition, concerns have been raised that discharge pumping capacity of the plant has been reduced; this may be due to plugged sections of the outfall diffuser pipe and/or reduced capacity of the pumps.

The comprehensive assessment included an evaluation of the outfall existing conditions, a review of the system hydraulics, site investigations including closed circuit television (CCTV) camera inspection, a review of underwater surveys, and recommendations for upgrades/repair measures.

From the visual inspection, no damage of the outfall was observed above water, and no erosion along the bank slope existed. Good vegetation growth was observed next to the outfall along the bank slope as shown in Figure 3.

A CCTV camera inspection was completed and televised using a push/rod reel with self-leveling color camera and footage counter inserted into the outfall's shoreline opening availed by removal of the Harris syphon breaker. The inspection did not reveal significant obstruction in the 18-in High-density polyethylene (HDPE) segment (70 ft), except for algae growth along the walls of the pipe. As in the 18-in segment, algae growth was observed in the 10-in HDPE segment (30.5 ft). With the camera head inserted inside at approximately 152 ft (station 0+190 ft, C2 diffuser design drawing, Komex 2004a), the CCTV camera encountered a blockage in the 10-in segment and was not able to proceed further into the pipe. As a result, no footage was recorded beyond this point. No details of the 6-in HDPE segment were obtained. It is assumed that this segment may be partially or fully obstructed (with reduced flow capacity) as described in the 2013 and 2017 (section below) underwater survey (Bishop Diving & Salvage 2013 and 2017). Video files CCTV camera inspection were mailed to TDB and Herwit.

Also, as part of the site visit, a pump test was completed for all five vertical turbine pumps at the wastewater treatment plant. The test procedure consisted of allowing the lift station sump to fill to its maximum capacity and then activate the pumps to their maximum flow. Recordings were made for



approximately 5 to 10 minutes, obtaining readings from the flow meter and pressure head for the pump gauges. One of the pump gauges (first pump from north to south) was not operating, so readings were obtained for only 4 of the 5 lift station pumps. Results indicated that for an average flow of 3.11 mega gallons per day (MGD) a pumping head of approximately 20 pounds per square inch gauge (psig) was required.

To simulate the results of the pumping test, the recorded flow of 3.11 MGD was used through the system (the lift station comprised of five vertical turbine pumps, 4079 ft. of conveyance pipe and the Old River outfall diffuser) and compared to recorded pumping head of approximately 20 psig (45.9 ft.). The assessment showed that for a flow of 3.11 MGP, the head losses through the system would require a pumping head of 14.6 psi (33.6 ft.). These results indicated that the current system has increased head losses and therefore the lift station must operate at a higher pumping head to convey the flow through the system. The higher-pressure head required is a result of additional losses encountered by flow being channelled through a lower number of diffusers which increases the jet velocity and the loss at each Tideflex valve. As expected, these head losses are attributed to the obstruction observed in the outfall diffuser.

The proposed project includes removing the 10-inch and 6-inch HDPE segments and replacing them with an 18-inch spool of the same combined length. This will result in a structure with a constant 18-inch diameter throughout the entire length of the outfall pipe body and with 36 ports. Tasks associated with this design will include the following:

- Prepare a dispersion model to validate the constant-diameter design as meeting or exceeding dilution goals for pollutant parameters listed in the National Pollutant Discharge Elimination System (NPDES) Permit No. CA0078590.
- Excavate trench in riverbed to uncover the 10-in and 6-in diffuser pipe segments.
- Remove the 10-in and 6-in sections from the existing structure, leaving the original 18-in segment installed in riverbed.
- Construct replacement segment(s) in shop consisting of 18-in diameter HDPE pipe.
- Install replacement segment(s) in riverbed trench, bolt to original 18-in segment
- Backfill trench covering new pipe segment(s) with granular material, per original design.



Acronyms and abbreviations

Acronym/abbreviation	Definition
BAAQMD	The Bay Area Air Quality Management District
BMP	Best Management Practices
CALEPA	California Department of Environmental Protection
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CCTV	Closed Circuit Television
CCWD	Contra Costa Water District
CSLC	California State Lands Commission
CNDDDB	California Natural Diversity Database (maintained by CDFW)
CNPS	California Native Plant Society
CSQA	California Stormwater Quality Association
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
HCP	Habitat Conservation Plan
HDPE	High-density polyethylene
Herwit	Herwit Engineering
IS	Initial Study
LSA	Lake and Streambed Alteration Permit
MGD	mega gallons per day
MND	Mitigated Negative Declaration
NAAQS	National Ambient Air Quality Standards



Acronym/abbreviation	Definition
NP	Natural Preserve
NPDES	National Pollutant Discharge Elimination System
OHWM	Ordinary High-Water Mark
PRC	Public Resources Code
psig	Pound Per Square Inch Gauge
RWQCB	Regional Water Quality Control Board
RWQCB5	Regional Water Quality Control Board, Region 5 - Central Valley Region
SAAQS	State Ambient Air Quality Standards
TDB	Town of Discovery Bay
TDBCSD	Town of Discovery Bay Community Services District
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey



1 Introduction

1.1 Introduction and Regulatory Guidance

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the Town of Discovery Bay (TDB) to evaluate the potential environmental effects of a proposed replacement diffuser outfall at the Discover Bay Sanitary Outfall, Discovery Bay, California. This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, California Code of Regulations (CCR) §15000 *et seq.*

An IS is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines §15063(a)]. If there is substantial evidence that a project may have significant effects on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by or agreed to by the applicant mitigate the potentially significant effects to a less-than-significant level, an MND may be prepared instead of an EIR [CEQA Guidelines §15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/MND conforms to the content requirements under CEQA Guidelines §15071.

1.2 Lead Agency

The lead agency is the public agency with primary approval authority over the proposed project. In accordance with CEQA Guidelines §15051(b)(1), "the lead agency will normally be an agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." The lead agency for the proposed project is TDB. The contact person for the lead agency is:

Aaron Goldsworthy, Project Manager
Town of Discovery Bay
1800 Willow Lake Road
Discovery Bay, CA 94505-9376
(925) 634-1131
agoldsworthy@todb.ca.gov

All inquiries regarding environmental compliance for this project, including comments on this environmental document should be addressed to:

Len Marino
Advisian, Worley Group Inc.
2330 E. Bidwell Street, Suite 120
Folsom, CA 95630
+1 (916) 605-9751
len.marino@advisian.com



1.3 Purpose and Document Organization

The purpose of this document is to evaluate the potential environmental effects of the proposed project on the Outfall. Mitigation measures have also been incorporated into the project to eliminate any potentially significant impacts or reduce them to a less-than-significant level.

This document is organized as follows:

- **Chapter 1 - Introduction.**
- **Chapter 2 - Project Description.** This chapter describes the purpose of the project, the need for the project, and how the project will be carried out.
- **Chapter 3 - Environmental Checklist (Environmental Setting, Impacts, and Mitigation Measures).** This chapter identifies the significance of potential environmental impacts, explains the environmental setting for each environmental resource or impact, and evaluates each through the CEQA Environmental (Initial Study) Checklist. Mitigation measures are incorporated, where appropriate, to reduce all potentially significant impacts to a less-than-significant level.
- **Chapter 4 - Mandatory Findings of Significance.** The overall significance of any potential impacts to natural and cultural resources, cumulative impacts and impacts to humans shall be identified and summarized within this chapter as required by the Initial Study guidelines.
- **Chapter 5 - Summary of Mitigation Measures.** This chapter includes the mitigation measures incorporated into the project as a result of the Initial Study.
- **Chapter 6 - References.** This chapter identifies the references and sources used in the preparation of this IS/MND.
- **Chapter 7 - Report Preparation.** This chapter provides a list of those involved in the preparation of this document.
- **Chapter 8 – Public and Agency Comment** (* Final document only). Summary of the public review process for the IS/MND and comments received.

1.4 Summary of Findings

Chapter 3 of this document contains the Environmental (Initial Study) Checklist that identifies potential environmental impacts (by environmental issue), which may result from implementation of the project. Avoidance, minimization and/or mitigation measures have been included that result in impacts that are less-than-significant or result in no impact.

Based on the IS and supporting environmental analysis provided in this document, the proposed project would result in less-than-significant impacts to the following resources or issues: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.



In accordance with §15064(f) of the CEQA Guidelines, an MND shall be prepared if the proposed project will not have a significant effect on the environment after the inclusion of mitigation measures. Based on the available project information and the environmental analysis presented in this document, there is no substantial evidence that, after the incorporation of mitigation measures, the proposed project would have a significant effect on the environment. It is proposed that a Mitigated Negative Declaration be adopted in accordance with CEQA Guidelines.

The Final ISMND has been revised to incorporate comments received by the California Department of Fish and Wildlife (CDFW) during the initial review period. Alterations to the staging location, project logistics, and construction timing have reduced the project footprint. Mitigation measures have changed to reflect project changes in the revised ISMND. The changes are equivalent to, or better than the previously proposed mitigation specified in the Draft ISMND. A response has been sent to the commenting agency. They have concurred with the revised measures.



2 Project Description

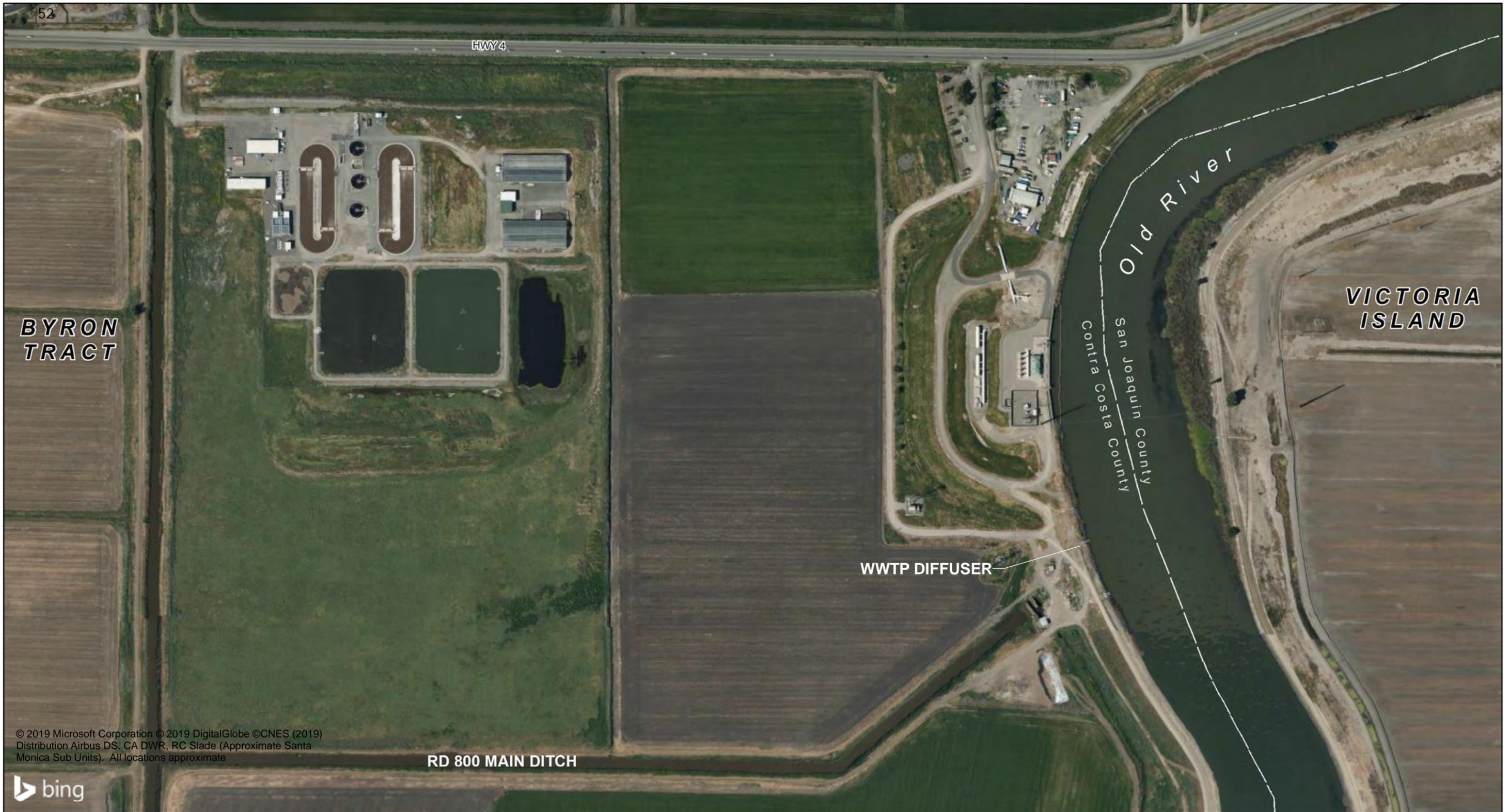
2.1 Introduction

This IS/MND has been prepared by Advisian, Worley Group to evaluate the potential environmental effects of the proposed project. The proposed project would replace the existing diffuser pipe at the Outfall with a new replacement pipe meeting the modelled discharge requirements and allow for continual observation and maintenance. The existing discharge piping is deteriorated and functionally substandard to the point of failure, which is not allowing the facility to operate as permitted and approved. The project will also address issues of ongoing inspections, commission a periodic maintenance program, and provide a flushing system installation within the revised design criteria.

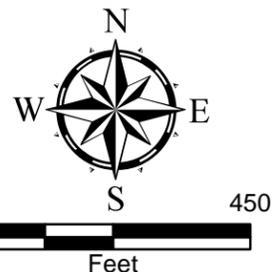
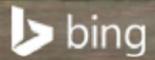
2.2 Project Location

The project sanitary outfall is located in eastern Contra Costa County, California approximately 60 miles from San Francisco, in a section of the Old River flanked by earthen levees (Figures 1, 2, and 3). The site is located adjacent to the west levee (left river bank) and south of the Contra Costa Water District (CCWD) Los Vaqueros Pump Station. Based on the Kleinfelder Inc. geotechnical report (2004), the Old River at the site location has the following tidal water-level fluctuations and elevations:

- 100-year Flood Elevation – 7.5 feet (ft)
- Mean High Water Elevation – 2.4 ft
- Mean Higher High-Water Elevation – 3.5 ft
- Mean Lower Low Water Elevation – -0.5 ft
- Extreme Low Water Elevation – -2.0 ft
- Flow velocity – 3 to 4 ft./s



© 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019)
 Distribution Airbus DS, CA DWR, RC Slade (Approximate Santa
 Monica Sub Units). All locations approximate



DISCOVERY BAY
 CONTRA COSTA COUNTY, CA

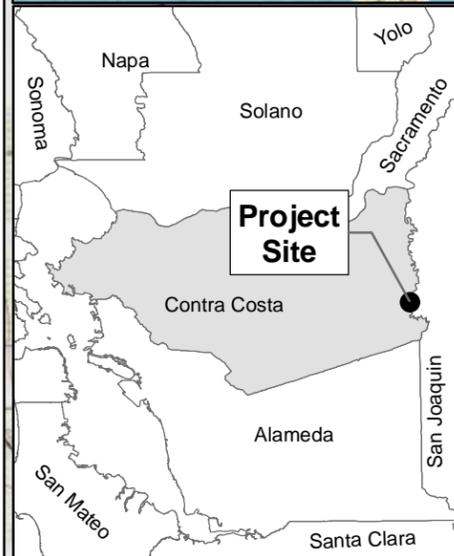


SITE MAP

SWL	SB	12/11/2019
308010-00221		1



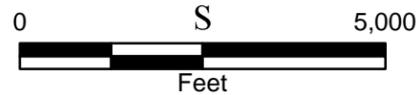
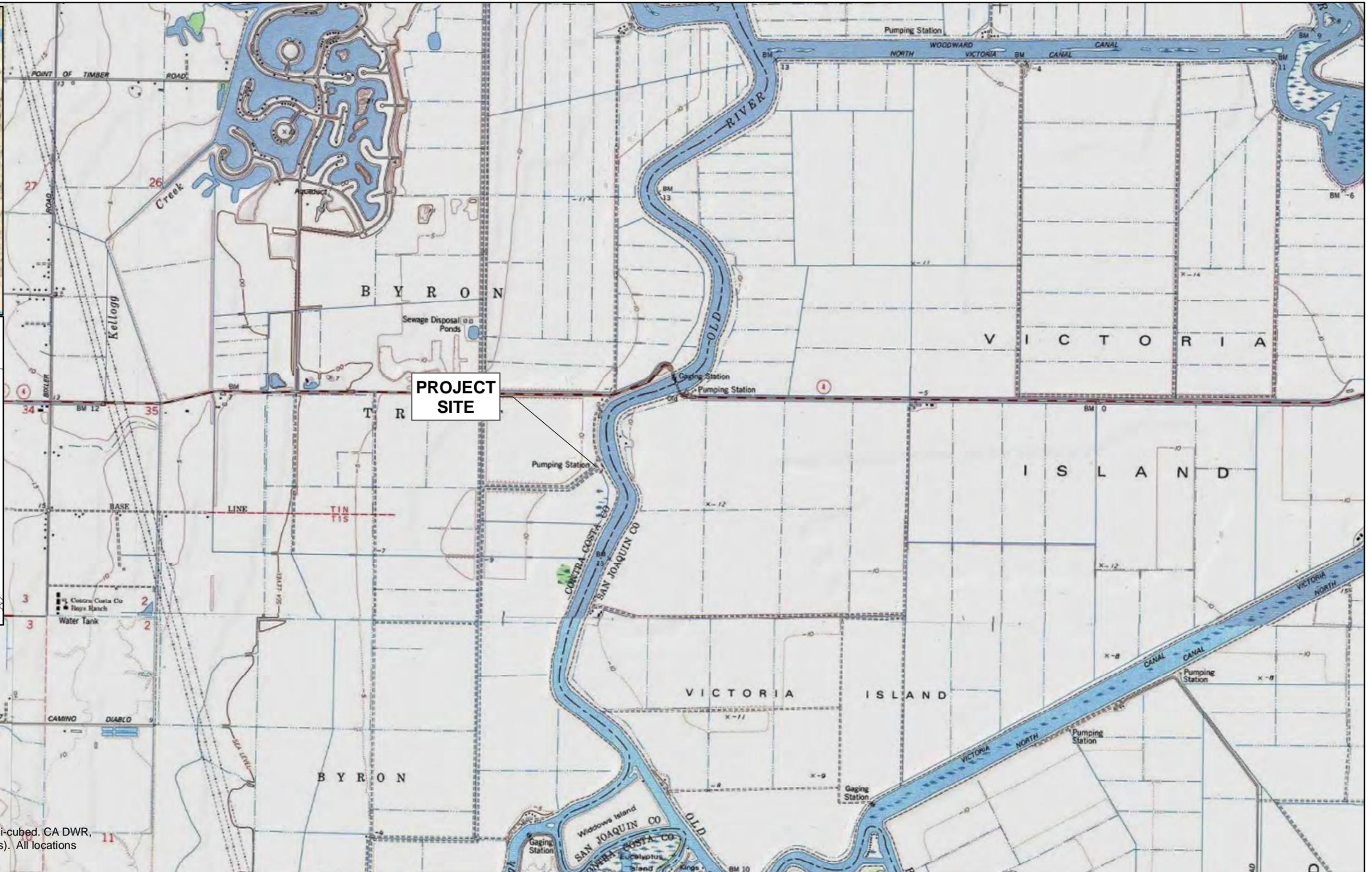
CONTRA COSTA CO.



Project Site



Copyright © 2013 National Geographic Society, i-cubed. CA DWR, RC Slade (Approximate Santa Monica Sub Units). All locations approximate



DISCOVERY BAY
CONTRA COSTA COUNTY, CA



VICINITY MAP

SWL SB 12/6/2019

308010-00221

2

Figure 3 Area of Outfall



2.3 Background and Need For The Project

The Town of Discovery Bay Community Services District (TDBCSD) formerly discharged treated secondary effluent into the Reclamation District 800 (RD-800) Main Ditch adjacent to the south border of TDB's wastewater treatment plant. The wastewater flowed through the RD-800 pump station and discharged through the outfall pipes into the Old River. The TDBCSD no longer uses the RD-800 facility to discharge wastewater effluent.

The Regional Water Quality Control Board, Region 5 - Central Valley Region (RWQCB5) issued Water Discharge Requirements Order No. R5-2003-0067 and adopted a Cease and Desist Order No. R5-2003-0058 on April 25, 2003. The TDB applied for and received National Pollutant Discharge Elimination System (NPDES) Permit No. CA0078590, which allows TDBCSD to discharge directly into the Old River via the outfall structure connected to the TDB wastewater treatment plant. In order to meet the NPDES-permitted concentration limits for listed parameters, including copper, ammonia, nitrate/nitrite and others included in the NPDES permit, the TDB was compelled to construct the now-existing wastewater effluent outfall diffuser. The outfall structure's purpose is to promote rapid dispersion and mixing of the effluent plume



with ambient water as it is released into the Old River and effectively dilute concentrations of the listed parameters which may exist in the treated secondary effluent stream.

This existing outfall, constructed in May 2004, is comprised of a multi-port diffuser structure developed by Flow Science Inc., as noted in their Dye Study (2002). The original design concept (Komex 2004a, Komex 2004b), which was approved by the RWQCB5, consisted of the following:

- Total outfall length: 228.5 ft
- High-density polyethylene (HDPE) pipe diffuser length: 123 ft, including concentric reducer length
- Outfall pipe diameter: 18-in, 10-in, and 6-in segments
- Number of diffuser ports: 36
- Port spacing: average of 3 ft between ports
- Port diameter: 2-in, Series 35 Longneck Tideflex Valve

After operating the outfall for approximately 9 years, the TDB noticed a gradual performance degradation of the effluent pumping system. The pumps were not able to discharge the design flow through the outfall and operators suspected that it was plugged with sediment. On May 15, 2013, Bishop Diving & Salvage completed an underwater visual inspection of the outfall including 123 ft of HDPE pipe comprised of 18-in, 10-in and 6-in pipe segments. The result of the inspection revealed that, out of the 36 diffuser ports, two of them were missing and no flow (except for one port) was observed in the downstream-most 6-in segment, which is 16.5 ft long (Bishop Diving & Salvage 2013).

On December 7, 2017, Worley representatives visited the site to inspect the outfall condition. The site activities included shoreline visual inspection of the outfall and a closed-circuit television (CCTV) camera inspection completed by Subtronic Corporation.

From the shoreline visual inspection, no damage of the outfall was observed above water, and no erosion along the bank slope existed. Good vegetation growth was observed next to the outfall along the bank slope.

A CCTV camera inspection was completed and televised using a push/rod reel with self-leveling color camera and footage counter inserted into the outfall's shoreline opening availed by removal of the Harris syphon breaker. The inspection did not reveal significant obstruction in the 18-in HDPE segment (70 ft), except for algae growth along the walls of the pipe. As in the 18-in segment, algae growth was observed in the 10-in HDPE segment (30.5 ft). With the camera head inserted inside at approximately 152 ft (station 0+190 ft, C2 diffuser design drawing, Komex 2004a), the CCTV camera encountered a blockage in the 10-in segment and was not able to proceed further into the pipe. As a result, no footage was recorded beyond this point. No details of the 6-in HDPE segment were obtained. It is assumed that this segment may be partially or fully obstructed (with reduced flow capacity) as described in the 2013 and 2017 (section below) underwater survey. Video files CCTV camera inspection were mailed to TDB and Herwit Engineering (Hewit).



Also, as part of the site visit, a pump test was completed for all five vertical turbine pumps at the wastewater treatment plant. The test procedure consisted of allowing the lift station sump to fill to its maximum capacity and then activate the pumps to their maximum flow. Recordings were made for approximately 5 to 10 minutes, obtaining readings from the flow meter and pressure head for the pump gauges. One of the pump gauges (first pump from north to south) was not operating, so readings were obtained for only 4 of the 5 lift station pumps. Results indicated that for an average flow of 3.11 mega gallons per day (MGD) a pumping head of approximately 20 pounds per square inch gauge (psig) was required.

On December 2, 2017, Bishop Diving & Salvage completed an updated underwater survey of the outfall including 123 ft of HDPE pipe (comprised of 18-in, 10-in, and 6-in pipeline segments). The inspection showed results consistent with the 2013 survey, with 2 out of the 36 ports missing and no flow observed in the 16.5-ft long 6-in pipeline segment. Also, some of the Tideflex valves appeared to have cracks and were suspected of not sealing properly, thus allowing sediment entrainment into the diffuser. These results confirmed the observations of the CCTV camera inspection, which indicated a partial blockage at the downstream end of the 10-in segment (weak flow out of port 28) and a complete blockage of the 6-in segment (with no flow observed out of ports 31-36).

The TDB conducted a hydraulics assessment of the pressurized effluent system. To simulate the results of the previous pumping test, the system was operated at the same average flow of 3.11 MGD with the river outfall structure bypassed. A line pressure of 14.6 psig (33.6 ft) was observed. This compared to a line pressure of approximately 19.9 psig (45.9 ft) required to achieve the same 3.11 MGD flow through the outfall. The assessment indicated that for the 3.11 MGD flowrate, the head losses through the system are in the range of 5.3 psig. To overcome the increased head loss, the lift station must operate at a higher pumping head to convey the 3.11 MGD flow through the system. As expected, these head losses may be attributed to the obstruction observed in the outfall diffuser. Flow is being discharged through a fewer number of diffuser ports, causing higher back pressure on the pumps. With fewer discharge ports available, flow velocity increases inside the outfall pipe and causes increased friction loss at the remaining operable Tideflex valves, adding more back pressure.

The proposed replacement outfall diffuser is necessary to comply with the RWQCB5 Water Discharge Requirements Order No. R5-2003-0067 and NPDES Permit No. CA0078590. The repairs and replacement sections planned for the outfall structure would restore the original dispersion functionality to comply with the RWQCB5 requirements. It would consist of the originally-designed 36 ports within a constant 18-in diameter HDPE pipe segment that would release treated effluent into Old River at a non-erosive rate while effectively dispersing effluent to dilute concentrations of listed pollutant parameters.

2.4 Project Objectives

1. Restore original operational performance capability to the outfall in order to meet dilution requirements for copper, ammonia, nitrate/nitrite and other parameters listed in the NPDES permit issued by the RWQCB5.
2. Make improvements to the outfall that would facilitate maintenance and improve the operational performance between maintenance cycles.



3. Include a means for flushing sediment trapped within the outfall as it impedes hydraulic performance and reduces effluent dilution effectiveness.
4. Install an onshore valve or coupling connection downstream of the existing Harris syphon breaker to enable operators to isolate the outfall pipeline from the plant.

2.5 Project Description

The TDB's existing wastewater treatment facility consists of two adjacent sites, namely, Plants 1 and 2. Plant 1 is in the southeast corner of the Town of Discovery Bay, north of State Highway 4. Surrounding the plant are single-family homes and a golf course to the north and west, the Contra Costa County RD-800 drainage canal to the east (across which is open agricultural land), and State Highway 4 to the south (across which is more open agricultural land). The site is nearly flat, between 5 and 10 feet below sea level. Plant 1 consists of a bar screen, a comminutor, an oxidation ditch, two secondary clarifiers, and an emergency storage lagoon. The original capacity of Plant 1 was 1.2 MGD, but modifications in the late 1980's increased its capacity to 1.3 MGD, sufficient to serve 3,979 housing units. The treated effluent from the plant is discharged through a connection to the Old River outfall diffuser structure. The current project proposed no changes for Plant 1.

Plant 2 is diagonally across State Highway 4 from Plant 1. State Highway 4 forms the north boundary of the site, separating it from open agricultural land. The R D-800 drainage canal forms the west and south boundary of the Plant 2 site, separating it from open agricultural land. There is open agricultural land to the east of the plant. The site is nearly flat at about 10 feet below sea level. Plant 2 consists of an oxidation ditch, secondary clarifier with lift station, pump station, ultraviolet disinfection system, modified flow splitter box, and two sludge lagoons. The combined capacity of the two plants is a total of 2.1 MGD at full operational capacity. Treated effluent from the Plant 2 is discharged through the diffuser structure in the Old River. The TDB's NPDES Permit allows for a maximum discharge of 2.35 MGD through the outfall in the Old River.

Per the Outfall Assessment (Worley Assessment) Conclusions and Recommendation, the following conclusions were made:

- Sections of the diffuser appear to be damaged, either partially operating (downstream end of the 10-in segment) or non-operating (6-in segment). Based on the 2017 underwater survey prepared by Bishop Diving & Salvage, the 6-in segment of the diffuser is non-operational with no flow observed in any of its ports. Also, per the underwater survey, the 10-in segment appears to have weak flow at the downstream end. The CCTV camera inspection completed by Subtronic Corporation indicated that a blockage was present at the downstream end of 10-in segment, verifying the flow observations made by the underwater survey.
- The hydraulic assessment completed for the TDB sanitary system (from the lift station to the outfall) indicated that the current system is operating with higher head loss compared to its original design. The assessment indicated that the lift station has to deliver a higher pumping head to convey the design flow through the system. The results showed that to deliver a flow of 3.11 MGD, the lift station requires a pumping head of 19.9 psi, while under normal conditions the expected pumping head should be approximately 15 psi. The higher-pressure head is attributed to obstruction observed in the outfall structure and higher friction losses through remaining the remaining operable Tideflex valve



ports. The increased head losses are consistent with the findings observed during the 2017 underwater survey and CCTV camera inspection.

- To improve the overall system performance, the existing outfall should be repaired and upgraded.

2.5.1 Staging Areas

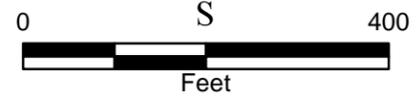
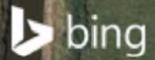
During construction, Town of Discovery Bay (Town) has determined all offsite activity including construction planning and preparation, materials and equipment storage, tooling, and commissioning activities will be done within the fenced perimeter of the Town's wastewater treatment plant facility located near the construction area (Figure 4).

The temporary staging area is now used daily by the treatment plant operators for routine operations and maintenance and this usage has not changed since the original diffuser facility was installed. This site will be managed daily for traffic mitigation, dust and access control, as well as storm water management under the existing operation Storm Water Pollution Prevention Plan and Spill Prevention Control and Countermeasures Plan.

This will eliminate surface and ground activities and thereby minimize all potential impacts to terrestrial biological resources. This planning procedure obviates the necessity to conduct a floristic survey under the protocol indicated as the land usage will be confined to currently disturbed service roads/access areas used during normal maintenance activities.



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 Distribution Airbus DS. CA DWR, RC Slade (Approximate Santa
 Monica Sub Units). All locations approximate



DISCOVERY BAY
 CONTRA COSTA COUNTY, CA



DISCOVERY BAY STAGING AREA		SWL	SB	4/24/2020
		308010-00221		4



2.5.2 Construction of Outfall and Diffuser Repairs and Upgrades

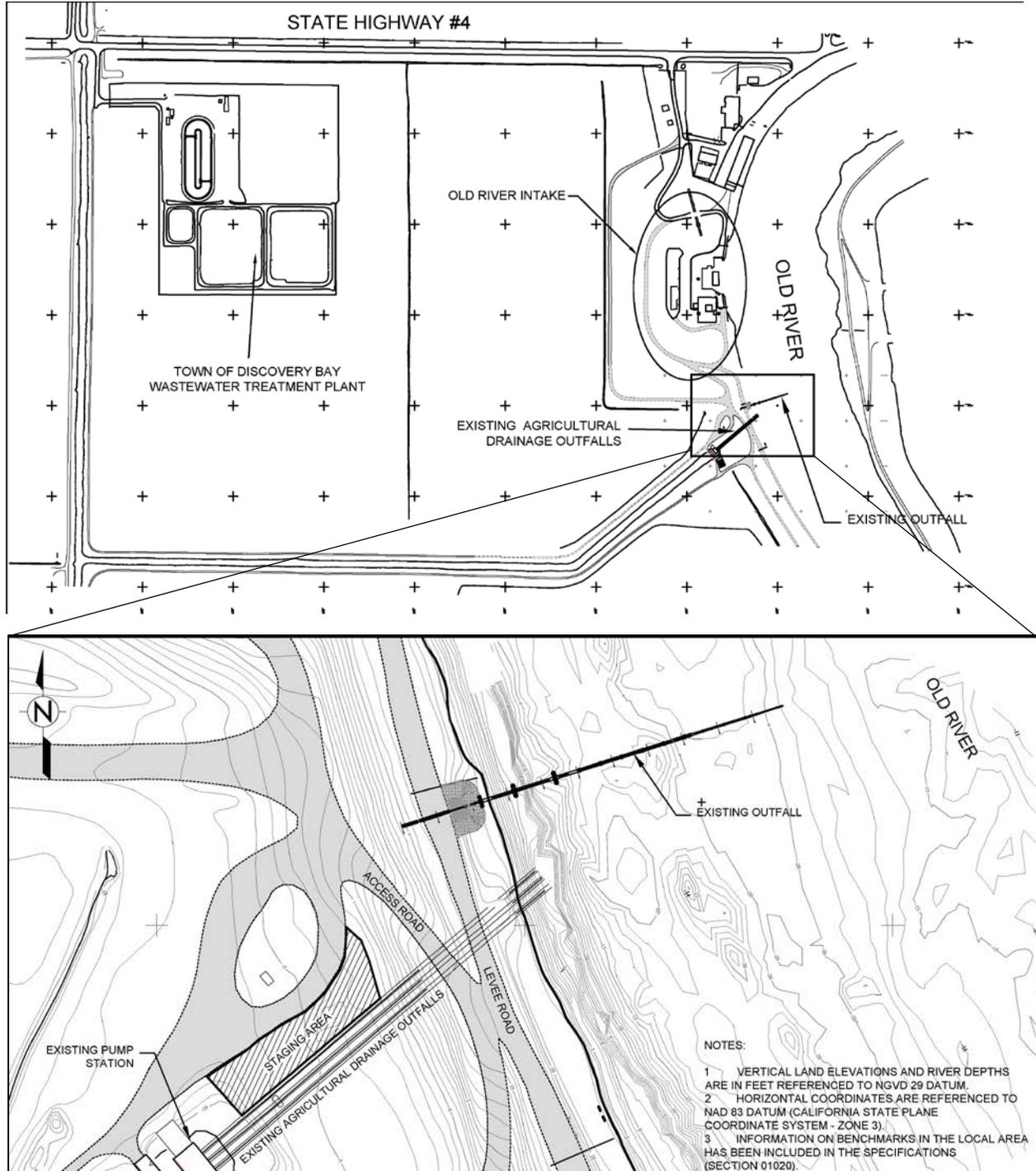
The outfall replacement and diffuser upgrades include removing the 10-in and 6-in HDPE segments and replacing them with a continuous 18-in segment of the same combined length. This structure will then have a constant 18-inch diameter throughout its entire length and still contain 36 ports. Tasks associated with this design include the following:

- Prepare a dispersion model to validate the constant-diameter design as meeting or exceeding dilution goals for pollutant parameters listed in the NPDES Permit No. CA0078590.
- Excavate trench in riverbed to uncover the 10-in and 6-in diffuser pipe segments.
- Remove the 10-in and 6-in sections from existing structure, leaving the original 18-in segment installed in riverbed.
- Construct replacement segment(s) in shop consisting of 18-in diameter HDPE pipe.
- Install replacement segment(s) in riverbed trench, bolt to original 18-in segment.
- Backfill trench covering new pipe segment(s) with granular material, per original design.

The replacement segment(s) would be assembled onshore within the staging area and installed by divers working from a barge. There would be some suction dredging required to remove previously installed granular material in order to remove the 10-in and 6-in segments from the existing structure. Approximately 20 to 25 cubic yards of settled material, including silt, sands, gravel and other native fill, would need to be removed from the existing trench and then replaced when the new structure is placed. Crews will not need a cofferdam or turbidity curtain, as they are not applicable for this site. The use of a suction dredge will help reduce turbidity during dredging as opposed to a clamshell-type dredge. The granular material is of small enough diameter (4 to 6-inches) to be handled by suction dredge.



Figure 5 Outfall Design and Schematic





2.5.3 Signage

Signs will be posted notifying visitors of construction activities/schedule with regards to public safety, access, and any related facility closures or road detours.

2.6 Project Implementation

Construction work is projected to start on or soon after September 15, 2020, and continue for approximately 2-3 weeks, to be completed by November 30, 2020. Work would occur only during daylight hours and not during weekends or on State Holidays in order to avoid unnecessary impact; however, weekend or holiday work could be implemented to address emergencies or unforeseen circumstances impacting construction or delays in the mobilization schedule to ensure completion within the September 15 to November 30, 2020 window.

Heavy equipment, such as a water barge, loader, compressor, and suction dredge will be used during construction. All equipment would be staged and stored at the construction staging area identified in Figure 4, transported to the barge and be mobilized from the barge. Transport vehicles for material, equipment delivery trucks, and crew vehicles would also be present intermittently at the staging location as activities associated with transfer of construction material from the wastewater treatment plant to barges will be conducted within the fenced perimeter of the wastewater treatment plant. Barges will be launched at a public boat launch site, thereby eliminating the need for equipment transfer at a shoreline access point. The equipment transfer process would occur two or three times over a two-week period and would be consistent with normal maintenance activities at the site. All Project construction activities will occur within the Old River and removal and installation activities of the rework will occur on the riverbed.

Best Management Practices (BMPs) will continue to be incorporated into this project design to ensure that the natural and cultural resources in and around the Project area are adequately protected during and after construction. The BMPs discussed in this document and used in the implementation of this Project were obtained from the California Stormwater Quality Association (CSQA), Stormwater Best Management Practices Construction Handbook. Temporary BMPs will be used to keep dredge material including sediment on the barge or within the staging area as necessary, throughout the duration of the project; during construction, BMPs will be checked weekly, maintained, and modified as needed. The disposal of the suction dredge effluent will be pumped to shore and released over open land so as not to contribute turbidity to ambient river water. The dredge effluent will be discharged in a manner that would not cause or aggravate erosion.

The Town of Discovery Bay has consistently referenced CSQA BMPs and has identified them as an acceptable standard for use in all project planning.

2.7 Involved Public Agencies and Required Approvals

TDB received the following regulatory approvals during initial construction of the outfall diffuser structure:



2.7.1 Mitigated Negative Declaration (MND)

Authority: California Environmental Quality Act.

TDB filed a Mitigated Negative Declaration (MND), State Clearinghouse No. 2003072160, in support of their Discovery Bay Wastewater Treatment Plant Upgrade Project, which included completing the following components of the system on land adjacent to the site: solar drying facilities, an export pump station, emergency storage lagoon, pipeline and outfall. The California State Lands Commission and the California Department of Fish and Wildlife reviewed the MND as responsible agencies and filed Notices of Determination, indicating that the Project will not have a significant effect on the environment and that mitigation measures were made as a condition to the Project.

2.7.2 California State Lands Commission Lease

Authority: California Code of Regulations, Title 2, Chapter 1 State Lands Commission.

A CSLC lease is required whenever a project is built upon the State's natural, navigable waterways, and tide and submerged lands, including those adjacent to the coast and offshore islands of the State from the ordinary high-water mark extending out to three geographic miles offshore. Since the outfall diffuser rests on the riverbed below the ordinary high-water mark, a land lease application was prepared concurrently with the filing of the MND. TDB received CSLC land lease No. PRC 8547.9 issued 11/5/2004 for the construction of the outfall structure on the riverbed of the Old River.

2.7.3 US Army Corps of Engineers Regulatory Division, Nationwide Permits (NWP)

Authorities:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- Section 404 of the Clean Water Act (33 U.S.C. 1344)

TDB applied for a USACE Nationwide Permit No. 7 (Outfall Structures and Associated Intake Structures), which was received on June 17, 2004. The TDB also received their Section 401 Clean Water Certification (WDID # 5B07CR00032) on July 22, 2004, which was a mandatory condition of the NWP7, prior to beginning construction.

2.7.4 Lake and Streambed Alteration Permit (LSA Permit)

Authority: California Fish and Game Code section 1602

Section 1602 requires an entity to notify the California Department of Fish and Wildlife (CDFW) prior to commencing any activity that may:

- Substantially divert or obstruct the natural flow of any river, stream or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or



- Deposit debris, waste or other materials that could pass into any river, stream or lake.

A Lake or Streambed Alteration (LSA) permit application was prepared and submitted to CDFW concurrently with the filing of the original MND. TDB received LSA permit No. 1600-2004-0047-04 issued 7/15/2004 from CDFW prior to construction of the outfall structure.

2.7.5 National Pollutant Discharge Elimination System (NPDES) Permit

Authority: The National Pollutant Discharge Elimination System (NPDES) program is a federal program, under the Clean Water Act, that has been delegated to the State of California for implementation through the State Water Resources Control Board and the nine Regional Water Quality Control Boards.

TDB received NPDES Permit No. 2003072160 prior to construction of the outfall diffuser. The permit describes the basic configuration of the facility as it discharges to Old River via an outfall diffuser that ensures rapid mixing in the receiving water. The diffuser is 123-feet long with 36 ports (2-inch diameter ports, spaced 3 feet on center). TDB's NPDES permit was initially approved by the Regional Water Quality Control Board, Region 5, Central Valley Region (RWQCB5) and was renewed in 2014 as Permit No. CA0078590.

2.8 Effect of The Regulatory Approvals on Upgrade/Repair Options – General Comments

2.8.1 NPDES Permit - Regional Water Quality Control Board, Region 5

The NPDES permit includes a basic description of the configuration of the outfall diffuser. The diffuser is designed to achieve dilution goals for copper and temperature specific to the Basin Plan. The outfall is located approximately two miles upstream of Clifton Court, where the California Department of Water Resources and the United States Bureau of Reclamation each operate large export pumping plants for the State Water Project and the Central Valley Project, respectively. Some of the exported water is diverted and treated for drinking water by State and federal water contractors. RWQCB5 is very much aware of the outfall's proximity to the export pumping stations and requires strict monitoring and reporting of water quality parameters in order to maintain the NPDES permit. A significant alteration to the as-permitted diffuser configuration will trigger a permit review by the RWQCB5 and compel TDB to undertake hydraulic model studies of the new diffuser configuration to ensure that dilution requirements comply with the Basin Plan.

2.8.2 Nationwide Permits (NWP) – US Army Corps of Engineers

Projects constructed in waters of the United States involving minor dredging (less than 25 cubic yards) require an NWP19-Minor Dredging. Outfall construction for effluent discharges in waters of the USA requires an NWP7-Outfall Structures. Maintenance of previously authorized structures installed in waters of the USA requires an NWP3-Maintenance. Periodic maintenance to the outfall diffuser structure involving flushing of sediment, trench excavation, and backfill with granular material would fall under NWP3 and NWP19.



Construction of a replacement outfall structure resting on the riverbed will require a new NWP7 application and new Section 401 Clean Water Certification. The USACE Regulatory Division permitting process takes approximately six to twelve months from the date of application submittal to permit issuance. The TDB intends to file applications for the NWP7 and Section 401 Clean Water Certification when this Mitigated Negative Declaration Document has been adopted by the TDB's Board.

2.8.3 Land Lease – California State Lands Commission

Project options having a footprint on the riverbed greater than the existing footprint would trigger consultation with CSLC and a revision to the lease. Advisian consulted with the CSLC and was advised to prepare an update of the original land lease to show the revised configuration of the outfall and construction methodology planned. Advisian plans no changes to the existing lease footprint due to this Project, however the CSLC expects to be fully apprised of proposed activity within the previously leased area. Advisian will prepare a revised lease application to accomplish this update.

2.8.4 Lake and Streambed Alteration Permit – California Dept. of Fish & Wildlife

A new LSA permit will be needed since the Project involves excavation trenching, placement of granular backfill material in the trench within the riverbed. In consultation with CDFW, this Mitigated Negative Declaration document will be included after adoption by the TDB's Board.

2.8.4.1 Periodic Maintenance

Maintenance work on the structure would be required to keep the system operating as intended in the permits. The regulatory agencies expect TDB to perform periodic maintenance to ensure optimal hydraulic performance of the diffuser system. Maintenance involving little or no changes to the diffuser's structural configuration would be covered under the USACE's NWP7 and CDFW's LSA permit if maintenance was limited to repairing broken Tideflex risers and sediment flushing into the receiving water body. No new permits would be needed if the flushing operation included capturing and diverting the flush effluent into an onshore holding tank where it could be properly disposed.



3 Environmental Checklist (Environmental Setting, Impacts, and Mitigation Measures)

PROJECT INFORMATION

1. Project Title: Town of Discovery Bay Diffuser Outfall Replacement
2. Lead Agency Name & Address: Town of Discovery Bay
3. Contact Person & Phone Number: Aaron Goldsworthy, (925) 634-1131
4. Project Location: 17001 State Highway 4, Discovery Bay, Adjacent to the west levee (left river bank) and south of the Contra Costa Water District (CCWD) Los Vaqueros Pump Station
5. Project Sponsor Name & Address:
 Town of Discovery Bay
 Community Services District
 1800 Willow Lake Road
 Discovery Bay, CA 94505-9376
6. General Plan Designation: Old River Stream Zone;
7. Zoning/Classification: Stream Zone
8. Description of Project: Refer to Chapter 2, Section 5
9. Approval Required from Other Public Agencies: No

1. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project but would be mitigated to a less-than-significant level with implementation of recommended mitigation measures, as indicated by items marked "Potentially Significant Unless Mitigation Incorporated" within the checklist on the following pages.

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |



DETERMINATION	
On the basis of this initial evaluation:	
I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
I find that, although the original scope of the proposed project COULD have had a significant effect on the environment, there WILL NOT be a significant effect because revisions/mitigations to the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.	<input checked="" type="checkbox"/>
I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT or its functional equivalent will be prepared.	<input type="checkbox"/>
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment. However, at least one impact has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis, as described in the report's attachments. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the impacts not sufficiently addressed in previous documents.	<input type="checkbox"/>
I find that, although the proposed project could have had a significant effect on the environment, because all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration, pursuant to applicable standards, and have been avoided or mitigated, pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required.	<input type="checkbox"/>
_____	_____
Environmental Coordinator	Date



EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers, except "No Impact", that are adequately supported by the information sources cited. A "No Impact" answer is adequately supported if the referenced information sources show that the impact does not apply to the project being evaluated (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on general or project-specific factors (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must consider the whole of the project-related effects, both direct and indirect, including off-site, cumulative, construction, and operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether that impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate when there is sufficient evidence that a substantial or potentially substantial adverse change may occur in any of the physical conditions within the area affected by the project that cannot be mitigated below a level of significance. If there are one or more "Potentially Significant Impact" entries, an Environmental Impact Report (EIR) is required.
4. A "Mitigated Negative Declaration" (Negative Declaration: Less Than Significant with Mitigation Incorporated) applies where the incorporation of mitigation measures, prior to declaration of project approval, has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact with Mitigation." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
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 (including a General Plan) or Negative Declaration [CCR, Guidelines for the Implementation of CEQA, § 15063(c)(3)(D)]. References to an earlier analysis should:
 - a) Identify the earlier analysis and state where it is available for review.
 - b) Indicate which effects from the environmental checklist were adequately analyzed in the earlier document, pursuant to applicable legal standards, and whether these effects were adequately addressed by mitigation measures included in that analysis.
 - c) Describe the mitigation measures in this document that were incorporated or refined from the earlier document and indicate to what extent they address site-specific conditions for this project.
6. Lead agencies are encouraged to incorporate references to information sources for potential impacts into the checklist or appendix (e.g., general plans, zoning ordinances, biological assessments). Reference to a previously prepared or outside document should include an indication of the page or pages where the statement is substantiated.
7. A source list should be appended to this document. Sources used, or individuals contacted should be listed in the source list and cited in the discussion.
8. Explanation(s) of each issue should identify:
 - a) the criteria or threshold, if any, used to evaluate the significance of the impact addressed by each question **and**
 - b) the mitigation measures, if any, prescribed to reduce the impact below the level of significance.



3.1 Evaluation of Environmental Impacts

This section identifies the environmental impacts of this project by answering questions from Appendix G of the CEQA Guidelines, the Environmental Checklist Form. The environmental issues evaluated in this chapter include:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biology
- Cultural Resources
- Geology
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use Planning
- Mandatory Findings of Significance
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Services Systems

All analyses take account the entire 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. Impacts are categorized as follows:

Potentially Significant Impact is appropriate if there is substantial evidence that an effect is significant, or where the established threshold has been exceeded. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR may be required.

Less Than Significant with Mitigation Incorporated applies where the incorporation of mitigation measures would reduce an effect from Potentially Significant Impact to a Less Than Significant Impact. Mitigation measures are prescribed to reduce the effect to a less than significant level.



Less Than Significant applies when the Project will affect or is affected by the environment, but based on sources cited in the report, the impact will not have an adverse effect. For the purpose of this report, beneficial impacts are also identified as less than significant. The benefit is identified in the discussion of impacts, which follows each checklist category.

A No Impact answer is adequately supported if referenced information sources show that the impact simply does not apply to projects like the one involved. A No Impact Answer is explained where it is based on project-specific factors as well as general standards.

3.2 Aesthetics.

3.2.1 Environmental Setting

The Project site is south of State Highway 4, which is designated as a scenic route by the Transportation Element of the Contra Costa County General Plan (Contra Costa County 2010a), and west of Old River. The existing plant facilities, and the undeveloped current and former agricultural land surrounding it, is set several feet below the level of State Highway 4 and at least 300 feet from the highway. The Plant site contains low buildings, open steel-beam superstructures and light standards surrounded by a chain-link fence. The surrounding agricultural fields are nearly level.

Landscape elements in the Project area consist of agricultural fields to the south and west, single-family residences to the northwest, largely concealed by a masonry sound wall and the Old River levee to the east. Vistas are expansive in most directions with distant views of Mt. Diablo and its foothills to the west beyond the raised levees surrounding the Project site. Immediate views to the north, south and west sides along the Project area vary from open agricultural fields, fences and utility lines to common landscape trees and homes that are set back at various distances from State Highway 4 (Federal Highway Administration 2006). Views to the east are limited by the Old River levee, but trees, utility lines, the superstructure of the State Highway 4 bridge across the river, and the existing RD-800 pumping station can be seen above the levee.

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?				<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings?				<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				<input checked="" type="checkbox"/>



Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				☒

3.2.2 Discussion

Item a)

Neither existing distant nor immediate views would be affected by the Project because all of the elements would be at or below ground level. Additionally, as this project replaces existing facilities in the same location, there are not additional aesthetic impacts than the existing facilities have previously produced. The Project would not have the potential to affect scenic views adversely in the State Highway 4 scenic corridor, and impacts would be less than significant.

Item b)

The Project site contains no scenic resources such as rock outcroppings, or historic buildings. No trees would be removed as part of the Project. Consequently, damage to the scenic resources is not considered an impact of the Project.

Item c)

The visual character of the existing wastewater treatment plant would not be altered by the proposed replacement project. Most of the area surrounding the Project site has been designated for agriculture, recreation and infrastructure in the Contra Costa County General Plan Land Use Element (Contra Costa County 2010b). Consequently, adverse effects on the existing visual character of the Project area are not considered an impact of the Project.

Item d)

Security lighting is an integral part of the existing Plant facilities, and these improvements will remain. The lighting standards are mounted as low as is compatible with maintaining a secure site. These lighting standards would not be changed as part of the Project design, and therefore no alteration of the current lighting conditions will occur. Because reflective materials would not be used in the construction of the outfall replacement, glare is not a significant impact and the Project would have a less-than-significant effect on day or night-time views in the area (CBSC 2019).



3.3 Agricultural Resources

3.3.1 Environmental Setting

In determining whether impacts to agricultural resources are significant environmental effects, the lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation (CDC 1997) as an optional model to use in assessing impacts on agriculture and farmland.

No agricultural resources exist within the Project (CDC 2003).

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) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use				☒

3.3.2 Discussion

Items a) through c)

No farmlands exist within or immediately adjacent to Discovery Bay Diffuser Outfall.

The 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 upgrades to the existing permitted facilities. 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, implementation of the outfall replacement Project would result in a less than significant agricultural impact. No mitigation measures would be required.



3.4 Air Quality

3.4.1 Environmental Setting

The United States Environmental Protection Agency (EPA) has set National Ambient Air Quality Standards (NAAQS) for ozone, nitrogen dioxide, carbon monoxide (CO), sulfur dioxide, respirable particulate matter (PM10 and PM2.5), 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 Project 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 and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Standards	California Standards
		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/m ³)
	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 (PM _{2.5}) ^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/m ³ = milligrams per cubic meter µg/m ³ = micrograms per cubic meter			

Source: CARB 2017

- 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. (Environmental Protection Agency. 2008.)



e On October 15, 2008, EPA strengthened the lead standard. (Environmental Protection Agency. 2008.)

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 "nonattainment" 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 do 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, PM10, 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 http://www.baaqmd.gov/planning.htm		

As required by the CCAA, the BAAQMD has published its 2001 Air Quality Attainment Plan (BAAQMD 2001), which addresses requirements to bring the District into compliance with the federal and state ambient air quality standards. The Bay Area 2005 Ozone Strategy (BAAQMD 2005) 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 PM_{2.5}, 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 were 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. O₃ and PM₁₀ are expected to be representative of the Project site, due to the regional nature of these pollutants. The monitoring data are not a good representation of expected carbon monoxide levels for the Project area, as it is rapidly dispersed and primarily a local concern.

The BAAQMD recommends quantification of construction emissions for land development projects or roadway construction projects; the proposed outfall replacement Project, however, falls outside the scope



of those types of developments. Therefore, the construction emissions for the proposed outfall replacement Project will not be quantified. Instead, Best Management Practices including fugitive dust control measures would be implemented (BMP 2). As described under Avoidance, Minimization, Mitigation Measure – Air Quality, 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.

Standard project requirements/BMPs for air quality during construction shall be incorporated and followed.

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 or regulation?			<input checked="" type="checkbox"/>	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations (e.g., children, the elderly, individuals with compromised respiratory or immune systems)?				<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?				<input checked="" type="checkbox"/>



3.4.2 Impact Analysis

Potential air quality impacts are assessed for both construction and operational phases of the outfall replacement Project. The construction phase will include material distribution, material disturbance, dredging, trucking and transport, installation, and testing of the outfall. Operations emissions will not create pollutants to affect ozone and particulates.

Throughout construction, employee trips are generated from commute trips to and from the barge or, 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 equipment, are used onboard the barge construction site. Emissions from mobile construction equipment such as loader and dump trucks constitute the primary components of construction emissions. Construction Emissions would not exceed the BAAQMD's thresholds because the Project will implement BMP 2 to reduce fugitive dust management emissions.

3.4.3 Discussion

Items a) through c)

The Project would result in air emissions during the construction process. Construction emissions for all construction aspects 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 significant given the non-existent emissions levels post installation. Therefore, 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.

Item d)

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. A mobile diesel generator(s) would be sufficient to meet emergency power needs at the Project site. The emergency use of a backup generator would not exceed air toxics thresholds and potential impacts to sensitive receptors would be less than significant. No mitigation measures would be necessary.

Item e)

The Project will not create objectionable odors affecting a substantial number of people.



AVOIDANCE, MINIMIZATION, MITIGATION MEASURES - AIR QUALITY (AQ)
AQ BMP-1: Standard construction protocols for dust control during construction and demolition shall be implemented. These protocols shall be included within the Storm Water Plan. The State’s Representative and/or State Natural Resources Specialist will periodically inspect the work area to ensure that construction-related activities do not generate excessive amounts of dust or cause other related air quality disturbances.
AQ BMP-2: Idling of vehicles shall be minimized to the maximum extent practicable.
AQ BMP-3: All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
AQ BMP-4: All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
AQ BMP-5: All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
AQ BMP-6: All vehicle speeds on unpaved roads shall be limited to 15 mph.
AQ BMP-7: All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified visible emissions evaluator.
AQ BMP-8: Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.

3.5 Biological Resources

3.5.1 Environmental Setting

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 modification, on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or		☒		



Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
by the California Department of Fish and Game or the 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, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?			☒	
c) Have a substantial adverse effect on federally protected wetlands, as defined by §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?				☒



3.5.2 Discussion

Item a)

Information developed for a Notification of Lake or Streambed Alteration for the Town of Discovery Bay as required by the CDFW (and in turn, required by CEQA) was used to facilitate an assessment of species which could be affected by the Project. The information was developed on behalf of the Town of Discovery Bay Notice of the Intent to Adopt a Mitigated Negative Declaration (MND) in 2003 (Town of Discovery Bay 2003) for the completion of a wastewater treatment plant upgrade (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004). The checklist for biological resources requires the evaluation of whether the Project would have significant impacts on threatened or endangered, candidate, sensitive or special status species (sensitive species) as designated by the California Department of Fish and Game and/or the U.S. Fish and Wildlife Service in administering the Endangered Species Act. This evaluation was carried out and the potential for such species to be affected significantly or not by the Project was documented. In addition, the list of sensitive species with potential to occur in the Project area was updated with the current listing to document species' status and secondly, to determine if species have been added or removed from the listing, or the status has changed.

Plants – According to the California Natural Diversity Database (CNDDDB; CDFW 2019), sixteen species of sensitive plants and their habitats have potential to occur within the U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Woodward Island) that encompass the area of the Project site. Field surveys conducted in 2003 did not observe any of these species in the vicinity of the Project (Moore 2003). The levees and ditches of the area primarily contain annual grass species and the area is routinely mowed and disked for weed control, and native grassland vegetation that could support sensitive species is not present (Sadler 2019). Furthermore, the river levee is lined with rip-rap and does not support contiguous vegetation (Figure 3). Thus, because adequate habitat does not occur to support such plants, the Project will not impact these species.

Invertebrates – Two sensitive species of invertebrates are reported for the area in general (CDFW 2019) and include: curved-foot hygrotus diving beetle (*Hygrotus curvipes*) and vernal pool fairy shrimp (*Branchinecta lynchi*). The curved-foot hygrotus diving beetle was designated by the US Fish and Wildlife Service (USFWS) as a candidate for listing in 1994. (<http://ecos.fws.gov/ecoO/profile/speciesProfile?spcode=106J>). The vernal pool fairy shrimp was listed by the USFWS as threatened in 1994 and critical habitat designated in 2003 (<http://.fws.gov/oregonfws/articles.cfm?id=149489448>). Habitat of these species include temporary pools, vernal pools, and freshwater wetlands. Because such habitats do not occur in or are not associated with the Project area, the Project would have no impact on these species.

Vertebrates – Twelve sensitive wildlife species are reported in the CNDDDB for the USGS quadrangle map (Woodward Island 7.5-minute topographic map) that contains the Project area.



These include four bird species and the potential for several reptiles and amphibians, several fish species, and a mammal (San Joaquin kit fox) to occur in the area. The potential for these species to be affected by the Project is evaluated on the basis of distribution, habitats, and field surveys that were conducted in 2003 (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004).

Birds – Four species of birds (Swainson’s hawk, white-tailed kite, burrowing owl, and horned lark) have potential to occur in the vicinity of the Project area. Swainson’s hawk (*Buteo swainsoni*), a state-threatened species, commonly nest in trees along riparian corridors as well as other large trees near foraging habitat. A cottonwood tree occurs approximately 0.50 to 0.75 mile from the Project site. This tree could provide nesting and/or perching habitat. No nests were observed in this tree in March 25, 2020 by Town of Discovery Bay maintenance staff. A nest site that was active in 2018 occurs approximately 5 miles northwest of the Project site along Balfour Road (East County Today 2018). The grasslands of the Project area provide foraging habitat for Swainson’s hawks, and the cottonwood tree observed along the RD-800 drainage canal approximately 0.50 to 0.75 miles away from the Project site could provide a suitable perching site for these activities (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004). However, maintenance activities for the current treatment facility have curtailed grassland habitat in the vicinity of the site, and moreover, there is an abundance of grasslands in the area in general, and construction work would be unlikely to adversely affect this species.

White-tailed kite (*Elanus leucurus*) is a federal species of special concern and also fully protected by the California Department of Fish and Wildlife (CDWG). The data on breeding sites of white-tailed kites from Contra Costa County Breeding Bird Atlas indicated confirmed breeding status west of the Project area. These data are reported on a relatively coarse, township-reporting unit and from 1998. White-tailed kites forage across grasslands and shrub vegetation and use a variety of trees with a dense lower strata tree or shrub canopy for nesting, along with an abundance of nearby prey. Suitable nesting habitat does not occur in the vicinity of the Project area, although foraging habitat is present. However, such habitat is not restricted in this area, and construction of the Project is not anticipated to affect this species by limiting foraging areas.

This species usually nests in broad-leafed deciduous trees adjacent to riparian habitat near open areas and in stands of oaks in oak woodland habitat, but more often in single, isolated trees in large stands or in larger shrubs (Davis, C.L. 2014. White-tailed Kite, Spector of the California Skies. San Francisco Bay National Wildlife Refuge Complex. Vol. 37, No. 4). Thus, the cottonwood tree along the RD-800 drainage canal could serve as a suitable nest site, however, no nest sites were observed in this tree on March 25, 2020 by Town of Discovery Bay maintenance staff. To ensure avoidance and any nesting impacts to white-tailed kite, the Project schedule has been changed to occur after September 15.



The staging area and preparation of materials and equipment needed for the Project will be conducted within the fenced perimeter of the Town's wastewater treatment plant. The construction material would be moved from the wastewater treatment plant to barges over a period of several days, but this activity would be consistent with normal daily maintenance activities at the site using existing service roads. Employing this offsite staging and planning method will eliminate any potential impact of restriction or disruption of white-tailed kites from potential hunting in grassland areas that occur on the area surrounding the Project site.

Burrowing owls (*Athene cunicularia*), a CDFW species of special concern, have been reported to occur in the southwestern part of the Project site. However, during the site surveys conducted in February and May in 2003, no owls were observed and there were no signs that the burrows of this area were being used (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004). Moreover, maintenance activities that have included disking and mowing the site for weed control have reduced the occurrence of California ground squirrels (*Otospermophilus beecheyi*) in this area, which provide burrows for the owls. Maintenance staff have not observed burrowing owls in the vicinity of the Project site (Sadler 2019).

Horned larks (*Eremophila alpestris*) are a CDFW species of special concern and have been confirmed breeding in Contra Costa County. This species was reported in 2003 as breeding immediately adjacent to the western side of the Project site (Breeding Bird Atlas). The CNDDDB (2019) reported two occurrences of this species approximately 6.5 miles south of the Project site in 2002 (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004), but this species is not listed for the area of the Project site and within the area covered by the Woodward Island USGS 7.5-minute map (CDFW 2019). This species nests and forages in open grasslands, with nests constructed in a shallow hollow or depression within a clump of grass or near a shrub. Breeding-nesting generally concludes by late June. Annual disking of the area for weed control reduces the potential of the site to be used for nesting. Additionally, the Project construction schedule, including all requisite commissioning activities, has been designated to start after September 15, 2020 to avoid disturbance to any nearby nesting birds not in the vicinity of the Project as well as employing the offsite staging and planning to eliminate any potential impact to the breeding-nesting or forage habitat of the area surrounding the Project site.

Reptiles and Amphibians – Several sensitive reptile and amphibian species have potential to occur in the vicinity of the Project area. Site surveys conducted in May 2003 located a western pond turtle (*Actinemys [Clemmys] marmorata*) in RD-800 drainage canal near the Project site. Suitable habitat is not present for giant garter snake (*Thamnophis gigas*), California red-legged frog (*Rana draytonii*), or California tiger salamander (*Ambystoma californiense*), which have been noted for the area previously, and moreover, none of these species was observed during 2003 field surveys (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004).



Western pond turtle is a CDFW species of special concern and Federal species of concern (CDFW 2019). Pond turtles typically occur in a wide array of aquatic habitats, including pools of streams and rivers, and in lakes and ponds. Primary habitat requirements include aquatic vegetation and basking sites such as logs or rocks. Nests are excavated in stream and pond margins, usually with south exposures and eggs are laid from March to August (Wildlifeheritage.org. 2019). Suitable habitat occurs in RD-800 drainage canal and along slower-moving water at the edges of Old River (Figure 2). Rip-rap along Old River provide basking sites, but no nesting sites. Construction of a new diffuser would include disturbance in and near water of the Old River, which could disturb any turtles if present in the vicinity and would be considered to be a significant impact depending on the magnitude and number of turtles affected.

Operation of a new diffuser would discharge water into the Old River at a location adjacent to the west levee and south of the CCWD Los Vaqueros Pump Station (Figure 2). According to U.S. Geological Survey gauging station data, Old River flows average 1,824 ft³/second (USGS 2016). However, flows are highly variable because of tides as well as export pumps, and flows measured at Old River at State Highway 4 (nearest to the Project site; Figure 3) vary from a maximum of 3,540 ft³/second to a reverse flow of – 13,500 ft³/second (California Department of Water Resources 2019). Discharge volumes of treated water from the current diffuser were measured during a site visit in December 2017 and resulted in an average flow of 3.11 MGP (WorleyParsons 2018). Treated water input into the Old River upon Project completion is estimated to be 1.1 to 1.6 MGP, although peak flows each day are estimated at 3.38 MGD and flows of up to 5.0 MGD could be expected during wet weather (Harris 2019). Based on the current and predicted flows from the treatment plant, no appreciable increases from the new diffuser are expected upon Project completion. Moreover, the input of treated water is only a small percentage of the total flows of Old River (6.28 ft³/second versus ~1,824 ft³/second or 0.3%, using a conversion factor of 0.53817 MGP = 1 ft³/second).

Fish – Up to eight sensitive fish species may use Old River over the course of the year, primarily as they travel for upstream spawning in the mountain and foothill streams, and again as young fish migrate back to the ocean. Such species include the river lamprey (*Entosphenus [Lampetra] ayresi*), Pacific lamprey (*E. [L.] tridentatus*), and fall and winter run chinook (*Oncorhynchus tshawytscha*) (Federally and state-listed as threatened). These species could be present in the Old River, but only briefly during fall and winter runs. Pacific lamprey migrate to fresh water spawning sites between February and June, and after maturing for several years near spawning sites, drift and swim downstream and emigrate to the ocean between late fall and spring (fws.gov/pacificlamprey/Documents/Fact%20Sheets/111407%20PL%20sheet.pdf.2007). Chinook salmon spawn in summer, but in stream reaches with cold water, although they are a winter-run species (Fisheries.noaa.gov/species/chinook-salmon-protected. 2019).



No suitable spawning habitat occurs in the Project area, and no suitable rearing habitat occurs, especially in rip-rap areas along the banks for young fish as they migrate back to the ocean. There is no habitat in the Project area that would provide long-term residency for these species.

No known populations of green sturgeon (*Acipenser medirostris*) or steelhead (*Oncorhynchus mykiss*) (Federally listed as threatened) occur in the San Joaquin River system, which includes Old River (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004). Sturgeon may rear in the Sacramento-San Joaquin delta, but the distance from the Project area precludes their use of the Old River. Steelhead populations that historically occurred in the San Joaquin River system are thought to be extinct (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004).

Three pelagic (tolerant of fresh and salt or brackish water) fish species of the San Joaquin River system are considered of concern because of population declines. These species include the delta smelt, longfin smelt, and Sacramento splittail.

Delta smelt (*Hypomesus transpacificus*) was listed as threatened in 1993 (CDFW 2007) and elevated to endangered status in 2009 (CDFW 2019), and critical habitat was designated, including all streams in the Project area (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004). For a large part of its life span, this species is tolerant of the mixing zone of fresh and brackish water. Spawning varies from year to year, but generally occurs from late winter (February) to early summer (July), with a core period of April through May. Delta smelt have been observed during CDF&W surveys near Woodward Island on Old River (Moore 2003). This species has not been observed in the area of Discovery Bay however, although suitable spawning habitat occurs within the rivers and sloughs of the area (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004).

Longfin smelt (*Spirinchus thaleichthys*) was listed as threatened under the California Endangered Species Act in 2009 (CDFW 2018). This species occurs in the San Joaquin River system and Sacramento/San Joaquin Delta, using a variety of habitats from near-shore waters to estuaries (Los Vaqueros Reservoir Expansion Project 2017). Spawning peaks from February through April and eggs are released in freshwater over sandy or gravel substrate, rocks and aquatic plants (CDFW 2019). After hatching, juveniles are swept downstream to brackish water. The riprap banks of the Project area in Old River are suitable habitat for spawning, and sampling in the area of the Old River near Woodward Island captured this species in 2002 (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004).

Sacramento splittail (*Pogonichthys macrolepidotus*) was initially listed as threatened in 1999, but was delisted in 2003, with a final determination that listing was not warranted in 2010 (U.S. Fish and Wildlife Service 2017). The change was in accordance with observations that the population was not in a decline and that no threats currently rise to the level of being significant. However, this species remains a California species of concern (CDFW 2019). In any case, this population is



still affected by changes in food sources and water quality, with fluctuations related to increases during wet years and reduced spawning during dry years. However, populations still must be monitored to ensure that declines again do not occur (U.S. Fish and Wildlife Service 2017).

The Sacramento splittail occurs primarily in the San Francisco estuary, although Sacramento splittail have been collected in the Sacramento River and San Joaquin River (LSA Associates, Inc. 2012). The spawning period for this species begins in late January and early February and lasts through July, although most spawning occurs from February through April in flooded vegetation (USFWS 2002). No suitable spawning habitat occurs in the Project area, although adults and juveniles could be present during their movements to and from spawning areas (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004).

Construction of the new diffuser could affect Delta smelt and Sacramento splittail, if they are moving through the area when such work occurs. In addition, longfin smelt could use the rip-rap in the Project area for spawning, and exposed eggs could be affected by construction work. Actions that could affect this species include removal of the old diffuser pipe and trenching to install the new pipeline, both of which would cause sediment that could detrimentally affect eggs. However, the Project is scheduled to start after September 15, 2020 and as the milestone tasks are designated to be completed within 2 weeks, the Project completion will occur prior to November 30, 2020 to comply with all biological resource habitat components including special-status fish species with the Project area. The Project will be in full compliance of the regulations and impact mitigation including the work window of September 15 to November 30 to avoid impacts to Delta smelt, longfin smelt and Chinook salmon. Because of the controlled Project schedule, the Project will not necessitate obtaining California Endangered Species Act (CESA)-listed fish take coverage through an Incidental Take Permit (ITP) issued by CDF&W. As this is a repair to existing facilities in previously impacted areas under previous permitting guidelines and approvals, no additional impact to shallow water habitat for fish species are anticipated.

Operation of the new diffuser would not appreciably change the amount of water entering the Old River, and moreover, fish movements along the banks in slower water would not likely be impeded. Therefore, operation of the Project would have less-than-significant effects to sensitive species.

Mammals - The Project site is outside the range of the federally endangered, state threatened San Joaquin kit fox (*Vulpes macrotis mutica*). The closest known occurrence of this species is approximately 5 miles southwest of the Project site in the foothills of the valley floor, and no dens were observed during field surveys of the Project site in 2002 (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004).

**Item b)**

There is no riparian habitat on the Project site. Additionally, there are no sensitive vegetation communities within the Project area (Moore 2003) and for these reasons, the Project would have no impact on these resources.

Item c)

The Project would include construction of a new discharge structure in the Old River. Part of this structure would be below the Ordinary High-Water Mark (OHWM), which delineates the jurisdictional boundary of the United States Army Corps of Engineers (Corps) under Section 10 of the Rivers and Harbors Act. The discharge structure is below the OHWM and is subject to the Corps jurisdiction, and a permit would be required. The Town of Discovery Bay is required to obtain a permit from the Corps prior to construction work. The banks of Old River are entirely of rip-rap in the Project area and provide none of the habitat functions required for wetlands (Figure 3). Therefore, modification of the existing structure would have a less-than significant effect of federally protected wetlands.

The export pipeline between the plant and Old River would replace the existing line in Old River (Figure 5). No jurisdictional wetlands would be affected by construction work (Figure 3) to install the new pipeline. Therefore, construction of the pipeline would have a less-than-significant effect on wetland resources.

Item d)

The plant site is isolated from adjacent properties and is fenced. The site is bordered on three sides by water (Old River to the east, and RD-800 to the west and south; Figure 2). These channels are defined by steep-sided levees (Figure 3) and in combination with the open water, provides an effective barrier to non-aquatic organisms. State Highway 4 parallels the site on the north, which in combination with the open water, isolates the site from adjacent properties. This site is already fenced and isolated from other possible corridors and would not impede resident or migratory species. The export pipeline would be buried for its entire length and would not block the movement of animals. Pipeline construction would create a temporary barrier to local animals (primarily ground squirrels), but there is abundant habitat outside the pipeline area for these species. For these reasons, the Project would have no impact on wildlife movements or wildlife movement corridors.

Item e)

The Project site is not in any of the Significant Ecological Resource Areas designated in the Contra County General Plan (Contra Costa County Ordinances 2010). Additionally, the Project would not conflict with any of the Vegetation and Wildlife Goals or Policies within the General



Plan. For these reasons, the Project would not conflict with local policies or ordinances and no impact would occur to these resources from the Project.

Item f)

A Habitat Conservation Plan (HCP) was prepared for eastern Contra Costa County to address preserving the rich landscape and rare species that reside in this area (East Contra Costa County Habitat Conservancy 2019). The nearest Project designated for conservation to the Town of Discovery Bay is Kellogg Creek Basin, which is southwest of the town and approximately 2 miles west of the Project area. Therefore, the Project would not pose a threat to any HCP or a Natural Community Conservation Plan.

3.5.3 Proposed Mitigation Measures

The following mitigation measures would need to be implemented to reduce potential impacts to sensitive species from the Project to less-than-significant levels. If subsequent permitting or a resource agency (CDFW, U.S. Fish and Wildlife Service, Corps, Regional Water Quality Board) modifies any of these measures, that modification would take precedent over the measures hereby provided.

AVOIDANCE, MINIMIZATION, MITIGATION MEASURES - BIOLOGICAL RESOURCES (BIO)

BIO 1: Birds: To reduce the potential for the Project to negatively affect sensitive bird species, the following mitigation measures shall be implemented as part of the Project:

Burrowing Owls – Burrowing owls have occurred in the southwestern part of the Project site (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004). Thus, the potential for burrowing owls to occur near the site remains. However, maintenance operations to control weeds through disking and mowing have reduced the potential for burrows to occur on the Project site, and this species has not recently been observed by treatment-plant maintenance personnel (Sadler 2019). If burrowing owls are not observed within 150 meters of the construction area, no mitigation measures are required. Conversely, if owls are observed within this area, the following measures, as specified by the CDFW (2012), shall be followed:

- All occupied burrows should be avoided, and disturbance should not occur within 50 meters (160 feet) during the non-breeding season (September 1 through January 31) or within 200 meters (655 feet) during the breeding season (February 1 through August 31). By initiating the Project after September 15, impacts to burrowing owls during the breeding season will be avoided.
- **Horned Lark** – Maintenance activities, including disking and mowing, that have reduced vegetation stature on the site reduce the potential for horned larks to nest in the vicinity of the Project site. Moreover, if no vegetation removal would occur as part of the Project, and especially during the nesting period (February 1 through August 31), then no effects would



be anticipated. Because of the lack of nesting habitat and the lack of vegetation removal by the Project, impacts from the Project to horned larks would be less-than-significant. Moreover, by initiating the Project after September 15, impacts to horned larks during the breeding season will be avoided.

BIO 2: Western Pond Turtle – No appreciable changes in water levels from the discharge of treated water into Old River are anticipated and no effects would be expected to western pond turtle use of the area and no mitigation measures are required. Pond turtles would be more likely to use slowly moving water at the river’s edge and areas on the banks for basking. Turtles could wander into construction areas, which could place them at risk. Mitigation measures to reduce potential impacts from construction include:

- Open trenches shall be inspected prior to the start of work each day to ensure that no turtles have entered into the construction zone. Any turtles in such areas, including trenches, shall be removed and placed in the closest downstream-flowing water.
- Prior to the start of work each day at the diffuser structure, the rip-rap shall be inspected to ensure that no turtles are present. Any turtles occurring in this area shall be relocated 100 feet downstream of the construction area.

BIO 3: Fish – Work to remove the old diffuser pipe and install a new diffuser could affect Delta smelt and Sacramento splittail as they move through the area, and the longfin smelt spawning in areas of rip-rap along the banks. Delta smelt spawning habitats also occur in the area of the Project, but this species has not been reported for the area (Moore 2003).

Mitigation Measures to incorporate the in-water work window of September 15 to November 30 avoid impacts to Delta smelt, longfin smelt, and Chinook salmon species and result in less-than-significant levels by reducing the potential for sedimentation to affect fish movements and especially longfin smelt spawning that may occur while removing the old diffuser and in the vicinity of trenching to place the new diffuser. In the event project logistics require work outside of the recommended in-water work window, CDFW recommends inclusion of language defining the Project’s obligation to obtain CESA-listed fish take coverage through an ITP issued by CDFW that would allow for Project-related work to occur outside the restrict work window.

Construction outside of this time period could be considered a significant impact but restricting construction work to occur within this schedule and constricting the trenching work to the shortest period possible (e.g., two weeks) in any case, would help reduce the potential for sediment to negatively affect spawning, including egg maturation and juvenile survival.



BIO 4: Open Trenches - Any open trenches, pits, or holes with a depth larger than one (1) foot shall be covered at the conclusion of work each day with a hard, non-heat conductive material (e.g., plywood). No netting, canvas, or material capable of trapping or ensnaring wildlife shall be used to cover open trenches. If use of a hard cover is not feasible, multiple wildlife escape ramps shall be installed, constructed of wood or installed as an earthen slope, in each open trench, hole, or pit that is capable of allowing large (e.g., deer) and small (e.g., snakes) wildlife to escape on their own accord. Prior to the initiation of construction each day and prior to the covering of the trench at the conclusion of work each day, the Designated Biologist or Qualified Biological Monitor shall inspect the open trench, pit, or whole for wildlife. If wildlife is discovered, it shall be allowed to leave. If wildlife does not leave, and the animal is a State-listed species, consultation is required before work can be initiated

BIO 5: Open Pipes Restriction - All pipes, culverts, hoses, or similar structures that are stored at the construction site, vertically or horizontally, for one or more overnight periods shall be securely capped, screened, or filled with material on both ends prior to storage and thoroughly inspected by a qualified onsite construction monitor, prior to use. All hollow pipes or posts installed as part of the Project and exposed to the environment shall be capped, screened, or filled with material by Permittee prior to the end of the workday in which installation occurs.

3.6 Cultural Resources

3.6.1 Environmental Setting

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?				<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to §15064.5?			<input checked="" type="checkbox"/>	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				<input checked="" type="checkbox"/>



Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?			<input checked="" type="checkbox"/>	

3.6.2 Discussion

Item a)

The Delta Protection Act of 1992 (Public Resources Code 1992) was updated in 2009 to help preserve unique resources and allows the Delta Protection Commission to review projects which may affect unique cultural resources (Delta Protection Commission 2010). Similarly, California Senate Bill 18 was enacted in 2004 to establish consultations between California Native American tribal governments and California local governments in land use planning processes (Los Vaqueros Reservoir Expansion Project 2017).

No archaeological sites were noted for the Project area. This included a review of records for the site earlier, as conducted for the Town of Discovery Bay Notice of the Intent to Adopt a Mitigated Negative Declaration (MND) in 2003 (Town of Discovery Bay 2003), as integrated in the Notification of Lake or Streambed Alteration for the Town of Discovery Bay (2004) and literature on file with the Office of Historic Preservation, Northwest Information Center. This review indicates that the Town of Discovery Bay and the vicinity contain no recorded Native American or historic-period archaeological resources, as listed by the Historical Resources Information System (Haydu 2003). Surveys for the Los Vaqueros Reservoir Expansion Project (2017) indicated that archaeological sites and Native American cultural sites occur in an area approximately 7 miles from the Project site. However, because of the topographical position in relation to preferred locations, and the disturbed nature of the Project area (Figure 3, no historical or pre-historical sites are likely to occur in the vicinity of the Project area. Consequently, the Project would cause no impacts to historic resources.

Item b)

Native American archaeological sites in this area of Contra Costa County tend to be situated near alluvial flats, and near sources of fresh water, including springs (Contra Costa County Sanitation District 1998). The Project site would have low probability to contain prehistoric archaeological sites because of its location in a flat valley plain with no fresh-water sources (Haydu 2003). Although unlikely to occur, there is potential for subsurface archaeological resources to occur and be exposed by excavation. In this case, if such resources are significant according to Section 15064.5 of the CEQA Guidelines, mitigation measures as described in the guidelines would need to be implemented.



Item c)

The surface of the site is a level alluvial plain similar to alluvial areas throughout the Sacramento-San Joaquin valley. Consequently, no unique geological features exist at or near the Project site (Haydu 2003). The alluvial deposits consist of material that has been reworked by the action of rivers in recent geologic history. Consequently, unique paleontological resources are unlikely to occur in this area. As such, the Project would have no impact on geologic or paleontological features.

Item d)

No human remains, including those interred outside of formal cemeteries, are known to occur at or near the Project site (Haydu 2003). A file check with the Native American Heritage Commission revealed that no sacred lands occur on or near the Project area (Pilas-Treadway 2003). Although unlikely to occur, existence of buried human remains could be exhumed during excavation. Thus, project-related ground disturbance may affect previously unknown burials.

3.6.3 Proposed Mitigation Measures

Implementation of the standard mitigation measures (**Mitigation Measure CR-1**) should be part of the Project, pursuant to Section 15064.5(f) of the CEQA Guidelines and Public Resources Code 21082 would reduce potential impacts to unknown archaeological resources to less than significant levels.

Implementation of the standard mitigation measure (**Mitigation Measure CR-2**), which is to be included as part of the Project, pursuant to CEQA Section 15064.5(e) of and Health and Safety Code Section 7050.5, would reduce potential impacts to unknown burials to less-than-significant levels.

AVOIDANCE, MINIMIZATION, MITIGATION MEASURES – CULTURAL RESOURCES (BIO)

CR-1: Cease Construction Work Upon the Discovery of Historic or Archaeological Resources: Evaluate Resources Before Continuing Construction

If potential historic or archaeological resources are discovered during construction, all work should be suspended in the immediate vicinity (within approximately 50 feet) with the objective to avoid altering the material and their context pending a site investigation by a qualified archaeological or cultural resources consultant who should be retained by the project sponsor. Construction work shall not commence again until an opportunity is provided to examine the findings, assess their significance and provide proposals for any additional exploratory measures deemed necessary for further evaluation of and/or mitigation of adverse impacts to any potential historical resources or unique archaeological resources that have been encountered.

If the finding is determined to be an historic or unique archaeological resource, and if avoidance would not be feasible, the archaeological or cultural resources consultant shall prepare a plan for the methodical excavation of the site and resources that would be adversely affected. The plan shall be designed to result in the extraction of sufficient volumes of non-redundant archaeological data to address important regional research considerations. The work shall be performed by the archaeological or cultural resources consultant and shall result in detailed technical reports. Such reports will be submitted to Contra Costa County, the Town of Discovery Bay, and the California Historic Resources



Regional Information Center. Construction in the vicinity of the find shall be accomplished in accordance with current professional standards. The project sponsor shall assure that project personnel are informed that law prohibits collecting significant historic or unique archaeological resources discovered during development of the project. Prehistoric or Native American resources can include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soils containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources can include nails, bottles, or other items occurring in refuse deposits.

CR-2: Cease Work upon the Discovery of Human Remains: Evaluate Remains before Continuing Construction.

In the event of discovery or recognition of any human remains on the project site, the contractor shall contact Contra Costa County Coroner, pursuant to Section 7050.5(b) of the California Health and Safety Code. In this event, there shall be no further excavation or disturbance of the site or any nearby areas reasonably suspected to overlie adjacent remains until the coroner determines the origin of such remains. The coroner, upon recognizing the remains as being of Native American origin, shall contact the Native American Commission within 24 hours of the coroner being notified. No further disturbance of the site may occur except as authorized by the coroner. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, including the designation of a Native American Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for the protection of Native American human remains and skeletal remains from vandalism and inadvertent destruction. To achieve this goal, construction personnel on the project shall be instructed as to both potential for discovery of cultural or human remains, and the need for proper and timely reporting of such finds, and the consequences of failure to do so.

3.7 Geology and Soils

3.7.1 Environmental Setting

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			☒	



Would The Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			<input checked="" type="checkbox"/>	
iii) Seismic-related ground failure including liquefaction?			<input checked="" type="checkbox"/>	
iv) Landslides?				<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
d) Be located on expansive soil, creating substantial risks to life or property?			<input checked="" type="checkbox"/>	
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?				<input checked="" type="checkbox"/>

3.7.2 Discussion

Item a) i)

No known active faults are mapped within the Project area and no faults have been mapped in an Alquist-Priolo Earthquake Fault Zone that trends toward the site (Hart and Bryant 2002). The nearest State of California zoned active faults occur at: the Clayton-Marsh Creek-Greenville fault, which is approximately 13 miles southwest of the Project area; the Pleasanton fault, which is approximately 19 miles to the southwest; the Green Valley-Concord fault, which is 23 miles to the west-northwest of the Project area; and the Calaveras fault, also 23 miles, but west-southwest of the Project site. The Great Valley fault is considered a seismically active thrust fault, but because it does not extend to the ground surface, is not in an Alquist-Priolo Earthquake Fault Zone. The Stockton fault is mapped approximately 9 miles east of



the Project site (Figure 2), but it is concealed by overlying sediments and is not in an Alquist-Priolo Earthquake Fault Zone.

Item a) ii)

Because of the pressure of active faults in the San Francisco Bay area, the Discovery Bay area is considered seismically active (Association of Bay Area Governments 2003). An earthquake of moderate to high magnitude similar to those that have occurred would cause strong groundshaking in the Project area (Modified Mercalli Intensity VII). The design earthquake for the Project area is a Moment Magnitude (Mw) 6.9 earthquake on the Greenville fault (California Geological Survey 1993). Higher magnitude earthquakes could probably occur along such major faults as the Hayward or San Andre (35 and 52 miles west of the Project site, respectively), but these would not cause more intensive groundshaking than Mw 6.9 earthquake on the Greenville fault. Based on historical evidence, it is probable that at least one such earthquake will occur during the life of the proposed facility. The Project would include structural elements, and such, is subject to California Building Code (CBC). Prior to the issuance of a building permit, the CBC requires that appropriate studies be carried to determine the characteristics of groundshaking at the Project site (Ref: California Existing Building Codes 2016a, Chapter 16, Division IV – Earthquake Design, 19). The Town of Discovery Bay must review the groundshaking studies and make recommendations for construction. All recommendations of the Town’s Building Official are required to be incorporated unto the proposed construction plan as a condition of the building permit (California Existing Building Codes 2016b).

Consequently, the requirements of the CBC would reduce potential impacts caused by groundshaking to a less-than-significant level. No mitigation measures are required.

Item a) iii)

Soil conditions in the area are primarily of a fine-grained nature and composed of clay, silt, fine-grained sand, and organic matter (Association of Bay Area Governments 2003, Sims et al. 1973, USGS 2001). These areas may be subject to liquefaction during a seismic event if perched groundwater is present. The water table in the Project vicinity is shallow, being less than 5 feet below the surface, and as shallow as 18 inches below the surface in conjunction with clay-dominated soils. The USGS classifies the liquefaction susceptibility of this area as high. However, the Project area is outside the area evaluated as a risk for liquefaction or landslides (California Geologic Survey 2018). Pursuant CBC, a site-specific analysis must be prepared by a registered engineer specializing in geotechnical assessments for sites lying in potential liquefaction areas (known as soil type SF) to the satisfaction of the Town’s Building Official. Type SF soils include those that are highly expansive (CEBC 1997. Soil Profile Types, Division V, Chapter 16, Section 1636). All recommendations of the Town’s Building Official are required to be incorporated in the proposed construction plans as a condition of the Project grading permit. The Town is then required to monitor grading and initial construction phases on a weekly basis, at a minimum, to ensure that all recommendations of the Town’s Building Official are implemented.

Consequently, the CBC requirements would reduce any potentially significant liquefaction or expansive soil impacts to less-than-significant levels.

**Item a) iv)**

The Project area is nearly level, sloping gently to the east, southeast, and south from approximately 8 feet below sea level to about 10 feet below mean sea level (Contra Costa County Sanitation District 1998). The only substantial slopes in the Project vicinity occur on the levees, which are constructed of compacted soil material at gradients between 3:1 and 5:1, and therefore stable (Figure 3). Because the area is nearly level and not adjacent to unstable slopes, impacts from landslides are negligible.

Based on this analysis, landslides are not considered to be of concern and impacts are not anticipated.

Item b)

Parts of the Project site would be trenched for pipelines (Figure 5). The surface material at the site consists of as much as 5 feet of naturally occurring peat and muck (Kingile muck) (Contra Costa County Community Development Department 1996, CDC 2003, U.S. Department of Agriculture 1977). Unconsolidated, moderately poorly sorted, but rich in organic matter silt and clay occur beneath the peat (mostly Egbert mucky clay loam). The agricultural soils developed on these deposits provide good to fair growth of crops, if properly drained (Section 3.3 Agricultural Resources). In their natural condition, soils are expansive, but are not especially erosion-prone from flowing water because of the nearly level surface. These soils are moderately sensitive to wind erosion if tilled or otherwise exposed to drying. An erosion control plan would be required as part of the Construction Storm Water Pollution Protection Plan (see Section 3.9, Hydrology and Water Quality) to protect excavated soils and stockpiles from wind erosion.

Because the site is separated from Old River and from RD-800 drainage canal by levees (Figure 3) there is little likelihood that soil disrupted during most of the construction work would enter into these waterways. The only work that would be conducted adjacent to a waterway would be the construction of the new outfall and diffuser in Old River (Figure 1). An erosion control plan would be required by the Regional Water Control Board for the construction period. This plan would be prepared as part of the NPDES permit process needed for projects that disturb more than one acre of ground (Section 3.9, Hydrology and Water Quality). For underwater construction of part of the diffuser, the California Department of Fish and Game would require a Fish and Game Code Section 1600 streambed alteration agreement. Both the erosion control plan and the streambed alteration agreement would contain conditions for the protection of the waterways from sedimentation as specified in Section 3.9, Hydrology and Water Quality.

An erosion control measure for earthwork in areas south of State Highway 4 (which describes the earthwork of the Project) must be incorporated into the construction plans, as previously incorporated in the 1998 Initial Study and Mitigated Negative Declaration (Contra Costa County Sanitation District 1998) for the treatment facility. The measure included limiting excavation and filling to the dry season, preparing an erosion and sediment control plan prior to construction, wet-season maintenance, regular inspection during the wet season, and spot inspection following storms. These activities would be continued throughout the construction period of the Project.

Based on this information, substantial soil erosion or loss of topsoil are not considered significant impacts associated with the Project.



Item c)

The Project would not involve permanent withdrawal of groundwater, oil, or natural gas from beneath the site. Therefore, the Project would not contribute to regional subsidence. Structures on the site would have foundation designs incorporating recommendations of existing site-specific geotechnical studies to reduce potential damage from settlement or lateral spreading to an acceptable level (Contra Costa County Community Development Department 1996). See Section 3.7, Item a) iv) regarding landslides not being considered an impact associated with this Project, and Section 3.7, Item a) iii) regarding the potential for liquefaction being reduced to a less than significant level through strict enforcement of building standards by the Town of Discovery Bay.

Based on this information, landslides, lateral spreading, liquefaction or collapse are not considered significant impacts from the Project.

Item d)

The soils of the Project site have high expansion potential, either at the ground surface or within a few feet of the ground surface (Contra Costa County Community Development Department 1996, Contra Costa County 2005). These soils shrink and swell with moisture changes (the critical characteristics of expansive soil) sufficiently to damage pavements, slabs-on-grade, and structures supported on shallow foundations. Structures on the site would have foundation designs incorporating the recommendations of existing site-specific geotechnical studies to reduce the potential for damage from expansive soils to an acceptable level (see Section 3.7, Item a) iii) regarding the potential for damage caused by expansive soils being reduced to a less-than-significant level through strict enforcement of building standards by the Town of Discovery Bay).

Based on this information, soil expansion is considered a less-than-significant impact from construction at this site.

Item e)

The Project does not include septic tanks or on-site disposal of wastewater. Consequently, the capacity of the soils on the Project site to support septic systems is not pertinent.

Based on the above-information, the septic system capacity of on-site soils is not considered an impact associated with the Project.

AVOIDANCE, MINIMIZATION, MITIGATION MEASURES - GEOLOGY & SOILS (GEO)

GEO 1: Erosion Control

- A. Prior to the start of construction, Contractor will prepare a Storm Water Plan for DB approval that identifies the BMPs to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation, grading, or trenching.



B. BMPs must be in place at all times including covering (tarping) any stockpiled materials or soils and by constructing silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and disturbed areas.

3.8 Hazards and Hazardous Materials

3.8.1 Environmental Setting

The California Department of Environmental Protection (CALEPA) has the responsibility for compiling (pursuant to Government Code §65962.5) information on hazardous material sites in California that together comprise the “Cortese” list (CALEPA 2019). A review of this list found the closest identified site to be Discovery Bay West, a school investigation site, located approximately 3.1 miles northwest of the outfall Project.

It is not anticipated that any hazardous materials will be encountered during demolition and excavation of the existing dispersion and outfall facility, which includes silt, native fill, gravel, rock and HDPE piping.

Standard project requirements and BMPs will be followed to prevent accidental spills associated with construction equipment operation, maintenance, and repair.

Would The Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>



Would The Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>

3.8.2 Discussion

Items a) through d)

The Project is not anticipated to transport, use or dispose of any hazardous materials, accidentally release hazardous material, substance or waste, emit or handle hazardous waste within one-quarter mile of an existing or proposed school or be located on a site which is listed as a hazardous material site

Items e) and f)

The Project is not within two miles of a public airport, public use airport or private airstrip. The closest airport is Byron Airport, located approximately 10 miles to the northeast.

Item g)

Neither emergency response plans nor emergency evaluation plans shall be impaired by implementation of the Project.

Item h)

The Project shall not expose people or structures to a significant risk of loss, injury or death from wildland fires.


AVOIDANCE, MINIMIZATION, MITIGATION MEASURES - HAZARDS/HAZARDOUS MATERIALS (HAZ)
HAZ 1: Hazardous Material Spills

- A. Prior to the start of construction, the contractor shall clean all equipment before entering the project site. Equipment shall be cleaned and repaired (other than emergency repairs) outside the project site boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds shall be contained and disposed of outside the boundaries of the site, at a lawfully permitted or authorized destination.
- B. Prior to the start of construction, the contractor shall inspect all equipment for leaks and regularly inspect thereafter until equipment is removed from the project site.
- C. Prior to the start of construction, the designated contractor shall prepare a Spill Prevention and Response Plan (SPRP) to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan shall include (but not be limited to):
 - 1. A map with both primary and secondary containment areas with a listing of BMPs to be used to prevent the accidental release of fluid materials, including concrete.
 - 2. A map that delineates construction staging areas, where refueling, lubrication, and maintenance of equipment will occur.
 - 3. A list of items required in a spill kit on-site that will be maintained throughout the life of the project.

HAZ 2: Fire Safety

- A. Prior to the start of construction, the Project Contractor shall develop an approved Fire Safety Plan. The plan will include the emergency calling procedures for the Local Fire Department.
- B. Spark arrestors or turbo chargers (which eliminate sparks in exhaust) and fire extinguishers will be required for all heavy equipment.

HAZ 3: Worker Safety

Require construction personal to have appropriate training in compliance with 29 CFR, §§1910, et seq. (Occupational Safety and Health Standards), 1926 et seq (Safety and Health Regulations for Construction) and 8 CCR § 5192 (Hazardous Waste Operations and Emergency Response) to protect workers (Occupational Health and Safety, U.S Department of Labor 1993).



3.9 Hydrology and Water Quality

3.9.1 Environmental Setting

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?			<input checked="" type="checkbox"/>	
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)?				<input checked="" type="checkbox"/>
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?			<input checked="" type="checkbox"/>	
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?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				<input checked="" type="checkbox"/>



Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			☒	

3.9.2 Discussion

Item a)

Construction of the proposed outfall replacement will comply with the NPDES General Permit for Storm Water Discharges Associated with Construction Activities (Order No 2009-0009DWQ) (State Water Board 1999). The Clean Water Act prohibits the discharging of pollutants through a point source into a water of the United States without a National Pollutant Discharge Elimination System (NPDES) permit. The permit contains limits on what can be discharged, monitoring and reporting requirements, and other provisions to ensure that the discharge does not hurt water quality or people’s health.

However, during the construction period, there could be a potential for temporary violation of waste discharge requirements. Grading and excavation activities could expose disrupted soils or material stockpiles to wind erosion. Deposition of fine wind-blown particles could degrade water quality of the RD-800 drainage canal and Old River.

An erosion control measure for earthwork in areas south of State Highway 4 was incorporated in the 1998 Initial Study and Mitigated Negative Declaration (Contra Costa County Sanitation District 1998) for the wastewater treatment facilities. The measure included limiting excavation and filling to the dry season, preparing an erosion and sediment control plan prior to construction, wet-season maintenance, regular inspection during the wet season, and spot inspections following severe storms. These activities would be continued throughout the construction period of the Project.

Based on this information, violation of water quality standards or waste discharge requirements are not considered significant impacts associated with this Project.

Item b)

The surface material at the site consists of as much as 5 feet of naturally occurring peat and muck (the Kingpile muck). Beneath the peat is unconsolidated, moderately to poorly sorted silt and clay, and rock in organic material (probably the Egbert mucky clay loam). These soils are of a fine-grained nature, composed of clay, silt, fine grained sand, and as much as 50 percent organic material. Because water does not percolate rapidly through these materials, perched groundwater conditions are present locally throughout the site during the rainy winter months. The water table in the Project vicinity generally is less



than 5 feet below the ground surface and can be as little as 18 inches below the ground surface where particularly clayey soils occur. Consequently, the surface aquifer is not used as a source of potable water or irrigation water. Potable water is provided by wells penetrating to a deep aquifer far below the surface deposits: irrigation water for nearby agricultural operations is supplied from surface water (not groundwater).

Based on this information, substantial depletion of groundwater supplies is not an impact associated with this Project.

Item c)

The Project area is nearly flat, sloping gently east, southeast and south from about 8 feet below mean sea level to about 10 feet below mean sea level. This condition would not be altered by the Project. The construction phase of the Project would entail excavation and removal and replacement of soils and material for the pipeline. This material is currently existing within the Old River but may erode into the RD-800 drainage canal or further downstream of Old River, resulting in potential pollution (turbidity). Temporary impacts (soil erosion and sedimentation) associated with construction activities would be controlled by the design and implementation of the required erosion and sediment control plan described in Section 3.9, Item a) above.

Based on this information, alteration of the existing drainage pattern of the site and substantial erosion or siltation on or off-site are not considered a potential impact to this Project.

Item d)

The Project area is nearly flat, sloping gently east, southeast and south from about 8 feet below mean sea level to about 10 feet below mean sea level. This condition would not be altered by the Project. Because the staging site is separated from Old River and from the RD-800 drainage canals by levees, there is little likelihood that soil disrupted during most of the Project construction would be washed into these waterways. The planned activities of this Project would not generate additional uncontrolled runoff.

Based on this, no alteration of the existing drainage pattern of the site is planned to result in any increase in the rate or amount or surface runoff in a manner which could cause on – or off-site flooding and this is not considered an impact associated with this Project.

Item e)

No changes are planned in the design of the construction staging areas, nor to the treatment process that would add new sources of pollution to surface runoff. The Project of the outfall replacement will not require drainage facilities or containment nor alter the current drainage patterns.

Based on this information, stormwater treatment capacity and additional pollutant sources in runoff are not considered impacts associated with this Project.

Item f)

See Sections 3.9, Items a), (c) and d) above.

**Item g)**

The Project does not include housing.

Based on this information, placing housing in a 100-year flood hazard area is not an impact associated with this Project.

Item h)

The Project staging site is protected on the east, south and west sides by levees along Old River and the RD-800 drainage canal. On the north side, the site is protected by State Highway 4, which is on a raised roadbed that acts as a levee. The area of construction is in the 500-year flood zone, as established by the Federal Emergency Management Agency.

Based on this information, placing structures in a 100-year flood hazard area is not an impact associated with this Project.

Item i)

The Project site is between 8 and 10 feet below mean sea level and is protected on all sides by levees. The Federal Emergency Management Agency considers the levees adequate protection from flooding and, therefore, classifies the site as being in the 500-year flood zone. The facility to be constructed is below mean sea level and is not intended for human occupancy. Town staff will continue to visit the site periodically for inspections and maintenance purposes, but do not reside there. In the event of failure of Old River levee, the site could be inundated to a depth of 8 to 10 feet. It is highly unlikely that such a failure would occur without warning, and the risk is considered extremely low.

Based on this information, exposure to flood hazards is not considered a significant impact associated with this Project.

Item j)

Old River is the closest major water body to the site, which the Project lies within. The river is about 160-yards wide, 10-feet deep, and contained by levees that rise to about 13 feet above mean sea level, at the point where it passes the Project area, and 51 miles upstream from Carquinez Bridge. At this point, the river is too far inland, with channels that are too narrow and too sinuous to be affected substantially by a tsunami to enter the Golden Gate. The amount of water stored between the Old River levee at any given time would be sufficient to allow the generation of a seiche during a major earthquake (Mw 7.0 to 8.0). Such an earthquake is unlikely to affect the area, because the closest earthquake fault to the site (the Greenville fault) does not appear capable of producing a great earthquake, and the groundshaking even from a great earthquake (Mw 8.0 and higher) on the more distant Hayward and San Andreas faults would not be as intense as from the design earthquake on the Greenville fault. The natural terrain adjacent to the project on the site is flat, and the levees are constructed of compacted material of a size, range and density to withstand flowing when wet: there is very little risk of mudflow at the Project site.

Based on this information, seiche, tsunami, or mudflow hazards are not considered impacts associated with this Project.



AVOIDANCE, MINIMIZATION, MITIGATION MEASURES - HYDROLOGY/WATER QUALITY (WQ)
WQ 1: Prior to the start of work, the contractor shall develop a Storm Water Plan that identifies BMPs to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all ground disturbing activities.
WQ 2: The project shall comply with all applicable water quality standards as specified in the Central Valley RWQCB Water Quality Control Plan (Valley Plan).
WQ 3: For construction activities that extend into the rainy season or if an unseasonal storm is anticipated, the contractor shall cover (i.e., tarp) any stockpiled materials or soil and install silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and areas of ground disturbance as may be required.
WQ 4: Signage related to the presence of a potential inundation zone will be installed pursuant to the County of Contra Costa and Town of Discovery Bay Signage Policy, including an applicable Tsunami Evacuation Route. Such measures are intended to reduce the potential impacts resulting from a mudflow or tsunami event.
WQ 5: Hydraulic Dredge Operation. The hydraulic dredge shall be operated so that the intake is at or below the surface of the material being removed. The hydraulic dredge intake may be raised a maximum of three (3) feet above the river bottom for brief periods for the purpose of purging or flushing of the intake system.

3.10 Land Use and Planning

3.10.1 Environmental Setting

The Town of Discovery Bay does not have land use or zoning authority. However, the Town can and does advise the County on decisions affecting the community. The Town works with the County to ensure new development compliments existing properties.

Land use and planning within Discover Bay is managed by the established East County Regional Planning Commission with a five-member board (Contra Costa County Ordinances 2010).



Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?			<input checked="" type="checkbox"/>	

3.10.2 Discussion

Item a)

State Highway 4 forms the north boundary of the study area, separating it from open agricultural land. The Town of Discovery Bay is northwest of the study area, separated from it by a sound barrier (concrete wall). The RD-800 drainage canal forms the west boundary of the study area, separating it from open agricultural land. A connecting drainage canal to Old River forms the south and southwest boundaries of the study area, separating it from open agricultural land. A connecting drainage canal to Old River forms the south and southeast boundaries of the study area, separating it from open agricultural land to the southwest, south and southeast. The Contra Costs Water District’s pump station on the west side of Old River forms the east boundary of the study area, separating it from Old River. Therefore, there is no established community that the Project would divide, and no significant impact is expected.

Item b)

The Project will not conflict with any other plans being developed.

Item c)

This information is discussed in Section 3.5 Biological Resources, Item d), above.

3.11 Mineral Resources

3.11.1 Environmental Setting

There is no mineral resource extraction associated with this Project. Moreover, it is a land use that is not compatible with the mission of the Town of Discovery Bay.



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?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>

3.11.2 Discussion

Items a) and b)

The Project area is classified by the California Division of Mines and Geology as MRZ-1, a Mineral Resource Zone for which there is adequate information to indicate there are no aggregate mineral resources present. The closest known mineral aggregate resource is an outcrop of Domengine Sandstone about 4 miles southwest of the site. According to the CDC, Division of Oil, Gas and Geothermal Resources, the Project vicinity is not a recognized methane problem area. The closest known oil or gas resource is the Brent Oil and Gas Field 10 miles west of the site. Completion and operation of the proposed replacement project would not involve quarrying, mining, or extraction of any known regionally or locally important mineral, oil, or gas resources on site, nor would it deplete any non-renewable natural resources.

Consequently, there would be no impact on mineral resources.

3.12 Noise

3.12.1 Environmental Setting

Would the Project:	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?			<input checked="" type="checkbox"/>	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				<input checked="" type="checkbox"/>



Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			<input checked="" type="checkbox"/>	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			<input checked="" type="checkbox"/>	
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?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>

3.12.2 Discussion

Item a)

Construction of the proposed outfall replacement will not expose people or generate noise levels in excess of any state or federal standards. The Project will also adhere to the applicable noise regulations for construction activities established by the Town of Discovery Bay. There are no nearby sensitive receptors present in the vicinity of the Project. The project site is bounded by agricultural lands to the south and west, State Highway 4 to the north, and Old River just to the east, none of which are sensitive receptors. There are sensitive receptors (residences) within the existing Discovery Bay community. There is also a sound barrier north of State Highway 4, the proposed construction area is at least 2000 feet away from that sound barrier, and the project site is 5 to 10 feet lower than the highway, all of which provides additional noise buffering. During the construction period daytime noise levels at the site could increase by more than 10 dBA Leq over the existing levels but would return to existing levels at night and after the completion of construction. The project would not create a substantial permanent increase in ambient noise levels in the project vicinity. The daytime increase during the construction period would be less than significant because policies and procedures are in place to reduce noise to an acceptable level. Construction period noise-reduction mitigation measures were included in the 1998 Initial Study and Mitigated Negative Declaration (Contra Costa County Sanitation District 1998) for work that was planned within the Discovery Bay Community. Implementation of similar Best Management practices to Reduce Construction Noise will be implemented to maintain construction noise at a less-than-significant level.



Item b)

Construction of the Project will not require pile driving or other construction techniques likely to cause perceptible off-site groundborne noise or vibration. Activities associated with the movement of heavy-duty trucks and similar construction equipment would occur on a temporary basis. Consequently, groundborne noise or vibration impacts are not considered an impact of this Project.

Item c)

See Section 3.12, above, and Avoidance, Minimization, Mitigation Measures – Noise section below.

Item d)

See Section 3.12, above, and Avoidance, Minimization, Mitigation Measures – Noise section below.

Item e)

The Project site is not located within an airport land use plan or within two miles of a public airport. Consequently, airport-related noise impacts do not apply at this Project site.

Item f)

The Project site is not located within the vicinity of a private airstrip. Consequently, airport-related impacts do not apply at this Project site.

AVOIDANCE, MINIMIZATION, MITIGATION MEASURES - NOISE (NO)

NO 1: All work will be performed between the hours of 7a.m. and 7p.m. Monday through Saturday. Additional implementation of BMPs will include the following procedures, to be incorporated in to the construction documents and to be implemented by the project contractor:

- Comply with noise and vibration control measures identified in the Contra Costa County Special Plan
- Maximize the physical separation between noise generators and noise receptors.
- Select quiet construction equipment whenever possible, particularly air compressors.
- Prohibit unnecessary idling of internal combustion engines for near sensitive receptors.
- Select routes for movement of construction-related vehicles and equipment in conjunction with Contra Costa County such that noise-sensitive areas, including residences, hotels and outdoor recreation areas are avoided as much as possible.
- Transportation of heavy equipment and trucks shall be limited to weekdays between the hours of 7a.m. and 7p.m.
- Designate a noise coordinator who will be responsible for responding to complaints about noise during construction. Post the telephone number as well as the construction schedule in a conspicuous place at the construction site.



<p>NO 2: Construction activities shall be limited to daylight hours, Monday through Friday between 7:00 AM and 7:00 PM. Weekend or holiday work could be implemented to address emergencies or unforeseen circumstances impacting construction.</p>
<p>NO 3: Internal combustion engines used for any purpose at the job site shall be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction shall utilize noise control techniques (e.g., engine enclosures, acoustically attenuating shields, or shrouds, intake silencers, ducts, etc.).</p>
<p>NO 4: Noise monitoring will be conducted, and sound-absorbing barriers will be installed local to the loader as needed (for an estimated additional 5 dBA attenuation).</p>
<p>NO 5: Noise generated from demolition or construction activities shall be limited to avoid seasons of peak visitation, and time periods when sensitive wildlife species may be significantly impacted.</p>

With implementation of the above mitigation measures, all work necessary to implement the Project construction would be performed between the hours of 7a.m. and 7p.m. Monday through Saturday. During the six to ten days of continuous excavation, additional noise attenuation measures would include: mufflers on equipment, and limited use of impact wrenches to daytime hours. In addition, the Town of discovery Bay will ensure that all nearby impacted residences are notified of the construction schedule and will provide a contact number for a community liaison (BMP 6). Because: (1) implementation of mitigation measures 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 less than significant levels.

3.13 Population and Housing

3.13.1 Environmental Setting

There is no population living within the Project area, or the adjacent lands.

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)?				☒



Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				☒

3.13.2 Discussion

Item a)

The completion of this Project, although a facility to support the wastewater treatment facilities, does not represent an expansion of capacity or otherwise considered a growth project. The current project and proposed Project do not include new housing, new businesses, or new infrastructure other than for the already permitted and approved usage and facility. Therefore, the proposed outfall replacement would not promote growth beyond the limits of the approved General Plan and would have no impact on population and housing in the Project area.

Item b)

There are no existing residence on the Project site. The Project would not displace any existing residences. Therefore, no impact would be expected.

Item c)

See Section 3.13.2 b), above.

3.14 Public Services

3.14.1 Environmental Setting

The closest fire station to the Project site is East Contra Costa Fire Protection District on Bixler Road, approximately 5.2 miles north of the site, as well as the Town of Discovery Bay Community Center, which is approximately 2.5 to the northeast. Other public facilities in the vicinity are Delta Vista High School and Discovery Bay Elementary School, both approximately 3.0 miles from the site (Wikipedia contributors 2019).



Would the Project:	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?				<input checked="" type="checkbox"/>
Police protection?				<input checked="" type="checkbox"/>
Schools?				<input checked="" type="checkbox"/>
Parks?				<input checked="" type="checkbox"/>
Other public facilities?				<input checked="" type="checkbox"/>

3.14.2 Discussion

Item a)

Source 1: The Project will be constructed primarily of HDPE piping, and the facilities would be open-air and submerged. None of the structures would be used for human occupancy. The material treated by the wastewater treatment facility is not flammable, no volatile chemicals are used in the treatment, and the facility is not supported by electricity at the proposed outfall replacement. Consequently, the Project would not pose any special fire-fighting challenges and would not necessitate additional fire protection services. Therefore, no impact is expected.

Item b)

Source 2: Because no unusual law enforcement problems are associated with the completion of the proposed facility, the Project would not necessitate additional police protection at the Project site. Therefore, no impact is expected.

Item c)

The Project does not involve residential uses. Consequently, the Project is not anticipated to result in new demand for schools. Therefore, no impact is expected.



Item d)

The demand for parks is directly linked to the residential population in Discovery Bay. The Project does not include new residential use and, consequently, would not create a direct demand for parks (California Department of Parks and Recreation). Therefore, no impact is expected.

Item e)

Because the Project does not include residential uses, it would not create direct demands for other public services such as libraries and recreational centers. Therefore, no impact is expected.

3.15 Recreation

3.15.1 Environmental Setting

Discovery Bay was originally a waterfront community built on a network of man-made dikes, surrounded by fresh water, except for the southeast quadrant, which comprises the golf course of Discovery Bay Country Club. Road access is via California State Highway 4, which is a county designated scenic highway, the views of which are generally agricultural and industrial in the foreground. Middle and background views are obscured by the levee systems along Old River, and the views of the pump station, treatment facility and associated components are naturally obscured by the natural bend in Old River and the levees. Views of the proposed outfall replacement project would be within the foreground of recreational users of Old River as they travel from Discovery Bay to the south Delta.

Would the Project:	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?				☒

3.15.2 Discussion

Item a)

The Project does not directly involve construction of housing or facilities that could increase the demand for neighborhood or regional parks or other recreational facilities. Therefore, no impact is expected.



Item b)

The outfall replacement project would not include recreational facilities or necessitate the construction of new, or expansion of existing, recreational facilities. Therefore, no impact is expected.

3.16 Transportation/Traffic

3.16.1 Environmental Setting

The proposed outfall replacement project is located in the southeast quadrant of the Town of Discovery Bay, and unincorporated area of Contra Costa County. The site is located south of State Highway 4, adjacent to Old River, on the west side of the levee, connecting Old River and RD-800 Main Ditch. Direct access to the site is from State Highway 4 on an easement road to the wastewater treatment plant, the staging area and the outfall facilities as well as direct barge access to the location of the outfall construction work. The work from here will be initiated at a public boat launch site, thereby eliminating the need for overland equipment transfer at a shoreline access point.

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)?				☒



Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?			<input checked="" type="checkbox"/>	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities?				<input checked="" type="checkbox"/>

3.16.2 Discussion

Item a)

During the construction phase of the Project, additional vehicle movement and need for parking related to the Project would be limited to transportation of workers, equipment and material to and from the staging area to barge transfer material to the via barge, and then to the Project site via the barge. It is anticipated that four to six people per day would need to be on the site under ordinary conditions. All personal vehicles, excavation and construction equipment would be left in the designated parking and staging areas near the site, well off State Highway 4 and the main thoroughfares in the area. Even if a larger crew were needed at any time during the construction of the Project, there is adequate parking space at the staging location for extra vehicles. Limited traffic to the location adjacent to the Project site may occur simply for observational purposes, no work or deployment will be conducted from that location.

Excavation and construction equipment would be driven to the staging area and would remain there until needed at the Project and until the tasks are completed, thus eliminating the need to move the equipment on and off the site frequently, or even more than once.

During the testing and inspection phases of the Project there may be one or two daily trips to and from the shoreline site by the engineering team and Town staff to observe activity onboard the barge. Truck traffic generated by the construction requirements is estimated to be 1 to 2 additional truck deliveries and hauling during the 2 to 3-week construction schedule, which will be limited from the staging location to the barge launch site. None of these situations would add a statistically significant amount of traffic to State Highway 4. Therefore, the Project would have no significant effect on traffic load or street capacity in the vicinity of the site or in the region.

Item b)

See Section 3.16.2a), above.

Item c)

The Project is not near any air travel facility. The Project does not include the construction of above-ground facilities that would be high enough to interfere with air travel. Therefore, the Project would have no effect on air traffic patterns.



Item d)

The Project would not alter any publicly travelled roads, and therefore, would have no potential for increasing transportation design hazards.

Item e)

Construction of the Project could slow vehicle travel of State Highway 4 temporarily when large equipment is moved to and from the staging area to the barge launch site but would not affect emergency access because contractor personnel would be at the launch site to direct traffic past that location until the equipment move and loading is completed. Once construction of the Project was completed, State Highway 4 would operate as it did prior to Project construction. Therefore, the Project would have a less-than-significant impact on emergency access.

Item f)

See Section 3.16.2a), above.

Item g)

The Project would not conflict with alternative transportation policies because the Project does not involve any permanent surface level alteration that would interfere with any mode of transportation. Therefore, the Project would have no impact on alternative transportation policies.

AVOIDANCE, MINIMIZATION, MITIGATION MEASURES – TRANSPORTATION/TRAFFIC (TR)

TR 1: Construction equipment and employee parking will be confined to the construction staging area identified in Figure 1 so as not to traffic and to maintain site control.

3.17 Utilities and Service Systems

3.17.1 Environmental Setting

There are no public services in the immediate vicinity of the Project area. The existing waste water treatment plant has the infrastructure installed already to provide the necessary services for the existing facility as well as this proposed outfall replacement.

Construction waste from the demolition of the existing outfall will be negligible.



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?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?				<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?				<input checked="" type="checkbox"/>

3.17.2 Discussion

Item a)

The Project will not exceed wastewater treatment restrictions or standards of the RWQCB.

Item b)

The Project is an alteration to an existing facility with existing infrastructure and does not involve the construction of new water or wastewater treatment facilities or expansion of existing facilities.

**Item c)**

The Project is an alteration to an existing facility with existing infrastructure and does not involve the construction of new storm water drainage facilities or expansion of existing facilities.

Item d)

The Project is an alteration to an existing facility with existing infrastructure and would not cause the expansion or construction of additional drainage facilities off-site. Therefore, impacts to storm water facilities are not expected.

Item e)

The Project is an alteration to an existing facility with existing infrastructure and would not cause the demand of significant amounts of water in excess of current uses. Therefore, no impact is expected.

Item f)

The proposed Project would not produce any solid waste in excess of what is currently being disposed of by the facility because the completion of the facilities would not change the treatment capacity. Therefore, impacts to solid waste disposal would not be significant.



4 Mandatory Findings of Significance

Would the Project:	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?				☒

4.1 Discussion

Item a)

As discussed in Section 3.3 Agricultural Resources, the Project site adjacent to almost completely fallow agricultural use, providing minimal habitat for species of concern. Section 3.5 Biological Resources, also indicates the potential for sensitive species (western pond turtle) to occur on the Project site and directs the discussion of mitigation measures for potential loss of species to a less-than-significant level. Otherwise, minimal habitats of sensitive species occur on or in the vicinity of the Project area, or the construction period avoids the period of use by such species (e.g., longfin smelt nesting birds). Section 3.6 Cultural Resources, indicates there are no known cultural resources on the site and directs the discussion to mitigation measures to be implemented in the event such resources are discovered at the site, during excavation activity. Section 3.12 Noise indicates no nearby sensitive receptors and directs to the discussion of mitigation measures for noise effects during the construction period.



Based on the findings of this Initial Study, the Project would not degrade the quality of the environment, 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, or reduce the number or restrict the range of a rare or endangered plant or animal. No examples of California history or prehistory are known to exist at the Project site. As a result of the analysis in the present Initial Study and available project data, the Project would have a less-than-significant impact on these resources. No important examples of California history or prehistory will be eliminated as a result of the Project.

Item b)

The proposed outfall replacement project is consistent with the discussion of cumulative impacts in the Discovery Bay West EIR, and with the mitigation measure put forward in the 1998 Treatment Plant Expansion and Sewer Conveyance Master Plan Initial Study and Mitigated Negative Declaration (Contra Costa County Sanitation District 1998). Additionally, mitigation measures recommended in the present Initial Study, and incorporated in the Project, would extend the previous measures throughout the Project site.

Consequently, the anticipated cumulative effects of completing the Project were envisioned in the Discovery Bay West EIR and found to be a small component of that community's potential cumulative effects in the Treatment Plant Expansion and Sewer Conveyance Master Plan Mitigated Negative Declaration. Mitigation measures identified in the present Initial Study would reduce cumulative impacts related to completion of this Project to a less-than-significant level.

Item c)

See Sections 3.4 Air Quality; 3.6 Cultural Resources; 3.7 Geology and Soils; 3.8 Hazards and Hazardous Materials; 3.9 Hydrology and Water Quality; and 3.12 Noise, above, which indicate that potential risks to humans would be regulated by existing regional programs and policies, and by proposed mitigation measures established by the Town of Discovery Bay, or in this Initial Study, based upon Best Management Practices.



5 Summary of Mitigation Measures

Mitigation measures that were designated to reduce project effects to less than significant levels by minimizing effects or by avoiding effects altogether are summarized in the following for each environmental component of the assessment.

AVOIDANCE, MINIMIZATION, MITIGATION MEASURES
AESTHETICS
No mitigation required
AGRICULTURAL RESOURCES
No mitigation required
AIR QUALITY (AQ)
AQ BMP-1: Standard construction protocols for dust control during construction and demolition shall be implemented. These protocols shall be included within the Storm Water Plan. The State's Representative and/or State Natural Resources Specialist will periodically inspect the work area to ensure that construction-related activities do not generate excessive amounts of dust or cause other related air quality disturbances.
AQ BMP-2: Idling of vehicles shall be minimized to the maximum extent practicable.
AQ BMP-3: All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
AQ BMP-4: All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
AQ BMP-5: All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
AQ BMP-6: All vehicle speeds on unpaved roads shall be limited to 15 mph.
AQ BMP-7: All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
AQ BMP-8: Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.



AVOIDANCE, MINIMIZATION, MITIGATION MEASURES

BIOLOGICAL RESOURCES (BIO)

BIO 1: Birds: To reduce the potential for the project to negatively affect sensitive bird species, the following mitigation measures shall be implemented as part of the project:

Burrowing Owls – Burrowing owls have occurred in the southwestern part of the project site (Notification of Lake or Streambed Alteration for the Town of Discovery Bay 2004). Thus, the potential for burrowing owls to occur near the site remains. However, maintenance operations to control weeds through disking and mowing have reduced the potential for burrows to occur on the project site, and this species has not recently been observed by treatment-plant maintenance personnel (Sadler 2019). If burrowing owls are not observed within 150 meters of the construction area, no mitigation measures are required. Conversely, if owls are observed within this area, the following measures, as specified by the CDFW (2012), shall be followed:

- All occupied burrows should be avoided, and disturbance should not occur within 50 meters (160 feet) during the non-breeding season (September 1 through January 31) or within 200 meters (655 feet) during the breeding season (February 1 through August 31). Note, no Project activities are designated prior to September 15.
- **Horned Lark** – Maintenance activities, including disking and mowing, that have reduced vegetation stature on the site, reduce the potential for horned larks to nest in the vicinity of the proposed project site. Moreover, if no vegetation removal would occur as part of the project, and especially during the nesting period (February 1 through August 31), then no effects would be anticipated. Note, no Project activities are designated prior to September 15.

BIO 2: Western Pond Turtle – No appreciable changes in water levels from the discharge of treated water into Old River are anticipated and no effects would be expected to western pond turtle use of the area and no mitigation measures are required. Pond turtles would be more likely to use slowly moving water at the river's edge and areas on the banks for basking. Turtles could wander into construction areas, which could place them at risk. Mitigation measures to reduce potential impacts from construction include:

- Open trenches shall be inspected prior to the start of work each day to ensure that no turtles have entered into the construction zone. Any turtles in such areas, including trenches, shall be removed and placed in the closest body of water.
- Prior to the start of work each day at the diffuser structure, the rip-rap shall be inspected to ensure that no turtles are present. Any turtles occurring in this area shall be relocated 100 feet downstream of the construction area.

AVOIDANCE, MINIMIZATION, MITIGATION MEASURES

BIO 3: Fish – Work to remove the old diffuser pipe and install a new diffuser could affect Delta smelt and Sacramento splittail as they move through the area, and the longfin smelt spawning in areas of rip-rap along the banks. Delta smelt spawning habitats also occur in the area of the proposed project, but this species has not been reported for the area (Moore 2003).

Mitigation Measure to incorporate the in-water work window of September 15 to November 30 to avoid impacts to Delta smelt, longfin smelt, and Chinook salmon species to less-than-significant by reducing the potential for sedimentation to affect fish movements and especially longfin smelt spawning that may occur while removing the old diffuser and in the vicinity of trenching to place the new diffuser. In the event Project logistics require work outside of the recommended in-water work window, CDFW recommends inclusion of language defining the Project's obligation to obtain CESA-listed fish take coverage through an ITP issued by CDFW that would allow for Project-related work to occur outside the restrict work window.

Construction outside of this time period could be considered a significant impact but restricting construction work to occur within this schedule and constricting the trenching work to the shortest period possible (e.g., two weeks) in any case, would help reduce the potential for sediment to negatively affect spawning, including egg maturation and juvenile survival.

Mitigation measures to reduce impacts to these three-fish species to less-than-significant include restricting construction work to June to reduce the potential for sedimentation to affect fish movements and especially longfin smelt spawning that may occur while removing the old diffuser and in the vicinity of trenching to place the new diffuser. Construction outside of this time period could be considered a significant impact but constricting the trenching work to the shortest period possible (e.g., two weeks) in any case, would help reduce the potential for sediment to negatively affect spawning, including egg maturation and juvenile survival.

BIO 4: Open Trenches – Although no open trenches on terrestrial sites would occur as part of the Project, mitigation measures for such are hereby noted: Any open trenches, pits, or holes with a depth larger than one (1) foot shall be covered at the conclusion of work each day with a hard, non-heat conductive material (e.g., plywood). No netting, canvas, or material capable of trapping or ensnaring wildlife shall be used to cover open trenches. If use of a hard cover is not feasible, multiple wildlife escape ramps shall be installed, constructed of wood or installed as an earthen slope, in each open trench, hole, or pit that is capable of allowing large (e.g., deer) and small (e.g., snakes) wildlife to escape on their own accord. Prior to the initiation of construction each day and prior to the covering of the trench at the conclusion of work each day, the Designated Biologist or Qualified Biological Monitor shall inspect the open trench, pit, or whole for wildlife. If wildlife is discovered, it shall be allowed to leave. If wildlife does not leave, and the animal is a State-listed species, consultation is required before work can be initiated.



AVOIDANCE, MINIMIZATION, MITIGATION MEASURES

BIO 5: Open Pipes Restriction - All pipes, culverts, hoses, or similar structures that are stored at the construction site, vertically or horizontally, for one or more overnight periods shall be securely capped, screened, or filled with material on both ends prior to storage and thoroughly inspected for wildlife by the Qualified Biological Monitor, in consultation with the Designated Biologist, prior to use. Only the Designated Biologist shall relocate special status species wildlife, if necessary. All hollow pipes or posts installed as part of the Project and exposed to the environment shall be capped, screened, or filled with material by Permittee prior to the end of the workday in which installation occurs.

CULTURAL RESOURCES (CR)

CR-1: Cease Construction Work Upon the Discovery of Historic or Archaeological Resources: Evaluate Resources Before Continuing Construction.

If potential historic or archaeological resources are discovered during construction, all work should be suspended in the immediate vicinity (within approximately 50 feet) with the objective to avoid altering the material and their context pending a site investigation by a qualified archaeological or cultural resources consultant who should be retained by the project sponsor. Construction work shall not commence again until an opportunity is provided to examine the findings, assess their significance and provide proposals for any additional exploratory measures deemed necessary for further evaluation of and/or mitigation of adverse impacts to any potential historical resources or unique archaeological resources that have been encountered.

If the finding is determined to be an historic or unique archaeological resource, and if avoidance would not be feasible, the archaeological or cultural resources consultant shall prepare a plan for the methodical excavation of the site and resources that would be adversely affected. The plan shall be designed to result in the extraction of sufficient volumes of non-redundant archaeological data to address important regional research considerations. The work shall be performed by the archaeological or cultural resources consultant and shall result in detailed technical reports. Such reports will be submitted to Contra Costa County, the Town of Discovery Bay, and the California Historic Resources Regional Information Center. Construction in the vicinity of the find shall be accomplished in accordance with current professional standards. The project sponsor shall assure that project personnel are informed that law prohibits collecting significant historic or unique archaeological resources discovered during development of the project. Prehistoric or Native American resources can include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soils containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources can include nails, bottles, or other items occurring in refuse deposits.



AVOIDANCE, MINIMIZATION, MITIGATION MEASURES

CR-2: Cease Work upon the Discovery of Human Remains: Evaluate Remains before Continuing Construction.

In the event of discovery or recognition of any human remains on the project site, the contractor shall contact Contra Costa County Coroner, pursuant to Section 7050.5(b) of the California Health and Safety Code. In this event, there shall be no further excavation or disturbance of the site or any nearby areas reasonably suspected to overlie adjacent remains until the coroner determines the origin of such remains. The coroner, upon recognizing the remains as being of Native American origin, shall contact the Native American Commission within 24 hours of the coroner being notified. No further disturbance of the site may occur except as authorized by the coroner. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, including the designation of a Native American Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for the protection of Native American human remains and skeletal remains from vandalism and inadvertent destruction. To achieve this goal, construction personnel on the project shall be instructed as to both potential for discovery of cultural or human remains, and the need for proper and timely reporting of such finds, and the consequences of failure to do so.

GEOLOGY & SOILS (GEO)

GEO 1: Erosion Control

- A. Prior to the start of construction, Contractor will prepare a Storm Water Plan for DB approval that identifies the BMPs to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation, grading, or trenching.

BMPs must be in place at all times including covering (tarping) any stockpiled materials or soils and by constructing silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and disturbed areas.

HAZARDS/HAZARDOUS MATERIALS (HAZ)

HAZ 1: Hazardous Material Spills

- A. Prior to the start of construction, the contractor shall clean all equipment before entering the project site. Equipment shall be cleaned and repaired (other than emergency repairs) outside the project site boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds shall be contained and disposed of outside the boundaries of the site, at a lawfully permitted or authorized destination.
- B. Prior to the start of construction, the contractor shall inspect all equipment for leaks and regularly inspect thereafter until equipment is removed from the project site.



AVOIDANCE, MINIMIZATION, MITIGATION MEASURES

- C. Prior to the start of construction, the designated contractor shall prepare a Spill Prevention and Response Plan (SPRP) to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan shall include (but not be limited to):

1. A map with both primary and secondary containment areas with a listing of BMPs to be used to prevent the accidental release of fluid materials, including concrete.
2. A map that delineates construction staging areas, where refueling, lubrication, and maintenance of equipment will occur.

A list of items required in a spill kit on-site that will be maintained throughout the life of the project.

HAZ 2: Fire Safety

- A. Prior to the start of construction, the Project Contractor shall develop an approved Fire Safety Plan. The plan will include the emergency calling procedures for the Local Fire Department.
- B. Spark arrestors or turbo chargers (which eliminate sparks in exhaust) and fire extinguishers will be required for all heavy equipment.

Cutting of vegetation within the staging area and the use a ground barrier covered with leveling fill will keep construction vehicles away from flammable material, such as dry grass or brush.

HYDROLOGY/WATER QUALITY (WQ)

WQ 1: Prior to the start of work, the contractor shall develop a Storm Water Plan that identifies BMPs to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all ground disturbing activities.

WQ 2: The project shall comply with all applicable water quality standards as specified in the Central Valley RWQCB Water Quality Control Plan (Valley Plan).

WQ 3: For construction activities that extend into the rainy season or if an unseasonal storm is anticipated, the contractor shall cover (i.e., tarp) any stockpiled materials or soil and install silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and areas of ground disturbance as may be required.

WQ 4: Signage related to the presence of a potential inundation zone will be installed pursuant to the County of Contra Costa and Town of Discovery Bay Signage Policy, including an applicable Tsunami Evacuation Route. Such measures are intended to reduce the potential impacts resulting from a mudflow or tsunami event.



AVOIDANCE, MINIMIZATION, MITIGATION MEASURES
<p>WQ 5: Hydraulic Dredge Operation. The hydraulic dredge shall be operated so that the intake is at or below the surface of the material being removed. The hydraulic dredge intake may be a raised a maximum of three (3) feet above the river bottom for brief periods for the purpose of purging or flushing of the intake system.</p>
LAND USE AND PLANNING
No mitigation required
MINERAL RESOURCES
No mitigation required
NOISE (NO)
<p>NO 1: All work will be performed between the hours of 7a.m. and 7p.m. Monday through Saturday. Additional implementation of BMPs will include the following procedures, to be incorporated in to the construction documents and to be implemented by the project contractor:</p> <ul style="list-style-type: none"> • Comply with noise and vibration control measures identified in the Contra Costa County Special Plan. • Maximize the physical separation between noise generators and noise receptors. • Select quiet construction equipment whenever possible, particularly air compressors. • Prohibit unnecessary idling of internal combustion engines for near sensitive receptors. • Select routes for movement of construction-related vehicles and equipment in conjunction with Contra Costa County such that noise-sensitive areas, including residences, hotels and outdoor recreation areas are avoided as much as possible. • Transportation of heavy equipment and trucks shall be limited to weekdays between the hours of 7a.m. and 7p.m. <p>Designate a noise coordinator who will be responsible for responding to complaints about noise during construction. Post the telephone number as well as the construction schedule in a conspicuous place at the construction site.</p>
<p>NO 2: Construction activities shall be limited to daylight hours, Monday through Friday between 7:00a.m. and 7:00p.m. Weekend or holiday work could be implemented to address emergencies or unforeseen circumstances impacting construction.</p>



AVOIDANCE, MINIMIZATION, MITIGATION MEASURES
<p>NO 3: Internal combustion engines used for any purpose at the job site shall be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction shall utilize noise control techniques (e.g., engine enclosures, acoustically attenuating shields, or shrouds, intake silencers, ducts, etc.).</p>
<p>NO 4: Noise monitoring will be conducted, and sound-absorbing barriers will be installed local to the loader as needed (for an estimated additional 5 dBA attenuation).</p>
<p>NO 5: Noise generated from demolition or construction activities shall be limited to avoid seasons of peak visitation, and time periods when sensitive wildlife species may be significantly impacted.</p>
POPULATION AND HOUSING
<p>No mitigation required</p>
PUBLIC SERVICES
<p>No mitigation required</p>
RECREATION
<p>No mitigation required</p>
TRANSPORTATION/TRAFFIC (TR)
<p>TR 1: Construction equipment and employee parking will be confined to the construction staging area identified in Figure 3 so as not to traffic and to maintain site control.</p>
UTILITIES AND SERVICE SYSTEMS
<p>No mitigation required</p>



6 Report Preparation

We trust this report satisfies your current requirements and provides suitable documentation for your records. If you have any questions or require further details, please contact the undersigned.

Report Prepared by

Handwritten signature of Michele Santangelo in black ink.

Michele Santangelo, PMP
Senior Environmental Specialist

Handwritten signature of Loren Hettinger in black ink.

Loren Hettinger, Ph.D.
Senior Environmental Specialist

Senior Review by:

Handwritten signature of Len Marino in blue ink.

Len Marino, P.E., CFM,
Senior Consultant

Advisian, Worley Group, Inc

Handwritten signature of Efrain Giron in blue ink.

Efrain Giron, Ph.D., P.Eng.
Senior Water Resources Engineer, Project Manager



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8 Public and Agency Comment



**TOWN OF DISCOVERY BAY
COMMUNITY SERVICES DISTRICT**

RESOLUTION 2020-10

A RESOLUTION OF THE BOARD OF DIRECTORS, OF THE TOWN OF DISCOVERY BAY COMMUNITY SERVICES DISTRICT TO ADOPT THE MITIGATED NEGATIVE DECLARATION AND APPROVE THE OLD RIVER DIFFUSER OUTFALL REPAIR PROJECT

WHEREAS, the Board of Directors of the Town of Discovery Bay Community Services District (the “Board” and “Town”, respectively) has received and reviewed the proposed Mitigated Negative Declaration, including the draft Initial Study/Mitigated Negative Declaration with appendices, and supporting information sources (collectively, the “MND”), together with the staff report and any comments received and responded to during the public review and hearing process (collectively, the “Environmental Record”) for the proposed construction and operation of the Town’s Old River Diffuser Outfall Repair Project (the “Project”), as described in the MND; and

WHEREAS, the Town is the lead agency for purposes of environmental review of the Project under the California Environmental Quality Act (“CEQA”), pursuant to Public Resources Code § 21000 et seq., and the State “Guidelines for Implementation of the California Environmental Quality Act”; and

WHEREAS, the Project could, without mitigation, have resulted in a potential impact to certain areas of environmental concern, including Biological Resources and Cultural Resources; and

WHEREAS, the Town has prepared mitigation measures to address and mitigate all potential environmental impacts to a “less than significant” level, which is a part of the Environmental Record reviewed and considered by the Town; and

WHEREAS, the Town has incorporated the mitigation measures described in the initial study for the Project (“Initial Study”) as conditions of approval by the Town; and

WHEREAS, with the exception of the potential impacts stated above, there are no other potentially significant environmental impacts resulting from the Project; and

WHEREAS, the Town submitted a Notice of Intent to Adopt a Mitigated Negative Declaration to the State Clearinghouse and distributed it to those agencies which have jurisdiction by law with respect to the Project; published the Notice of Intent to Adopt a Mitigated Negative Declaration concerning the Project in the local newspaper; and

WHEREAS, the draft Initial Study/Mitigated Negative Declaration with appendices and supporting information sources were duly noticed for 30-day public review and comment from February 26, 2020 to March 23, 2020, as provided by law; and

WHEREAS, the Town received one comment from the California Department of Fish and Wildlife (“CDFW”) in response to the draft MND and responded accordingly; and

WHEREAS, the Town provided written response to the comment made by CDFW and revised mitigation measures in such manner which have been accepted by CDFW and determined by the Town to be equivalent or more effective in mitigating environmental impacts than the original measures; and

WHEREAS, the mitigation monitoring and reporting program shall be carried out in accordance with Section 5 of the MND, which sets forth the mitigation measures and corresponding requirements that shall be monitored and reviewed to ensure compliance during project implementation and that mitigation measures are fully enforced through permit conditions, agreements, and/or other measures set forth in the MND (“MMRP”); and

WHEREAS, a hearing concerning the Town’s intent to adopt a final MND and MMRP was duly noticed and held on May 6, 2020, at which time any interested parties were afforded an opportunity to be heard in addition to the public review and comment period referenced above as part of the Environmental Record; and

WHEREAS, the Town has considered, prior to adoption of the final MND, the Environmental Record in support of the final MND.

THEREFORE, BE IT RESOLVED that the Board finds, determines and resolves as follows:

SECTION 1. The Board adopts the foregoing recitals as true and correct and are hereby incorporated by reference.

SECTION 2. The Board finds that the Initial Study and Mitigated Negative Declaration reflect the independent judgment of the Town as the lead agency for the Project.

SECTION 3. The Board finds that it has independently reviewed and considered the Environmental Record, including the Initial Study and proposed Mitigated Negative Declaration, as a final Mitigated Negative Declaration, prior to adopting the final Mitigated Negative Declaration.

SECTION 4. On the basis of the Environmental Record as the whole record before the Board, including the Initial Study and any comments received, the Board finds, in its independent judgment and analysis, that there is no substantial evidence the Project will have a significant effect on the environment.

SECTION 5. The Board confirms that the mitigation measures described in the Initial Study, have been incorporated into the Project and adopts a Mitigated Negative Declaration, as the final Mitigated Negative Declaration, which documents are a part of the Environmental

Record before the Board for the Project. The documents and other material that constitute the record of the proceedings upon which this decision is based are maintained by the custodian of records, the Town's Project Manager, at 1800 Willow Lake Road, Discovery Bay, California 94505.

SECTION 6. Pursuant to Public Resources Code section 21081.6, the Town of Discovery Bay Community Services District Board of Directors adopts the Mitigation Monitoring and Reporting Program to be carried out in accordance with Section 5 of the MND. In the event of any inconsistencies between mitigation measures as set forth herein and the Mitigation Monitoring and Reporting Program, the Mitigation Monitoring and Reporting Program shall control.

SECTION 7. The Board approves and adopts the findings set forth herein, and the Mitigated Negative Declaration, based on the Environmental Record.

SECTION 8. The Board hereby approves the Project.

SECTION 9. The Town of Discovery Bay Community Services District staff is authorized and directed to cause a Notice of Determination concerning the adoption of the Mitigated Negative Declaration for the Project to be filed in the office of the Contra Costa County Clerk and with the Office of Planning and Research in accordance with CEQA and State CEQA Guidelines.

SECTION 10. The Town of Discovery Bay General Manager, or his representative, is authorized to initiate such steps as appropriate and necessary to: (i) prepare final construction plans, specifications, and estimates; (ii) obtain necessary permits and approvals for the construction of the Project; (iii) take such other steps as may be necessary to construct the Project; and (iv) bring back to this Board any appropriate recommendations to further implement the foregoing.

This foregoing resolution is hereby approved and adopted at a regular meeting the Board of Directors of the Town of Discovery Bay Community Services District held on the 6th day of May, 2020, by the following vote:

PASSED, APPROVED AND ADOPTED THIS 6th DAY OF MAY, 2020.

Bill Pease
Board President

AYES:
NOES:
ABSENT:
ABSTAIN:

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 May 6, 2020, by the following vote of the Board:

Michael R. Davies
Board Secretary



Town of Discovery Bay

"A Community Services District"

STAFF REPORT

Meeting Date

May 6, 2020

Prepared By: Mike Yeraka, Projects Manager
Submitted By: Michael R. Davies, General Manager 

Agenda Title

Discussion and Possible Action to Approve Resolution No. 2020-09, Approving the installation of a Groundwater Test Well on Parcel C of the Pantages Subdivision Number 9010, Adopting a CEQA Exemption and Directing Filing of the Notice of Exemption.

Recommended Action

It is recommended that the Board take the following Action:

- a. Adopt Resolution 2020-09 Approving Installation of a Groundwater Test Well and Adopting a CEQA Notice of Exemption.
- b. Authorize Staff to file the attached Notice of Exemption with the Contra Costa County Clerk's Office.

Executive Summary

At the October 2, 2019, Water and Wastewater Committee Meeting, Staff provided details regarding six possible Well 8 locations as noted on the attached map. The only property owner willing to discuss allowing us to place a well on their property was the developer of the Pantages Subdivision. This information was reported to the full Board by the Committee later that evening. Since that time Staff has been in discussion with the Pantages developer regarding installation of Well 8 on Parcel C of their subdivision. The developer is agreeable to the installation of the well on Parcel C and may also share in the cost of the well and pump station, if it can be utilized for occasionally topping off their proposed lake. Keeping the lake filled would be secondary to the domestic water needs of the Town and staff feels that a control strategy can be developed to meet the Town's water demands first and topping off the lake as a secondary priority. After the well is in service, the developer would also be paying for the water used to top off the lake.

In order to determine if Parcel C has subsurface geologic and water quality conditions suitable for Well 8, we will need to install a ground-water test well. The 8-inch diameter test well will be drilled to a depth of approximately 500 feet and two or three 2-inch diameter monitoring wells will be installed inside the test well at depths where water-bearing aquifers exist in order to perform water quality sampling and aquifer testing. Luhdorff & Scalmanini (LSCE) has performed a preliminary evaluation of Parcel C and has determined that it appears to be a viable site.

In order to move forward with the test well, there are three approvals that will be needed from the Board of Directors:

1. Adopt Resolution 2020-09 approving the Notice of Exemption CEQA document for the project, which is the subject of this Agenda Item.
2. Authorize LSCE to construct the test well and perform the groundwater analysis, which is the subject of another item on this Board agenda.
3. Approve a no cost temporary easement from the Pantages developer granting the Town permission to enter the Subdivision and construct the test well on Parcel C. The temporary easement is near completion and will be presented to the Board at a later date.

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The Fiscal Year 19/20 budget identifies \$4.9 million in projects through FY 22/23 for constructing a raw water well connected to a treatment plant, a storage tank at the Newport Water Treatment Plant (WTP), and an additional filter at the Willow Lake WTP. Staff is now proposing that the project cost be revised to \$4.4 million to construct Well 8 as a stand-alone facility with its own treatment system. This will fully satisfy the remaining water supply, treatment and storage requirements of the Town's water system and provide greater redundancy for the water system by providing an opportunity to take another WTP out of service for maintenance.

Previous Relevant Board Actions for This Item

The Board approved a total of \$4.9 million in projects through FY 22/23 for Well 8 during approval of the FY 19/20 Budget at the June 19, 2019, Board Meeting. Of the \$4.9 million, \$700,000 was budgeted for FY 19/20 to install the test well.

Fiscal Impact: Included in the \$700,000 budgeted for this fiscal year.

Amount Requested: \$1,000

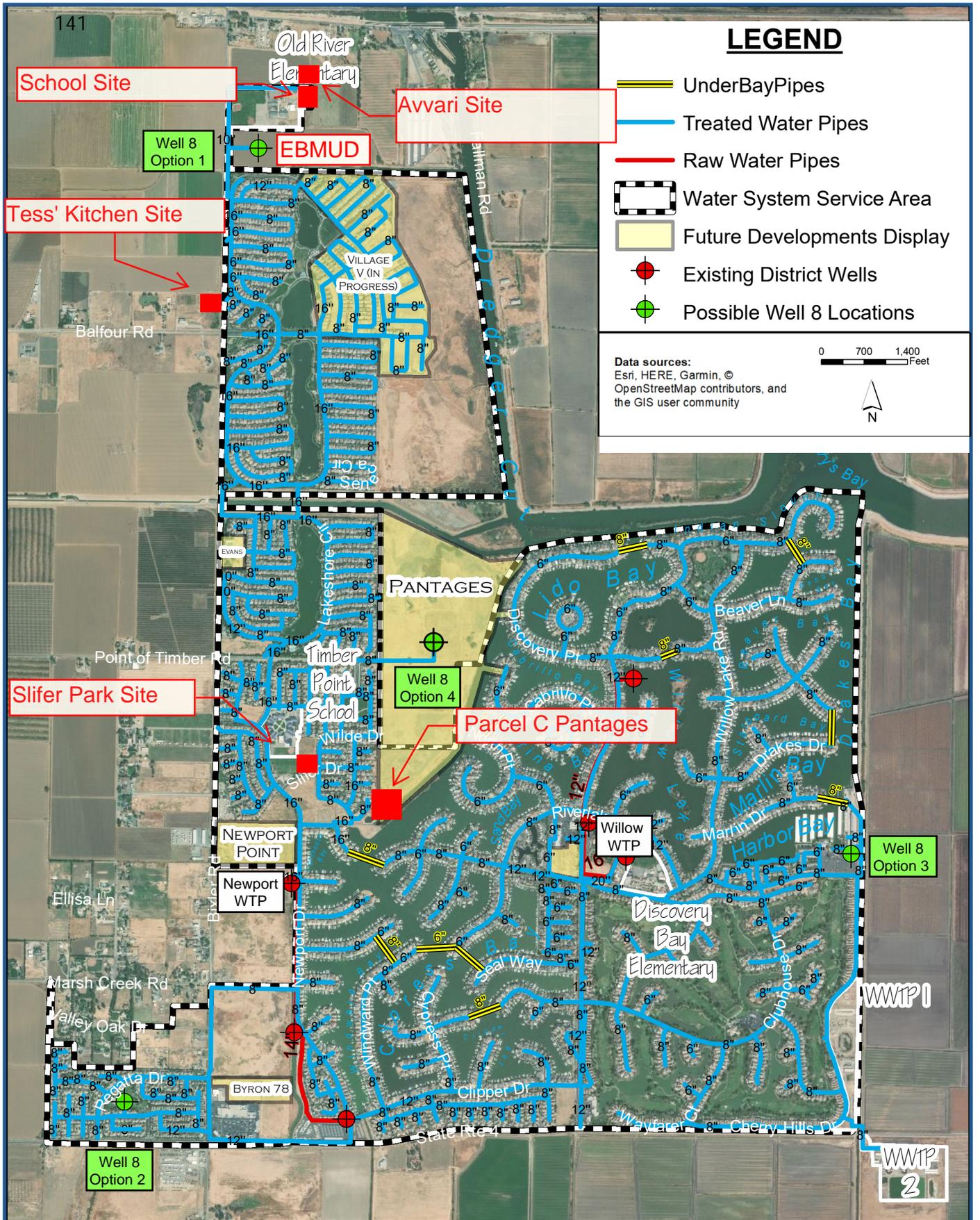
Sufficient Budgeted Funds Available: Yes

Prog/Fund # Category: TBD

Attachments

1. Map showing the location of proposed test well on Pantages Parcel C.
2. Resolution 2020-09
3. Notice of Exemption

AGENDA ITEM: G-3



LEGEND

- UnderBayPipes
- Treated Water Pipes
- Raw Water Pipes
- Water System Service Area
- Future Developments Display
- Existing District Wells
- Possible Well 8 Locations

Data sources:
 Esri, HERE, Garmin, ©
 OpenStreetMap contributors, and
 the GIS user community

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 Feet





**TOWN OF DISCOVERY BAY
COMMUNITY SERVICES DISTRICT**

RESOLUTION 2020-09

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE TOWN OF DISCOVERY BAY, ADOPTING A CATEGORICAL EXEMPTION FOR THE PURPOSES OF
SATISFYING THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, APPROVING THE INSTALLATION OF A
GROUNDWATER TEST WELL, AND DIRECTING THE GENERAL MANAGER TO FILE A NOTICE OF EXEMPTION
WITH THE CONTRA COSTA COUNTY CLERK.**

WHEREAS, the Town of Discovery Bay Community Services District ("District") is a government agency organized and existing under the laws of the State of California; and

WHEREAS, the District desires to install a test well to conduct soil and groundwater sampling and testing on Parcel C of the Pantages Subdivision Number 9010; and

WHEREAS, the District is the lead agency under the California Environmental Quality Act ("CEQA") for the Groundwater Test Well Project ("Project"); and

WHEREAS, the Project is categorically exempt under CEQA as Information Collection pursuant to Section 15306 (Class 6) of the Guidelines for CEQA, California Administrative Code of Regulations, Title 14, Chapter 3, Article 19; and

WHEREAS, all other legal prerequisites to the adoption of this resolution have been met.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE TOWN OF DISCOVERY BAY COMMUNITY SERVICES DISTRICT DOES HEREBY RESOLVE AS FOLLOWS:

Section 1: The above recitals are true and correct.

Section 2: The General Manager is authorized to commence the necessary steps to install the Groundwater Test Well.

Section 3: The Notice of Exemption prepared for the Project has been completed in accordance with CEQA Guidelines.

Section 4: The Board hereby approves and adopts the Categorical Exemption for the installation of the Test Well.

Section 5: The Board hereby approves the installation of the Test Well on Parcel C of the Pantages subdivision.

Section 6: The Board hereby directs the General Manager to prepare and file with the County Clerk of Contra Costa County for posting, a "Notice of Exemption" pursuant to California Administrative Code, Title 14, Chapter 3, Section 15062.

Section 7: This Resolution shall take effect immediately upon its adoption.

Section 8: The Board Secretary shall certify the adoption of this Resolution.

PASSED, APPROVED AND ADOPTED THIS 6TH DAY OF MAY 2020.

Bill Pease
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 May 6, 2020, by the following vote of the Board:

AYES:
NOES:
ABSENT:
ABSTAIN:

Michael R. Davies
Board Secretary

Notice of Exemption

TO: Contra Costa County
Clerk's Office
555 Escobar Street
Martinez, CA 94553

From: Town of Discovery Bay
1800 Willow Lake Rd.
Discovery Bay, CA 94505

Project Title: Construction of Groundwater Test Well on Parcel C of Pantages Subdivision

Project Applicant: Town of Discovery Bay, 1800 Willow Lake Road, Discovery Bay, CA 94505

Project Location: Adjacent and to the East of Wilde Ct., Discovery Bay, CA 94505

Project Location – City: Discovery Bay

Project Location – County: Contra Costa

Description of Nature, Purpose and Beneficiaries of Project:

Installation of 500-foot deep, 8-inch diameter test well, Discovery Bay. The purpose of this project is to utilize the test well to conduct soil and water sample testing in order to better understand if this is a good location for a future water well to serve the Discovery Bay community.

Name of Public Agency Approving the Project: Town of Discovery Bay CSD (District)

Name of Lead Agency Carrying Out the Project: Town of Discovery Bay Community Services District 925-634-1131

Exempt Status: (check one)

Ministerial (Sec. 21080(b)(1); 15268);

Declared Emergency (Sec. 21080(b)(3); 15269(a));

Emergency Project (Sec. 21080(b)(4); 15269(b)(c));

Categorical Exemption. State type and section number: Information Collection, pursuant to Guidelines for CEQA, Regulation Sec. 15306

Statutory Exemptions. State code number: Public Resources Code Sec. 21080.21, Guidelines for CEQA, Regulation Sec. 15269(b)

Reasons why project is exempt:

15306 – Consists of basic data collection.... and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. The project is strictly for information gathering purposes. The project involves a test boring for the purpose of soils and water sampling.

Lead Agency

Contact Person: Michael Davies, General Manager Telephone: 925-634-1131

Attached is the certified document of exemption finding.

Signature: _____ Date: _____ Title: General Manager

Signed by Lead Agency

Signed by Applicant

Attached:

Resolution 2020-0



Town of Discovery Bay

“A Community Services District”

STAFF REPORT

Meeting Date

May 6, 2020

Prepared By: Mike Yeraka, Projects Manager
Submitted By: Michael R. Davies, General Manager

Agenda Title

Discussion and Possible Action Authorizing Luhdorff & Scalmanini to Construct a Test Well, Perform Soil and Water Testing and Obtain Regulatory Siting Concurrence on Parcel C of the Pantages Subdivision in the Amount of \$172,775 for Future Well 8 Project.

Recommended Action

It is recommended that the Board take the following Action:

- a. Approve the Scope and Budget Contained in the Luhdorff & Scalmanini (LSCE) Proposal Letter Dated April 23, 2020, to Perform Hydrogeologic Investigation for Future Well 8.
- b. Authorize the General Manager to Execute the Town’s Standard Form of Consulting Agreement with LSCE to Perform the Hydrogeologic Investigation in the Amount Not to Exceed \$172,775 once the Board has Approved the Temporary Easement for Parcel C.

Executive Summary

As discussed in the previous staff report, in order to determine if Parcel C within the Pantages subdivision is a viable location for Well 8, the Town will need to construct a 500-foot deep test well, on the Parcel, and perform subsurface soil and water analysis. Luhdorff & Scalmanini (LSCE) has performed a preliminary evaluation of Parcel C and has determined that it appears to be a viable site that warrants further investigation. Attached is a Scope and Budget from LSCE which includes the following five Tasks:

Task	Description	Outside Services	Engineering Services	Total
1	Project Administration		\$ 5,040	\$ 5,040
2	Suitability Assessment and Preliminary Division of Drinking Water (DDW) Siting Concurrence		\$14,200	\$ 14,200
3	Exploratory Test Hole Drilling Oversight and Evaluation	\$107,235	\$16,500	\$123,735
4	Well Design and Initial Regulatory Submittal to DDW		\$ 9,800	\$ 9,800
5	Contingency for Undefined Services		\$20,000	\$ 20,000
	Totals	\$107,235	\$65,540	\$172,775

Task 1 provides scope for overall project management, contract administration, coordination of staff and subs, meetings and phone calls with Town staff, and Quality Assurance/Control of project deliverables.

Task 2 provides scope for LSCE to further evaluate the suitability of Parcel C, prepare up to three conceptual well and treatment layouts, communication with the Division of Drinking Water (DDW) to secure their concurrence with the proposed siting plan before constructing the test hole and determine the size and capacity of the well 8.

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Task 3 provides scope for constructing the 500-ft deep test hole, managing and inspecting construction of the test hole and installation of two or three 2-inch monitoring wells, evaluation of soil and water quality conditions, and preparing a report on the recommended well design.

Task 4 provides scope for LSCE to prepare and submit the initial application to DDW for Well 8, prepare a Drinking Water Source Assessment and Protection Program, and preliminary design of the production well.

Task 5 provides contingency monies in the event unforeseen issues arise during the project and will only be utilized with the approval of the General Manager.

As was also mentioned in the previous Staff Report, we are close to finalizing the Temporary Easement needed from the Pantages developer in order to gain access to Parcel C to install the test hole and we will bring that agreement to the Board for approval once it's completed.

Previous Relevant Board Actions for This Item

The Board approved a total of \$4.9 million in projects through FY 22/23 for Well 8 during approval of the FY 19/20 Budget at the June 19, 2019, Board Meeting. Of the \$4.9 million, \$700,000 was budgeted for FY 19/20.

Fiscal Impact: Included in the \$700,000 budgeted for this fiscal year.

Amount Requested: \$172,775

Sufficient Budgeted Funds Available?: Yes

Prog/Fund # Category: TBD

Attachment

1. LSCE Proposal Dated April 23, 2020.

AGENDA ITEM: G-4

April 23, 2020
File No. 19-5-014

Mr. Mike Yeraka
Town of Discovery Bay CSD
1800 Willow Lake Road
Discovery Bay, CA 94514

**SUBJECT: SCOPE AND BUDGET FOR NEW WATER SUPPLY WELL (No. 8)
HYDROGEOLOGIC INVESTIGATION FOR THE TOWN OF DISCOVERY BAY
COMMUNITY SERVES DISTRICT**

Dear Mr. Yeraka:

This letter outlines a scope for engineering and field services associated with the investigation and design of a new water supply well facility (Well 8) located in the Pantages Trails development in the southwest corner of the development on Parcel C. The proposed scope of engineering services for this project encompasses a suitability assessment of the candidate well site, assistance with environmental review and regulatory approvals, exploratory drilling and testing, and preparation of a well design.

Project Understanding and Approach

We understand that the Town of Discovery Bay Community Services District (Town or District) seeks to construct the new municipal Well 8 station in the proposed Pantages Trails development on Parcel C, which is a 19,889 square foot parcel located in the southwest corner of the development and is adjacent to the existing Ravenswood development and Kellogg Creek. The Well 8 facility will serve to increase overall water supply reliability, particularly with ongoing water quality concerns regarding Well 5A.

Well 8 at this location would be connected directly to the distribution system. Rather than supplying one of the centralized water treatment plants as is the case with the other water supply wells, Well 8 would be equipped with onsite water treatment systems for removal of manganese and iron and disinfection with sodium hypochlorite prior to deliver water to the distribution system. This configuration for Well 8 (as a standalone water treatment plant) will satisfy other treatment capacity and storage Capital Improvement Projects in addition to providing the supply reliability with the loss of Well 5A.

The target capacity of the Well 8 treatment facility will still be refined after this current hydrogeologic investigation, but the maximum capacity anticipated would be 2,000 gallons per minute, which will serve as an initial basis of the production well investigation. The sizing of the production well will

consider the treatment facility needs and the lakefill water supply needs that Well 8 will provide to Pantages.

Based on the objective of developing a high capacity water supply well, we propose to initially conduct a suitability assessment of the proposed well site. For this effort, we will evaluate suitability in terms of accommodating construction and future O&M activities, and for compliance with regulatory offsets from potential sources of contamination.

As part of the suitability assessment, LSCE will develop a conceptual site plan showing the station layout with site access, required State Water Resources Control Board, Department of Drinking Water (DDW) setbacks, and connections to the distribution system. The site plan will serve to delineate the production well point for initial regulatory submittals. It will also be used to select a location suitable for exploratory test hole drilling and monitoring well construction. LSCE will submit the conceptual layout and supporting information needed to obtain regulatory concurrence from DDW.

With regulatory concurrence on the conceptual site plan, the next step will be to conduct exploratory test hole drilling, which will be overseen by LSCE and drilled by a licensed and qualified well drilling subcontractor. The test hole-drilling program will be designed to delineate target aquifer units for the proposed production well. A geophysical log and formation samples obtained during this phase will serve as primary input to well design including sanitary and intermediate annular seal depths, screen intake locations, gravel envelope gradation for sand control, etc. For the project setting, we recommend converting the test hole to a monitoring well to assess aquifer conditions, collect ground-water samples for water quality screening, and to measure pumping interference from other District wells. From these activities, we will produce a preliminary well design suitable for the regulatory review and approval for the production well (Well 8).

Scope for Engineering and Field Services

LSCE's proposed project approach is integrated into the following tasks. Each task description includes a summary of deliverables and key activities on which the cost estimating is based. Budgets for each task are compiled in the subsequent section on Cost Estimating and Contract Administration.

Task 1: Project Administration

This task provides for project management and administrative activities such as:

- Contract administration
- Project management for adherence to scope, budget, and schedule
- Coordination with staff and subcontractors
- QA/QC of work products prior to delivery
- Client meetings, phone conferences, and coordination
- Invoicing review by project management

Task 2: Suitability Assessment and Preliminary DDW Siting Concurrence

Under Task 2, LSCE will assess the Well 8 site for its suitability to accommodate construction activities, future O&M, how the production well (and a future replacement well) might optimally be situated to comply with regulatory offset requirements. From this analysis, the preferred location(s) of the exploratory test hole/monitoring well will be identified.

LSCE will prepare a conceptual station layout that delineates the facility components and the prospective production well location, and provisions for a second production well as a replacement. LSCE intends to use the existing boundary and topographical basemap of the Pantages Trails property (LSCE assumes the AutoCAD files for the basemap will be made available by the developer). LSCE will use the basemap to delineate site improvements on the conceptual site plan including site access, station piping, treatment filter, backwash tank, outdoor panel assembly, chlorination facilities, emergency generator, transformer, and utility connections. The conceptual layout will show approximate footprints for these facilities with recommended working space for access and maintenance. The purpose of this activity is to identify the proposed locations of the production well and monitoring well. LSCE assumes for this purpose that up to three (3) conceptual facility layouts would be presented for discussion.

To ensure the site location is acceptable to DDW, LSCE will make a preliminary siting concurrence request from DDW in this Task 2, prior to constructing the monitoring well. This initial regulatory correspondence will be followed with a final siting concurrence submittal (in Task 4) after the hydrogeologic investigation and production well design. In this initial regulatory correspondence, LSCE will prepare a brief letter report that includes the selected conceptual layout along with the setback distances. LSCE will submit the letter report to the DDW and obtain tentative approval on setback distance before proceeding either the subsequent tasks discussed below. This step ensures DDW is aware of the site selected by the District and takes no issue with the location prior to constructing the test hole and monitoring wells. If any regulatory offset cannot be met, the submittal will provide a basis for a variance request (if necessary).

LSCE will develop a basis for sizing of the production well to meet lakefill and Town water supply needs. LSCE will work with the developer to develop a preliminary lake fill strategy that keeps water supply to the Town as the overriding primary purpose of the well.

Task 2 Overview

Key Activities:

- One field inspection of the Well 8 site.
- Develop three (3) alternative conceptual site plans for review and discussion with District.
- Initial regulatory siting concurrence letter to DDW.

Deliverables:

- Conceptual site plan(s)
- Letter to DDW to obtain preliminary siting concurrence
- Memo summarizing Well 8 sizing basis and preliminary lake fill strategy

Task 3: Exploratory Test Hole Drilling Oversight and Evaluation

Under Task 3, LSCE will coordinate and oversee exploratory test hole drilling at the Well 8 site for well design purposes. Based on previous hydrogeologic assessments by LSCE and experience with the CSD water supply well network, we have budgeted this phase of work using an exploratory target depth of 500 feet. At this depth, we anticipate being able to assess site conditions to the extent necessary to meet project objectives.

The drilling work will be performed by a licensed and qualified well driller under subcontract to LSCE. A well drilling permit will be secured by the driller. A geophysical survey conducted in the exploratory test hole will be used to delineate completion intervals for the prospective water supply well. Formation samples from the test hole will be used as a basis for design of a gravel pack to satisfy the appropriate sand control requirements for a municipal well station. The test hole will be converted to a monitoring well that will be used to measure water levels and collect water samples. In addition, the monitoring well can serve as an observation well, to assess production well efficiency and final acceptance of the constructed well.

The monitoring well design prepared by LSCE will comply with all state and local well standards. The monitoring well may include up to three piezometers depending on the lithology encountered. Upon completion of the monitoring well construction and development, LSCE will provide a sampling rig to obtain water samples from each monitoring well piezometer. LSCE will submit collected water samples to a State certified laboratory for preliminary water quality screening. The screening will encompass DDW initial source water quality monitoring requirements for primary and secondary constituents, volatile organic chemicals, selected synthetic organic chemicals, and selected unregulated chemicals.

At the completion of exploratory drilling, monitoring well construction, and water quality testing, LSCE will prepare a status memorandum summarizing results and recommendations for final well design. The report will delineate recommended completion intervals that appear most favorable in meeting project objectives.

Task 3 Overview

Key Activities:

- Multiple trips to project site for exploratory drilling activities, monitoring well construction, and groundwater sampling.

Deliverables:

- Summary report on test hole exploratory activities including recommendations for well design, estimates of yield, and water quality for a production well.
- Lithologic log, geophysical log, monitoring well as-built profile, sieve analysis, water quality analysis results reports, and a well design engineering worksheet.

Task 4: Well Design and Initial Regulatory Submittal to DDW

LSCE will prepare and submit the initial regulatory materials to DDW to amend the District’s water supply permit to include Well 8. This initial regulatory submittal is an initial step required by DDW to obtain concurrence on the well design and well location. The final regulatory materials required to amend the water supply permit occurs after the well and pump station facilities are constructed and prior to bringing the new system online (this will be a subsequent scope of work). The regulatory items to amend the water supply permit are in the table below. The items that are completed by LSCE in this task for the initial regulatory submittal are noted in the table. This initial regulatory submittal includes a Drinking Water Source Assessment and Protection (DWSAP) Program as required by DDW.

Prior to the production well construction, DDW will also require documentation showing compliance with California Environmental Quality Act (CEQA). LSCE understands that the CEQA document will be prepared by the District after DDW approves the well design and well location. DDW would also be involved in reviews of facility designs prior to construction. LSCE will assist the District, as needed, on the CEQA document and DDW permitting in a subsequent scope of work for the well and pump station design and construction.

Amended Water Supply Permit	Description
DWSAP Program Document (Initial Regulatory Submittal)	The DWSAP of the proposed well establishing protection zones, documenting potential contaminating activities, defining the well’s physical barrier effectiveness, and assessing vulnerabilities to the well.
Well Plot Plan (Initial Regulatory Submittal)	The plot plan for the proposed well, and conceptual site plan of proposed facilities, documenting control zone and protection from threats.
Well Design (Initial Regulatory Submittal)	The preliminary design of the production well is provided in the initial submittal. The as-builts are provided in the final permit application (subsequent scope of work).
State Well No. and Lat./Long. (Initial Regulatory Submittal)	Coordinates for proposed well location. As-Built coordinates are provided in the DWR Well Completion Report.
Water Quality Reports (Initial Regulatory Submittal)	Analytical results for representative samples from monitoring well and other CSD wells. Final water quality testing occurs after production well construction (subsequent scope of work).
CEQA Documentation	The District will prepare CEQA documentation after the initial regulatory submittal by LSCE. Under a subsequent scope of work LSCE will provide the technical information on the production well and treatment facilities for the CEQA documents.
Permit Amendment Application	To be prepared after well station is constructed and tested in the final regulatory submittal (subsequent scope of work).
DWR Well Completion	To be submitted in final permit application after test the well is constructed (subsequent scope of work).
Technical Data Sheets, Technical Report and Operations Plan	To be submitted in final permit application station is constructed and tested (subsequent scope of work).

Task 4 Overview

Key Activities:

- Development of the DDW initial regulatory submittal components identified above.

Deliverables:

- Initial DDW regulatory submittal for production well design and siting concurrence request.

Task 5: Contingency for Undefined Services

LSCE proposes a contingency for unforeseen services that arise during the completion of this work that are not defined in the current scope of services. Any additional work completed under this contingency budget would only be utilized with prior approval from the General Manager.

Fee Proposal

LSCE’s proposed fee estimate for the scope of engineering and field services for the Well 8 hydrogeologic investigation and related tasks are encompassed in the following table. Cost estimates are presented by task and are considered suitable for planning and budgeting purposes.

Task	Description	Outside Services	Engineering Services	Total
1	Project Administration		\$5,040	\$5,040
2	Suitability Assessment and Preliminary DDW Siting Concurrence		\$14,200	\$14,200
3	Exploratory Test Hole Drilling Oversight and Evaluation	\$107,235 ^(1, 2)	\$16,500	\$123,735
4	Well Design and Initial Regulatory Submittal to DDW		\$9,800	\$9,800
5	Contingency for Undefined Services		\$20,000	\$20,000
Totals		\$107,235	\$65,540	\$172,775

Notes:

- (1) Outside services provided by subcontract driller for 500-ft test hole, triple completion monitoring well, and full containment of drilling fluids and cuttings (the ability to dispose cuttings and fluids onsite would result in \$15,000 cost reduction). The total cost also includes Water quality testing performed by certified testing laboratory for a modified-Title 22 water quality analysis from all three (3) piezometers (radionuclides are only taken from the MW reflecting production zone).
- (2) A cost from a surveyor (Mackay & Soms) is included to set the location of the test hole prior to drilling.



The proposed project sum presented above includes LSCE's labor under each task and outside engineering services, all as delineated in this proposal. LSCE will bill monthly for labor and materials, only as incurred, in accordance with LSCE's Schedule of Fees for Engineering and Field services (attached).

If LSCE is directed to deviate from the proposed scope, or as dictated by unforeseen field conditions, LSCE will provide notification of any potential changes in the estimated cost and time to complete the work. LSCE will not proceed with any work that deviates from the approved scope and budget until approval to proceed is granted.

We appreciate the opportunity to provide you with this scope and budget.

Sincerely,
LUHDORFF & SCALMANINI
CONSULTING ENGINEERS



Scott Lewis, P.G.
Principal Geologist



Justin Shobe, P.E.
Supervising Engineer

Attachments: Schedule of Fees for Engineering and Field Services (January 2020)



SCHEDULE OF FEES - ENGINEERING AND FIELD SERVICES 2020

Professional	
Senior Principal	\$225/hr
Principal Professional	\$220/hr
Supervising Professional	\$210/hr
Senior Professional	\$192/hr
Project Professional	\$150 to 170/hr
Staff Professional	\$135 to 145/hr
Technical	
Engineering Inspector	\$140/hr
ACAD Drafting/GIS	\$135/hr
Engineering Assistant	\$105 to 125/hr
Scientist	\$105 to 125/hr
Technician	\$105 to 125/hr
Clerical Support	
Word Processing, Clerical	\$80/hr
Digital Communications Specialist	\$90/hr
Project Admin/Accounting Assistant	\$100/hr
Other Services	
Vehicle Use	\$0.58/mi
Subsistence	Cost Plus 15%
Groundwater Sampling Equipment (Includes Operator)	\$170.00/hr
Copies	0.20 ea
Professional or Technical Testimony	200% of Regular Rates
Technical Overtime (if required)	150% of Regular Rates
Outside Services/Rentals	Cost Plus 15%
Services by Associate Firms	Cost Plus 15%