



TOWN OF DISCOVERY BAY

A COMMUNITY SERVICES DISTRICT

SDLF Platinum-Level of Governance



PLATINUM LEVEL

President – Bryon Gutow • Director – Kevin Graves • Director – Ashley Porter • Director – Michael Callahan • Director – Carolyn Graham

**NOTICE OF THE REGULAR MEETING
OF THE STANDING WATER AND WASTEWATER COMMITTEE
OF THE TOWN OF DISCOVERY BAY
Wednesday, June 2, 2021
5:30 P.M. – 6:30 P.M.**

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 Committee Chambers will be closed to the public.

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

TO ATTEND BY TELECONFERENCE:
Toll-Free Dial-In Number: (866) 848-2216
CONFERENCE ID **5193676302#**

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

Water and Wastewater Committee Board Members

Chair Kevin Graves

Vice-Chair Ashley Porter

A. ROLL CALL

1. Call business meeting to order 5:30 p.m.
2. 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 Committee 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 Committee for consideration. Any person wishing to speak will have 3 minutes to make their comment. There will be no dialog between the Committee and the commenter as the law strictly limits the ability of Committee 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 Committee only. Any clarifying questions from the Committee must go through the Chair. Comments from the public do not necessarily reflect the viewpoint of the Committee members.

C. DRAFT MINUTES TO BE APPROVED

1. Approve May 5, 2021 Regular Water and Wastewater Committee DRAFT meeting minutes.

D. PRESENTATIONS

1. Water and Wastewater Update.

E. DISCUSSION ITEMS

1. Well 1B Rehab Summary.
2. Discussion and Receive Input on the Environmental Mitigation Monitoring Plan (EMMP) Prepared by Advisian for the Diffuser Repair Project.

F. FUTURE DISCUSSION/AGENDA ITEMS**G. ADJOURNMENT**

1. Adjourn to the next Standing Water and Wastewater Committee meeting 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."

"Materials related to an item on the Agenda submitted to the Town of Discovery Bay after distribution of the agenda packet are available for public inspection in the District Office located at 1800 Willow Lake Road during normal business hours."



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**MINUTES OF THE REGULAR MEETING
OF THE WATER AND WASTEWATER COMMITTEE
OF THE TOWN OF DISCOVERY BAY
Wednesday, May 5, 2021
STANDING WATER AND WASTEWATER COMMITTEE REGULAR MEETING
5:30 P.M. – 6:30 P.M.**

**NOTICE
Coronavirus COVID-19**

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Water and Wastewater Committee Board Members

Chair Kevin Graves

Vice-Chair Ashley Porter

A. ROLL CALL

1. Call business meeting to order 5:30 p.m. – By Chair Graves
2. Roll Call – All present.

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

None.

C. DRAFT MINUTES TO BE APPROVED

1. Approve DRAFT minutes of April 7, 2021 Regular Water and Wastewater Committee meeting. Motion made by Vice-Chair Porter to approve items on the Consent Calendar as presented. Second by Chair Graves.

D. PRESENTATIONS

E. DISCUSSION ITEMS

1. Discussion Regarding Vac Truck.

Water and Wastewater Manager Aaron Goldsworthy provided update on the search for a new Vac Truck due to high emissions. He has received a few quotes from vendors. Vice-Chair Porter offered her knowledge in this field. Water and Wastewater Manager Aaron Goldsworthy and Vice-Chair Porter will work together to purchase the correct truck to meet the state mandate requirements. The preliminary budget for this item is \$600,000. General Manager Mike Davies asked Vice-Chair Porter if this is an item that would be deemed sole source. Vice-Chair Porter replied that a sole source purchase would be based on the Town's needs.

2. Discussion and Provide Feedback Regarding the District's Strategy for Providing Sewer Services to Future New Developments.

District Water Engineer Gregory Harris and the committee members discussed the needs of Cecchini Ranch. Staff requested direction from the committee to establish an outline that would permit Cecchini Ranch to use Town of Discovery Bay resources at a reasonable cost. Town of Discovery Bay Water and Wastewater Plants do not currently have the capacity to handle a large addition of residents. Plans will need to be put in place for expansion and cost will need to be discussed with Cecchini Ranch.

Chair Graves expressed favorability to discontinue all of Plant No. 1 production and expand services at Plant No. 2 to accommodate any growth in population to the town.

Chair Graves stated there have not been any complaints of smells since Plant No. 1 was taken offline. Stated it would be unwise for Town of Discovery Bay to bring Plant No. 1 back to production.

There was discussion regarding the capacity of the Town to accommodate new development.

District Water Engineer Gregory Harris stated Town is requesting the committee approve services from Lechowicz & Tseng Municipal Consultants to provide a study to determine a price for the use of Town of Discovery Bay resources by Cecchini Ranch.

Request was made to have any future developments pay for any studies and analysis.

Request was made to incorporate recycled water into future developments. This will require a consultant be hired to develop a recycled water master plan, and cost should be paid by developer. It will be necessary to hire a consultant to advise the District if the recycled water quality is feasible for landscape use.

Committee was asked to approve that any future expansion projects continue to be planned, designed, and constructed by the District, and the cost will be furnished by developers.

Lastly, Committee was asked to approve the District be allowed to accommodate some initial phases of future development into existing sewer facilities where they can be safely accommodated based on the sewer capacity fee at the time.

The District is requesting feedback on strategies to evaluate sewer services for future development outside the current service area.

Chair Graves asked if town staff time can be billed for work done as part of the developer's projects.

General Manager Mike Davies advised that staff time invested is reimbursable per the established agreement.

Project Manager Mike Yeraka stated Town would like the support of the Board.

Motion made by Chair Graves to accept the strategy outlined and discussed by District Water Engineer Gregory Harris as items 1-7 with regards to the negotiations with the owners of new developments outside of Town of Discovery Bay's planning areas.

Second by Vice-Chair Porter.

This item will be presented to the Board for informational purposes.

3. Discussion and Provide Feedback on Scope of Work for BSK to Perform Geotechnical Services During Construction for the Denitrification Project in the Amount of \$90,752.

District Water Engineer Gregory Harris advised the Committee that he has reviewed the scope of work and agrees it is reasonable for the work that is entailed. He is looking for Committee recommendation to present it to the Board.

Motion made by Chair Graves to move this item to the Board for review.

Second by Vice-Chair Porter.

4. Discussion Regarding Diffuser Project.

Duckbills in the diffusers are designed to let treated water slowly flow into the river. The duckbills are currently broken and are clogged with mud, not allowing treated water to get out. The resolution proposed by Advisian was quoted at \$1,000,000. With a simplified design, the pipe can be modified to allow vacuuming the mud out. This plan will need to be evaluated for functionality and cost reduction. District Water Engineer Gregory Harris asked the Committee to approve taking this concern to Advisian, setting a budget for \$500,000 and work to find a resolution within the proposed budget.

The Committee and District Water Engineer Gregory Harris discussed a couple of options for removing mud and increasing flow into Old River.

Motion by Vice-Chair Porter to move forward with the option to have Advisian generate a plan under \$500,000 to resolve this issue, while researching the option of anti-siphoning.

Second by Chair Graves.

Comment by General Manager Mike Davies thanking staff and everyone who researched and worked on this project to come up with creative ways to come up with alternatives.

F. FUTURE DISCUSSION/AGENDA ITEMS

G. ADJOURNMENT

1. Adjourned at 6:51p.m. to the next Standing Water and Wastewater Committee meeting at the Community Center located at 1601 Discovery Bay Boulevard.

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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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DRAFT



Town of Discovery Bay

"A Community Services District"

STAFF REPORT

Meeting Date

June 2, 2021

Prepared By: Justin Shobe, District Water Engineer
Submitted By: Dina Breitstein, Assistant General Manager

Agenda Title

Well 1B Rehab Summary.

Recommended Action

Continue monitoring Well 1B water levels. Evaluate options for future well replacement.

Executive Summary

A well rehab was conducted on Well 1B to address declining capacity and replace the submersible motor that was at the end of its service life. Well 1B was constructed in 1996 to replace another well on the same site. It was installed with a submersible motor (Byron Jackson) that has been in service until this current rehab. The attached well profile shows the construction of the well.

The well was taken out of service in January 2021 for the rehab work. The well rehab was conducted by Roadrunner Drilling and Pump Company from March 15 to April 8, 2021. The rehab work generally involved:

- Line brushing and bailing all fill material out of the well;
- Chemicals mixed in several different batches and concentrations; lowering pH in the well as low as 0. Iteratively line brush and placing chemicals in tandem, checking pH and surging chemicals into the formation with a line swab.
- Swab/air-lifting screen sections to remove the chemicals and solids until the turbidity of airlifted fluids was less than 20 NTU with a pH no less than 6.

Upon completion of the rehab, a test pump was installed to develop and test the well.

The new pump and motor were installed by the Pump Repair Service. The new pump and motor were inspected by LSCE and tested for acceptance on May 6, 2021. The pump and motor are both operating at the flows and efficiency required in the contract. Attached is the pump curve showing the field test data.

The well has been successfully tested and been placed back in regularly operation by Veolia.

The "specific capacity" of a well is a measure of the flowrate the well can produce per foot of water level drawdown in the well, calculated over a 24 hour period of constant pumping. The specific capacity is measured periodically to track declines in well efficiency over time and plan for future rehabilitations.

LSCE measured the well specific capacity before and after the rehab to identify if any improvements were made. The table below shows the results of historic specific capacity testing, including the measurements taken before and after the 2010 rehab and the 2021 rehabs (pre-rehab and post-rehab). As can be seen, the rehabs on this well in 2010 and 2021 did not significantly specific capacity.

Date	Flow Rate (gpm)	Static Water Level (feet bgs)	Projected 24-Hour Pumping Water Level (feet bgs)	24-Hour Specific Capacity (gpm/ft)
2003, March 1	2,500	19	126	23.4
2007, October 7	1,623	47	143	16.8
2009, November 9 (Pre-Rehab)	1,764	44	199	11.4
2011, September 21 (Post-Rehab)	1,836	29	193	11.2
2013, November 25	1,865	43	232	9.8
2015, October 20	1,692	42	232	8.9
2017, October 12	1,790	55	240	9.7
2019, October 24	1,825	43	254	8.7
2021, March 3 (Pre-Rehab)	1,541	34	223	8.2
2021, April 6 (Post-Rehab)	1,492	47	223	8.5

At current conditions, the deepest pumping water level in the well is estimated to be approximately 240 feet below ground surface. There is about 20 feet of buffer from the deepest water level to the pump (which is set 260 feet deep) and about 31 feet of buffer to the upper most screen (which is 271 feet deep).

At current conditions, Well 1B will continue producing around 1,500 to 1,600 gpm. If specific capacity continues to decline, then the current production rate would no longer be feasible. If this occurs, the options to mitigate the issue would be to lower the pump, reduce the flowrate, or replace the well. Lowering the pump 30 feet would only provide an additional 10 feet of buffer because of the upper well screen depth. Lowering the pump would require additional column pipe and cable as well as installing a cooling shroud around the motor.

It is recommended to closely monitor the specific capacity of Well 1B (monthly) to identify the rate of decline and determine when appropriate action should be taken. Well replacement options should also be considered. Based on preliminary review, it may be possible to install a new well on the site; however, a variance from DDW would be needed for sanitary offsets and further evaluation is needed to consider site constructability and demolition. Other potential well sites should be identified and screened for a Well 1B replacement.

Previous Relevant Board Actions for This Item

N/A

Fiscal Impact: N/A

Amount Requested: None

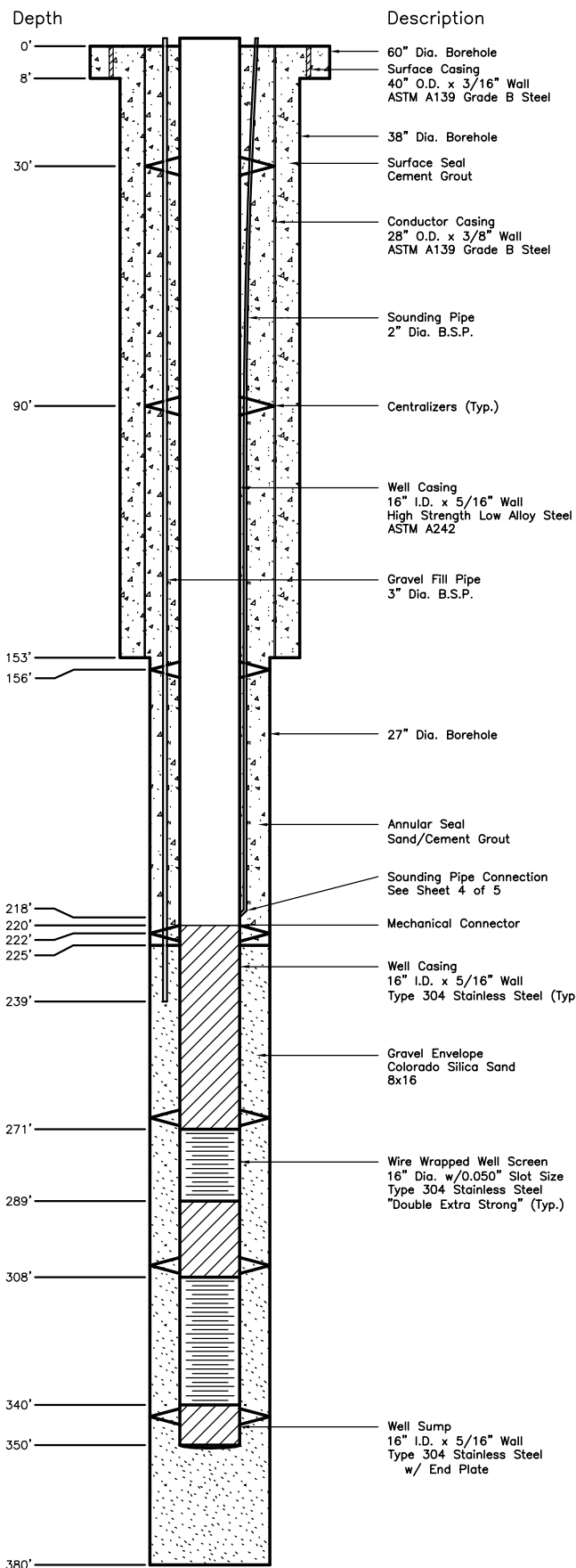
Sufficient Budgeted Funds Available?: N/A

Prog/Fund # Category: N/A

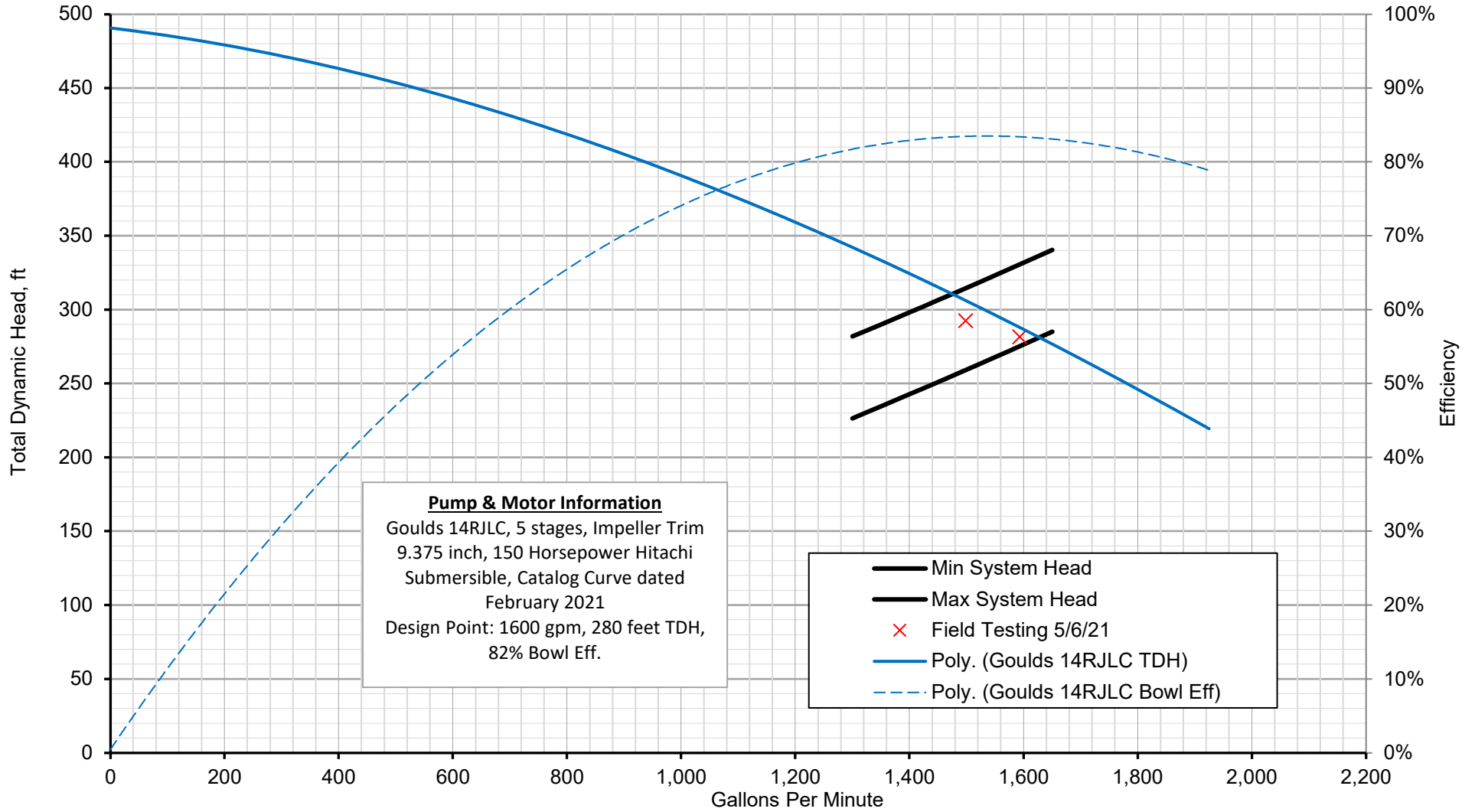
Attachment

1. Well 1B Profile As-Built
2. Pump Curve
3. Specific Capacity Chart
4. Site Plan
5. Site Aerial

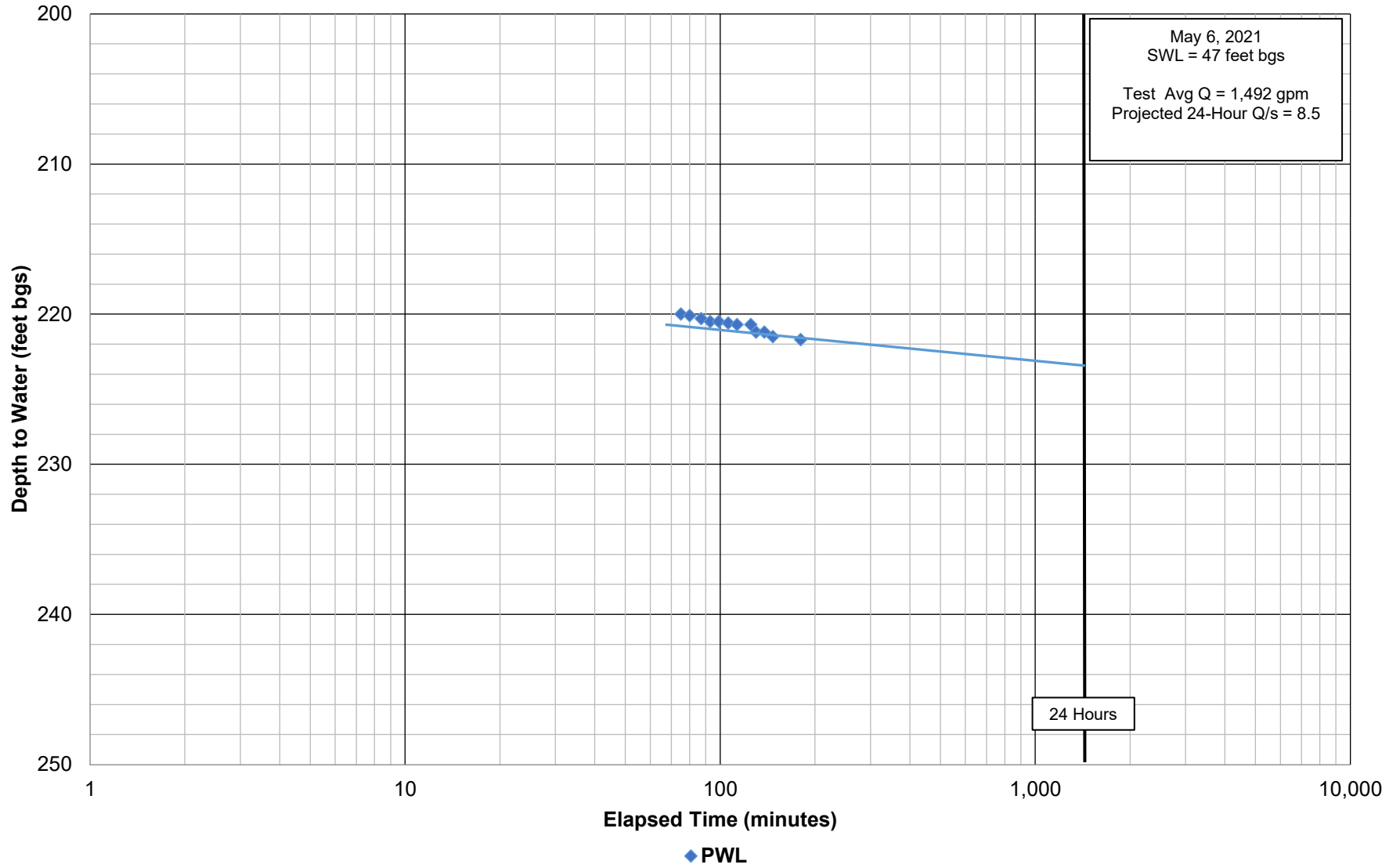
AGENDA ITEM: E-1

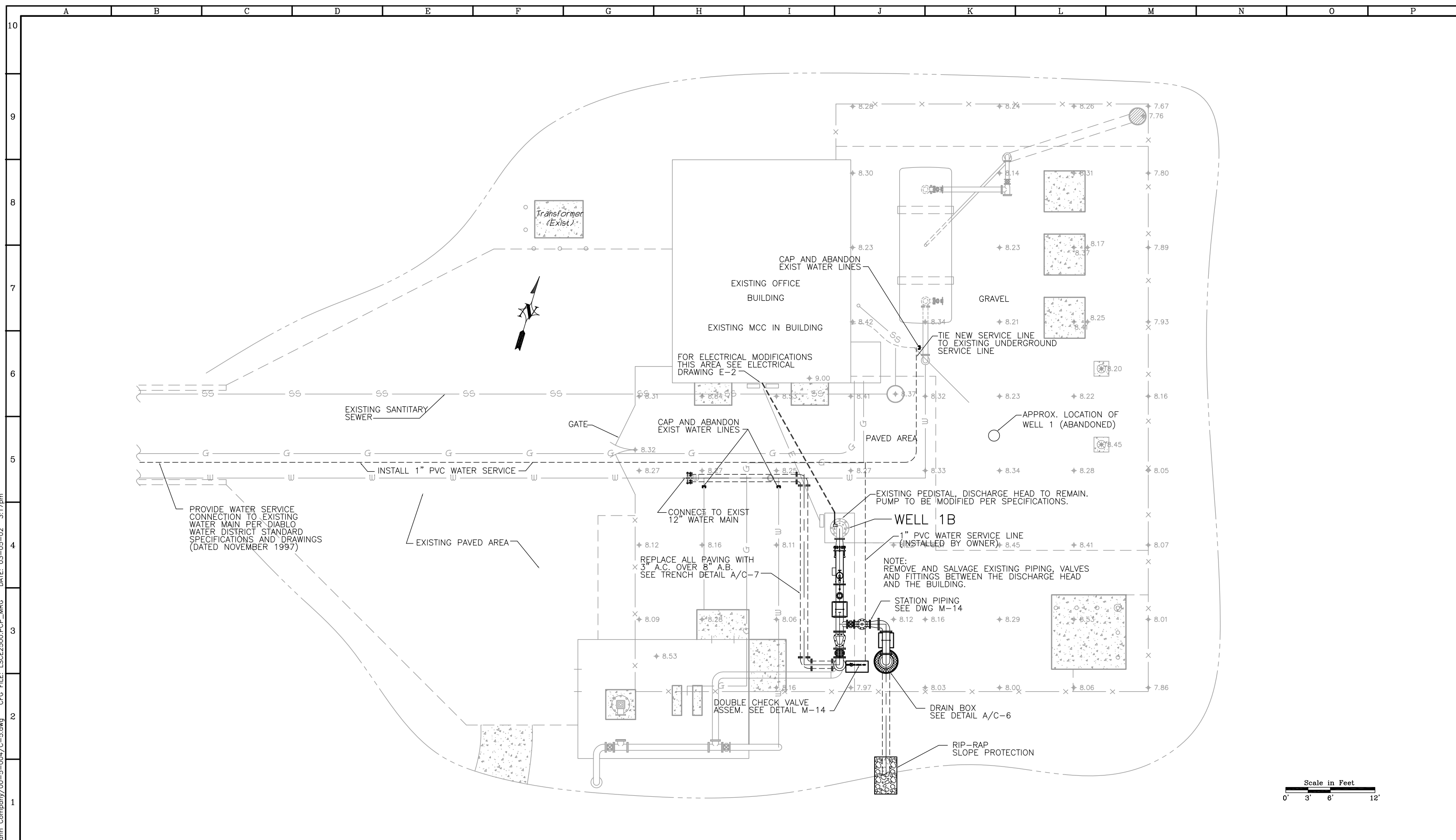


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Town of Discovery Bay Well 1B Post Rehabilitation Specific Capacity Test





CAD FILE: G:/Projects/Hofmann Company/00-5-004/C-5.dwg CFG FILE: LSCE2500.PCP_MRG DATE: 03-05-02 3:17pm

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

FILE	C-1.DWG
DRAWN	DWT
DESIGNED	JDF
CHECKED	WAG
CHECKED	



REVISIONS					
ZONE	REV.	DESCRIPTION	BY	DATE	APP.

TOWN OF DISCOVERY BAY
WILLOW LAKE ROAD
WATER STORAGE AND TREATMENT PLANT

SUBMITTED: _____ DATE: _____
 SUBMITTAL APPROVED: _____ DATE: _____

WELL 1B SITE PLAN

SCALE	1=6'
DRAWING NUMBER	C-1
SHEET NUMBER	_____ OF _____



P:\Town of Discovery Bay Water System\Asset Management\Discovery Bay\Asset Management.aprx



Well 1B Site

Town of Discovery Bay Community Services District



Town of Discovery Bay

"A Community Services District"

STAFF REPORT

Meeting Date

June 2, 2021

Prepared By: Gregory Harris, District Wastewater Engineer
Submitted By: Dina Breitstein, Assistant General Manager

Agenda Title

Discussion and Receive Input on the Environmental Mitigation Monitoring Plan (EMMP) Prepared by Advisian for the Diffuser Repair Project.

Recommended Action

Provide input on the Environmental Mitigation Monitoring Plan (EMMP) prepared by Advisian for the Diffuser Repair Project and recommend bringing for board approval at the June 2, 2021 Board of Directors meeting.

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 diver was hired to inspect the diffuser in 2013. The inspection report indicated several of the diffuser ports are missing and a portion of the diffuser has become plugged and no longer operates properly. During startup of the filtration project, testing of the effluent pump station showed the pump station can no longer pump 4 million gallons per day (MGD) of flow to Old River. 4.3 MGD is the design flow of the pump station and was demonstrated when the pump station was tested in 2004 after the diffuser install. The capacity of the effluent filtration and UV system is 4 MGD and the effluent pump station needs to be able to pump at least that much flow for the plant to properly handle peak wastewater flows. The most likely cause of the poor performance of the export pump station is the plugged diffuser.

Based on this information, the Town previously 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 item 7012 at a budget cost of \$500,000 for the permits, engineering, and construction of the diffuser repairs.

In August 2019, the Town again hired Advisian to prepare environmental reports and CEQA documents for the repair of the diffuser system. The documents have been completed and filed with the appropriate agencies, including the Army Corps of Engineers, State Fish and Wildlife, State Lands Commission, and Contra Costa County. The Environmental Mitigation Monitoring Plan (EMMP) prepared by Advisian must be adopted by the Town Board and sent to the State Clearinghouse project data base along with the resolution by the Town signifying adoption.

Action must be taken at the Town June 2, 2021 Board meeting because the project approval is on the Agenda at the State Lands Commission for their June 29 Board meeting. The EMMP must be adopted by the Town prior to their agenda packets going out for their meeting.

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.

Authorization to hire Advisian to prepare the permits for the diffuser December 5, 2018.
Authorization to hire Advisian to prepare CEQA Documents for the diffuser August 21, 2019.

Fiscal Impact: none.
Amount Requested: NA
Sufficient Budgeted Funds Available?: NA
Prog/Fund # Category: NA

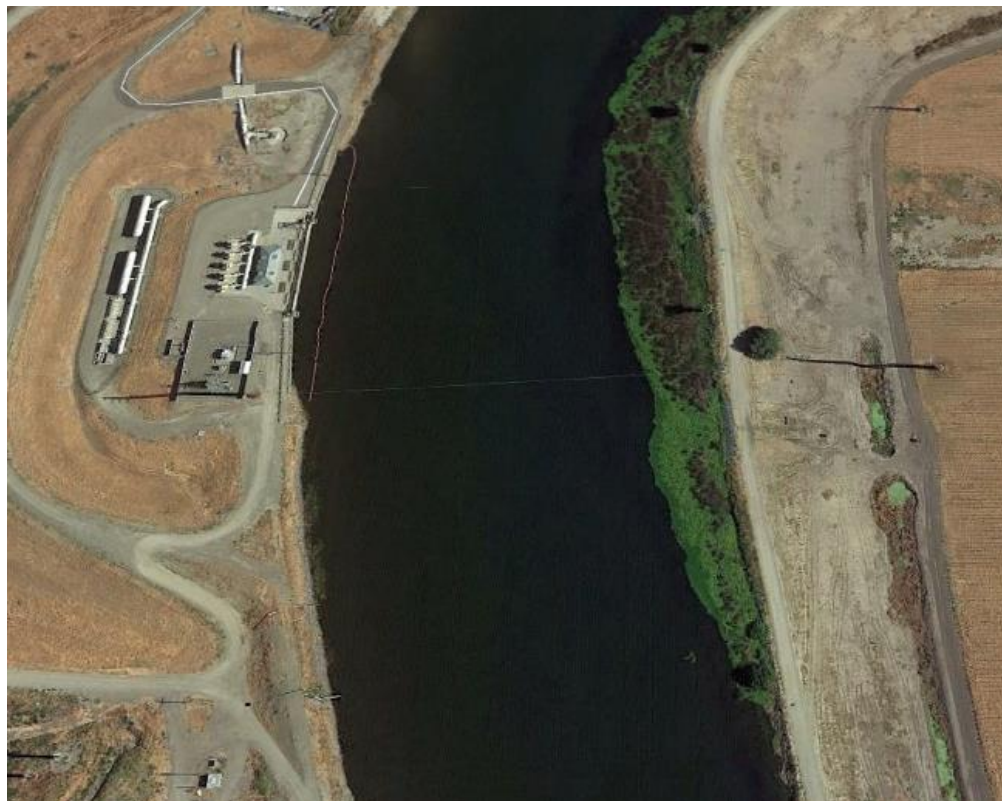
Attachments

Environmental Mitigation Monitoring Plan (EMMP) Town of Discovery Bay Diffuser Outfall Repair Project, May 2021.

AGENDA ITEM: E-2

Environmental Monitoring and Mitigation Plan (EMMP)

Town of Discovery Bay Diffuser Outfall Repair Project



Prepared for:

Town of Discovery Bay, California

May 2021

Prepared by:

**Advisian Worley Group
2330 E Bidwell Street, Ste. 120
Folsom, CA 95630 USA**

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A. Abbreviations

ADA	Americans with Disabilities Act
AQMD	Air Quality Management District
BMP	Best Management Practices
BSA	Biological Study Area
BRR	Biological Resources Report
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CDFG	California Department of Fish and Game (now CDFW)
CDFW	California Department of Fish and Wildlife (formerly CDFG)
CDPR	California Department of Parks and Recreation
CNDDDB	California Natural Diversity Database (maintained by CDFW)
CNPS	California Native Plant Society
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
IS	Initial Study
MND	Mitigated Negative Declaration
NPDES	National Pollutant Discharge Elimination System
NP	Natural Preserve
PRC	Public Resources Code
RWQCB	Regional Water Quality Control Board
SWPPP	Storm Water Pollution Prevention Plan
City	Town of Discovery Bay
USACE	United States Army Corp of Engineers

CHAPTER 1 - INTRODUCTION

1.1 CEQA REQUIREMENTS

1.1.1 Program Objectives

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document that includes measures to comply with, monitor, mitigate, or avoid significant environmental effects, the public agency must adopt an Environmental Monitoring and Mitigation Plan (EMMP) for the changes to the project that it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The appropriate reporting or monitoring plan must be designed to ensure compliance during project implementation (Public Resources Code Section 21081.6).

The Town of Discovery Bay (Town) would coordinate monitoring of the implementation of all mitigation measures for the project with the Town of Discovery Bay (City). Monitoring will include: 1) verification that each mitigation measure has been implemented; 2) recordation of the actions taken to implement each mitigation measure; and 3) retention of records in the project file.

The objectives of the EMMP for the Proposed Project include the following:

- To provide assurance and documentation that mitigation measures are implemented as planned
- To collect analytical data to assist Town administration in its determination of the effectiveness of the adopted mitigation measures
- To report periodically regarding project compliance with mitigation measures, performance standards and/or other conditions
- To make available to the public, upon request, the Town record of compliance with project mitigation measures

1.1.2 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 the Town. The contact person for the lead agency is:

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

1.1.3 Project Description

The existing Wastewater Treatment Facility consists of two adjacent Plants: 1 and 2. Plant 1 is in the southeast corner of the Town of Discovery Bay, north of Highway 4. Surrounding the plant are single-family homes and a golf course to the north and west, the Contra Costa County Reclamation District 800 drainage canal to the east (across which is open agricultural land), and 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 wastewater capacity of Plant 1 was 1.2 million gallons per day (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 to the Reclamation District 800 drainage canal, from which it is pumped into Old River. The current project proposed no changes for Plant 1.

Plant 2 is located diagonally across Highway 4 from Plant 1. Highway 4 forms the north boundary of the site, separating it from open agricultural land. The Reclamation District 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 is pumped to existing outfall facility and diffuser, comprised of a multi-port diffuser system. This current facility conveys the discharge to a 14-inch diameter force main that is buried in a trench to the outfall system, with effluent pumped into Old River through a penetration at the Old River levee, extending approximately 100 feet out from the levee into a trench along the bottom of the Old River channel. The pipeline terminates in a diffuser (an energy dissipation structure to prevent erosion) consisting of short vertical pipes to release the treated water into Old River.

Per the Outfall Assessment (Worley Assessment) Conclusions and Recommendation, the following analyses include:

- 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 (2017), 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 the 10-in. segment, verifying the flow observations made by the underwater survey.
- The hydraulic assessment completed for the Town's 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. Therefore, the lift station has to deliver a higher pumping head to convey flow through the system. The results showed that to deliver a flow of 3.11 MGD the lift station required a pumping head of 19.9 psi, while under normal conditions the expected pumping head should be of approximately 15 psi. The higher-pressure head required is a result of additional losses encountered by flow being channeled through a lower number of diffusers which increases the jet velocity and the loss at each Tideflex valve. These observed increased head losses are in agreement with 2017 results of the underwater and the CCTV camera inspection (2017).
- To improve the overall system performance, the existing diffuser should be repaired or upgraded.

1.1.4 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. The site is located adjacent to the west levee (left riverbank) and south of the Contra Costa Water District (CCWD) Los Vaqueros Pump Station (Figures 1 and 2). Based on the Kleinfelder Inc. geotechnical report (2004), the Old River at the site location has the following tidal water-level fluctuations and information:

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

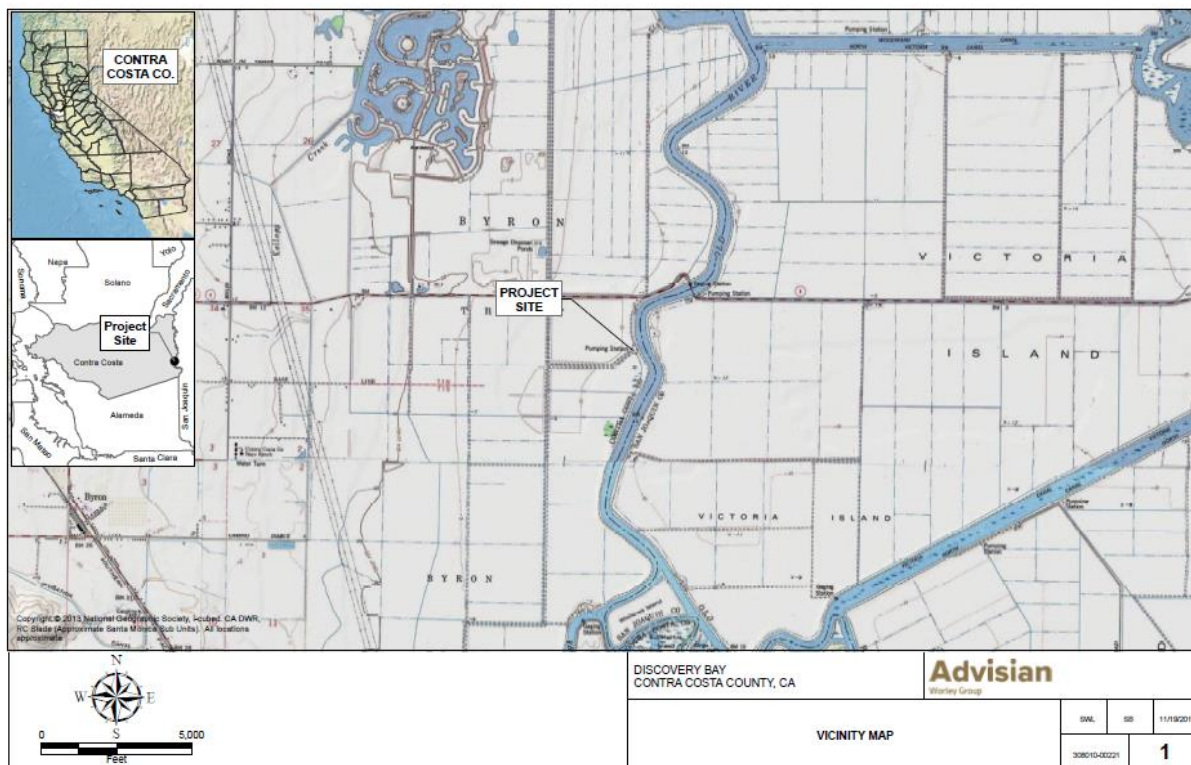


Figure 1 – Vicinity Map



Figure 2 – Site Map

1.1.5 CEQA Analysis Discussion and Findings

As discussed in the ISMND Section II, Agricultural, the project site is almost completely in fallow agricultural use, providing minimal habitat for species of concern. Section IV, Biological Resources, also indicates the lack of sensitive species on the project site and directs the discussion of mitigation measures for potential loss of sensitive-species habitat. Section V, 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 XI, 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 proposed 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 threatened 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 proposed 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.

Based on the ISMND and supporting environmental analysis provided, 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

1.1.6 Regulatory Overview

The proposed replacement outfall diffuser is necessary to comply with the RWCCB5 Water Discharge Requirements Order No. R5-2003-0067 and NPDES Permit No. CA0078590.

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). 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.

Central Valley Regional Water Quality Control Board issued a Clean Water Act Section 401 Technically Conditioned Water Quality Certification (WDID#5B07CR00225).

California Fish and Wildlife will issue a Lake and Streambed Alteration Agreement (LSA) for the construction of the outfall.

The potential for the project to affect ESA-protected anadromous fish species was initiated in an 18 December 2020 Section ESA – Initiation Package for Endangered Species Act Consultation prepared by Advisian on behalf of the Town and submitted to the United States Army Corps of Engineers (USACE). The fish species include: The Endangered Sacramento River winter-run Chinook salmon, and three Threatened species, including: Central Valley spring-run Chinook salmon, California Central Valley steelhead, and southern distinct population segment of North American green sturgeon. This Section 7 Consultation report was provided to the USACE on 18 December 2020, and comments were received from the USACE on 21 April 2021. The Section 7 Initiation Package with clarifications from Advisian and the USACE was reviewed by the National Marine Fisheries Service, West Coast Region, and in a letter of 7 May, 2021, indicated that the proposed project as presented including the designated construction schedule would be unlikely to adversely affect these fish species or designated critical habitat.

Note: the September 15-November construction window mostly avoids these species movements through Old River.

1.1.7 Organization of the Monitoring and Mitigation Program

The following describes the various sections of the MMRP:

Introduction - Provides an overview of CEQA's monitoring and reporting requirements, program objectives, the project for which the program has been prepared, and the manner in which the mitigation monitoring program has been organized.

EMMP - Describes the entities responsible for implementation of the monitoring and mitigation plan, the plan scope, procedures for monitoring and reporting, public availability of documents, the process for making changes to the program, types of mitigation measures, compliance actions and the manner in which monitoring will be coordinated to ensure implementation of mitigation measures.

Mitigation Monitoring and Reporting Summary - Outlines the impacts and avoidance actions, mitigation measures, responsible entities, and the timing for monitoring and reporting for each

mitigation measure included in the plan. A form for actual use by the Facilities, Planning & Development office and/or its assigned agents will be constructed from this information for each responsible entity.

These action items are detailed in two sections within Chapter 3: Section 3.1 MONITORING AND MITIGATION MEASURES (Table 3.1) and Section 3.2 APPLICANT PROPOSED MEASURES (Table 3.2). Table 3.1 encompasses the measures outlined in the ISMND and Table 3.2 encompasses additional measures recommended by regulatory agencies and project team members during the planning and design phases of the project.

Report Preparation - Lists the individuals involved in development of this EMMP.

CHAPTER 2 - DESCRIPTION OF PLAN

2.1 MONITORING AND MITIGATION PROCEDURES

This EMMP delegates responsibilities for monitoring the project, and also allows responsible entities flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. The timing for monitoring and reporting is described in the monitoring and reporting summary table included as part of this program (see Chapter 3). Adequate monitoring consists of demonstrating that monitoring procedures took place and that mitigation measures were implemented.

In order to enhance the effectiveness of the monitoring program, Town will utilize existing systems where appropriate. For instance, with any major construction project, the administration generally has at least one inspector assigned to monitor project construction. These inspectors are familiar with a broad range of regulatory issues and will provide first-line oversight for much of the monitoring program.

Additional compliance, monitoring, mitigation or management personnel to provide expert guidance, reporting or implementation will be assigned as appropriate to meet the mitigation requirements outlined in Chapter 3.

Responsibilities of Town include identification of typical mitigation measure-related issues such as noisy equipment, dust, safety problems, and accelerated erosion/drainage. Any problems are generally corrected through directions to the contractors, or through other appropriate, established mechanisms. Internal reporting procedures are already in place to document any problems and to address broader implementation issues.

2.1.1 Reporting Procedures

The City is be responsible for monitoring and implementing the mitigation measures included in this monitoring plan.

Reporting consists of establishing a record that a mitigation measure is being implemented, and generally involves the following steps:

- The City distributes reporting forms to the appropriate company office (as indicated in the summary form) or employs the office's existing reporting process for verification of compliance.
- Responsible entities verify compliance by signing the monitoring and reporting form and/or documenting compliance using their own internal procedures when monitoring is triggered.
- Responsible entities provide the City with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented.
- The City prepares construction activities' reports during the construction phase and incorporates project reports, as appropriate, into the periodic reports summarizing all City mitigation monitoring efforts.

The reporting forms prepared by the City would document the implementation status of mitigation measures of the project. The progress reports describe the monitoring status of all project mitigation measures. Project reporting forms and periodic status reports will be available at the City.

The City would also be responsible for assisting their contractor with reporting responsibilities to ensure that they understand their charge and complete their reporting procedures accurately and on schedule.

2.1.2 Public Availability

All monitoring reporting forms, summaries, data sheets, and correction instructions related to the EMMP, would be available for public review upon request at the City during normal business hours.

2.1.3 Program Changes

If minor changes are required to the EMMP, they would be made in accordance with CEQA and would be permitted after further review by the City. Such changes could include reassignment of monitoring and reporting responsibilities and/or redesign to make any appropriate improvements. No change would be permitted unless the mitigation monitoring and reporting plan continues to satisfy the requirements of Public Resources Code Section 21081.6.

2.1.4 Types of Mitigation and Compliance Being Monitored

The Initial Study/Mitigated Negative Declaration for the Town of Discovery Bay Outfall Diffuser Upgrade Project is a “project specific” evaluation as defined in the CEQA Guidelines.

The Initial Study/Mitigated Negative Declaration recommends thirty project-specific mitigation measures to reduce impacts related to air quality, biological resources, and cultural resources during construction, and four additional Applicant Proposed Measures. Compliance with these mitigation measures will be accomplished through administrative controls over project planning and implementation, in this case, through incorporation of specific construction methods, and verification of construction in accordance with these special provisions. Monitoring would be accomplished as described previously under “Reporting Procedures” through verification and certification by personnel.

In general, implementation of the EMMP will require the following actions:

- Appropriate mitigation measures would be included in construction documents.
- Departments with reporting responsibilities would review the Initial Study/Mitigated Negative Declaration, which provides general background information on the reasons for including specified mitigation measures.
- Problems or exceptions to compliance would be addressed by Town as appropriate.
- Periodic meetings may be held during project implementation to report on compliance with mitigation measures.

CHAPTER 3 – EMMP OUTLINE TABLES

3.1 MONITORING AND MITIGATION MEASURES

Mitigation Measure	Responsible Entity	Monitoring Triggers*	Monitoring Entity*	Compliance Action	Verification of Compliance		
					Initials	Date	Comments
AIR QUALITY							
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.	TOWN	3	City	Start of Construction Activities and Any Disturbance			
AQ BM-2: Idling of vehicles shall be minimized to the maximum extent practicable.	Town	2, 3	City	Start of Construction Activities and All Machinery Operations			

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.	TOWN	2, 3	City	During Construction Activities and Disturbance			
AQ BMP-4: All haul trucks transporting soil, sand, or other loose material off-site shall be covered	TOWN	2, 3	City	During Construction Activities and All Machinery Operations			
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.	TOWN	2, 3	City	During Construction Activities, Disturbance and All Machinery Operations			
AQ BMP-6: All vehicle speeds on unpaved roads shall be limited to 15 mph.	TOWN	2, 3	City	During Construction Activities, Disturbance and All Machinery Operations			
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.	TOWN	2, 3	City	During Construction Activities, Disturbance and All Machinery Operations			

<p>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.</p>	TOWN	2, 3	City AQMD	During Construction Activities, Disturbance and All Machinery Operations			
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BIOLOGICAL RESOURCES

<p>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:</p> <p>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.</p>	TOWN	2	City	Start of Construction Activities and Any Disturbance			
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<p>Conversely, if owls are observed within this area, the following measures, as specified by the CDFG (2012), shall be followed:</p> <ul style="list-style-type: none"> - 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). <p>Horned Lark – Maintenance activities, including disking and mowing, that have reduced vegetation stature on the site thereby reducing 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. Because of the lack of nesting habitat and the lack of vegetation removal by the project, impacts from the proposed project to horned larks would be less-than-significant.</p>						
<p>BIO-2: Western Pond Turtle – No appreciable changes in water levels from the discharge of treated water into Old River is anticipated and no effects would be expected to western pond turtle use of the area and no mitigation measures are required.</p>	TOWN	2	City	Start of Construction Activities and Any Disturbance		

<p>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:</p> <ul style="list-style-type: none"> • 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. 							
<p>BIO-3: Fish – Construction of the proposed project has potential to cause direct impacts to Delta smelt, longfin smelt, and Sacramento splittail. 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</p>	TOWN	2	City	Start of Construction Activities and Any Disturbance			

<p>species has not been reported for the area (Moore 2003). Mitigation measures to reduce impacts to these three-fish species to less-than-significant include restricting construction work to September through October 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 to three weeks) would help reduce the potential for sediment to negatively affect spawning, including egg maturation and juvenile survival.</p>						
<p>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</p>	TOWN	2, 3	City	Start of Any In-Water Construction Activities and Disturbance		

<p>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.</p>						
<p>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,</p>	TOWN	2, 3	City	Materials storage, During Construction Activity		

<p>screened, or filled with material by Permittee prior to the end of the workday in which installation occurs.</p>							
CULTURAL RESOURCES							
<p>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</p>	TOWN	2	City	Start of Construction Activities and Any Disturbance			

<p>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.</p>							
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Historic resources can include nails, bottles, or other items occurring in refuse deposits.							
<p>CR-2: Cease Work upon the Discovery of Human Remains: Evaluate Remains before Continuing Construction.</p> <p>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</p>	TOWN	2	City	Start of Construction Activities and Any Disturbance			

<p>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.</p>							
GEOLOGY AND SOILS							
<p>GEO-1: Erosion Control A. Prior to the start of construction, Contractor will prepare a Storm Water Plan for CDPR 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.</p>	TOWN	2	City	<p>Start of Construction Activities and Any Disturbance</p> <p>Incorporate into SWPPP</p>			
HAZARDS AND HAZARDOUS MATERIALS							

<p>HAZ-1: Hazardous Material Spills</p> <p>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.</p> <p>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.</p> <p>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):</p> <ol style="list-style-type: none"> 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. 	TOWN	1, 2	City	Start of Construction Activities and Any Disturbance			
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<p>2. A map that delineates construction staging areas, where refueling, lubrication, and maintenance of equipment will occur.</p> <p>3. A list of items required in a spill kit on-site that will be maintained throughout the life of the project.</p>						
<p>HAZ-2: Fire Safety</p> <p>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.</p> <p>B. Spark arrestors or turbochargers (which eliminate sparks in exhaust) and fire extinguishers will be required for all heavy equipment.</p> <p>C. 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.</p>	TOWN	1	City	Start of Construction Activities and Any Disturbance		

<p>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.</p>	TOWN	2	City	Pre-Construction Training			
HYDROLOGY AND WATER QUALITY							
<p>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.</p>	TOWN	1, 2	City	Design, Pre-construction Planning Prior to Construction			
<p>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).</p>	TOWN	2, 3, 4, 5	Central Valley Regional Water Quality Control Board (CVRWQCB)	Design, Pre-construction Planning, Construction and Operations			

<p>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.</p>	TOWN	3	City	During Construction Activities During/Prior to Rain Events			
<p>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.</p>	TOWN	1, 2	City	Pre-Construction Signage, Construction Monitoring			
<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>	TOWN		City	During Construction Activities			
NOISE							
<p>NO-1: All work will be performed between the hours of 7 a.m. and 7 p.m. Monday through</p>	TOWN	1, 2, 3	City	Design, Pre-construction Planning,			

<p>Saturday. Additional implementation of BMPs will include the following procedures, to be incorporated into 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 				<p>Construction Activities and Coordinator</p>			
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<p>shall be limited to weekdays between the hours of 7a.m. and 7p.m.</p> <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 7:00 AM and 7:00 PM. Weekend or holiday work could be implemented to address emergencies or unforeseen circumstances impacting construction.</p>	TOWN	3	City	During Construction Activities			
<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>	TOWN	3	City	All Construction Activities, Vehicle Access and Operation			
<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>	TOWN	3	City	All Construction Activities Exhibiting Noise			

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.	TOWN	3	City	All Construction Activities Exhibiting Noise			
TRANSPORTATION/TRAFFIC							
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.	TOWN	3	City	All Construction Activities and Vehicle/Machinery Use			

B. Table 3.1

3.2 APPLICANT PROPOSED MEASURES

Mitigation Measure	Responsible Entity	Monitoring Triggers	Monitoring Entity	Compliance Action	Verification of Compliance		
					Initials	Date	Comments
BIOLOGICAL RESOURCES							
BIO-5: In-water work window September 15, 2021 to November 1, 2021 to avoid to the extent possible fish migration-movements through the project site.	TOWN	2,3	City	Start of Construction Activities and Any Disturbance			
CULTURAL RESOURCES							

Mitigation Measure	Responsible Entity	Monitoring Triggers	Monitoring Entity	Compliance Action	Verification of Compliance		
					Initials	Date	Comments
CR-3: Properly Trained Native American Monitor to be present on-site at disturbance activity. Project Compliance Manager may qualify under authorization of TE.	TOWN	1, 2, 3	NAHC/TE	During Disruptive Surveying or Earth Movement Activities			
HAZARDS AND HAZARDOUS MATERIALS							
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.	TOWN	2	City	Pre-Construction Training			
WEATHER AND CLIMATE							
WC-1: Minimization and Avoidance Measures <ul style="list-style-type: none"> The in-water work window of September 15 to November 1 minimizes impacts to listed fish species by reducing the potential for fish to be present during construction activities. Best Management Practices (BMPs) to reduce turbidity, siltation, sedimentation runoff, and erosion will be implemented 	TOWN	1,2,3	NOAA	All Construction Activities and Disturbance and Vehicle/Machinery Use Incorporate into SWPPP			

Mitigation Measure	Responsible Entity	Monitoring Triggers	Monitoring Entity	Compliance Action	Verification of Compliance		
					Initials	Date	Comments
<p>and remain in place at all times, including covering any stockpiled materials or soils and by constructing silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and disturbed areas. Prior to the start of work, the contractor will develop a Storm Water Plan that identifies BMPs to be used in the construction area.</p> <ul style="list-style-type: none"> • If an unseasonal storm is anticipated, the contractor will cover (i.e., tarp) any stockpiled materials or soil and install silt fences, straw bale barriers, fiber rolls, or other structures around areas of ground disturbance. • No monofilament or other non-biodegradable materials will be used, and employed. BMP materials will be removed as soon as construction activities are complete. • During pipe removal and installation, the contractor will use a suction dredge to remove existing fill material covering the outfall diffuser pipe. The hydraulic suction dredge will be operated so that the intake is at or below the surface of the material being removed. • During dredging activity, the suction dredge may stir up fine particles. A secondary suction device will be 							

Mitigation Measure	Responsible Entity	Monitoring Triggers	Monitoring Entity	Compliance Action	Verification of Compliance		
					Initials	Date	Comments
<p>employed by a second diver to capture the suspended particles mobilized by the dredge. The secondary suction device will further minimize turbidity in the water column as the dredge operates.</p> <ul style="list-style-type: none"> • Turbidity will be maintained at levels below a 10 percent increase averaged over a 24- hour sampling period. The contractor will continuously monitor turbidity during dredging at two stations, located at mid-river in the channel approximately 80 feet upstream and 300 feet downstream from the dredge site. The monitoring station attendants will be in touch with the dive crew via radio and will notify the dredge operator if turbidity levels approach the 10 percent increase over 24-hour-averaging limit. If the monitor station attendant observes an increase at or above 10 percent over 24 hours, work will cease until the turbidity level returns to baseline. 							

C. Table 3.2

3.3.1 Monitoring Triggers*

- 1 Planning Stage (schematic design and design development)
- 2 Pre-Construction
- 3 Construction
- 4 Commencement of Operation
- 5 On-going through Project Operations

3.3.2 Responsible Entity

California Department of Fish and Game	(CDFG)
Town of Discovery Bay	(City)
California State Lands Commission	(CSLC)
Native American Heritage Commission	(NAHC)
Central Valley Regional Water Quality Control Board	(CVRWQCB)
United States Army Corp of Engineers	(USACE)
National Oceanic and Atmospheric Administration	(NOAA)
Tribal Entity	(TE)
Air Quality Management District	(AQMD)

4.1 REPORT CITATIONS

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Kleinfelder, Inc. 2004. Preliminary Geotechnical Services Report, Discovery Bay Outfall Diffuser in Contra Costa County, California.

Moore, D.S. 2003. Draft biological resources assessment for the wastewater treatment plant expansion project. Discovery Bay, California.

Notification of Lake or Streambed Alteration for the Town of Discovery Bay. 2004. Notification No. 1600-2004-0047-04.

Sadler, Berney. Plant Manager, Discovery Bay Wastewater Treatment Plant. Personal communication with Len Marino, Advisian. September 27, 2019.

5.1 REPORT PREPARATION

This EMMP was prepared for the Town of Discovery Bay, Public Works Division by Advisian Worley Group, Inc. The following individuals participated in the report preparation.

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