



Photo: Existing Headworks Motor Control Center to Be Replaced in Project

Project Name: WWTP - Elec/Mech Rehab & Sludge Holding Tank Replacement Project
Project Location: Wastewater Treatment Plant
Project Manager: Treanor
Project Number: 18-01
Status: In Final Design Phase
Project Description: The WWTP Rehabilitation Phase II Project is a multi-area project at the WWTP aimed at mitigating risk of failure in the Influent Pump Station, Headworks, 3W/Chlorine Analyzer Building, Effluent Building and Sludge Storage Tank. Most of the work involves replacing aged electrical and mechanical equipment in existing buildings.
Department: Treatment
Budget Status: Budget: \$9,780,000
 Actual to Date: \$814,897
Reclamation Share: Estimated at 4% of project cost. Actual share TBD based on Construction Costs.
Other Entities: Pebble Beach Community Services District, CAWD/PBCSD Reclamation Project
Permits Required: Coastal Commission Notification
Challenges: Electrical Cutover Coordination
Schedule:

- Design to be completed in 2019
- Construction anticipated for 2020 through 2021

Consultants: Kennedy/Jenks Consultants (Design Engineer)
Contractor: TBD



Photo: Existing Server Hardware that will be replaced in Project

Project Name: Ops Building Historian and Reporting
Project Location: Wastewater Treatment Plant
Project Manager: Foley
Project Number: 18-02
Status: Final Testing Phase
Project Description: The report writer and historian system provide historical data for compliance and process reports. The existing system is connected to the legacy Supervisory Control and Data Acquisition (SCADA) system. This project will update the reporting hardware and software and integrate the system with the updated SCADA system. The update was necessary since the legacy system it was based on no longer supported Windows 7 platform.
Department: Treatment
Budget Status: Budget: \$77,245
 Actual to Date: \$60,463
Reclamation Share: Estimated at 50%.
Schedule:

- Design to be completed in 2019
- Report and Historian configuration to be completed by June 2020.

Consultants: WorkSmart Automation
Contractor: N/A

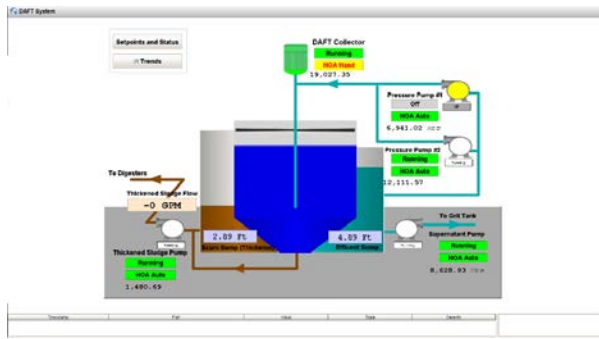


Photo: DAFT SCADA Overview

Project Name: Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) Programming Project

Project Location: Wastewater Treatment Plant

Project Manager: Foley

Project Number: 18-05

Status: In progress

Project Description During the Phase 1 project a new SCADA software package from Inductive Automation was installed in parallel with the existing system. This project includes the migration of the remaining SCADA screens from the legacy system to the new system. The PLC code is also being updated to the CAWD standards that are being developed during this project. This project is necessary to replace obsolete software and hardware so that the automated controls, alarms and reporting remain accurate and reliable.

Department: Treatment

Budget Status: Budget: \$300,000
Actual to Date: \$274,079

Reclamation Share: Partial Reclamation

Schedule:

- Existing SCADA to be migrated in 2020
- SCADA screens will be revised for equipment that is replaced during Mechanical and Electrical Rehabilitation Project

Consultants: Informative Controls

Contractor: N/A



Photo: Old Digester No. 2

Project Name: Digester No. 1 & Old Digester No. 2 Purging and Cleaning

Project Location: Wastewater Treatment Plant

Project Manager: Waggoner

Project Number: 18-07

Status: Digester No. 1 Complete / Ops to Clean
Remainder of Old Digester No. 2

Project Description Digester No. 1 cleaning is completed. Old Digester No. 2 is planned to be demolished. Old Digester No. 2 will be drained by staff as it will not have debris buildup because it was a Secondary Digester (Treating supernatant from Digester No. 1).

Department: Treatment

Budget Status: Budget: \$317,250
Final: \$306,245

Reclamation Share: N/A

Other Entities: N/A

Permits Required: N/A

Challenges: Unknown quantity of debris in Digester No. 1

Schedule:

- Digester 1 complete
- Digester 2 to be cleaned by Ops in Spring 2020

Contractor: Synagro WWT



Photo: Example Trailer Standby Generator

Project Name: Standby Power Reliability Project

Project Location: Wastewater Treatment Plant

Project Manager: Foley

Project Number: 18-08

Status: In Design Phase

Project Description This project involves purchasing a trailer mounted 750kW generator to serve as a full capacity backup to the existing standby system in case the existing 750kW generator were to fail. The Main Switchgear would be reprogrammed to run off one generator with a standby (instead of the current split bus system). This would allow removal of the existing 450kW generator (which has obsolete controls and is not capable of powering the entire WWTP if the 750kW were to fail during a power outage).

Department: Treatment

Budget Status: Budget: \$730,000
Actual to Date: \$1,000

Reclamation Share: N/A

Other Entities: N/A

Permits Required: Air Board Permit

Challenges: N/A

Schedule:

- Design to be completed in 2019
- Construction anticipated for 2020

Consultants: Beecher Engineering

Contractor: TBD



Photo: Existing Gas Conditioning System

Project Name: Microturbine Integration Project
Wastewater Treatment Plant

Project Location: Treanor/Foley

Project Manager: 18-11

Project Number: Pre-Design / Installing New Controls for 65 kW Turbine

Status: Overhaul of existing gas conditioning system and controls for the microturbines. The existing gas conditioning system has been having continual mechanical failures which reduces the amount of time the Microturbines are in service. Significant overhaul of controls is needed to integrate the new 65kW turbine. CAWD is looking into a new gas conditioning system in case the existing system isn't sufficient to treat the gas after the larger 65 kW turbine is placed in service.

Project Description Treatment

Department: Budget: \$510,000
Actual to Date: \$12,363

Budget Status: N/A

Reclamation Share: N/A

Other Entities: Air Board Permit

Permits Required: N/A

Challenges:

- Pre-Design to be completed in 2019/2020
- Final Design to be completed in 2020/2021-Construction anticipated for 2021

Schedule:

- Engine System Integrated

Consultants: TBD

Contractor:



Photo: View H2S damage to Calle La Cruz wet well

Project Name: H2S Control at Calle La Cruz Pump Station

Project Location: Collection System

Project Manager: Lauer

Project Number: 18-16

Status: Proper dosage of CN-9 to reduce H2S has been achieved. Working on long term dosing station.

Project Description: H2S gasses are causing damage to the wet well and are a health hazard. H2S readings of 700ppm have been observed. Staff have tried several different products and found CN-9 (Calcium Nitrate) to work.

Department: Collections

Budget Status: Budget: \$0
Actual to Date: \$0

Permits Required: N/A

Challenges: Getting the right dosage to remove odor. Dealing with source of problem.

Schedule: Ongoing

Contractor: In-house to date



Photo: View of a temporary repair of a manhole in Hatton Canyon

Project Name: Hatton Canyon Pipe Bursting

Project Location: Collection System

Project Manager: Lather

Project Number: 18-17

Status: Started bidding process at 2/27/2020 meeting. A \$1M FEMA/OES Grant Awarded. All permits have been approved.

Project Description: Replace 5,570 linear ft. of 60-year old 8" vitrified clay, bell & spigot pipeline within Hatton Canyon, Experienced over 3 spills in past 20 years due to flooding. Replace with 10" butt welded HDPE pipe that will be watertight & anchored into upgraded manholes. This is designed to eliminate future spills.

Department: Collection

Budget Status: Budget: \$1,450,000
Actual to Date: \$249,022

Other Entities: State Parks; Fish & Wildlife, Army Corps, FEMA, CalOES

Permits Required: State Parks Easement, Army Corps, U.S. Fish & Wildlife, State Fish & Wildlife, and Monterey County Encroachment Permit.

Challenges: The project is located within a State Parks easement along the west bank of Hatton Creek. Existing access road is surrounded by riparian habitat.

Schedule: Work required to be completed between June – October. Plan to construct project in 2020.



Photo: Pump station Control Panel- PLC and Operator Interface will be upgraded at Pump stations.

Project Name: Pump Station PLC/SCADA Replacement

Project Location: Collections Pump Stations

Project Manager: Foley

Project Number: 18-18

Status: Construction In-Progress

Project Description This project will replace the obsolete Programmable Logic Controllers at 7 sewage pump station that are no longer supportable due to lack of parts. The PLC programming will be updated, and the Supervisory Control and Data Acquisition Visualization screens will be updated to the Ignition SCADA software.

Department: Treatment

Budget Status: Budget: \$600,000
Actual to Date: \$299,770

Reclamation Share: 0%

Schedule:

- Construction complete in Fall of 2019

Consultants: Frisch Engineering

Contractor: Technical Systems, Inc

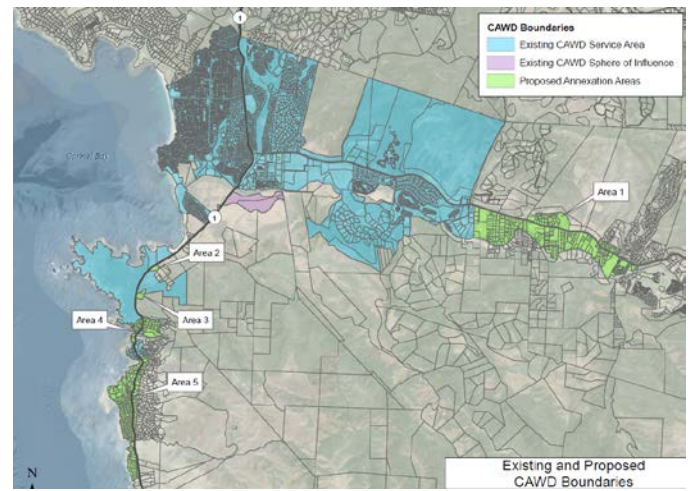


Photo: Areas of Potential Annexation

Project Name: Assessment District/Annexations

Project Location: Collection System

Project Manager: Lather

Project Number: 19-04, -05, -08, -09, 18-21

Status: Finalizing Environmental Documents and adding more Corona Road lots.

Project Description: The project will provide the opportunity for homes and businesses to get off septic systems and add approximately 350 connections to the District at build-out. Interested areas include Corona Road, Riley Ranch, Carmel Valley Manor and Yankee Point.

Department: Collections

Budget Status: Budget: \$50,000
Actual to Date: \$14,764

Permits Required: Environmental Review, LAFCO Annexation Approval

Challenges: Getting homeowner groups to form an Assessment District to pay for infrastructure needed to connect to our sewer system.

Schedule: In May 2020, circulate MND and apply for LAFCO Annexation in August 2020.

Consultant: Denise Duffy & Associates



Photo: Existing totes used for Sulfuric Acid storage and Feed

Project Name: RO Pretreatment Acid Tanks and Containment
Project Location: Reclamation – MF/RO
Project Manager: Treanor
Project Number: 18-26
Status: On Hold

Project Description Code compliance upgrades for existing acid chemical storage and feed system used by Reclamation for enhancing RO recovery. Project includes code compliant secondary containment and separation of dissimilar chemicals.

Department: Treatment

Budget Status: Budget: \$290,000
Actual to Date: \$68,506

Reclamation Share: 100%

Other Entities: Reclamation Project

Permits Required: Coastal Commission Notification

Challenges: N/A

Schedule:

- Bid second half of 2020
- Construction 2021

Consultants: Trussell Technologies, Inc

Contractor: TBD



Photo: Eucalyptus trees on South Side of Treatment Plant

Project Name: Perimeter Tree Plan and Implementation
Project Location: Wastewater Treatment Plant
Project Manager: Treanor
Project Number: 18-28
Status: In Study Phase

Project Description Planning and landscaping around the treatment plant. This will include looking into possibly replacing the non-native eucalyptus trees around the perimeter of the treatment plant with native tree species. The project will start with a study and plan to determine costs, sequencing schedule, and visual impacts. The eucalyptus trees around the plant have ongoing maintenance costs which may be offset in the long term with different type of tree screening. Purpose is to improve security around plant perimeter.

Department: Treatment

Budget Status: Budget: \$120,000
Actual to Date: \$2,897

Reclamation: N/A

Other Entities: N/A

Permits Required: Currently unknown (In Study Phase)

Challenges: Time it will take for new trees to grow up that will fully screen treatment plant from view

Schedule:

- Study to occur in 2020

Consultants: Scott Hall Landscape Design

Contractor: TBD

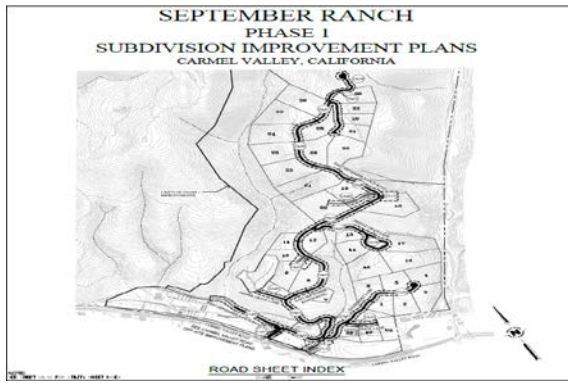


Photo: View new home development

Project Name: September Ranch Subdivision

Project Location: Collection and Water System

Project Manager: Lather

Project Number: 18-29

Status: Water Study/On Hold

Project Description: New Subdivision with sewer and water services. CAWD is completing review of water system design, operations, and rates in order to decide if it is feasible to accept the water system.

Department: Collection

Budget Status: Budget: Paid by Clear Peak
Bid: \$N/A
Actual to Date: \$35,000

Other Entities/Consultants: SRT Consultants -completed review on behalf of CAWD.

Permits Required: N/A

Challenges: Groundwater treatment and reliability concerns. Sewer review resulted in a request to eliminate 6 small pump stations.

Schedule: Phase I is anticipated to start construction in 2020 if CAWD accepts water system



Photo: Old Flood Door in Headworks Basement

Project Name: Critical Process Onsite Flood Adaptations

Project Location: Wastewater Treatment Plant

Project Manager: Treanor

Project Number: 19-01

Status: Implementation

Project Description: There are a few areas of the WWTP that may be vulnerable to inundation during a 100-year river flooding event. Although the actual impact to the process in the event of inundation of these areas may be minor, it would be prudent to mitigate any possible impacts of flooding on the treatment process. The areas that could be further adapted to avoid flooding inundation are: Headworks Basement Flood Door, Influent Access Hatch, Secondary Effluent Diversion Structure Hatches, Chlorine Contact Channel Hatches, Waste Gas Burner Operations.

Department: Treatment

Budget Status: Budget: \$100,000
Actual to Date: \$21,788

Reclamation Share: 15% Reclamation

Other Entities: Reclamation Project

Permits Required: Coastal Commission Notification

Challenges: N/A

Schedule:

- Planning in 2019
- Modifications in 2020

Consultants: N/A

Contractor: TBD

PRE-TREATMENT ORDINANCE
2020-XX



CARMEL AREA WASTEWATER DISTRICT

Project Name: Update Pretreatment Ordinance

Project Location: Pretreatment/Collections

Project Manager: Lather/De Ocampo/Waggoner

Project Number: 19-02 Pre-Treatment Ordinance

Status: Initiated Review of draft by Ed Waggoner and Ray DeOcampo

Project Description: Prepare a Pre-Treatment Ordinance that is in compliance with the current standard of practice and the State Water Resources requirements.

Department: Treatment

Budget Status: Budget: \$0.00

Reclamation Share: n/a

Other Entities: n/a

Permits Required: none

Challenges: none

Schedule:

- Complete Draft Ordinance for review in March 2020.
- Board approval of Ordinance in May 2020.

Consultants: none

Contractor: none



Photo: View gravity pipe in Carmel easement

Project Name: Carmel Meadows Pipeline

Project Location: Collection System

Project Manager: Lather

Project Number: 19-03

Status: Preliminary design

Project Description: The project will replace 1300 feet of Ductile Iron Pipe (DIP) on an aerial span and eight manholes by constructing a small pump station at the end of Mariposa Drive. This project is located on an easement parallel to Ribera Road and was originally installed in the early 1960's.

Department: Collections

Budget Status: Budget: \$1,324,000
Actual to Date: \$154,138

Permits Required: Coastal Permit and Environmental Review

Challenges: Redirecting the sewer to the pump station without requiring booster pumps for individual houses.

Schedule: Design FY20/21. Construct FY21/22.

Consultants: SRT Consultants

Contractor: n/a

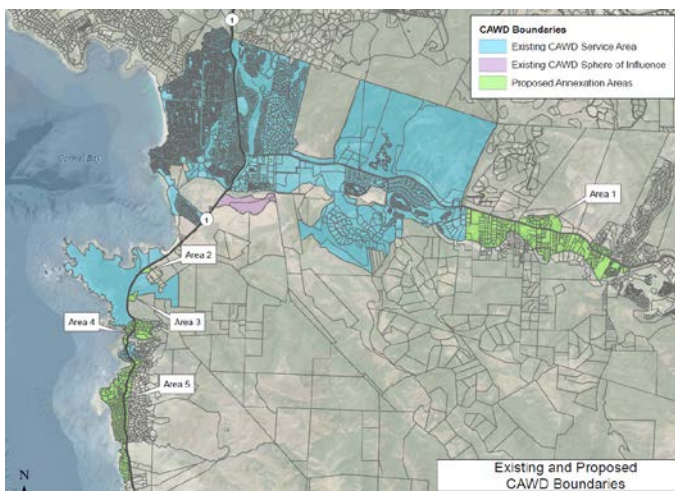


Photo: Areas of Potential Annexation

Project Name: Assessment District/Annexations

Project Location: Collection System

Project Manager: Lather

Project Number: 19-04, -05, -08, -09, 18-21

Status: Developing CEQA Documents

Project Description: The project will provide the opportunity for homes and businesses to get off septic systems and add approximately 350 connections to the District at build-out. Interested areas include Corona Road, Riley Ranch, Carmel Valley Manor and Yankee Point.

Department: Collections

Budget Status: Budget: \$50,000
Actual to Date: \$14,764

Permits Required: Environmental Review, LAFCO Approval. Coastal Approval in CZ

Challenges: Getting homeowner groups to form an Assessment District to pay for infrastructure needed to connect to our sewer system.

Schedule: Adding more homes on Corona Rd. In May 2020, circulate MND and apply for LAFCO Annexation in August 2020.

Consultant: Denise Duffy & Associates



Photo: View CIPP Liner being installed

Project Name: Rio Rd CIPP Lining project

Project Location: Collection System

Project Manager: Lather

Project Number: 19-07

Status: Bidding

Project Description: The rehabilitation of 4000 feet of 24 to 27-inch diameter Asbestos Cement Pipe (ACP) trunk line that runs along Rio Road in Carmel. Lining existing pipe with (CIPP) Cured-In-Place Pipe. This pipe is in poor condition and is beyond its useful life. It was identified as a priority for repair in the Asset Management Plan.

Department: Collections

Budget Status: Budget: \$1,340,000
Actual to Date: \$25,860

Permits Required: N/A

Challenges: Traffic Control.

Schedule: Construct late Spring 2020.

Consultant: Design by Kennedy/Jenks

Contractor: TBD



Photo: New #1 Water System where Corrosion System Project will be Installed

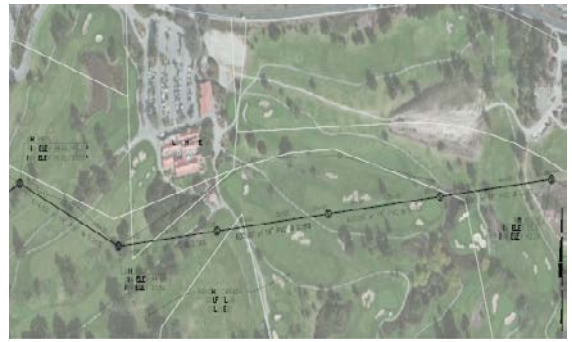


Photo: View of proposed sewer line realignment

Project Name: WWTP – 1 Water Corrosion Control Project

Project Location: Wastewater Treatment Plant

Project Manager: Ed Waggoner

Project Number: 19-10

Status: Pilot Test Ionization System at Chlorine Building

Project Description: The number 1 Potable Water Distribution System was installed in the early 1970's when secondary processes were constructed at CAWD. The main piping is ductile iron pipe with service laterals of copper and galvanize pipes. To prevent rust and pipe damage to the system, technology will be installed to extend the life of the piping system using chemicals or ionization equipment.

Department: Treatment

Budget Status: Budget: \$30,000
Actual to Date: \$4,370

Reclamation Share: Estimated at 1% of project cost.

Other Entities: CAWD/PBCSD Reclamation Project

Permits Required: None

Challenges: Using New technologies (Lorex Company)

Schedule:

- On-line and Pilot Test will last for one year, December 2020

Consultants: In house (Design Plant Engineer)

Contractor: In house staff

Project Name: Upper Rancho Canada Sewer line realignment and size increase

Project Location: Collection System

Project Manager: Lather

Project Number: 19-13

Status: Design

Project Description: This project relocates an existing sewer trunk line that serves the eastern most assets of the District and is located within the proposed County Park at Rancho Canada. The trunk line varies in size from 12 inch to 8 inch and is made of Truss pipe material that was installed in the early 1970's. The pipe is damaged in many locations, has capacity issues and was identified as a priority in the Asset Management Plan.

Department: Collection

Budget Status: Budget: \$1,500,000
Actual to Date: \$26,548

Other Entities: Monterey Regional Park District

Permits Required: Environmental Review

Challenges: Providing a design that allows CAWD access to assets and is acceptable to the Park District.

Schedule: Design FY 19/20. Construct FY 21/22.

Consultants: MNS Engineering
Rincon Environmental

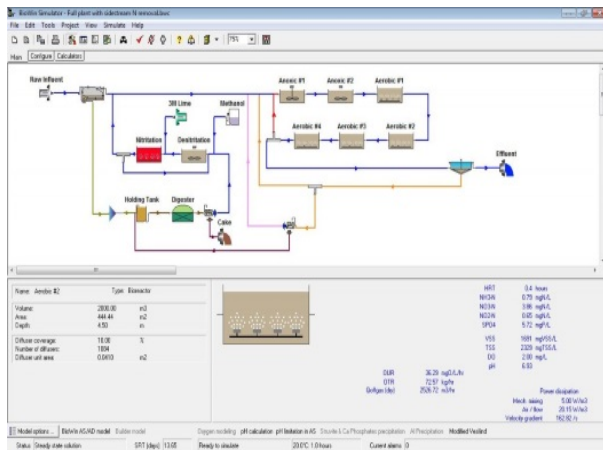


Photo: BioWin Model Screenshot



Photo: Example Trailer Standby Generator

Project Name: Wastewater Treatment Plant Computer Model – BioWin Modeling

Project Location: Wastewater Treatment Plant

Project Manager: Treanor

Project Number: 19-14

Status: Final Report and Workshop in March 2020

Project Description: Development of a computer model to predict how changes in operations will affect water quality to inform process optimization activities aimed toward the goal of energy and cost savings.

Department: Treatment

Budget Status: Budget: \$50,000
Actual to Date: \$47,000

Reclamation Share: N/A

Other Entities: N/A

Permits Required: N/A

Challenges: N/A

Schedule:

- Study to be completed in April 2020

Consultants: Greeley and Hansen

Contractor: N/A

Project Name: Tertiary MF/RO Standby Power

Project Location: Reclamation – MF/RO

Project Manager: Foley

Project Number: 19-16

Status: Cost Benefit Analysis

Project Description: The Reclamation Project facilities were not designed with standby power to run the facility in the event of a power outage. This project would add the ability to power the reclamation process with generator power. This is necessary due to the probability of increased outages due to fire prevention. Prolonged outages during the summer and fall months would have a significant negative impact on water production.

Department: Treatment

Budget Status: Budget: \$350,000
Actual to Date: \$0

Reclamation Share: 100%

Other Entities: Reclamation Project

Permits Required: N/A

Challenges: N/A

Schedule:

- Preliminary Design in Fall 2019
- Potential Implementation in 2020

Consultants: Beecher Engineering

Contractor: N/A



Photo: Existing air diffuser system

Project Name: WWTP – Aeration Basin Improvements, Basins 4A & 4B Project

Project Location: Wastewater Treatment Plant

Project Manager: Ed Waggoner

Project Number: 19-19

Status: In 10% Vendors Research Phase

Project Description: The Aeration Basins 4A & 4B need to have additional diffusers installed to ensure the proper air (oxygen) transfer into the wastewater to support the aerobic microorganisms in the basins. Another needed improvement is to prevent short circuiting of flows in the basins. The installation of one curtain baffle in each tank will eliminate the short-circuiting issue.

Department: Treatment

Budget Status: Budget: \$140,000
Actual to Date: \$0.00

Reclamation Share: Estimated at 0% of project cost.

Other Entities: CAWD/PBCSD Reclamation Project

Permits Required: No permits as project is preventative maintenance project

Challenges: Weather conditions and Scheduling

Schedule:

- Design to be completed in Spring 2020
- Construction anticipated for Summer 2020

Consultants: In house (Design Plant Engineer), Environetics for Baffles

Contractor: TBD



Photo: Carmel River Floodplain Restoration and Environmental Enhancement (CRFREE)

Project Name: Carmel River FREE Mitigation

Project Location: Carmel River Lagoon

Project Manager: Treanor

Project Number: 19-21

Status: Developing Agreement with County & Funding Coordination

Project Description: The CRFREE Project intends to create a new river channel in the Carmel River lagoon floodplain which will significantly impact existing wastewater pipelines which cross the lagoon. To fully mitigate impacts from CRFREE the pipelines which are currently crossing over a portion of the lagoon are proposed to be installed underground using Horizontal Directional Drilling construction methods.

Department: Engineering

Budget Status: Budget: \$0 (Funded by County/Grants)
Actual to Date: \$0

Reclamation Share: 0%

Other Entities: Monterey County

Permits Required: Coastal Commission, CA Fish and Wildlife, Army Corp of Engineers, RWQCB

Challenges: Construction near Environmentally Sensitive Habitat and obtaining new Easement from State Parks

Schedule:

- Design and CEQA anticipated completion Summer 2021
- Construction anticipated in Summer 2022

Consultants: Design: Kennedy Jenks and Staheli Trenchless
CEQA: Johnson Marigot

Contractor: Pending