

ENGINEERING COMMITTEE

AGENDA

Tuesday, April 26, 2022
2:00 p.m.

Calaveras County Water District
120 Toma Court
San Andreas, California 95249

The following alternatives are available to members of the public to watch these meetings and provide comments to the Board before and during the meeting:

Microsoft Teams meeting

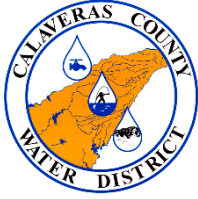
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ORDER OF BUSINESS

CALL TO ORDER / PLEDGE OF ALLEGIANCE

1. **PUBLIC COMMENT:** Comments limited to three minutes per person.
2. **APPROVAL OF MINUTES:** For the meeting of March 1, 2022
3. **NEW BUSINESS**
 - a. Capital Improvement Projects 10-Year Review
4. **OLD BUSINESS**
 - a. West Point & Wilseyville WWTP Consolidation Project Update
 - b. Capital Improvement Updates
 - c. Other Updates
5. **GENERAL MANAGER COMMENTS**
6. **DIRECTOR COMMENTS**
7. **FUTURE AGENDA ITEMS**
8. **NEXT COMMITTEE MEETING:** Tuesday, July 5, 2022 at 2:00 p.m.
9. **ADJOURNMENT**



CALAVERAS COUNTY WATER DISTRICT ENGINEERING COMMITTEE MEETING

MINUTES
March 1, 2022

Directors/Committee Members present:

Jeff Davidson
Russ Thomas

Staff present:

Michael Minkler	General Manager
Kate Jesus	Engineering Coordinator
Damon Wyckoff	Director of Operations
Kevin Williams	Senior Civil Engineer
Sam Singh	Senior Engineering Technician
Jared Gravette	Senior Supervisor Construction & Inspection
Jesse Hampton	Plant Operations Manager
Pat Burkhardt	Construction and Maintenance Manager
John Griffin	Senior Civil Engineer
Tiffany Burke	Administrative Technician Sr.
Rebecca Hitchcock	Executive Assistant/Clerk to the Board

Others present:

Matt Ospital	Weber, Ghio & Associates
Simon Gray	Coleman Engineering
Bill Ostroff	Weber, Ghio & Associates
Ralph Copeland	Member of the Public
Jeffrey Meyer	Hilltop Securities

CALL TO ORDER / PLEDGE OF ALLEGIANCE

Director Davidson called the meeting to order at 2:01 p.m.

1. PUBLIC COMMENT:

There was no public comment.

2. APPROVAL OF MINUTES:

The February 8, 2021 minutes were approved by a motion from Director Davidson and seconded by Director Thomas.

3. NEW BUSINESS

a. Update to the District's Five-Year Capital Improvement Plan

John Griffin presented the Committee with an update of the District's five-year Capital Improvement Plan (CIP). The CIP is comprised of approximately 45 projects that have been ranked in terms of highest priority based on many factors including risk failure, negative impacts to public health and safety, etc. Mr. Griffin also discussed the need for additional staff in order to effectively complete the projects. Staff will be working with the District's financial consultant to provide an updated plan for next fiscal year, FY 2022-23 budget with a schedule for its acceptance and approval from the full Board this Spring. Ralph Copeland inquired about the Copper Cove Water System Improvement Project and Mr. Griffin clarified.

b. Calaveras Public Power Agency (CPPA) – Providing Power to District Facilities

Director Thomas moved this agenda item to the next Engineering Committee meeting.

c. District Grease Interceptor Policy Review

Damon Wyckoff presented the Committee with the current Fat, Oils and Grease Control (FOG) Regulation included in the District Standards and Article VII of Ordinance 84-1 which provides grease interceptor requirements and provisions for maintenance. The Committee and staff discussed the policy and the effects it has on commercial customers. Staff will continue to review the District's wastewater policy and evaluate possible updates.

d. Easement Request – East Bay Municipal Utility District (Mokelumne River Pump Station)

Jesse Hampton stated the District had received a request from EBMUD asking for an easement along the Middle Fork of the Mokelumne River for APN 010-012-083 and 010-012-084. The easement would provide EBMUD with a 10' x 10' area in the corner of the lot to put in stream gaging equipment for the Middle Fork. Staff plans to present this item to the full Board at the March 9, 2022 meeting. The Committee agreed.

4. OLD BUSINESS

a. Jenny Lind A-B Transmission Line Project Update (CIP 11088)

Mr. Griffin gave an update on the Jenny Lind A-B Transmission Line Project which included staff review of the six proposals received on February 3, 2022. Staff has selected the team of Coleman Engineering and Weber Ghio Associates as the consultant for the design and engineering contract. This item will be presented to the full Board at the March 23, 2022 meeting. Simon Gray introduced himself as the representative for Coleman Engineering and gave a brief recap of the scope of work including project hours.

b. Capital Improvement Project Updates

Mr. Griffin gave brief updates on the following projects:

- West Point and Wilseyville Wastewater Facilities Consolidation Project (CIP 15091) – The project was advertised for bids on February 4, 2022 with a bid opening of March 22nd. There were 10 contractors who attended the job-walk on February 17th. The revised

environmental documents are currently under review by Clean Water State Revolving Fund (CWSRF). These must be approved before construction begins which is anticipated to start Summer 2022 through December 2023.

- Copper Cove Lift Stations 6, 8, 15, 16 and Force Main Project (CIP 15076/15080) – The project was advertised for bids on February 4th with a bid opening on April 6th. A pre-bid job walk is scheduled for March 2nd.
- AMI/AMR Project (CIP 11096) – Mueller is currently installing meters in the Copperopolis service area and will be moving to the Jenny Lind service area next.
- Arnold Wastewater Treatment Facility Improvement Project (CIP 15095) – HydroScience is currently preparing the 50% design and the project is scheduled to be advertised for bids by the end of Summer 2022.

c. Other Project Updates

Mr. Griffin and Mr. Wyckoff gave brief updates on the following:

- Jenny Lind Elementary School Force Main Project – Staff is working with KASL to complete the design review for the sewer lift station(s), sewer force main and gravity sewer upgrades near Vista Del Lago and Highway 26. The project is set to go out to bid in Spring 2022 and potentially start construction by July 2022. A map of proposed lift station locations and potential connections was presented to the Committee.
- Grant Opportunities – Staff submitted 3 applications for the Urban and Mutli-benefit Drought Relief Program for CIP #15094 (CC Secondary/Tertiary/UV Improvements), #15112 (CC Pond 6), and #11104 (Lake Tulloch Submerged Water Line Crossing). Notification of award is expected by the end of February. Staff continues to monitor other funding opportunities.

5. GENERAL MANAGER COMMENTS

Mr. Minkler gave an update on the AMI/AMR meter project in relation to the integration with the billing software and work efforts for staff.

6. DIRECTOR COMMENTS

None.

7. FUTURE AGENDA ITEMS

None.

8. NEXT COMMITTEE MEETING

May 3, 2022 at 2:00 p.m. which will most likely be rescheduled with updates to follow.

9. ADJOURNMENT

There being no further business, the meeting adjourned at approximately 3:15 p.m.

Respectfully submitted,

Kate Jesus
Engineering Coordinator

DRAFT

Agenda Item

DATE: April 26, 2022

TO: CCWD Engineering Committee
Michael Minkler, General Manager

FROM: Charles Palmer, District Engineer

RE: Summary of Completed Capital Improvement Projects Over the
Past 10 Years

SUMMARY

During the past 10 years, Calaveras County Water District (CCWD) has completed ten (10) capital improvement water projects and has two (2) other projects currently in construction at a total cost of \$33.8 million including \$11.8 million in grant funds. During this same 10-year period, CCWD completed two (2) sewer projects at a total cost of \$5.7 million. Also, CCWD has two (2) other sewer projects totaling over \$18 million currently being publicly bid for construction. CCWD had previously received \$4.4 million in grant funds through the CWSRF program for the Douglas Flat/Vallecito Wastewater Treatment Plant Improvements. Also, through the CWSRF program, CCWD received a \$4.75 grant approval for the West Point & Wilseyville Wastewater Consolidation Project and this grant may be increased to \$8.5 million due to current economic conditions, material shortages, and corresponding increases in recent construction costs.

Completed Water Project: 2011 – 2022

- West Point WTP Clearwells (ARRA)
- West Point Water System Replacement (DWR/USDA)
- Jenny Lind Clearwell #1 Rehabilitation
- Lake Tulloch Drought Emergency Project
- Ebbetts Pass South Zone Redwood Tanks (Cal-OES HMGP)
- Ebbetts Pass Reach 3A (USDA)
- Jenny Lind WTP Pretreatment (Cal-OES HMGP)
- Ebbetts Pass Reach 1 Pipeline Replacement
- Ebbetts Pass Techite Pipeline Replacement
- Jenny Lind – Kirby, Gabor, Garner Service Lines

Capital Water Projects In-Progress / Construction

- Ebbetts Pass Redwood Tanks Wildfire Mitigation (Cal-OES HMGP)
- AMR/AMI Radio Read Meter Project (USDA)

Completed Sewer Projects: 2011 – 2022

- Douglas Flat/Vallecito Wastewater Treatment Plant (CWSRF)
- Copper Cove Upper Cross Country Lift Station

Sewer Projects In-Progress / Bidding For Construction:

- West Point & Wilseyville Wastewater Consolidation
- Copper Cove Lift Stations 6, 8, 15 & 18 Replacement and Force Main Bypass

FINANCIAL CONSIDERATIONS

The Capital Improvement Program (CIP) has been funded through a combination of rates, capacity fees, grants and loans. As of Fiscal Year 2021-22, the District had 13,307 existing water connections and 5,028 existing sewer connections which contribute to these capital costs. The Capital Renovation and Replacement (Capital R&R) program passed by the Board of Directors in FY 2013-14 has been essential in providing a consistent and reliable revenue source for the implementation of CIP projects and has provided our agency with the ability to leverage funds to secure grant opportunities requiring a local cost share.

Many events have influenced the economy during the past 10 years. During the Great Recession from approximately December 2007 through June 2009, new housing starts dropped precipitously to record low levels and continued a very slow recovery lasting through 2011. California continues to be in a housing crisis. The Legislative Analyst's Office (LAO) estimates that a shortfall of 3.5 million housing units has occurred over the past 30-years. Also, highly destructive wildfires in northern California including the Butte Fire in Calaveras County devastated communities and destroyed thousands of homes and structures. In early 2020, the COVID-19 pandemic caused a brief global recession triggering a variety of supply-chain issues and material shortages, such as PVC plastics, lumber and steel. For example, the price of steel has increased by 300% since March 2020. As of 2022, these supply chain issues are having a significant impact on availability of materials, material prices, construction costs and project schedules.

Enclosure:
Spreadsheet / 10-Year CIP History

Agenda Item

DATE: April 26, 2022

TO: CCWD Engineering Committee
Michael Minkler, General Manager

FROM: Charles Palmer, District Engineer

RE: West Point & Wilseyville WWTP Consolidation Project Update

SUMMARY

On March 31, 2022, staff conducted a public bid opening for the project construction phase. The District received a total of four (4) bids and results are summarized below.

BIDDER	TOTAL BID
Integrated Water Services Inc.	\$9,442,564.07
KW Emerson	\$8,573,362.00
Cushman Contracting Corp.	\$8,681,100.00
Gateway Pacific Contractors Inc.	\$8,741,020.00

Staff has reviewed the project design with the engineering consulting firm, Nexgen, and the apparent low bidder, KW Emerson, to consider opportunities for value engineering and reducing costs. This effort has identified some areas where cost cutting measures can be made. Staff will continue to work toward a revised construction budget.

Staff has also been considering options for either proceeding with an award of a contract based on the current bid results or potentially rebidding the project. A rebid will take more time and the District is working under a grant designated deadline to complete construction January of 2024. CCWD must be cognizant of the schedule and the potential need to ask for a time extension. Staff will discuss these options further with the committee members.

FINANCIAL CONSIDERATIONS

The approved CWSRF grant budget is \$4.75 million as estimated in 2014 and includes both construction costs and all other project costs for engineering, design, construction management, inspection, environmental, permitting, etc. It has been identified that recent large price increases in materials are driving up these construction costs. Staff reported the bid results to our representative with the CWSRF program to determine possible next steps for moving forward. Our representative with CWSRF indicated that they have been seeing similar bid results occurring elsewhere. Our representative also indicated that their current Intended Use Plan allows for additional funding to \$45,000/connection and in some cases up to \$60,000/connection for "good cause" which would have to be demonstrated by staff. Given that the sewer plan serves approximately 200+ connections, the District should be eligible for funding to \$9 million which would be sufficient to pay for construction of this project.

Agenda Item

DATE: April 26, 2022

TO: Engineering Committee, Calaveras County Water District
Michael Minkler, General Manager

FROM: Engineering Department

RE: Capital Improvement Project Updates

- **West Point Water Supply Reliability Project (CIP 11106)**

The District consultant Peterson Brustad, Inc completed the 100% design and final bid set. The project was advertised for bids on March 17th with a bid opening date of April 20th. The District received two bids with the lowest apparent bidder being K.W. Emerson with a proposed cost of \$1,852,357.00. Staff will bring the contract bid award to the Board at the May 11th meeting. The pre-purchased packaged treatment unit is scheduled for delivery in September.

- **Copper Cove Lift Stations 6, 8, 15 & 16 and Lift Stations 12 & 13 Force Main Bypass Project (CIP 15076/15080)**

The project was advertised for bids on February 4th. The delivery of updated electrical plans to be provided by PG&E has been significantly delayed. As a result, the scheduled bid opening was changed to May 31st. A funding plan for the construction phase of this project will be presented at the time of award, as the engineer's estimate exceeds the available budget. Staff continue to review the plan set to identify opportunities to value engineer the project to work in concert with the successful bidder.

- **District Corp Yard (CIP 11101)**

General Contractor, Plummerbuilt Construction, has completed construction of the warehouse. As next steps, PG&E will provide a new single phase-400-amp power service and natural gas service from a junction box on George Reed Drive. A new pad mounted transformer will be installed along with a standby generator. Staff is preparing plans for Phase 2 of the project which includes the interior tenant improvements and site work around the back of the building. Staff anticipates that work on Phase 2 will commence this construction season. The Electrical Department has ordered material for the work effort and operations and engineering staff are reviewing material costs and work proposals for tenant improvements.

- **AMI / AMR Project (CIP 11096)**

Mueller Systems has completed the fixed network equipment installations Districtwide with the exception of some equipment that needs to be replaced with new wireless data cards. Mueller will be testing the system to ensure that 100% of the meters are

connected to fixed network and that the three day read success rates meet Project requirements.

Meters are currently being installed within the Jenny Lind and Wallace Service area. Mueller anticipates that work will continue in these areas through mid-May. Upon completion Mueller will fall back to complete the meters that were skipped for various reasons (the need for plumbing repairs and replacement of broken meter boxes/lids, etc.)

This Project is funded through the United States Department of Agriculture – Rural Utilities Services (USDA) and billing must be submitted by Mueller on the USDA form and approved before payment. The District recently processed payment to Mueller Systems to bring payments up to current.

- **Ebbetts Pass Redwood Tanks Project (CIP 11095)**

The steel tank manufacturer has had significant raw material (aluminum and steel) supply chain issues that have impacted manufacturing and delivery dates for the finished steel tank panels and aluminum dome roofs for the tanks. District Staff will be working diligently this upcoming construction season to complete the project. KW Emerson (contractor awarded the site improvements phase of the project) has completed the piping, demolished the existing tank, and begun the new footing work at Heather Drive Tank in Forest Meadows. California Aquastore (Tank erection contractor) has completed Big Trees Tank 8 erection and it is being filled and tested. The potholing at Arnold Tank 13 has begun.

- **Ebbetts Pass Hunter Reservoir Raw Water Pump Cal-OES Hazard Mitigation Project – Phase 1 Design and Environmental Review (CIP 11103)**

The engineering and design contract was awarded to Blackwater and the environmental contract was awarded to Cardno-Stantec at the January 26th Board meeting. Blackwater has evaluated multiple alternatives for the new raw water intake. Blackwater is currently work on a design to retrofit the existing pumping system at same location, harden the existing pump house, move pump controls up to the shoreline, provide flushing system for sediment-laden water, and to replace the piping from the shoreline up to the Treatment Plant.

Blackwater will have the 60% design submittal along with engineers cost estimate completed by end of April. The 60% design submittal along with preliminary design is due to FEMA by May 15th.

- **Arnold Wastewater Treatment Facility Improvement Project (CIP 15095)**

In addition to adding a new secondary clarifier, RAS/WAS pump station, and new aerobic digesters, the electrical motor controls and PLC and SCADA systems at the facility will be replaced. HydroScience prepared the 50% design plans and held a meeting with District Staff to review. Grading for the new equipment has been an area requiring detailed consideration. The project is scheduled to be advertised for bids by the end of summer.

- **Forest Meadows UV Replacement Project (CIP 15106)**
 The replacement UV system has been purchased. Delivery is expected in August 2022. Operations, Construction, and Engineering staff have worked together to develop a site design. The Construction crew will install the unit and construct the site improvements once the unit arrives. The existing stainless-steel channel must be demolished and removed, and a new concrete channel constructed to house the new UV lamp system. The construction of this new channel will most likely be completed by a contractor.
- **Sheep Ranch Water Supply Reliability Study and Facilities Master Plan (CIP 11126)**
 The District's consultant, Lumos Engineering, continues to develop the Facilities Master Plan. A Board presentation of the draft study is tentatively scheduled for March 23rd and the Final Reliability Study submitted by the end of April 2022.
- **Copper Cove Wastewater Treatment Plant Tertiary Treatment and UV Improvements and Facilities Plan (CIP 15094)**
 Bench testing equipment from Krofta for dissolved air flotation (DAF) arrived on site during the week of April 17th and bench testing is currently underway. Effluent from the DAF system will be sent to vendors to test three distinct tertiary filtration processes to assess filtration capabilities using facility effluent. This information will aid in the selection process for project design. A draft tertiary treatment technical memorandum is scheduled for submission to the District in late April. Design for the tertiary filtration system will commence once the tertiary filtration media is selected.
- **Copper Cove Wastewater Treatment Plant – Pond 6 Dam and Effluent Storage Reservoir Enlargement Project (CIP 15112)**
 Wagner & Bosignore has re-started this project. Below are the near-term deliverables:

 - February 25th – Receive draft of updated project drawings, specifications, Division of Safety of Dams (DSOD) Application with an estimate of the application fee, and project construction cost estimate.
 - March 7th – Submit plans and specifications, along with signed application and application payment to DSOD.
- **Copper Cove Water System Improvements (CIP 11083C, 11111, 11122)**
 A Request for Proposals (RFP) was issued on February 18th to a total of 28 engineering and environmental firms. A total of 20 firms registered on the project website to receive notices on the RFP. A total of seven firms submitted proposals on March 31st. The proposals were reviewed by a total of nine operations and engineering team members. The review committee recommends award to Peterson Brustad Inc. (PBI). PBI was ranked third by the review committee and has the lowest total overall cost. Formal action to award a contract is anticipated for the May 11th Board meeting.
- **Jenny Lind A-B Water Transmission Pipeline Replacement Project (CIP 11088)**
 The Board awarded the design and engineering contract to Coleman Engineering on March 23rd. A kick-off meeting with Coleman Engineering, Weber Ghio, and CCWD

staff was held on April 7th. The District staff is working with design firms on Hydraulic model.

Agenda Item

DATE: April 26, 2022

TO: Engineering Committee, Calaveras County Water District
Michael Minkler, General Manager

FROM: Engineering Department

RE: Other Updates

- **Sheep Ranch Fire Protection Tank Project**

Underground is done and the project has been turned over to District Electricians for programming. The ribbon cutting ceremony is scheduled for May 13th.

- **Jenny Lind Elementary School Force Main Project**

During the week of February 21, KASL Consulting Engineers (KASL) secured approval from CalTrans and multiple property owners to proceed with a geotechnical investigation to determine the optimal alignment for a force main. Staff and KASL continue to discuss the optimal lift station pumps for the two lift stations identified as necessary for the project, as well as the optimal location for a second lift station (with the first to be located at the Jenny Lind Elementary School) in order to develop a project to accommodate flows from the school and logically plan for adjacent parcels that would benefit from upsizing of this infrastructure, as there are 183 parcels adjacent to the proposed force main alignment and 237 parcels within 350 feet of the proposed force main alignment. Property acquisition for the second pump station will also need to be accomplished.

- **Grant Opportunities**

Staff submitted 3 grant applications for CIP #15094 (CC Secondary/Tertiary/UV Improvements), CIP #15112 (CC Pond 6), and CIP #11104 (Lake Tulloch Submerged Water Line Crossing) on January 12th, in response to the Department of Water Resources Urban and Multi-benefit Drought Relief Program (Phase 2). The District was notified on March 21st that it was not selected for this round of funding. Staff has requested a debrief to learn how to improve future applications.

Staff continues to monitor other funding opportunities for applicability to District projects, such as Proposition 1 – Round 2 Integrated Regional Water Management (IRWM) Implementation Grant Program.

- **Construction Projects**

- **Gold Creek 3:** The project has not been accepted by the District. Outstanding punchlist items remain to be resolved by applicant.
- **Copper Valley (Saddle Creek 7B):** Applicant is awaiting favorable weather to pave. Finish work and punchlist items remain to be addressed.

- **Tri-Dam Lake Tulloch Day Use Area:** The District is working with Tri-Dam on the property easement for the water main to be accepted by CCWD.
- **Developer Projects**
 - **Copper Valley Town Square:** Staff continue to have meetings with representatives of CV Development Partners LLC to continue on-going discussions on key issues including capacity fees pertaining to change of use applications, future planned redevelopment of the Copper Valley Square complex, a permanent sewer force main to serve Copper Valley Square, upgrades to the Reeds Turnpike Pump Station to increase potable water delivery to Copperopolis and Copper Valley Square, and other regional development issues. Staff reviewed the pre-design report for the forcemain and sewer pump station, provided comments back to the owner/owner's representative. The District is waiting on the design criteria requirements to be met and for the final report submission.
 - **Hogan Oaks I and II:** The staff is in the process of reviewing the proposed developments concept application submittal to the District. Some of the concerns that are brought to the forefront are the proximity of parcels adjacent to the La Contenta Wastewater Treatment Plant Upper Storage Pond, potential nuisance from loud equipment at the said facility, the District's heavy machinery on the development streets needing access to the warehouse facility. The staff is working with the owner to sort through the improvements that will be needed to the District facilities to serve the new development.
 - **Wallace Ridge Estates:** District staff met up with Calaveras County Planning Department and Delta Engineering (owner representative) to coordinate work effort to get TSTM approval for the development. Owner to provide the District with a memorandum from hydrogeologist confirming underground well water capacity to meet the demand brought on by proposed development.
 - **LGI Homes:** Staff have participated in multiple meetings with LGI Homes who have a proposed development in Rancho Calaveras near Berkesey and Vista Del Lago to discuss potential water and sewer system improvements necessary to facilitate project implementation. This work continues.