

# Calaveras County Water District Engineering Committee Meeting

## **AGENDA**

Tuesday, March 10, 2015  
2:00 p.m.  
CCWD Training Room

Calaveras County Water District  
120 Toma Ct. / P.O. Box 846  
San Andreas, CA 95249

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Administration Office at 209-754-3028. Notification in advance of the meeting will enable CCWD to make reasonable arrangements to ensure accessibility to this meeting. Any documents that are made available to the Board before or at the meeting, not privileged or otherwise protected from disclosure, and related to agenda items, will be made available at CCWD for review by the public.

## **ORDER OF BUSINESS**

### **CALL TO ORDER / PLEDGE OF ALLEGIANCE**

1. **PUBLIC COMMENT:** Comments limited to five minutes per person.
2. **APPROVAL OF MINUTES:** February 11, 2015
3. **OLD BUSINESS:**
  - 3a. Update Regarding Capital Renovation and Replacement Projects  
(Charles Palmer, P.E., District Engineer)
4. **NEW BUSINESS:**
  - 4a. Update Regarding La Contenta Sewer Capacity Charge  
(Charles Palmer, P.E., District Engineer) \*
5. **STAFF COMMENTS**
6. **DIRECTOR COMMENTS**
7. **FUTURE AGENDA ITEMS**
8. **NEXT COMMITTEE MEETING**
9. **ADJOURNMENT**

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Newspapers, For Information Only

\* No Paperwork

ENGINEERING COMMITTEE  
CALAVERAS COUNTY WATER DISTRICT  
February 11, 2015

The Engineering Committee of CALAVERAS COUNTY WATER DISTRICT met at the CCWD offices in San Andreas, California, at 9:00 a.m.

The following Directors/Committee Members were present:

Bertha Underhill  
Jeff Davidson

Also present:

Dave Eggerton	General Manager
Larry Diamond	Assistant to the General Manager
Bill Perley	Director of Utility Services
Charles Palmer	District Engineer
Tami Bennett-Kirby	Administrative Technician II
Jeff Meyer	Director of Administrative Services
Joel Metzger	Customer/Community Relations Manager
Terry Strange	Director

PUBLIC COMMENT:       None

MINUTES: The Minutes of September 10, 2014 were approved as presented by a motion by Director Davidson second by Director Underhill.

Bill Perley joined the meeting at 9:15 .m.

UPDATE OF CAPITAL RENOVATION AND REPLACEMENT (R&R) PROGRAM.  
Charles Palmer provided a listing of the current R&R projects which was included in the Agenda package as Attachment 3a. Discussion took place between members with Jeff Meyer providing financial statistics as inquired. After much discussion, it was decided the committee would revisit this item again during the March 10, 2015 meeting at which time Charles would present a Risk Analysis for the R&R projects and Jeff Meyer would present accompanying financial statistics on revenue if the September 2015 rate increase did not occur.

OTHER BUSINESS:

UPDATE POLICIES REGARDING RULES AND REGULATIONS GOVERNING THE FURNISHING OF WATER AND/OR WASTEWATER SERVICES. Dave Eggerton advised that the committee would be revising Chapter 11 of the District policy manual in the near future.

FUTURE AGENDA ITEMS: None

SETTING OF NEXT MEETING: 2 p.m., March 10, 2015

There being no further business, the meeting adjourned at approximately 10:30 a.m.

Respectfully submitted,

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Tami Bennett-Kirby  
Administrative Technician II

# Agenda Item

DATE: March 10, 2015

TO: Dave Eggerton, General Manager

FROM: Charles Palmer, PE, District Engineer

RE: Engineering Committee / Update Regarding Capital R&R Projects

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## **SUMMARY**

For the Capital R&R program FY14-15 thru FY17-18, the wastewater and water projects under consideration are listed and prioritized on attached Tables 1 and 2. Also, attached is a brief description of needed tank management effort for our welded steel tanks.

## **FINANCIAL CONSIDERATIONS**

Revenue projections for wastewater and water R&R funds for FY14-15 thru FY17-18 will be discussed during the committee meeting.

### Attachments:

- Table 1. – Summary of Wastewater Capital R&R Projects
- Table 2. – Summary of Water Capital R&R Projects
- Water Tank Management Program Summary

**TABLE 1. - SUMMARY OF WASTEWATER CAPITAL RENOVATION AND REPLACEMENT PROJECTS**

<u>Projects</u>	<u>Priority</u>	<u>Costs</u> <u>(millions)</u>	<u>Grant</u> <u>Funds</u>	<u>Regulatory</u> <u>Issues</u>	<u>Age</u>	<u>Maintenance</u> <u>Problems</u>	<u>Performance</u> <u>Issues</u>	<u>Hazard</u> <u>Mitigation</u>	<u>Customers</u> <u>Served</u>	<u>Comments</u>
CC Lift Station 22	1	\$ 1.7	-	Yes (RWQCB)	40+ yrs	wet well, electrical, mechanical	Peak Flow Capacity	Sewer Spill	Regional	Existing lift station at end of its lifecycle.
CC Reclaim Plant Permit & Pump	2	\$ 0.5	-	Permit Violation	-		Conflicting NPDES & WDR's		Regional	Time Scheduled Orders (TSO's) issued by RWQCB.
CC LS-8, 12 & 13 Bypass	3	\$ 1.4	-	Yes (RWQCB)	40+ yrs			Sewer Spill	Localized	Existing force main under lake is unacceptable risk.
Lift Station Renovations	4	\$0.75	-	Yes (RWQCB)	Various	corrosion, electrical, mechanical		Sewer Spill	Regional	Annual renovation and replacement (all areas)
West Point Wilseyville Consolidation	5	\$ 4.75	\$ 4.75	Yes (RWQCB)	30-yrs				Regional	Permit update requires facility improvements
Arnold WWTP	6	\$ 0.15	-	Yes (RWQCB)	-				Regional	Permit update required disposal field improvements.

**TABLE 2. - SUMMARY OF WATER CAPITAL RENOVATION AND REPLACEMENT PROJECTS**

<u>Projects</u>	<u>Priority</u>	<u>Cost (millions)</u>	<u>Grant (millions)</u>	<u>Regulatory Issues</u>	<u>Age</u>	<u>Maintenance Problems</u>	<u>Performance Issues</u>	<u>Hazard Mitigation</u>	<u>Customers Served</u>	<u>Comments</u>
Ebbetts Pass Reach 3A	1	\$ 5.0	\$ 1.38		50-yrs	Corrosion & Leaks	High Pressure 250-psi	Public Safety	Regional	Part of original ID-5 system, pipeline has corrosion, thin wall steel and at end of lifecycle.
Big Trees Redwood Tanks	2	\$ 1.16	\$ 0.87		50-yrs			Fire	Localized	Big Trees Tank #1 and 60K scheduled for construction/ implementation this summer
Tank Mngt Program	3	\$ 1.0	-		Various	Paint failure & steel corrosion			Regional	Larkspur, Copper Cove & Others; See Water Tank Management Program Summary
Blagen Mill Pond Restoration	4	\$ 1.0 (a)	Apply for Grant	Water Rights	40+ yrs	Sediment Accum.	Storage Capacity		Localized	No maintenace on Blagen Mill Pond since White Pines Lake constructed in 1977.
Ebbetts Pass Reach 1	5	\$ 5.0	-		50-yrs	Corrosion & Leaks	High Pressure 250-psi		Regional	Part of original ID-5 system, pipeline has corrosion, thin wall steel and at end of lifecycle
Sheep Ranch New Filter Plant	6	\$ 0.4 (a)	Apply for Grant		35-yrs		High Raw Water Turbidity	Potable Water Reliability	Localized	Outdated technology; cannot operate with high turbidity
West Point Backup Filter	7	\$ 1.0 (a)	Apply for Grant	Yes (DPH)		Reliability Redundancy		Potable Water Reliability	Regional	Water code requires a backup filter for redundancy; existing backup is non-functional.
Jenny Lind A-B Transmission (Design Phase)	8	\$ 0.4 (b)	-		40+ yrs		Capacity Bottleneck	Potable Water Reliability	Regional	During summer maximum day demand exceeded transmission capacity and drained Tank B.

(a) Assumes District will secure 100% grant funding; costs incurred prior to securing grant may not be reimbursable.

(b) Total project cost estimated to be \$4,000,000; only 10% or \$400,000 funded for FY 14-15 thru FY 17-18 for design phase.

## **Water Tank Management Program Summary**

CCWD has nineteen (19) welded steel tanks including two (2) elevated tanks with an estimated total value of \$12 million. Welded steel tanks are thin wall structures having internal support beams and columns. Tank exteriors are exposed to sun, rain, and snow; interiors operate for years in submerged conditions and off-gassing of sodium hypochlorite. Most steel corrosion occurs inside the tank where not visible and must be controlled to prevent structural damage. Epoxy paint is primary method of protecting steel from corrosion; it costs \$5-\$7/sq.ft. to fully standblast and apply primer, intermediate and finish coats. For submerged conditions in potable water, the National Association of Corrosion Engineers (NACE) states that a typical epoxy coating has a practical service life of 12-years with recommended maintenance intervals:

- a) Touch-Up after 12 years
- b) Maintenance Re-Coating after 16 years, and
- c) Full Sandblasting and Re-Coating after 22-years

A welded steel tank has a 50+ year lifecycle; the median age of CCWD's welded steel tanks is 25-years. Due to deferred maintenance, currently most tanks are in need of attention. To properly maintain all nineteen (19) tanks, each year CCWD's coating maintenance activities should consist of two (2) touch up's, one (1) maintenance recoat, and one (1) full sandblast and recoat effort. This program requires annualized funding in the range of \$170,000 to \$235,000 per year with extra costs for structural repairs.

<b>Tank</b>	<b>Volume (gal)</b>	<b>Diameter (ft)</b>	<b>Height (ft)</b>	<b>Year (Age)</b>
CC Clearwell	320,000	70	12	1997 (18)
CC Tank B	750,000	65	31.5	1981 (34)
CC Tank C1	580,000	62	26	2006 (9)
CC Tank C2	580,000	62	26	2006 (9)
Copperopolis	500,000	56	29	2008 (7)
JL Tank A	2,000,000	108	30	1991 (24)
JL Tank B	1,000,000	78	28	1990 (25)
JL Tank E	500,000	60	24	1990 (25)
JL Tank F	980,000	84	24	1991 (24)
JL Clearwell #1	100,000	46	8	1991 (24)*
JL Clearwell #2	180,000	52	12	1995 (20)
JL 602 Elevated	190,000	40	90	2008 (7)
EP Hunters	980,000	90	21	1990 (25)
EP Sawmill	3,000,000	120	36	1977 (38)
EP Pinebrook	1,000,000	75	32	1988 (27)
Forest Meadows	150,000	30	30	1980 (35)
Sheep Ranch	75,000	30	15	1980 (35)
Wallace Ground	225,000	40	24	1988 (27)
Wallace Elevated	60,000	25	100	1988 (27)

\* Tank was renovated/repainted in 2014 at cost of \$202,250.