5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

Board of Directors: Terry Lincoln - Chair
Scott McVay, Vice Chair
Directors – Pam Beaver, Beverly Fickes, Logan Johnston

General Manager: Paul Kelley

REGULAR MEETING: December 18th 2024 at 6:00PM: District Office Board Room

AGENDA

1. **CALL TO ORDER**

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL**

   a. **Oath of Office for: Directors – Beaver, Johnston, McVay**

4. **OPEN TIME/PUBLIC COMMENT:** Pursuant to Gov. code S54950, persons wishing to address the Board of Directors on matters not listed on the agenda should notify the Secretary prior to the start of the meeting. To speak at this time and for any item listed on the agenda – raise your hand, and when recognized by the Chair – proceed to the podium to address the Board.

5. **CONSENT AGENDA** (Action)
   The following items are expected to be routine. Any interested party may comment or request an item be removed from the consent agenda for separate discussion/action.
   a. Minutes from Meetings – Regular meeting 11/20/24, Finance Committee: 12/10/24
   b. Paid Bills: 11/14/24 – 12/14/24
   c. Payroll: 11-7-24, 11-21-24.
   d. Activity P&L Report: N/A – In progress

6. **OLD BUSINESS/NEW BUSINESS** (Discussion/Action)
   a. O.B. – USBR Account Reconciliation - (Discussion)
   b. District Audit RFP Selection – (Discussion/Action)
   c. Water Treatment Plant Improvement Report from PACE Eng. And Treatment Division Update – CPO Bill Palmaymesa (Discussion/Action)
   d. Leaks and Repairs Report and Options – (Discussion/Action)
   e. Ordinance 2024-10 Reserve Policy – (Discussion/Action)

ADA Related Disabilities:
Contact the front office and speak with a Staff Member if special consideration is needed to attend any public meeting for disability related accommodations or aide is needed. Please give 72 hours - notice prior to the meeting to allow staff to meet your requests appropriately.

"This District is an Equal Opportunity Provider"

7. **GENERAL MANAGERS REPORT**

8. **OPERATIONS REPORT**

9. **STANDING COMMITTEE REPORT –**
   a. Agriculture –
   b. Finance –
   c. Planning/Steering –

10. **BOARD MEMBER ITEMS**

11. **CLOSED SESSION ANNOUNCEMENT: - None**

12. **ADJOURN THE MEETING**

ADA Related Disabilities:

Contact the front office and speak with a Staff Member if special consideration is needed to attend any public meeting for disability related accommodations or aide is needed. Please give 72 hours - notice prior to the meeting to allow staff to meet your requests appropriately.

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MEMO

Date: December 18th 2024

To: Board of Directors

From: General Manager – Paul Kelley

Re: **5 –** Consent Agenda (Action)

Discussion:

5.a – Minutes of The Meetings: Regular meeting 11/20/24, Special Meeting, Agriculture Committee:

Finance Committee: 12/10/24 Planning and Steering Committee:

5.b – List of bills paid – from QuickBooks 11/14/24 – 12/14/24

5.c – Payroll since last meeting: 11-7-24, 11-21-24

5.d – Activity P&L Report: July, August, September 2024:

Recommendation:

Review, Discussion and Motion to approve items 5.a through 5.d

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General Manager: Paul Kelley

REGULAR MEETING: November 20th 2024 at 6:00PM: District Office Board Room

MINUTES

1. **CALL TO ORDER** – *Chair Lincoln at 6pm*

2. **PLEDGE OF ALLEGIANCE** – *Led by Director Fickes*

3. **ROLL CALL** – *All Directors: Chair Lincoln, Vice-Chair McVay, Directors Beaver, Fickes, Johnston*

   GM Paul Kelley, Distribution Supervisor Morgan Rau and 5 in audience

4. **OPEN TIME/PUBLIC COMMENT:** *Dennis Possehn – mentioned meeting with Community Alliance for Family farmers. And thanked the Staff for the leak fix at his property corner. And suggested the Board consider or investigate declaring an emergency for all these leaks to get funding for more pipeline funding replacement. If / when there are fires and if no water – that is bad and emergency. Director McVay – added that the Com Alliance for Fam Farms was good meeting, and they helped small growers in a "farm to school" program.*

5. **CONSENT AGENDA** (Action)
   The following items are expected to be routine. Any interested party may comment or request an item be removed from the consent agenda for separate discussion/action.
   a. Minutes from Meetings – Regular meeting 10/16/24
   b. Paid Bills: 10/14/24 – 11/14/24
   c. Payroll: 10-10-24, 10-24-24.
   d. Activity P&L Report: July~~: August and September and October and November~~ (N/A)
      Director Fickes noted amendment to the Minutes under section 10
      GM Kelley replied to fix/edit the minute to "spoke about having four distribution staff instead of raised concerns about", fix/edit the word "compliment" to "complement".
      GM Kelley mentioned on the Paid bills the attempt to get more descriptions in the memos for payables that include more than one payment for a vendor.
      Also mentioned a few of the Grant Payments on the Payables covered by the RCAC Grant Anticipation note.

GM Kelley then discussed the updated Activity P&L for July – heightened the mention that the change to Accrual for the Revenue and Expenses is different than previous district practice. The later item on the FY24 will cover this more. Recommended that the Board approve the consent 5.a-5.c and this July P&L as information and include in the December meeting for approval.

Motion to approve consent with minutes as amended: Director Fickes, 2nd: Director McVay Vote: 5-0 Unanimous

6. OLD BUSINESS/NEW BUSINESS (Discussion/Action)

a. O.B. – USBR Account Reconciliation - (Discussion)

GM Kelley reviewed the items listed in the packet – nothing new on reconciliation of 2021, but there was a meeting on the WIIN act reconciliation. And mentioned the "healthy rivers"/Natural Flow/Voluntary agreements discussions that could impact CVP members.

b. Operations Report – Distribution Supervisor Morgan Rau (Discussion)

GM Kelley introduced Distribution Supervisor Morgan Rau,

Morgan Rau: Provided an update from the Operations report, mentioned getting more contractors listed for helping: Axner Exc. / Kelly's Exc./ Davis Exc. / Sunrise. Even working to get them for some work to catch up or supply people for relief during large leaks.

Mentioned: 4 Large active leaks now, multiple Service Leaks need attention, 17 Isolation valves need attention/replacement / Hydrant at HopeKay.

Since July (when started) – 22 large leaks, will provide a list of the recent leaks to the Board. Backflow testing is completed by the consultant/contractor

Director Beaver – Mentioned getting a letter of agreement of responsibility with local Fire Depts so when hydrants are turned off incorrectly and cause damage they will help cover the cost of the repairs.

GM Kelley – explained to the board of the recent incident where tree trimming company backed into our hydrant and caused damage. We will be sending a letter and invoice to the company. Also, explained situation regarding fire where hydrant was shut down incorrectly by the fire dept. causing damage and Customers to be without water. We will be sending letter and cost breakdown to CalFire for that as well.

Dir Fickes – Noticed in the OT time cards a 17-hour shift – can that be? Can we rotate people? What is the process out there?

Dist. Sup: Morgan Rau – Yes it happened and points to the need for me to be more focused on planning and use of resources. We can have the crew overworked and not available when needed and use other resources (like contractors) to get some rest. Explained the process of how the leaks are repaired and what it takes to complete it.

Director Beaver – You are doing good – equipment review, and staffing abilities.

Dir. McVay – Are we documenting all the elements of the leaks? And if using contractors, making sure we have scope and what they are held responsible for?

Dist. Sup Rau – Yes to both, I have Leak logs with all that information (water loss/equipment/materials and crew) and am clearer with contractors.

Also – mentioned that meter reading is getting better (July 2 weeks, now one) – and the need to replace all the transponders and registers on those failing and the manual routes.
Dist. Sup – Rau: reviewed the current equipment – and mentioned that the Dump truck / Backhoe and Skid are needed. Could really use a Vac-Trailer.
Dir Beaver – Asked if there is any equipment we can get rid of to get a Vac-Trailer? Mentioned we should look at a lease instead of a purchase, maintenance is a challenge and issue.
Dist. Sup – Rau: Responded to Dir Beaver - No equipment that we can get rid of, we use all.
Dir McVay – mentioned that at $600/ rental – maybe it's more cost effective to get a lease or just schedule a rental every other week to deal with the needs and rent when needed on a leak –
Public Member: Possehn: Asked why the meter reading is taking so much longer and challenging?
Dist. Sup Rau: Transponders running out of battery, manual reads have gone from hundred to many hundreds, really need to replace and update all the registers and transponders. And make sure all get read. New Software and updates.

c. District Staffing Needs and Plans – (Discussion)

GM Kelley – Reviewed the memo. The Whole staff of the District and that in August brought the change from 4.5 in Distribution to 5 was within the budget. And that the WTP Operator In Training that made WTP division at 3 was also extremely helpful (converting the 2.5 to 3).
Director Beaver: I asked for this item because we need to stay focused on efficient use of our staff and have as much money available to fix the Treatment plant needs – like Train 6 and replace pipe – which is our priority. With an additional staff member those costs take from fixing stuff. Don't believe we can afford to have more staff until the fixes are done at treatment and on pipelines. Which is what Bill has been telling us for years. We are listening and agree that repairs are priority.
Director Fickes: This was within budget, but how do we make sure it's not like 6 years ago when there were a lot of employees and salaries out of control. When does the board have a decision on staff level – do we need a cap?
Chair Lincoln – Paul brings it to our attention when he would like to hire, and we give him a "yes" or "no."
Gm Kelley – Suggested this could be in a budget policy document… "the current staff level is xx, if more than xx is needed and more budget needed the board would need to approve." Or something along those lines. This current action was converting a position that was ½ in each division – at max pay – to full in each division and is well within the budget. That is not counting potential OT.
Dist. Sup: Rau – Yes, it is critical we have four in the division, including me, meter reads, locates, and if someone is out or resigns work can continue. In the past when two left at once there was no one left for the work.
Public: Dennis Possehn: Comment, need to get funding for pipes.
Robert Warton: Fire is a crisis; Happy Valley can help block fire towards Redding like a fire break.

d. FY 24 Actuals vs Budget Year End – (Discussion/Action)

GM Kelley reviewed the differences between Accrual and Cash. And that the District till March of 2024 was cash in Revenue and Accrual in expenses.

CUSI was porting number and in August the Bookkeeper found that the incompatibility of the port was the issue and spent three months fixing and reconciling. This report is still preliminary since there are items that still need to be reconciled.

Also, this report shows the challenge of tracking Grant Expenses and Reimbursements. The Reimbursement create excessive revenue and many organizations (like LAFCO) base the next years fees/dues on Revenue – so Bookkeeper is working with J Martin CPA to find a better solution

Reviewed the excess revenue – mostly in Base Rate and last half of year the increase is also from "billed" amounts – Accrual vs paid. But the District did get LIHWAP monies – so there is more revenue than budgeted.

After all bottom line – as described by the memo – the $270K is ACCRUAL excess revenue, reviewing the cash revenue – it's about $200K less or a net of $64K

Dir Fickes – That is unfortunate, was hoping for more to put into fixing the stuff needed – like the Trains. The reports are confusing with the mix of Accrual.

Dir McVay - that seems about right on the actual cash excess.

More discussion of the different factors – like Dir. Johnston mentioned the 80K overage in Distribution O&M. How do we keep that under control and remember that expenses in other areas mean less to back fill this overage.

General Discussion – and plan to bring back after some updates.

GM Kelley said that report in December and expect that January meeting we could have a ½ year budget to actuals and adjustments then. Will also have a report on the Treatment Plant in December.

Dir McVay – Would like to have this fiscal year we've been reviewing with us at that time so we can identify the challenges and see where our current budget is to help us with guidelines for the adjustments we need to make.

e. Cross Connection Control Handbook Regulations Update – (Discussion)

GM Kelley reviewed the items in the memo and packet.

Mentioned this a year ago was coming

Adopted by State July 1, 2024, and complied with by July 1, 2025

Unfunded mandate and looking at ways to comply with the Plan/Program development, outreach, and the rest.

Including – potentially through contract with consultants or City of Anderson. Maybe internal staff?

Bella Vista received a quote from an out-of-state contractor and that quote came back at half a million dollars for five-year implementation.

There's a list of items that need to be included - we will need to have an Operating Rules and Ordinances for the program. We must create a program, at some point the Board will have to add to its water service policies or do a separate ordinance. Supposed to have a designated Cross Control

program, we will have to have hazard assessments and will have to do a survey on all our connections in the District, we must have a backflow prevention plan created by a certified backflow specialist.
Dir Johnston – What is backflow device testing do or mean?
Audience member and CPO Bill Palmaymesa – it has multiple check valves, and the testing Is by a sequence of pressure points – all to avoid when a suction back to our water system occurs, there is no intrusion of outside water. And commercial – could be a soda machine, ice machine or other stuff like that should have backflow. The Schools in HV should have adequate backflow.
Dir McVay – so we must have a plan in place by July 1st of this next year.
Dir Beaver – we may have to wait for Paul to speak with City of Anderson to see if they can help us or to explore all our options then we will know how to move forward with the program.
Dir Fickes – this is a challenge, and maybe the cost of outside help more that internal – and its more cost with no revenue.
GM Kelley will try to have more information regarding the options available in December, so we know how to move forward with the program.

f. General Manager Employment Agreement Amendment 2 – (Discussion/Action)
GM Kelley – This is the result of the Gm employment agreement, on the website including amendment 1 from last year. After a performance review the Board authorized these changes and needs to be brought to a regular meeting in open session. There is a "red line" and clean copy. There are a few sections mentioned – compensation, benefits to track District Retiree medical, removal of sick leave cap and increase to admin leave.
Motion to approve Amendment 2 to employment agreement and authorize chair signature: Dir Johnston. 2nd: Dir Beaver = Vote 5-0: unanimous.

7. GENERAL MANAGERS REPORT

GM Kelley reviewed and mentioned the items in the memo.
Also mentioned that Application for another JPIA risk grant – for a walk behind concrete saw.
The development of letters with costs / claims for the Tree Trimming company that hit a warf head hydrant and the fire department for the post fire on November 6th leak on Lassen.
Dir Beaver mentioned family working for water departments and agreements with fire on protocols and costs to water infrastructure when fire departments involved.
GM Kelley – that would be the desire of the letter to the Fire Dept now and eventual letter of protocol.
Also mentioned: the Backwash ponds project and it is moving forward – still waiting for CalOES reimbursement.
CPO Bill Palmaymesa (in audience) will be at the board meeting next month – we plan to have the PACE Eng review of the WTP needs and cost estimates and other updates from WTP.

8. OPERATIONS REPORT

GM Kelley mentioned to top line items – delinquencies, the shut off notices and only 8 shut off. One of Amity's tasks is to utilize the Lien system in CUSI to identify and reduce the number of the aged A/R's.
Also mentioned that at the report time, the M&I and Ag was not known – its: M&I: 228, Ag: 67
WTP did have a big leak as reported last month and now has a welder repair.
Dist. Sup Morgan Rau already gave update.

Dir McVay – do we know how much acre feet we have processed through the WTP? Looks like we are ahead of last year.
GM Kelley – we are ahead of last year partly due to a hot summer.

9. STANDING COMMITTEE REPORT –

a. Agriculture – *None till 2025, but helping host an Olive Community Group meeting December 11th*
b. Finance – *Met last week and scheduled for December 10*
c. Planning/Steering – *Meet in early 2025*

GM Kelley mentioned that in 2025 he plans to ask for the board to appoint a "Centerville contract renewal Ad-Hoc" committee for the limited time of 2 years and to end when contract renewal.

10. BOARD MEMBER ITEMS -

BOARD ITEMS:
Dir McVay – Is interested in visiting the WTP to see how the ponds are coming along and to look at the trains to better understand what is necessary. Dir Johnston is interested as well.
GM Kelley – Discussed planning to make that happen.
Dir Beaver – Would like to move up the December Board meeting so we aren't too close to Christmas.
GM Kelley – It's up to the board but the challenge is figuring out what day to move it to due to other scheduled meetings. Really up to the Board. Last year we moved it up a week as well. We need to do the swearing in of Directors. If unable to be at the meeting, you can be sworn in in January.
A general discussion across the board to decide which date would work – it was decided that we will keep the current date of Wednesday, December 18th.

11. CLOSED SESSION ANNOUNCEMENT: - None

12. ADJOURN THE MEETING – *8:16pm*

5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

Board of Directors

Directors - Beverly Fickes, Committee Chair: Scott McVay

General Manager: Paul Kelley

FINANCE COMMITTEE

December 10th 2024 at 4PM: District Office Board Room

Committee Responsibility

The Board's standing Financial Committee shall be concerned with the financial management of the Clear Creek CSD including the preparation and oversight of an annual budget, and oversight of reserve accounts and major expenditures.

Minutes/Notes

1. **CALL TO ORDER –** ***4:03pm – Chair McVay***

2. **PLEDGE OF ALLEGIANCE –** ***Director Fickes***

3. **ROLL CALL** – *Directors McVay and Fickes. GM Kelley, Admin Assistant Valdez (Till 4 :50 pm)*

4. **OPEN TIME/PUBLIC COMMENT:** None

5. **OLD BUSINESS/NEW BUSINESS** (Discussion/Action)
   a. Audit RFP Response Review and Recommendation to Board – Discussion
   GM Kelley reviewed the proposals, spreadsheet of proposal components, and rating sheet.
   Chair McVay and Director Fickes asked questions, reviewed each proposer staffing, schedule, and capabilities.
   GM Kelley mentioned he called Valley of Moon Water who had good reports on Harshwal and Co.
   As well as Buckingham Park water who had good reports on Roman Richardson CPA.
   Also – asked about an agreement with Mutual opt out clauses – GM Kelley mentioned he asked for and received a copy of the Harshwal agreement with another agency and it includes 10 day opt outs for each party.
   Committee concluded that both proposals were good, both companies could accomplish the task and after rating each and discussing each – would recommend Harshwal & Company, LLC.
      - *Based on these findings: Understanding and clearly state the schedule to get audits caught up*
      - *Firm has staffing resources to stay on task through challenges*

- *The referrals and experience with CSDs*
- *A more thorough, professional, and substantial proposal*
- *And would want to make sure agreement has the stated timelines*

- *This would be taken to board December 18th, 2024, GM Kelley will reach to Harshwal to get an Engagement letter to present to the board by the December 18th meeting.*

b. FY 24 Budget to Actuals – Update – Discussion
GM Kelley provided copies of the updated report
Mentioned that most of the coding issues appear to be corrected. Like the UAL amount separated out, but there are other coding issues still to be resolved and items questioned
And – that there is more to do – like getting the Grant Revenue and Expenses out. As well as the accounting in "expenses" the Non-Op revenue. After that and the other reserves – the "gross profit" is around 60K.
There are other items that still need to be dealt with – to make it more finalized and looking to do so for January.

c. FY 25 P&L Update – Discussion
GM Kelley provided the FY 25 Q1 P&L – its not useful yet since it has the Grant Expenses overwhelming by $2million the bottom line – without considering the Interest expense and the $2mil from the RCAC loan.
It does show some things like higher Distribution O&M costs
Director Fickes asked about another column with a "Yearly" Budget – since some of these expenses cover a one-time expense (like Dues, or Insurance) and looks well over the quarterly budget amount but within the Yearly budget.
GM Kelley mentioned looking for a way to show that information.
Chair McVay asked about the timeline for a ½ year budget to actuals and budget adjustment in Jan/ Feb – GM Kelley said that was the goal.

d. Reserve Policy – Discussion
GM Kelley shared the final draft. Director Fickes reviewed and mentioned a couple of typos.
GM Kelley fixed those and mentioned the edits from last time – primarily adding a line to the Backwash Recycle payment account and it holding 1 years of payment as per loan agreement and that the account is restricted.

6. ADJOURN THE MEETING – *5:14pm*

Clear Creek Community Services District
Transaction Detail by Account
November 14 through December 14, 2024

Type	Date	Num	Name	Memo	Amount
8000 · Accounts Payable					
Bill Pmt -Ch...	11/14/2024	33832	Ace Hardware - Acct# 2118	2118	-403.53
Bill Pmt -Ch...	11/14/2024	33833	AL's Saw Shop	mower fixed	-38.53
Bill Pmt -Ch...	11/14/2024	33834	Allen Gill Construction, Inc.	BWP Grant	-540,713.50
Bill Pmt -Ch...	11/14/2024	33835	AT&T	s. booster	-4.43
Bill Pmt -Ch...	11/14/2024	33836	Cintas Corporation	22228100	-97.94
Bill Pmt -Ch...	11/14/2024	33837	City of Redding West Centr...	0275803-5	-37.50
Bill Pmt -Ch...	11/14/2024	33838	Davis Excavating	hydrant repair	-3,500.00
Bill Pmt -Ch...	11/14/2024	33839	Fasteners Inc	373	-46.31
Bill Pmt -Ch...	11/14/2024	33840	Hansen Pressure Washer ...	pressure washer refab	-2,204.90
Bill Pmt -Ch...	11/14/2024	33841	Napa Auto Parts	1931	-145.11
Bill Pmt -Ch...	11/14/2024	33842	Nor Cal Gloves	5312	-452.70
Bill Pmt -Ch...	11/14/2024	33843	Pace Analytical Services LLC	28-100128	-827.98
Bill Pmt -Ch...	11/14/2024	33844	Pace Engineering	BWP Grant	-80,063.75
Bill Pmt -Ch...	11/14/2024	33845	Professional Exterminator o...	17387	-65.00
Bill Pmt -Ch...	11/14/2024	33846	Rob's Portable Welding	wtp	-420.00
Bill Pmt -Ch...	11/14/2024	33847	Verizon	242343122-00001	-52.07
Bill Pmt -Ch...	11/15/2024	eft 0931	Pacific Gas & Electric	office/well	-4,124.61
Bill Pmt -Ch...	11/15/2024	eft 2271	Pacific Gas & Electric	wells 1&2	-2,357.02
Bill Pmt -Ch...	11/15/2024	eft 9464	Waste Management	3-99477-15008	-201.51
Bill Pmt -Ch...	11/18/2024	33848	USBR - Water Payments	VOID: due to needing tw...	0.00
Bill Pmt -Ch...	11/18/2024	33849	USBR - Water Payments	14-06-200-489-A-P	-16,065.77
Bill Pmt -Ch...	11/18/2024	33850	USBR - Water Payments	14-06-200-489-A-P	-12,469.84
Bill Pmt -Ch...	12/01/2024	Auto Paid	UNUM Life Insurance of Co.		-1,333.79
Bill Pmt -Ch...	12/01/2024	auto paid	Cascarina, Rick	Dec 2024	-260.93
Bill Pmt -Ch...	12/01/2024	Auto EFT	Humana - Dental Ins	412851-001	-1,450.81
Bill Pmt -Ch...	12/01/2024	auto paid	RCAC-Loan Fund (Dump T...	6332-CCCSD-01	-1,696.07
Bill Pmt -Ch...	12/09/2024		AT&T	QuickBooks generated z...	0.00
Bill Pmt -Ch...	12/10/2024	33851	Ability Answering & Paging ...	05-1-8495	-452.16
Bill Pmt -Ch...	12/10/2024	33852	Ace Hardware - Acct # 2186	2186	-355.18
Bill Pmt -Ch...	12/10/2024	33853	Ace Hardware - Acct# 2118	2118	-54.23
Bill Pmt -Ch...	12/10/2024	33854	Alhambra (formerly Mt Sha...	1020179424385352	-51.00
Bill Pmt -Ch...	12/10/2024	33855	Allen Gill Construction, Inc.	BWP Grant	-438,094.95
Bill Pmt -Ch...	12/10/2024	33856	AT&T	wtp	-415.83
Bill Pmt -Ch...	12/10/2024	33857	Axner Excavating, Inc.	6920038	-4,389.50
Bill Pmt -Ch...	12/10/2024	33858	Badger Meter, Inc.	41827	-101.82
Bill Pmt -Ch...	12/10/2024	33859	Bay Alarm Company	1201366	-33.32
Bill Pmt -Ch...	12/10/2024	33860	Beaver, Patricia A	Brd Mtg 112024	-100.00
Bill Pmt -Ch...	12/10/2024	33861	Blue Star Gas	11-1018001	-965.00
Bill Pmt -Ch...	12/10/2024	33862	Cascade Comfort Service (...	center heater unit main o...	-99.00
Bill Pmt -Ch...	12/10/2024	33863	CDTFA (Tax and Fee Admi...	USBR1130	-22,940.66
Bill Pmt -Ch...	12/10/2024	33864	Cintas Corporation	22228100	-391.76
Bill Pmt -Ch...	12/10/2024	33865	Com-Pair Services	10117	-110.00
Bill Pmt -Ch...	12/10/2024	33866	Computer Logistics Corp	IT computer services	-848.93
Bill Pmt -Ch...	12/10/2024	33867	Davis Excavating	dorvel repair	-900.00
Bill Pmt -Ch...	12/10/2024	33868	Fasteners Inc	373	-236.26
Bill Pmt -Ch...	12/10/2024	33869	Ferguson Waterworks	409921	-14,411.86
Bill Pmt -Ch...	12/10/2024	33870	Fickes, Beverly		-125.00
Bill Pmt -Ch...	12/10/2024	33871	Harvest Printing Company	customer bills	-3,269.55
Bill Pmt -Ch...	12/10/2024	33872	I-5 Rentals Inc	175	-564.21
Bill Pmt -Ch...	12/10/2024	33873	Johnston, Logan	Brd Mtg 112024	-100.00
Bill Pmt -Ch...	12/10/2024	33874	Kelley, Paul	Food for ACWA/JPIA Tra...	-67.91
Bill Pmt -Ch...	12/10/2024	33875	Leonard, Lyle	T1 exam and cert	-105.00
Bill Pmt -Ch...	12/10/2024	33876	Les Schwab	multiple units tires/flat re...	-1,903.13
Bill Pmt -Ch...	12/10/2024	33877	McVay, Scott		-125.00
Bill Pmt -Ch...	12/10/2024	33878	Napa Auto Parts	1931	-106.35
Bill Pmt -Ch...	12/10/2024	33879	Nor Cal Gloves	5312	-420.48
Bill Pmt -Ch...	12/10/2024	33880	Northwood Backflow Servic...	backflow test annual	-5,435.00
Bill Pmt -Ch...	12/10/2024	33881	Pace Analytical Services LLC	28-100128	-1,024.55
Bill Pmt -Ch...	12/10/2024	33882	Pace Engineering	BWP Grant Invoices	-65,347.00
Bill Pmt -Ch...	12/10/2024	33883	Pedrotti Materials	roadbase and sand	-546.13
Bill Pmt -Ch...	12/10/2024	33884	Plumas Credit Card		-1,950.23
Bill Pmt -Ch...	12/10/2024	33885	Professional Exterminator o...	17387	-65.00
Bill Pmt -Ch...	12/10/2024	33886	RCAC -Loan Fund BWP Gr...	1140-CCCSD-02	-8,166.77
Bill Pmt -Ch...	12/10/2024	33887	Rossie Electrical Controls ...	400	-750.00
Bill Pmt -Ch...	12/10/2024	33888	Sunbelt Rentals, Inc.	948758	-2,257.50
Bill Pmt -Ch...	12/10/2024	33889	United Public Employees of...	two months union payme...	-888.00
Bill Pmt -Ch...	12/10/2024	33890	United Rentals	3376283	-3,776.84
Bill Pmt -Ch...	12/10/2024	33891	US Bank Equipment Finance	1453267	-516.74

Clear Creek Community Services District
Transaction Detail by Account
November 14 through December 14, 2024

Type	Date	Num	Name	Memo	Amount
Bill Pmt -Ch...	12/10/2024	33892	Valley Pacific	C850335	-2,494.46
Bill Pmt -Ch...	12/10/2024	33893	Waste Management	3-99477-15008	-201.51
Bill Pmt -Ch...	12/10/2024	33894	Wienhoff Drug Testing	CLEARCR	-255.00
Bill Pmt -Ch...	12/11/2024	EFT 0d59	Amazon Capital Services, I...	A3SGCPAZF6QYSB	-495.79
Bill Pmt -Ch...	12/11/2024	Eft 1328	CalPERS Health Ins	Nov health insurance	-22,165.20
Bill Pmt -Ch...	12/11/2024	Eft 2321	CalPERS PEPRA/Classic	UAL	-15,024.58
Bill Pmt -Ch...	12/11/2024	eft 2747	Office Depot Business Credit	computer battery back up...	-241.84
Bill Pmt -Ch...	12/11/2024	eft 2941	Pacific Gas & Electric	wells 1&2	-196.55
Bill Pmt -Ch...	12/11/2024	Eft 4741	Pacific Gas & Electric	office/well3	-1,252.33
Bill Pmt -Ch...	12/11/2024	EFT 7591	Pacific Gas & Electric	pond	-261.72
Bill Pmt -Ch...	12/11/2024	eft 1101	Pacific Gas & Electric	wtp	-3,685.93
Bill Pmt -Ch...	12/11/2024	Eft5271	Pacific Gas & Electric	n. booster	-489.00
Bill Pmt -Ch...	12/11/2024	eft 6311	Pacific Gas & Electric	clear creek/ hv	-91.47
Bill Pmt -Ch...	12/11/2024	eft 7351	Pacific Gas & Electric	outdoor lights	-21.75
Bill Pmt -Ch...	12/11/2024	eft 4052	TDS	530-357-2121	-357.34
Total 8000 · Accounts Payable					-1,298,729.92
TOTAL					**-1,298,729.92**

PAYCHEX

CHECK REGISTER

COMPANY BANK ACCOUNT	NAME	ID	CHECK DATE	CHECK NUMBER	DIRECT DEPOSIT AMOUNT	NEGOTIABLE CHECK AMOUNT
		10010	12/12/24	113	2,905.46	
		30042	12/12/24	114	2,299.78	
		30043	12/12/24	115	1,912.34	
		30041	12/12/24	116	2,209.11	
		20080	12/12/24	117	1,976.50	
		20090	12/12/24	118	2,281.03	
		30040	12/12/24	119	2,262.72	
		20060	12/12/24	120	2,455.64	
		30010	12/12/24	121	3,866.98	
		11010	12/12/24	122	1,784.41	
		11070	12/12/24	123	1,351.02	
		11060	12/12/24	124	1,848.87	
				BANK ACCOUNT TOTAL *12 Transaction(s)*	27,153.86	0.00
				COMPANY TOTAL *12 Transaction(s)*	27,153.86	0.00

PAYCHEX

CHECK REGISTER

COMPANY BANK ACCOUNT	NAME	ID	CHECK DATE	CHECK NUMBER	DIRECT DEPOSIT AMOUNT	NEGOTIABLE CHECK AMOUNT
		10010	11/27/24	101	2,780.40	
		30042	11/27/24	102	1,894.72	
		30043	11/27/24	103	1,636.58	
		30041	11/27/24	104	2,866.31	
		20080	11/27/24	105	2,400.43	
		20090	11/27/24	106	1,838.76	
		30040	11/27/24	107	2,497.22	
		20060	11/27/24	108	2,244.82	
		30010	11/27/24	109	4,203.62	
		11010	11/27/24	110	1,813.04	
		11070	11/27/24	111	1,351.03	
		11060	11/27/24	112	1,849.25	
				BANK ACCOUNT TOTAL *12 Transaction(s)*	27,376.18	0.00
				COMPANY TOTAL *12 Transaction(s)*	27,376.18	0.00

PAYCHEX

CHECK REGISTER

COMPANY BANK ACCOUNT	NAME	ID	CHECK DATE	CHECK NUMBER	DIRECT DEPOSIT AMOUNT	NEGOTIABLE CHECK AMOUNT
		10010	11/14/24	90	2,780.39	
		30042	11/14/24	91	3,155.60	
		30043	11/14/24	92	2,449.40	
		30041	11/14/24	93	3,342.48	
		20080	11/14/24	94	2,389.23	
		20090	11/14/24	95	2,338.71	
		20060	11/14/24	96	2,101.42	
		30010	11/14/24	97	4,008.16	
		11010	11/14/24	98	1,790.21	
		11070	11/14/24	99	1,351.03	
		11060	11/14/24	100	1,855.25	
				BANK ACCOUNT TOTAL *11 Transaction(s)*	27,561.88	0.00
				COMPANY TOTAL *11 Transaction(s)*	27,561.88	0.00

5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

MEMO

Date: December 18th 2024

To: Board of Directors

From: General Manager – Paul Kelley

Re: **6 -** Old business/New Business (Discussion/Action)

Discussion:

6.a – USBR Report – Account Reconciliation (Discussion)

This item for discussion on Account Reconciliation update, and other USBR water related items

Recommendation:

Review, Discussion, provide direction to GM.

6.b **District Audit RFP Selection and engagement letter** (Discussion/Action)

See item memo for more background and discussion.

Recommendation:

Review, Discussion, Provide Direction and approve GM signature on engagement letter.

6.c **Water Treatment Plant Improvement Report from PACE Eng. And Treatment Division Update** – CPO Bill Palmaymesa (Discussion/Action)

The written operations report is included later in the agenda.
CPO Bill Palmaymesa is in attendance to provide a verbal update and take questions from the Board and Community.

The Board has also been waiting for the PACE Engineering WTP Improvement report – attached for discussion and direction.

See item memo for more background and discussion.

Recommendation:

Review, Discussion, Provide Direction

6.d **Leaks and Repairs Report and Options** (Discussion/Action)

See item memo for more background and discussion.

Recommendation:

Review, Discussion, Provide Direction

6.e **Ordinance 2024-10 Reserve Policy** (Discussion/Action)

See item memo for more background and discussion.

Recommendation:

Review, Discussion, By motion approve the attached ordinance

5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

MEMO

Date: December 18th 2024

To: Board of Directors

From: General Manager – Paul Kelley

Re: **6a –** USBR report and Account Reconciliation

Discussion:

6.a –

This item for discussion on Account Reconciliation update, and other USBR water related items.

There is nothing to report on Account Reconciliation.

If more, then reported at meeting.

Recommendation:

Review, Discussion, provide direction to GM.

5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

MEMO

Date: December 18th 2024
To: Board of Directors
From: General Manager – Paul Kelley

Re: District Audit RFP Selection and engagement letter (Discussion/Action)

Discussion/Action:

6.b – District Audit RFP Selection and engagement letter (Discussion/Action)

The Board reviewed the CCCSD Auditor RFP at their October Meeting.

The District sent the RFP to over 30 CPA firms – Generally Sacramento/Bay Area North to Redding. Some responded that they no longer did Government Audits. Others mentioned capacity issues and challenges of responding to RFP's.

The District received two qualified "Audit RFP Response Proposals" from two CPA firms.

Staff put together a Spreadsheet with pertinent information for the assessment and the Finance Committee held a publicly noticed meeting December 10th with the Spreadsheet and complete proposals at their disposal.

The Two proposers are: Harshwal & Company LLC. And Richardson CPA or RTN CPA, LLC.

Both firms had experience and the GM called one of their references with a good report. Both firms could complete the tasks.

The Committee and Staff reviewed and rated the proposals and recommend to the Board to select Harshwal & Company LLC and authorize the GM to sign an engagement letter that has timelines and mutual cancelation clauses.

The Primary reasons for the recommendation of Harshwal:

- Their Understanding and clearly stating the schedule to get audits caught up (FY23 and FY24 by June of 2025)
- The Firm has staffing resources to stay on task through potential challenges
- The referrals and experience with CSDs – and that the GM had talked to one of their references with a good report.
- The proposals was more thorough, professional, and substantial
- And the GM reported that their engagement letter with another District had a timeline and mutual opt out clause.

Attached: The RFP Response Spreadsheet with essential information. (to save size of packet)

Available: Upon request each CPA's proposal and a copies available at meeting. and Engagement letter

Recommendation:

Review, Discussion, By Motion: Authorize GM to Sign Engagement Letter with Harshwal & Company, LLC

Name	Website/address/Email	Contact
Harshwal & Company	Sanwar Harshwal, CPA Managing Partner Email: sanwar@harshwal.com, Office:858.939.0017, cell:858.784.1622 https://www.harshwal.com/our-team, 333 Hegenberger Road, Suite 328, Oakland, CA 94621	**Sanwar Harshwal**
Richardson & Company, LLP (RTN CPA)	3007 Douglas Blvd., Suite 155 Roseville, CA 95661. Office:916.818.2090, Cell:415.916.7222, email: roman@rtncpa.com	**Roman Richardson**

Qualifications	Firm Size
•Firm established 15 years ago •Staff has four decades of public auditing experience •Worked with: special districts, state and local governments, counties, educational entities, tribes and tribal governments, housing authorities, and not-for-profit organizations •Low staff turnover •Audit team details on page 22 of proposal, with resumes in following pages •Keeps in constant communication and has regular monthly updates during the audit periods	Managing Partner 01 Independent Reviewer 01 Additional Partners 01 Audit Manager 02 Operations Manager 01 CPAs and Senior Staff 08 Additional Staff 12 **Total 26**
•New firm, established in 2022 but founder has been in audit industry for over 15 years •Specializing in audits of not-for-profit entities, governmental districts, and governmental agencies. •Audit team on page 4 with resumes on the following pages	Estimated 3 or 4 Not specified

Harshwal

RTN - CPA

Experience

Name of Team Member	Role	Experience
Sanwar Harshwal, *CPA, CIA, CISA, CFE*	Managing Partner	40+ Years
Garima Pathak, *CA*	Manager	8+ Years
Samson Reda, *CPA*	Senior Auditor	10+ Years
Michael Sparling, *CPA*	Senior Auditor	20+ Years
Albert Hwu, *CPA*	Senior Auditor	10+ Years
Poonam Sharma, *CPA*	Staff Auditor	7+ Years

Harshwal

*CA-Chartered Accountant, CIA-Certified Internal Auditor, CISA-Certified Information Systems Auditor, CFE-Certified Fraud Examiner

RTN

- Roman Richardson, CPA Principal Partner 18+ Years experience
- Paul J Stroub, CPA Audit Senior 30+ Years experience

Resumes on page 4 of proposal

Clients in Special Districts

List is extensive but includes: Contra Costa Public Works Department, City of Oakland Office of Public Works, Alameda County Public Works Department, Valley of the Moon Water District, Goshen Community Services District, Big Rock community service district, Central Basin Municipal Water District, Gasquet Community Services District, San Miguel Community Services District, Lions Gate Community Service District, Fox Canyon Groundwater Management Agency.

Buckingham Park Water District,
Mountain Counties Emergency Medical Services Agency and Nevada Cemetery District.Nevada Cemetery District
Mountain-Valley EMS Agency
South Placer Municipal Utility District
Meadow Vista Water District
Auburn Public Cemetery District
Roseville Public Cemetery District
Newcastle-Rocklin-Gold Hill Cemetery District

Haaskwal

RTN

Professional References

Client	Contact Person and Address	Contact Details
Valley of the Moon Water District	Oscar Madrigal, Finance Manager 19039 Bay Street P.O. Box 280, El Verano, California 95433-0280	(707) 996-1037 omadrigal@vomwd.org
Buena Park Library District	Marina Tutty, Business Officer 7150 La Palma Avenue, Buena Park, CA 90620	(714) 826-4100 businessofficer@buenapark.lib.ca.us
Coastside Fire Protection District	Ginny Petras, Administrative Officer 1191 Main Street, Half Moon Bay, CA 94019	(650) 726-5213 Ginny.Petras@fire.ca.gov

Harshwal

Reference letters on pages 28-30 of proposal

Client	Scope of Work	Engagement Principal	Engagement Team Members	Principal Client Contact	Telephone Number
Buckingham Park Water District 2880 Eastlake Drive Kelseyville, CA 95451	**Audit - Govt. and enterprise funds,** SCO Report, AUP Appropriations Limit	Roman Richardson	Paul Stroub	Ahimsah Wonderwheel	707-279-8568
Mountain-Valley EMS Agency 3505 Spangler Lane, Suite 405 Copperapolis, CA 95228	**Audit - Govt. and enterprise funds,** SCO Report, AUP Appropriations Limit	Roman Richardson	Paul Stroub	Susan Watson/Andrea Ramirez	209-566-7202
Nevada Cemetery District 10523 Willow Valley Road Nevada City, CA 95959	**Audit - Govt. and enterprise funds,** SCO Report, AUP Appropriations Limit	Paul Stroub	Roman Richardson	Matt Melugin	530-265-3461

RTN

Reference letters not included

Proposed Method

Milestones	Tentative Timeline
Planning, risk assessment and system evaluation	Just after contract awarded
Commencement of audit fieldwork	2nd week of January, 2025 or before
Final audit field work	Last week of February, 2025 or before
Draft Audit Reports and Management Letter for Review (FY 2023)	Mid of March, 2025 or before
Final Audit Reports and Management Letter (FY 2023)	Last week of March, 2025 or before
Final audit field work (FY 2024)	Early June, 2024 or before
Draft Audit Reports and Management Letter for Review (FY 2024)	2nd week of June, 2025 or before
Final Audit Reports and Management Letter (FY 2024)	Last week of June, 2025 or before
Commencement of audit fieldwork (FY 2025)	2nd week of August, 2025 or before
Final audit field work (FY 2025)	4th week of September, 2025
Draft Audit Reports and Management Letter for Review (FY 2025)	2nd week of October, 2025
Final Audit Reports and Management Letter (FY 2025)	Last week of October, 2025

Harshwal

Full scope of methodology on page 34 of proposal

Date	Service/Product
January 2025 (weeks to be determined)	Planning of audit test of internal controls. Single audit, if required.
January 2025	Mailing of all audit confirmations.
January 2025 (week to be determined based on District schedule)	Financial statement audit.
January 2025	SCO Financial Report
March 2025	Delivery of draft financial statements, internal control communication, and proposed adjusting journal entries.
March 2025	Delivery of bound audited financial statements, including supplementary information required by Uniform Guidance.

RTN

It looks like their audit proposal was originally tailored for Buckingham Park Water District and they forgot to change it for Clear Creek CSD? There is no proposed schedule for the accelerated FY23 and FY24 audits? Need to ask them if they are possibly planning to do them concurrently according to the above timeline? **Page 13 of proposal**

Length of Agreement Proposal and Cost

Required Audit Services	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
District Financial Audit.....	$ 20,000.00	$ 21,000.00	$ 22,050.00	$ 23,150.00	$ 24,310.00
Total Fees	**$ 20,000.00**	**$ 21,000.00**	**$ 22,050.00**	**$ 23,150.00**	**$ 24,310.00**

Harshwal

FY2023 to FY2027 completion

	Fiscal years ending June 30,				
	2023	2024	2025	2026	2027
Audited financial statements audit, including audit on financial statements and report on internal controls and compliance	$ 12,000	$12,000	$16,000	$17,000	$ 18,000
State Controller's Report	350	350	350	350	350
Agreed Upon Procedure	-	-	-	-	-
Total	$ 12,350 (a)	$ 12,350 (a)	$16,350	$17,350	$18,350
Single Audit Under A-133, **(if necessary)**	6,000	6,500	7,000	7,500	8,000

RTN

FY2023 to FY2027 completion

Cost of Additional Services

We will perform additional work only if set forth in an addendum to the contract between the District and our firm. Our fees for the additional services, if required, will be based on the actual time spent by professional or administrative personnel at quoted hourly rates, specified above. Our standard hourly rates vary according to the degree of responsibility involved, and the experience level of the personnel assigned.

Hourly

Additional professional services shall only be performed if set forth in an addendum to the original contract. Additional services will be billed at our normal hourly rates, as follows:

Partner $ 280 per hour
Senior Auditor $ 160 per hour
Staff Auditor $ 140 per hour

RTN

CLEAR CREEK
Community Services District
5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

MEMO

Date: December 18th 2024
To: Board of Directors
From: General Manager – Paul Kelley

Re: **6c – Water Treatment Plant Improvement Report from PACE Eng. And Treatment Division Update** – CPO Bill Palmaymesa (Discussion/Action)

Discussion/Action:

6.c – Water Treatment Plant Improvement Report from PACE Eng. And Treatment Division Update – CPO Bill Palmaymesa (Discussion/Action)

During the Boards FY 2025 Budget discussion and approval; the Water Treatment Plant's filters and trains that need attention was a focus of the Board. The District allocated funds to have PACE engineering to a review of the States "Sanitary" survey and needs identified by District Staff and the CPO Palmaymesa and provide an Engineering report with cost estimates.

Attached is PACE Engineering "Water Treatment Plant Improvement Report" for the Boards Review.

The CPO Bill Palmaymesa is here to provide an update on the WTP operations (usually written in the Operations Report – later in the agenda) – much like the Distribution Division report done in person last Month.

And the CPO is here to discuss this Engineers report with the Board.

Staff and the Board will also discuss options and methods to proceed from here. This information will help the District to start the process of solving items listed.

Some next steps options:

- Select critical components to start the engineering and bid process
- Select a preferred alternative
- Look for Grants
- Ask PACE for a proposal to apply for a Grant to fund an alternative.
- Other options for discussion

Attached: Preliminary Engineering Report – Water Treatment Plant Improvements – PACE Engineering

and the 2022 State Sanitary Survey report on WTP

Recommendation:

Review, Discussion, Provide Direction for Next steps

PACE® ENGINEERING

WATER/WASTEWATER • CIVIL • SURVEY • STRUCTURAL • ELECTRICAL
MECHANICAL & PLUMBING • INSTRUMENTATION & CONTROLS
(530) 244-0202 • www.paceengineering.us

PRELIMINARY ENGINEERING REPORT

WATER TREATMENT PLANT IMPROVEMENTS

DECEMBER 2024

JOB NO. 104.68

Prepared for:

Clear Creek Community Services District

Prepared by:

PACE Engineering, Inc.

WATER TREATMENT PLANT IMPROVEMENTS PRELIMINARY ENGINEERING REPORT

ENGINEER'S STATEMENT

We are pleased to present the Preliminary Engineering Report for the Water Treatment Plant Improvements. This report contains our investigation of Clear Creek Community Services District's water treatment plant, including intake, chlorination, coagulation, and filtration facilities. This report includes recommendations to restore the plant back to its current design capacity with three filtration alternatives. Preliminary project cost estimates were prepared for each alternative.

PACE Engineering, Inc. is very pleased to have participated in this project. We thank your staff for their assistance in the preparation of this report.

12/10/24

Garett Hattenhauer Date: December 10, 2024

Garett Hattenhauer, P.E., 76784
Senior Engineer

TABLE OF CONTENTS

APPENDICES

ABBREVIATIONS

The following abbreviations are used in this report:

CSD	Community Services District
District	Clear Creek Community Services District
ENR	Engineering News Record
FPS	Feet per Second
GPM/ft^2	Gallons per Minute per Square Foot
HDPE	High-Density Polyethylene Pipe
MCC	Motor Control Center
MCL	Maximum Contaminant Level
MGD	Million Gallons per Day
NTU	Nephelometric Turbidity Units
PAC	Polyaluminum Hydroxy Chloride
WTP	Water Treatment Plant

CLEAR CREEK COMMUNITY SERVICES DISTRICT
WATER TREATMENT PLANT IMPROVEMENTS
PRELIMINARY ENGINEERING REPORT
DECEMBER 2024

1. INTRODUCTION

The Clear Creek Community Services District (CSD or District) operates an inline filtration water treatment plant (WTP), located near the base of the Whiskeytown Dam. The WTP is the primary source of agricultural, municipal, and industrial water for Clear Creek CSD and municipal and industrial water for Centerville CSD. Water began flowing into the District in 1967 via the Muletown Conduit and the original WTP was constructed in 1976. The original WTP consisted of two 8-foot-diameter by 40-foot-long pressure filters. Some upgrades have been done since then, and the existing WTP has a capacity of 33 million gallons per day (MGD) with a filter loading rate of 8 gallons per minute per square foot (GPM/ft^2). Typically, the WTP operates at 14 MGD with a loading rate of 3 GPM/ft^2. Raw surface water is supplied by water impounded by Whiskeytown Dam and pre-filter chlorination, coagulation, filtration, and post-filter chlorination are each used as part of the treatment process.

2. EXISTING TREATMENT FACILITIES

2.1 RAW WATER INTAKE

Water for the District is diverted from Whiskeytown Lake through two penstocks located at the base of the dam and owned by the United States Bureau of Reclamation. The penstocks are original to the dam, which was constructed around 1965. Water can be withdrawn at an elevation of 1,110 or 965 feet, depending on which penstock gate is utilized. The selection of depth sometimes gives the District an opportunity to avoid turbid water and other contaminants, such as algae and water fleas (Daphnia spp.). Due to age and condition, the main butterfly valves at Penstock 1 currently leak and Penstock 2 is suspected to have issues per District staff.

Diversion from the penstocks continues via two 48-inch motor-actuated butterfly valves. The valves are housed in an underground vault that was constructed approximately at the same time as the dam. Both valves are original and currently leak. Water is transported from the intake to the 24-inch-diameter raw water diversion via the 45-inch-diameter Muletown Conduit.

2.2 PRE-FILTER CHLORINATION

Pre-filter chlorination facilities are located adjacent to the 24-inch diversion and consist of an abandoned meter vault and an aboveground structure housing four automatic chlorinators, chlorine residual analyzers, turbidimeters, particle counters, backwash and recycle pumps, and scales for weighing two one-ton chlorine gas cylinders. The chlorine facilities are original to the WTP, but the abandoned metering vault has since been bypassed by the 24-inch piping reduced to 18-inch piping to the WTP located about 350 feet away. The chlorination facilities were further modified in 1996 to allow for a new 30-inch chlorinated water pipeline and 30-inch filtered water pipeline to replace the 18-inch piping. The original 24-inch diversion from the 45-inch Muletown Conduit was not upgraded as part of the project. Chlorine gas is injected into the 24-inch section of pipe just before the 30-inch chlorinated water pipeline improvements. The 24-inch bottleneck between the 45-inch Muletown Conduit and 30-inch chlorinated water main is causing high velocity and scour concerns. The chlorine injection point has had no maintenance, as it is buried and inaccessible to District staff.

2.3 COAGULATION

The coagulation process includes dosing two coagulants, polyaluminum hydroxy chloride (PAC) and Zeta Floc 20, downstream of the pre-filter chlorination injection point. Both coagulants are stored at the filter control building approximately 350 feet away from the primary coagulant dosing point. Typically, PAC is used as the primary coagulant and is injected approximately one foot downstream of the pre-filter chlorination injection point. The secondary cationic coagulant, Zeta Floc 20, is used as a floc-builder filter aid and injected at a static mixer immediately before the filters. Similar to the pre-filter chlorination, the primary coagulant injection point is buried underground and is inaccessible to District staff.

2.4 FILTRATION

OVERVIEW

The WTP consists of eight filters, which operate by gravity and under pressure from the Whiskeytown Reservoir. Four of the filters, Filters 1, 2, 3, and 4, are 8 feet in diameter by 40 feet in length (8’ x 40’), and four of the filters, Filters 5, 6, 7, and 8, are 10 feet in diameter by 50 feet in length (10’ x 50’). The first two 8’ x 40’ filters were installed in 1976 as part of the

original WTP. Shortly after, in 1985, a third 8' x 40' filter was installed. Then in 1996, the WTP was expanded to provide full-time filtration, which added a fourth 8' x 40' filter and the four 10' x 50' filters. Filters 1 through 4 each contain two cells. Two of the filters are paired together to make a filter train of four cells in total. Filters 5 through 8 consist of three cells each, and each filter is a separate treatment train. Thus, there are a total of six treatment trains between the eight filters. Each filter train is a unit that can be selected to operate when the WTP is called or can be placed in standby mode. When the filters are first turned on, the filtered water is sent to the rinse-to-waste pond to ensure the filters are working properly before filtered water is sent to post-filter chlorination. Filter trains are backwashed independently. The backwash water is sent to the backwash ponds while the filtered water is dosed again with chlorine and finally sent to the distribution system via the Muletown Conduit.

PERFORMANCE

The treatment system is required to have turbidity levels less than 0.1 nephelometric turbidity units (NTU) to have a 2-log removal of *Giardia* in at least 95% of the sample readings. The filters have historically met this requirement; however, other deficiencies have been noticed by WTP operators. Filter Trains 1 and 2 are approximately 50 and 30 years old, respectively, and are well beyond their useful service life. Most of these filters are original to the WTP, and only minor improvements have been done to replace failing infrastructure since that time. Filters 5 through 8 are approximately 30 years old and are also beyond their useful service life. Similar to the other filters, Filters 5 through 8 have only had minor emergency improvements to keep the WTP running. Almost all valves and actuators are in need of replacement. Filter 8 is no longer operational due to corrosion, broken laterals, and media failure. The District attempted to repair Filter 8 but continues to lose media during filter-to-waste and backwash cycles. Filter 8 is offline and considered nonoperational. Similar deficiencies have occurred in Filter 6, and several filters require media rehabilitation. The exteriors of the filters were blasted and recoated after the Carr Fire in recent years and appear to be intact.

The existing motor control center (MCC) was installed in approximately 1970 and is housed inside of the filter control building. The most recent service report, dated April 2024, indicated that the MCC has failing components, does not meet code, and is not supported for service or repair. The

existing breaker panel for the electric motor actuators, which controls the filters, does not meet code and is intended to have three-phase power. The few electric actuators that have been replaced are single-phase and are not intended to be run with the existing three-phase breaker panel. The District intends to replace all of the remaining electric actuators in the near future, switching from three-phase to single-phase, making the three-phase breaker panel obsolete.

BACKWASH

The filters enter a backwash cycle when one of the following conditions occurs: 1) when a pressure drop across the filter is seven to eight feet, 2) a predetermined run time has elapsed, or 3) another setpoint such as high filter effluent turbidity is exceeded. During a backwash cycle, each cell in a filter train is backwashed sequentially, and only one cell is washed at a time. A typical backwash flow rate is 13.5 GPM/ft^2 and lasts for 10 to 12 minutes per cell. The backwash water leaves the filter control building and is disposed of in one of the two backwash ponds. A project to repair Backwash Ponds 2 and 3 is currently under construction. Backwash Pond 1 is only used in an emergency and serves as an emergency overflow detention pond.

2.5 POST-FILTER CHLORINATION

After filtration, chlorine gas is injected into the 30-inch filtered water effluent main, outside of the chlorination building, prior to the connection to the 45-inch Muletown Conduit. Post-filter chlorination was added to the disinfection process during the 1970s. Similar to the pre-filter chlorination injection point, the post-filter chlorination injection point is inaccessible to District staff and has not had maintenance since installation. Directly downstream of the post-filter chlorination injection point, the 30-inch main reduces to the 1970s 24-inch filtered water effluent main that ties into the Muletown Conduit. When the WTP is under peak demand conditions, the 24-inch main has velocity exceeding 17 feet per second (FPS).

3. RECOMMENDED IMPROVEMENTS

Construction cost estimates for the recommended improvements described herein are provided in Appendix A at the end of this report. Three filtration alternatives were evaluated as part of the recommended improvements. The raw water, chlorination, and coagulation recommended improvements are the same for each filtration alternative.

3.1 RAW WATER INTAKE

The raw water intake is original to the dam, and the valves are known to leak. It is recommended to replace the leaking 48-inch butterfly valves, electric actuator motors, and associated electrical equipment to restore the intake to its original capacity.

3.2 PRE-FILTER CHLORINATION

The pre-filter chlorination facility has had improvements over the years; however, the pre-filter chlorination injection point has never been upgraded or serviced. The chlorine injection point is inaccessible to District staff, and the existing underground piping is undersized. It is recommended to install a new chemical injection vault with new piping to fix the bottlenecking and provide access to the injection point.

3.3 COAGULATION

Similar to the pre-filter chlorination injection point, the primary coagulation injection point is inaccessible to District staff. Since the existing coagulation injection point is only one foot downstream of the pre-filter chorine injection, it is recommended to install a new coagulation injection point inside the same vault as the pre-filter chlorine injection. No improvements are recommended to the secondary coagulation injection point.

3.4 FILTRATION

The filtration process consists of eight filters, of which four are 8’ x 40’ and four are 10’ x 50’ filters. The electrical equipment and controls for the filters are housed in the connecting filter control building. The filters, piping, and associated electrical equipment are beginning to fail and are in need of various improvements. Three filtration improvement alternatives are discussed herein.

ALTERNATIVE 1

Alternative 1 consists of replacing Filters 1 through 4 and replacing the existing 8’ x 40’ filters with four new 8’ x 50’ filters. Filters 1 through 4 are the smaller filters that are paired in treatment trains, which are original or part of the early improvements to the WTP. All of these filters have exceeded their useful service life and are in need of replacement. It is recommended to separate the treatment trains to allow for the filters to operate independently. The valves and piping inside the filter piping gallery are of the same age as the filters and are beginning to fail. Only

one of the valves and a few actuators have been replaced during emergency situations. It is recommended to replace all valves and remaining actuators for Filters 1 through 4.

Alternative 1 also consists of improvements to Filters 5 through 8 and electrical upgrades. Filters 5 through 8 are the larger filters that were added to the WTP in 1996. These filters are experiencing deficiencies as noted above. Filter rehabilitation for all these filters is recommended to replace the media, laterals, and interior coating. Similar to Filters 1 through 4, the associated piping and valves in the filter piping gallery are beginning to fail. All valves are original to the WTP expansion, and only a few actuators have been replaced during emergencies. It is recommended to replace all valves and remaining actuators for Filters 5 through 8. Also, the existing Venturi flow meters are wearing out, and it is recommended to install an electromagnetic flow meter on each filter. The electrical equipment for the filters is located in the filter control building. The MCC is beyond its useful service life, does not meet code, and is not supported for repairs. The breaker panel for the electric actuators is wired for three-phase, and it is not compatible with the new single-phase actuators. It is recommended to replace the MCC and breaker panel. This alternative would restore the WTP back to its original capacity.

ALTERNATIVE 2

Alternative 2 consists of demolishing Filters 1 through 4, associated piping, and electrical equipment and adding three new 10’ x 50’ filters, Filters 9 though 11, on the northeast side of Filter 8. These improvements would also include expanding the building and the installation of all new associated piping and electrical equipment.

Similar to Alternative 1, Alternative 2 consists of improvements to Filters 5 through 8 and electrical upgrades to the MCC and breaker panel. This alternative would restore WTP capacity and allow the District to use the space where Filters 1 through 4 are located for other purposes.

ALTERATIVE 3

Alternative 3 consists of rehabilitating Filters 1 through 4 to be used as roughing filters and adding three new 10’ x 50’ filters, Filters 9 through 11, on the northeast side of Filter 8. The addition of roughing filters would help remove more organics, thus lowering disinfection byproducts. Per District staff, treated effluent currently meets the maximum containment level (MCL) for

disinfection byproducts, but the MCL could be exceeded if the regulations become more stringent. As noted herein, the associated piping and valving to Filters 1 through 4 is beyond its useful service life and is beginning to fail. It is recommended to replace all piping and valving necessary to convert Filters 1 through 4 to roughing filters. The existing 18-inch pipeline would be utilized to supply raw water from the pre-filter chlorination facilities to the roughing filters during periods of high turbidity. A new 18-inch pipeline of approximately 165 feet would be constructed to connect the 18-inch pipeline and 30-inch raw water pipeline.

Similar to Alternative 2, Alternative 3 would include expanding the building and installing all new associated piping and electrical equipment to support the three new filters.

Similar to Alternatives 1 and 2, Alterative 3 consists of the improvements to Filters 5 through 8 and electrical upgrades to the MCC and breaker panel. This alternative would restore WTP capacity and allows the District to be prepared for more stringent regulations.

3.5 POST-FILTER CHLORINATION

Post-filter chlorination was added to the disinfection process in the 1970s and has had little to no upgrades besides regular maintenance. The post-filter chlorination injection point is inaccessible to District staff and has not had maintenance over the years. The existing 24-inch filtered water effluent main exceeds the maximum recommended pipe velocity of 10 FPS and is beyond its useful service life. It is recommended to replace this section with a new 30-inch pipeline. It is also recommended to install a new vault around the post-filter chlorination injection site to allow for District access and maintenance.

CONSTRUCTION COST ESTIMATES

APPENDIX A

APPENDIX A
CLEAR CREEK CSD
PRELIMINARY ENGINEERING REPORT
ALTERNATIVE 1 COST ESTIMATE

No.	Item	Quantity	Unit	Unit Cost[1]	Total Cost
Construction Costs					
General					
1	Mobilization/Demobilization	1	LS	$25,000	$25,000
2	Bonds	1	LS	$70,000	$70,000
3	Submittals	1	LS	$10,000	$10,000
4	Insurance	1	LS	$40,000	$40,000
5	Cleanup	1	LS	$10,000	$10,000
6	Project Sign	1	LS	$2,500	$2,500
7	Trench Sheeting & Shoring	1	LS	$10,000	$10,000
8	Erosion Control Plan & Implementation	1	LS	$10,000	$10,000
				Subtotal General Cost	**$178,000**
Intake Facilities					
9	48" Flanged BFV	2	EA	$75,000	$150,000
10	Motor Actuator Improvements	2	EA	$20,000	$40,000
				Subtotal Intake Facility Construction Cost	**$190,000**
Chlorination Facility					
11	Pre-Filter Chlorination Vault	1	LS	$270,000	$270,000
12	Post-Filter Chlorination Vault	1	LS	$110,000	$110,000
13	24" FW Pipe Replacement	1	LS	$148,000	$148,000
				Subtotal Chlorination Facility Construction Cost	**$528,000**
Filter Control Facility					
14	MCC	1	LS	$300,000	$300,000
15	Filter Breaker Panel	1	LS	$50,000	$50,000
16	Misc. Electrical & Telemetry	1	LS	$15,000	$15,000
17	Testing	1	LS	$5,000	$5,000
				Subtotal Filter Control Facility Construction Cost	**$370,000**
Filter 1					
18	Testing	1	LS	$5,000	$5,000
19	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
20	Replace Filter Piping	1	LS	$160,000	$160,000
21	12" Wafer BFV	8	EA	$3,000	$24,000
22	14" Flanged BFV	1	EA	$3,500	$3,500
23	18" Flanged BFV	1	EA	$5,000	$5,000
24	Pneumatic Actuator	6	EA	$5,000	$30,000
25	Electric Motor Actuator	3	EA	$10,000	$30,000
26	3" Solenoid Control Valve	3	EA	$3,000	$9,000
27	New 8' x 50' Filter	1	EA	$250,000	$250,000
28	Filter Footing	1	LS	$30,000	$30,000
				Subtotal Filter 1 Construction Cost	**$561,500**
Filter 2					
29	Testing	1	LS	$5,000	$5,000
30	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
31	Replace Filter Piping	1	LS	$160,000	$160,000
32	12" Wafer BFV	8	EA	$3,000	$24,000
33	14" Wafer BFV	1	EA	$3,500	$3,500
34	Pneumatic Actuator	6	EA	$5,000	$30,000
35	Electric Motor Actuator	3	EA	$10,000	$30,000
36	3" Solenoid Control Valve	3	EA	$3,000	$9,000
37	New 8' x 50' Filter	1	EA	$250,000	$250,000
38	Filter Footing	1	LS	$30,000	$30,000
				Subtotal Filter 2 Construction Cost	**$561,500**
Filter 3					
39	Testing	1	LS	$5,000	$5,000
40	Filter Electromagnetic Flow Meterr	1	EA	$20,000	$20,000
41	Replace Filter Piping	1	LS	$160,000	$160,000
42	12" Wafer BFV	8	EA	$3,000	$24,000
43	14" Wafer BFV	1	EA	$3,500	$3,500
44	Pneumatic Actuator	6	EA	$5,000	$30,000
45	Electric Motor Actuator	3	EA	$10,000	$30,000
46	3" Solenoid Control Valve	3	EA	$3,000	$9,000
47	New 8' x 50' Filter	1	EA	$250,000	$250,000
48	Filter Footing	1	LS	$30,000	$30,000
				Subtotal Filter 3 Construction Cost	**$561,500**
Filter 4					
49	Testing	1	LS	$5,000	$5,000
50	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
51	Replace Filter Piping	1	LS	$160,000	$160,000
52	12" Wafer BFV	8	EA	$3,000	$24,000
53	14" Wafer BFV	1	EA	$3,500	$3,500
54	Pneumatic Actuator	6	EA	$5,000	$30,000
55	Electric Motor Actuator	3	EA	$10,000	$30,000
56	3" Solenoid Control Valve	3	EA	$3,000	$9,000
57	New 8' x 50' Filter	1	EA	$250,000	$250,000
58	Filter Footing	1	LS	$30,000	$30,000
				Subtotal Filter 4 Construction Cost	**$561,500**

No.	Item	Quantity	Unit	Unit Cost[1]	Total Cost
Filter 5					
59	Testing	1	LS	$5,000	$5,000
60	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
61	12" Wafer BFV	8	EA	$3,000	$24,000
62	14" Wafer BFV	1	EA	$3,500	$3,500
63	Pneumatic Actuator	6	EA	$5,000	$30,000
64	Electric Motor Actuator	3	EA	$10,000	$30,000
65	3" Solenoid Control Valve	3	EA	$3,000	$9,000
66	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 5 Construction Cost	**$426,500**
Filter 6					
67	Testing	1	LS	$5,000	$5,000
68	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
69	12" Wafer BFV	8	EA	$3,000	$24,000
70	14" Wafer BFV	1	EA	$3,500	$3,500
71	Pneumatic Actuator	6	EA	$5,000	$30,000
72	Electric Motor Actuator	3	EA	$10,000	$30,000
73	3" Solenoid Control Valve	3	EA	$3,000	$9,000
74	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 6 Construction Cost	**$426,500**
Filter 7					
75	Testing	1	LS	$5,000	$5,000
76	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
77	12" Wafer BFV	8	EA	$3,000	$24,000
78	14" Wafer BFV	1	EA	$3,500	$3,500
79	Pneumatic Actuator	6	EA	$5,000	$30,000
80	Electric Motor Actuator	3	EA	$10,000	$30,000
81	3" Solenoid Control Valve	3	EA	$3,000	$9,000
82	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 7 Construction Cost	**$426,500**
Filter 8					
83	Testing	1	LS	$5,000	$5,000
84	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
85	12" Wafer BFV	8	EA	$3,000	$24,000
86	14" Wafer BFV	1	EA	$3,500	$3,500
87	Pneumatic Actuator	6	EA	$5,000	$30,000
88	Electric Motor Actuator	3	EA	$10,000	$30,000
89	3" Solenoid Control Valve	3	EA	$3,000	$9,000
90	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 8 Construction Cost	**$426,500**
				SUBTOTAL CONSTRUCTION COSTS	$5,218,000
Indirect Design Costs					
91	Funding Administration				$30,000
92	Administration & Legal				$10,000
93	Project Administration				$45,000
94	Design				$522,000
95	Hazard Assessment (demolition)				$5,000
96	Environmental - CEQA Categorical Exemption				$10,000
97	Monument Preservation				$5,000
				SUBTOTAL INDIRECT DESIGN COSTS	$627,000
Indirect Construction Costs					
98	Funding Administration				$30,000
99	Project Administration				$45,000
100	Bidding, Contract Award & Execution Services				$30,000
101	Construction Engineering Services				$281,000
102	Resident Project Representative @ Full-time for 32 Weeks				$313,000
103	Labor Code Compliance				$31,000
104	Special Inspections				$10,000
105	Environmental Services During Construction				$5,000
106	SCADA/Programming				$80,000
107	O&M Manuals				$20,000
108	Post Construction Services				$10,000
109	As-Built (Record) Drawings				$16,000
110	11-Month Warranty Inspection				$4,000
111	Bridge Loan Administration				$20,000
112	Permit Compliance				$10,000
				SUBTOTAL INDIRECT CONSTRUCTION COSTS	$905,000
				TOTAL INDIRECT COSTS	$1,532,000
				Subtotal Project Cost	$6,750,000
				Project Contingencies @ 10% of Project Costs	$675,000
				TOTAL PROJECT COST	***$7,425,000***

1. All costs in October 2024 dollars at an ENR index of 13632.

APPENDIX A
CLEAR CREEK CSD
PRELIMINARY ENGINEERING REPORT
ALTERNATIVE 2 COST ESTIMATE

No.	Item	Quantity	Unit	Unit Cost[1]	Total Cost
Construction Costs					
General					
1	Mobilization/Demobilization	1	LS	$25,000	$25,000
2	Bonds	1	LS	$78,000	$78,000
3	Submittals	1	LS	$10,000	$10,000
4	Insurance	1	LS	$40,000	$40,000
5	Cleanup	1	LS	$10,000	$10,000
6	Project Sign	1	LS	$2,500	$2,500
7	Trench Sheeting & Shoring	1	LS	$10,000	$10,000
8	Erosion Control Plan & Implementation	1	LS	$10,000	$10,000
				Subtotal General Cost	**$186,000**
Intake Facilities					
9	48" Flanged BFV	2	EA	$75,000	$150,000
10	Motor Actuator Improvements	2	EA	$20,000	$40,000
				Subtotal Intake Facility Construction Cost	**$190,000**
Chlorination Facility					
11	Pre-Filter Chlorination Vault	1	LS	$270,000	$270,000
12	Post-Filter Chlorination Vault	1	LS	$110,000	$110,000
13	24" FW Pipe Replacement	1	LS	$148,000	$148,000
				Subtotal Chlorination Facility Construction Cost	**$528,000**
Filter Control Facility					
14	MCC	1	LS	$300,000	$300,000
15	Filter Breaker Panel	1	LS	$50,000	$50,000
16	Misc. Electrical & Telemetry	1	LS	$15,000	$15,000
17	Testing	1	LS	$5,000	$5,000
				Subtotal Filter Control Facility Construction Cost	**$370,000**
Filter 1					
18	Filter Demolition	1	LS	$10,000	$10,000
19	Piping Demolition	1	LS	$10,000	$10,000
20	Building Repair	1	LS	$5,000	$5,000
				Subtotal Filter 1 Construction Cost	**$25,000**
Filter 2					
21	Filter Demolition	1	LS	$10,000	$10,000
22	Piping Demolition	1	LS	$10,000	$10,000
23	Building Repair	1	LS	$5,000	$5,000
				Subtotal Filter 2 Construction Cost	**$25,000**
Filter 3					
24	Filter Demolition	1	LS	$10,000	$10,000
25	Piping Demolition	1	LS	$10,000	$10,000
26	Building Repair	1	LS	$5,000	$5,000
				Subtotal Filter 3 Construction Cost	**$25,000**
Filter 4					
27	Filter Demolition	1	LS	$10,000	$10,000
28	Piping Demolition	1	LS	$10,000	$10,000
29	Building Repair	1	LS	$5,000	$5,000
				Subtotal Filter 4 Construction Cost	**$25,000**
Filter 5					
30	Testing	1	LS	$5,000	$5,000
31	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
32	12" Wafer BFV	8	EA	$2,000	$16,000
33	14" Wafer BFV	1	EA	$3,000	$3,000
34	Pneumatic Actuator	6	EA	$3,500	$21,000
35	Electric Motor Actuator	3	EA	$10,000	$30,000
36	3" Solenoid Control Valve	3	EA	$3,000	$9,000
37	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 5 Construction Cost	**$409,000**
Filter 6					
38	Testing	1	LS	$5,000	$5,000
39	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
40	12" Wafer BFV	8	EA	$3,000	$24,000
41	14" Wafer BFV	1	EA	$3,500	$3,500
42	Pneumatic Actuator	6	EA	$5,000	$30,000
43	Electric Motor Actuator	3	EA	$10,000	$30,000
44	3" Solenoid Control Valve	3	EA	$3,000	$9,000
45	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 6 Construction Cost	**$426,500**
Filter 7					
46	Testing	1	LS	$5,000	$5,000
47	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
48	12" Wafer BFV	8	EA	$3,000	$24,000
49	14" Wafer BFV	1	EA	$3,500	$3,500
50	Pneumatic Actuator	6	EA	$5,000	$30,000
51	Electric Motor Actuator	3	EA	$10,000	$30,000
52	3" Solenoid Control Valve	3	EA	$3,000	$9,000
53	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 7 Construction Cost	**$426,500**

No.	Item	Quantity	Unit	Unit Cost[1]	Total Cost
Filter 8					
54	Testing	1	LS	$5,000	$5,000
55	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
56	12" Wafer BFV	8	EA	$2,000	$16,000
57	14" Wafer BFV	1	EA	$3,000	$3,000
58	Pneumatic Actuator	6	EA	$3,500	$21,000
59	Electric Motor Actuator	3	EA	$10,000	$30,000
60	3" Solenoid Control Valve	3	EA	$3,000	$9,000
61	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 8 Construction Cost	**$409,000**
Filter 9					
62	Testing	1	LS	$5,000	$5,000
63	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
64	Filter Piping	1	LS	$160,000	$160,000
65	Yard Piping	1	LS	$95,000	$95,000
66	12" Wafer BFV	8	EA	$3,000	$24,000
67	14" Flanged BFV	1	EA	$3,500	$3,500
68	Pneumatic Actuator	6	EA	$5,000	$30,000
69	Electric Motor Actuator	3	EA	$10,000	$30,000
70	3" Solenoid Control Valve	3	EA	$3,000	$9,000
71	New 10' x 50' Filter	1	EA	$300,000	$300,000
72	Filter Footing	1	LS	$30,000	$30,000
73	Building Expansion	1	LS	$240,000	$240,000
				Subtotal Filter 9 Construction Cost	**$946,500**
Filter 10					
74	Testing	1	LS	$5,000	$5,000
75	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
76	Filter Piping	1	LS	$160,000	$160,000
77	Yard Piping	1	LS	$95,000	$95,000
78	12" Wafer BFV	8	EA	$3,000	$24,000
79	14" Flanged BFV	1	EA	$3,500	$3,500
80	Pneumatic Actuator	6	EA	$5,000	$30,000
81	Electric Motor Actuator	3	EA	$10,000	$30,000
82	3" Solenoid Control Valve	3	EA	$3,000	$9,000
83	New 10' x 50' Filter	1	EA	$300,000	$300,000
84	Filter Footing	1	LS	$30,000	$30,000
85	Building Expansion	1	LS	$240,000	$240,000
				Subtotal Filter 10 Construction Cost	**$946,500**
Filter 11					
86	Testing	1	LS	$5,000	$5,000
87	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
88	Filter Piping	1	LS	$160,000	$160,000
89	Yard Piping	1	LS	$95,000	$95,000
90	12" Wafer BFV	8	EA	$3,000	$24,000
91	14" Flanged BFV	1	EA	$3,500	$3,500
92	Pneumatic Actuator	6	EA	$5,000	$30,000
93	Electric Motor Actuator	3	EA	$10,000	$30,000
94	3" Solenoid Control Valve	3	EA	$3,000	$9,000
95	New 10' x 50' Filter	1	EA	$300,000	$300,000
96	Filter Footing	1	LS	$30,000	$30,000
97	Building Expansion	1	LS	$240,000	$240,000
				Subtotal Filter 11 Construction Cost	**$946,500**
				SUBTOTAL CONSTRUCTION COSTS	$5,884,500
Indirect Design Costs					
98	Funding Administration				$30,000
99	Administration & Legal				$10,000
100	Project Administration				$50,000
101	Design				$589,000
102	Hazard Assessment (demolition)				$5,000
103	Environmental - CEQA Categorical Exemption				$10,000
104	Permits				$10,000
				SUBTOTAL INDIRECT DESIGN COSTS	$704,000
Indirect Construction Costs					
105	Funding Administration				$30,000
106	Project Administration				$50,000
107	Bidding, Contract Award & Execution Services				$30,000
108	Construction Engineering Services				$314,000
109	Resident Project Representative @ Full-time for 32 Weeks				$352,000
110	Labor Code Compliance				$34,000
111	Special Inspections				$10,000
112	Environmental Services During Construction				$5,000
113	SCADA/Programming				$100,000
114	O&M Manuals				$20,000
115	Post Construction Services				$10,000
116	As-Built (Record) Drawings				$18,000
117	11-Month Warranty Inspection				$4,000
118	Bridge Loan Administration				$20,000
119	Permit Compliance				$10,000
				SUBTOTAL INDIRECT CONSTRUCTION COSTS	$1,007,000
				TOTAL INDIRECT COSTS	$1,711,000
				Subtotal Project Cost	$7,595,500
				Project Contingencies @ 10% of Project Costs	$760,000
				TOTAL PROJECT COST	***$8,355,500***

1. All costs in October 2024 dollars at an ENR index of 13632.

APPENDIX A
CLEAR CREEK CSD
PRELIMINARY ENGINEERING REPORT
ALTERNATIVE 3 COST ESTIMATE

No.	Item	Quantity	Unit	Unit Cost[1]	Total Cost
Construction Costs					
General					
1	Mobilization/Demobilization	1	LS	$25,000	$25,000
2	Bonds	1	LS	$110,000	$110,000
3	Submittals	1	LS	$10,000	$10,000
4	Insurance	1	LS	$40,000	$40,000
5	Cleanup	1	LS	$10,000	$10,000
6	Project Sign	1	LS	$2,500	$2,500
7	Trench Sheeting & Shoring	1	LS	$10,000	$10,000
8	Erosion Control Plan & Implementation	1	LS	$10,000	$10,000
				Subtotal General Cost	**$218,000**
Intake Facilities					
9	48" Flanged BFV	2	EA	$75,000	$150,000
10	Motor Actuator Improvements	2	EA	$20,000	$40,000
				Subtotal Intake Facility Construction Cost	**$190,000**
Chlorination Facility					
11	Pre-Filter Chlorination Vault	1	LS	$270,000	$270,000
12	Post-Filter Chlorination Vault	1	LS	$110,000	$110,000
13	24" FW Pipe Replacement	1	LS	$148,000	$148,000
				Subtotal Chlorination Facility Construction Cost	**$528,000**
Filter Control Facility					
14	MCC	1	LS	$300,000	$300,000
15	Filter Breaker Panel	1	LS	$50,000	$50,000
16	Misc. Electrical & Telemetry	1	LS	$15,000	$15,000
17	Testing	1	LS	$5,000	$5,000
				Subtotal Filter Control Facility Construction Cost	**$370,000**
Filter 1					
18	Testing	1	LS	$5,000	$5,000
19	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
20	Modify Filter Piping	1	LS	$160,000	$160,000
21	12" Wafer BFV	8	EA	$3,000	$24,000
22	14" Flanged BFV	1	EA	$3,500	$3,500
23	18" Flanged BFV	1	EA	$5,000	$5,000
24	Pneumatic Actuator	6	EA	$5,000	$30,000
25	Electric Motor Actuator	3	EA	$10,000	$30,000
26	3" Solenoid Control Valve	3	EA	$3,000	$9,000
27	New 8' x 50' Roughing Filter	1	EA	$250,000	$250,000
28	Filter Footing	1	LS	$30,000	$30,000
				Subtotal Filter 1 Construction Cost	**$566,500**
Filter 2					
29	Testing	1	LS	$5,000	$5,000
30	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
31	Modify Filter Piping	1	LS	$160,000	$160,000
32	12" Wafer BFV	8	EA	$3,000	$24,000
33	14" Wafer BFV	1	EA	$3,500	$3,500
34	Pneumatic Actuator	6	EA	$5,000	$30,000
35	Electric Motor Actuator	3	EA	$10,000	$30,000
36	3" Solenoid Control Valve	3	EA	$3,000	$9,000
37	New 8' x 50' Roughing Filter	1	EA	$250,000	$250,000
38	Filter Footing	1	LS	$30,000	$30,000
				Subtotal Filter 2 Construction Cost	**$561,500**
Filter 3					
39	Testing	1	LS	$5,000	$5,000
40	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
41	Modify Filter Piping	1	LS	$160,000	$160,000
42	12" Wafer BFV	8	EA	$3,000	$24,000
43	14" Wafer BFV	1	EA	$3,500	$3,500
44	Pneumatic Actuator	6	EA	$5,000	$30,000
45	Electric Motor Actuator	3	EA	$10,000	$30,000
46	3" Solenoid Control Valve	3	EA	$3,000	$9,000
47	New 8' x 50' Roughing Filter	1	EA	$250,000	$250,000
48	Filter Footing	1	LS	$30,000	$30,000
				Subtotal Filter 3 Construction Cost	**$561,500**
Filter 4					
49	Testing	1	LS	$5,000	$5,000
50	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
51	Modify Filter Piping	1	LS	$160,000	$160,000
52	12" Wafer BFV	8	EA	$3,000	$24,000
53	14" Wafer BFV	1	EA	$3,500	$3,500
54	Pneumatic Actuator	6	EA	$5,000	$30,000
55	Electric Motor Actuator	3	EA	$10,000	$30,000
56	3" Solenoid Control Valve	3	EA	$3,000	$9,000
57	New 8' x 50' Roughing Filter	1	EA	$250,000	$250,000
58	Filter Footing	1	LS	$30,000	$30,000
				Subtotal Filter 4 Construction Cost	**$561,500**

No.	Item	Quantity	Unit	Unit Cost[1]	Total Cost
Filter 5					
59	Testing	1	LS	$5,000	$5,000
60	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
61	12" Wafer BFV	8	EA	$3,000	$24,000
62	14" Wafer BFV	1	EA	$3,500	$3,500
63	Pneumatic Actuator	6	EA	$5,000	$30,000
64	Electric Motor Actuator	3	EA	$10,000	$30,000
65	3" Solenoid Control Valve	3	EA	$3,000	$9,000
66	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 5 Construction Cost	**$426,500**
Filter 6					
67	Testing	1	LS	$5,000	$5,000
68	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
69	12" Wafer BFV	8	EA	$3,000	$24,000
70	14" Wafer BFV	1	EA	$3,500	$3,500
71	Pneumatic Actuator	6	EA	$5,000	$30,000
72	Electric Motor Actuator	3	EA	$10,000	$30,000
73	3" Solenoid Control Valve	3	EA	$3,000	$9,000
74	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 6 Construction Cost	**$426,500**
Filter 7					
75	Testing	1	LS	$5,000	$5,000
76	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
77	12" Wafer BFV	8	EA	$3,000	$24,000
78	14" Wafer BFV	1	EA	$3,500	$3,500
79	Pneumatic Actuator	6	EA	$5,000	$30,000
80	Electric Motor Actuator	3	EA	$10,000	$30,000
81	3" Solenoid Control Valve	3	EA	$3,000	$9,000
82	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 7 Construction Cost	**$426,500**
Filter 8					
83	Testing	1	LS	$5,000	$5,000
84	Filter Electromagnetic Flow Meter	1	EA	$25,000	$25,000
85	12" Wafer BFV	8	EA	$3,000	$24,000
86	14" Wafer BFV	1	EA	$3,500	$3,500
87	Pneumatic Actuator	6	EA	$5,000	$30,000
88	Electric Motor Actuator	3	EA	$10,000	$30,000
89	3" Solenoid Control Valve	3	EA	$3,000	$9,000
90	Rehab Filter	1	LS	$300,000	$300,000
				Subtotal Filter 8 Construction Cost	**$426,500**
Filter 9					
91	Testing	1	LS	$5,000	$5,000
92	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
93	Filter Piping	1	LS	$160,000	$160,000
94	Yard Piping	1	LS	$95,000	$95,000
95	12" Wafer BFV	8	EA	$3,000	$24,000
96	14" Flanged BFV	1	EA	$3,500	$3,500
97	Pneumatic Actuator	6	EA	$5,000	$30,000
98	Electric Motor Actuator	3	EA	$10,000	$30,000
99	3" Solenoid Control Valve	3	EA	$3,000	$9,000
100	New 10' x 50' Filter	1	EA	$300,000	$300,000
101	Filter Footing	1	LS	$30,000	$30,000
102	Building Expansion	1	LS	$240,000	$240,000
				Subtotal Filter 9 Construction Cost	**$946,500**
Filter 10					
103	Testing	1	LS	$5,000	$5,000
104	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
105	Filter Piping	1	LS	$160,000	$160,000
106	Yard Piping	1	LS	$95,000	$95,000
107	12" Wafer BFV	8	EA	$3,000	$24,000
108	14" Flanged BFV	1	EA	$3,500	$3,500
109	Pneumatic Actuator	6	EA	$5,000	$30,000
110	Electric Motor Actuator	3	EA	$10,000	$30,000
111	3" Solenoid Control Valve	3	EA	$3,000	$9,000
112	New 10' x 50' Filter	1	EA	$300,000	$300,000
113	Filter Footing	1	LS	$30,000	$30,000
114	Building Expansion	1	LS	$240,000	$240,000
				Subtotal Filter 10 Construction Cost	**$946,500**
Filter 11					
115	Testing	1	LS	$5,000	$5,000
116	Filter Electromagnetic Flow Meter	1	EA	$20,000	$20,000
117	Filter Piping	1	LS	$160,000	$160,000
118	Yard Piping	1	LS	$95,000	$95,000
119	12" Wafer BFV	8	EA	$3,000	$24,000
120	14" Flanged BFV	1	EA	$3,500	$3,500
121	Pneumatic Actuator	6	EA	$5,000	$30,000
122	Electric Motor Actuator	3	EA	$10,000	$30,000
123	3" Solenoid Control Valve	3	EA	$3,000	$9,000
124	New 10' x 50' Filter	1	EA	$300,000	$300,000
125	Filter Footing	1	LS	$30,000	$30,000
126	Building Expansion	1	LS	$240,000	$240,000
				Subtotal Filter 11 Construction Cost	**$946,500**
				SUBTOTAL CONSTRUCTION COSTS	$8,102,500

No.	Item	Quantity	Unit	Unit Cost[1]	Total Cost
Indirect Design Costs					
127	Funding Administration				$30,000
128	Administration & Legal				$10,000
129	Project Administration				$60,000
130	Design				$649,000
131	Hazard Assessment (demolition)				$5,000
132	Environmental - CEQA Categorical Exemption				$10,000
133	Permits				$10,000
	SUBTOTAL INDIRECT DESIGN COSTS				$774,000
Indirect Construction Costs					
134	Funding Administration				$30,000
135	Project Administration				$60,000
136	Bidding, Contract Award & Execution Services				$30,000
137	Construction Engineering Services				$396,000
138	Resident Project Representative @ Full-time for 32 Weeks				$450,000
139	Labor Code Compliance				$43,000
140	Special Inspections				$10,000
141	Environmental Services During Construction				$5,000
142	SCADA/Programming				$100,000
143	O&M Manuals				$20,000
144	Post Construction Services				$10,000
145	As-Built (Record) Drawings				$20,000
146	11-Month Warranty Inspection				$4,000
147	Bridge Loan Administration				$20,000
148	Permit Compliance				$10,000
	SUBTOTAL INDIRECT CONSTRUCTION COSTS				$1,178,000
	TOTAL INDIRECT COSTS				$10,054,500
	Subtotal Project Cost				$10,828,500
	Project Contingencies @ 10% of Project Costs				$1,083,000
	TOTAL PROJECT COST				***$11,911,500***

1. All costs in October 2024 dollars at an ENR index of 13632.

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State Water Resources Control Board

Division of Drinking Water

November 22, 2022

PWS No. 4510016

Clear Creek CSD – Anderson
5880 Oak Street
Anderson, CA 96007

Attn: Bill Palmaymesa, Interim General Manager and Chief Operator

Subject: Sanitary Survey Inspection – Clear Creek Community Services District – Anderson

On April 7, 2022, State Water Resources Control Board, Division of Drinking Water (DDW) staff conducted a sanitary survey of the Clear Creek Community Services District (CSD) public water system. The water system is conscientiously operated and is producing water that meets drinking water standards; however the Division recommends that the following items be addressed.

1. Backup Power: The CSD should ensure that the water treatment plant generator turns on during power outages. During a February 2022 power outage, the 130-kW generator, failed to start.

2. Filter Maintenance: DDW recommends that the CSD schedule and perform filter rehabilitations for Trains 1 and 6 and other filters as needed. The CSD has reported media loss and decreased filter performance.

3. Capital Improvement Plan (CIP): The CSD should consider developing a CIP to schedule short-range projects and equipment purchases. The CIP may include equipment needed to repair or replace leaking valves, plans to make improvements to the gas chlorination system and SCADA, and to evaluate pipe velocity concerns near the chlorination building.

Enclosed in an inspection report describing observations from the site visit and a case file review. If you have any questions, please contact me at (530) 224-4870, or by email at katie.connaughton@waterboards.ca.gov.

KATIE CONNAUGHTON, P.E.
Water Resource Control Engineer
Lassen District

cc: Stephen Watson, P.E., Lassen District Engineer, DWFOB

kec \ Clear Creek CSD – Anderson water system \ **File: Inspections**

State Water Resources Control Board
Division of Drinking Water
Sanitary Survey Inspection Report

Purveyor Clear Creek Community Services District (CSD)
System Number 4510016
Water System Treatment Grade T5 **Water System Distribution Grade** D2
Person(s) Contacted/Position Bill Palmaymesa – Chief Operator and Interim General Manager
Date of Inspection April 7, 2021 **Reviewing Engineer** Katie Connaughton, P.E., Mey Bunte, P.E.
Last Annual Inspection September 20, 2019 K.C. **District Engineer** Stephen Watson P.E.

A. INTRODUCTION

1. Permit Status

Full A full permit was issued on April 28, 1971
Amendment(s) None – The CSD applied to amend the domestic water supply permit on 6/10/2014. The CSD decided to make previously stand-by wells 1, 2, and 3, active sources.

There have been additional changes to the water system that need to be reflected in a permit. Therefore, the Division is drafting a new permit. The permit will incorporate performance standards for the filtration system, classify Wells 1, 2, and 3 as active, and include data sheets for the 1.0-MG Whiskeytown Storage Tank, 4.0-MG Distribution Tank, 32,000-gallon Zone 7 bolted steel tank, 5,000-gallon Zone 8 hydropneumatic Tank, South Booster Station, North Booster Station , and the bolted steel tank constructed in 2010 at the South Booster Station.

2. Changes and Observation Since Last Inspection

In recent years, the CSD has observed algal growth in the backwash water ponds and have concerns about the possibility of harmful algal blooms. Backwash water (from Pond 2) was tested for cyanobacterial toxins on July 8, 2020, using the ELISA method. Microcystin/Nod. was detected at 0.17 µg/L (QL = 0.15 µg/L). The sample was absent of: anatoxin-a, cylindrospermopsin, and saxitoxin. The CSD has also observed the algae accumulating in the filters, which has resulted in reduced filter run times, and increased backwash events. Pond 2 was drained and dried in September/October 2020, and algal growth was observed in Pond 3. The Division recommended keeping test strips on site that can show the presence of cyanobacteria toxins. The US EPA 10-day health advisory level for microcystin is 0.3 µg/L for children under 6 years and 1.6 µg/L for children 6 years and older.

In September 2020, the CSD was required by USBR draw raw water from the lower intake. Particle counts in the raw water greatly increased when drawing from the lower intake, also reducing filter runs.

This year (2022), the USBR is not providing any surface water allocations to Clear Creek CSD or Centerville CSD. The water system will be reliant on groundwater, water purchased through the McConnell Foundation, and the City of Redding. In addition, the CSD is implementing stage 2 conservation efforts.

A monitoring well was installed in between backwash pond 2 and 3.

Backwash ponds and algal growth

Planned future changes The CSD has applied for funding through DFA for three water system improvement projects. The first project is to repair to repair leaking backwash water ponds and line with concrete. Pond Nos. 2 and 3 were damaged during the Carr Fire in 2018 and the seepage has been flowing into Clear Creek. The second project is a distribution improvement project. The distribution system is over 50 years old, and the water system is experiencing frequent main breaks specifically with 10-inch AC pipe. The districts isolation valves are also deteriorating and leaking. This project includes replacement of approximately 5,980 feet of 10-inch AC pipe, installation of 12 section valves, replacement of 2,252 water meter heads, installation of 404 new water meters, and installation of 12 new fire hydrants. The third project is to make improvements to the electrical and SCADA systems at the wells, this project will be funded through the Urgent Drinking Water Needs funding. The CSD operates wells 01 and 03 manually and Well 02 and booster station can run automatically. Updating electrical/SCADA will allow the Wells 01 and 03 to operate without interruption and provide remote operation. This CSD has applied for funding of this project through the Urgent Drinking Water Needs program.

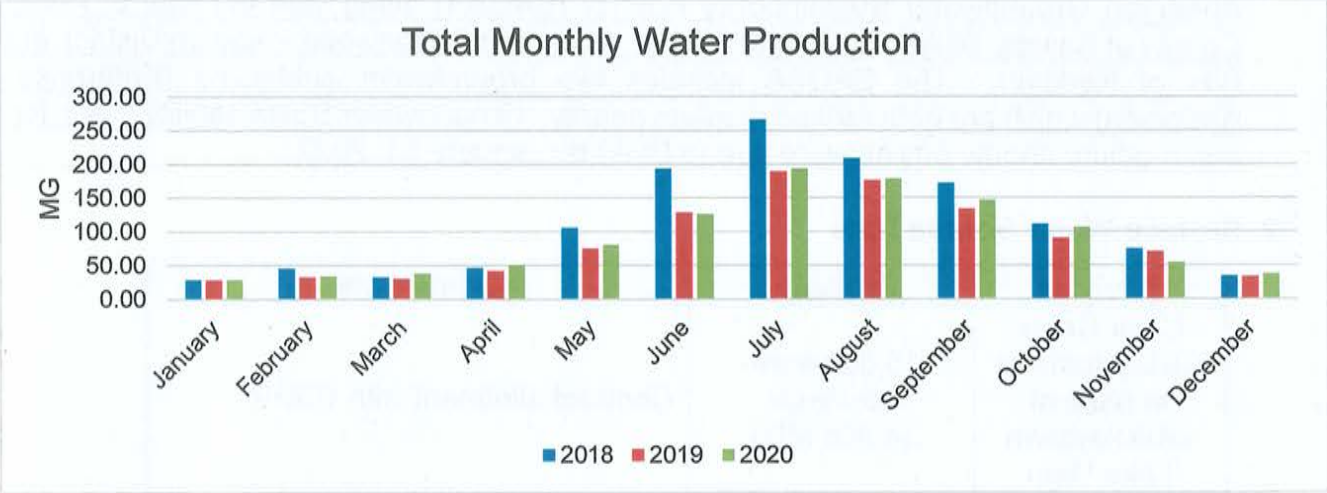
The chief operator recently prepared a list of needed maintenance and equipment needed at the plant. The list includes filters that need media rehabilitation, valve actuators that need to be repaired or replaced due to leaks, chlorine feed regulators that need to be repaired or replaced, and additional items. One of the backwash valves (3B) leaks and discharges about 10 gpm of water to pond 2 without the treatment plant in operation.

3. Consumer & Production Data

The CSD reports the total water produced annually, the maximum monthly demand, and the maximum day demand (MDD) in annual reports submitted to the Division of Drinking Water (Division). A portion of water produced by the CSD is delivered to the Centerville CSD. To determine the maximum day demand within the CSD, the Centerville maximum day demand is subtracted from the maximum day demand reported by the CSD. The CSD typically delivers approximately 15% to 20% of the water treated to the Centerville CSD.

Year	Reported Production (MG)			Total Max Day (GPM)	Centerville Max Day (GPM)	No. of Service Connections - Clear Creek	Clear Creek Service Area Max Day (gpmpc)
	Annual Total	Max Month	Max Day				
2011	1,754	347	15.0	10,417	(1,923)	2,332	3.6
2012	2,176	394	15.0	10,417	(2,172)	2,334	3.5
2013	2,255	386	16.4	11,388	(2,195)	2,334	3.9
2014*	2,467	375	18.1	12,591	(2,104)	2,240	1.4
2015**	1,711	305	20.4	4,583	(1,319)	2,305	1.4
2016	1,368	271	10.0	6,944	(1,805)	2,357	2.2
2017	1,643	317	11.7	8,145	(2,034)	2357	2.6
2018	1,322	266	20.5	14,236	(2,024)	2357	5.2
2019	1,240	227	12.0	8,333	(1,709)	2357	2.8
2020	1,296	233	18.25	12,672	(2,886) estimated	2366	4.1
2021*	1,390	239	12.0	8,305	(3,132)	2369	2.2

*2014 and 2021 report did not include a maximum day demand and is therefore estimated.
**2014 and 2015 values reported in the eAR are listed as acre-ft but appear to actually be million gallons.



B. SOURCE DATA

1. Groundwater Source Data

Sources	Status	Capacity	Comments
Well No. 1	Active	1,400 gpm	Installed November 1991. Screened 216 to 444 ft bgs.
Well No. 2	Active	1,400 gpm	Installed March 1999. Screened 205-440 ft bgs. Has connection for portable generator power.

Sources	Status	Capacity	Comments
Well No. 3	Active	1,400 gpm	Installed March 1999. TD=470 ft, screened 206-430 ft bgs. Has connection for portable generator power.
Total Capacity		**4,200 gpm**	

The CSD's three wells are located at the far southern end of the distribution system along Gas Point Road. Each well is in a secured vault below grade and equipped with a sump that discharges to a storm-drain through an air gap. Each well is also equipped with a submersible pump. Continuous chlorination is provided at a manifold near Well No. 1 so that water from all three wells can be chlorinated, but chlorine can also be supplied at each individual well if needed. The wells pump water to the 0.35 MG and 0.032 MG storage tanks at the South Booster Station, which supplies water to portions of Happy Valley. The CSD used to manually operate the booster station 16 of 24 hours per day, but this system has since become automatic. A raw water bacteriological sample taken at the manifold of the wells is required when the wells are in service. The CSD is not required to collect raw water bacteriological samples when they are not in use.

The Sustainable Groundwater Management Act (SGMA), signed into law on September 16, 2014, requires governments and water agencies of high and medium priority groundwater basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSA's) to manage basins sustainably. Clear Creek CSD is a member of the Enterprise Anderson Groundwater Sustainability Agency (EAGSA) along with the City of Anderson, County of Shasta, Bella Vista Water District, Anderson Cottonwood Irrigation District, and the City of Redding. The EAGSA includes two groundwater subbasins (Enterprise and Anderson) which are both ranked medium priority. Groundwater Sustainability Plans for high and medium priority basins were due to DWR by January 31, 2022.

2. Surface Water Source Data

Sources	Capacity	Comments
Clear Creek CSD allotment at base of Whiskeytown Lake Dam	15,300 acre-feet/year (4,986 MG)	Contract allotment with USBR.
Centerville CSD contract allotment	2,000 acre-ft/year (651.7 MG)	Contract allotment with USBR.
Treatment Plant	31.68-MGD (22,960 gpm)	Water production based on a maximum filter-loading rate of 7 gpm/ft^2.

The CSD's operations plan states that the maximum production rate is 33 MGD, and the normal net production is up to 25 MGD. The CSD's United States Bureau of Reclamation (USBR) entitlement in non-restricted years is equivalent to 4,986 MG per year, nearly twice the highest reported annual demand. Centerville CSD contributed to the construction of the surface water treatment plant and pays a portion of the treatment plants operational

expenses. Centerville receives up to 5 MGD of water based on the agreement between the two CSDs. Centerville, the highest maximum day demand over the past 10 years was 3,032 gpm in 2018, the year of the Carr Fire, the second highest demand was 2,851 gpm in 2017.

The CSD communicates information about water allocations and use restrictions on the Clear Creek CSD website. In recent drought years, the CSD purchased water from the McConnell Foundation to make up for reduced allocations from the Bureau of Reclamation. The McConnell Foundation holds a contract with the Bureau of Reclamation for water in the Central Valley Project because of a majority interest it held in the Townsend Flat Water Ditch Company that drew its water for the Seltzer Dam on Clear Creek. This Dam was removed in 2000, but the contracted allotment remains.

3. **Purchased Water Sources** - McConnell Foundation and City of Redding
4. **Emergency Connections – None**
5. **Waterworks Standards** Waterworks Standards (Section 64554 Title 22, CCR) require that a water system serving 1,000 or more service connections must have sufficient source and storage capacity to meet peak hour demands for at **least four consecutive hours**. Peak hour demands are estimated to be 150% of maximum day demands. Based on a maximum day demand 20 MG (833,333 gal/hour), the CSD's peak hour demands are **1.25 MG or 5 MG for four hours**. The CSD's current effective source capacity is 31.6 MG of surface water and up to 4,200 gpm of groundwater, which is enough to meet the maximum day demands for the Clear Creek and Centerville Districts.

B. STORAGE DATA

Name	Type	Capacity (MG)	Comments
Whiskeytown Tank	Welded Corten Steel	1.0	Built 1976. Located between filter plant and WES Camp. Floats on pressure in Conduit. Coated with Coal Tar Epoxy.
Regulating Tank	Welded Steel	0.25	Built 1966. In the summer months all CSD water flows through this tank and levels are equalized with the 4 MG tank. Not used in winter months.
Distribution Tank	Welded Steel	4.0	Built 1997. All CSD water flows through this tank.
Old South Booster Station Tank	Bolted Steel	0.032	Empty
South Booster Station Tank	Bolted Steel	0.35	Built 2010. Wells pump into this tank.
North Booster Station Tank	Hydro-pneumatic	0.009	Serves County landfill and Veteran's Cemetery
	Total	**5.6 MG**	

Waterworks Standards Based on the peak hour demands of **1.25 MG or 5 MG for four hours**, the CSD has adequate source and storage capacity.
Data Sheets on file Additional data sheets are needed for storage tanks.

Inspections and Cleaning Storage reservoirs are scheduled for cleaning on a 5-year rotation. The 1-MG Whiskeytown tank was cleaned in October 2019 with divers (report on-file). The 4-MG tank was cleaned sometime in 2017 or 2018. DDW did not inspection the tanks during this site visit.

Planned Changes The CSD would like to replace the 1 MG tank with a second 4 MG tank.

C. TREATMENT

1. **Watershed and Source Water** Surface water comes from lower Clear Creek, via an outlet of Whiskeytown Lake which is sourced from Trinity Lake through the Carr Power House.

   Recreation Whiskeytown Lake, located within the Whiskeytown-Shasta-Trinity National Recreation Area, provides opportunity for many types of water recreation including swimming, fishing, boating, and camping.

   Sewage hazards There is risk of some sewage contamination due to the amount of body contact recreation on Whiskeytown Lake and camping within the watershed; however, the WNRA has provided portable toilets at popular locations around Whiskeytown Lake and floating toilets on the Lake in addition to the septic systems and pit toilets at WNRA facilities. House boats are not allowed on Whiskeytown Lake. Routine monitoring of the water supplied from Whiskeytown Lake shows low levels of fecal coliform from time to time.

   Significant changes to or activities on the watershed since the last inspection and/or changes in raw water quality, such as, turbidity or coliform levels The CSD experienced a large wildfire in 2018 that affected the entire watershed surrounding Whiskeytown Lake. The Division and affected water systems collected water quality samples during the wet weather season following the fire and prepared a report describing the findings of the sampling. Clear Creek CSD experienced decreased source water quality and an algal bloom but was able to continue treating surface water during the winter with some operational changes.

   Last watershed survey PACE Engineering completed the most recent watershed survey update in January 2021 for the CSD and other public water systems using Whiskeytown Reservoir as a source. Watershed sanitary surveys are to be updated at least every 5 years.

2. **Treatment Plant**

   Classification The CSD uses filtration technology commonly referred to as "in-line" filtration that is an alternative to direct filtration. This alternative filtration technology has been approved by the Division if the combined filter effluent turbidity is less than 0.1 NTU in at least 95% of the readings.

   General description of process Raw surface water is delivered to the treatment plant from the base of the Whiskeytown Dam. Polyaluminum chlorohydrate (PACh) and chlorine gas are injected into the 30-inch diameter transmission main off the Muletown Conduit at the chlorine building approximately 600 feet upstream of the filtration plant. Then a cationic polymer coagulant (Zetafloc 20) is injected at the filtration plant just upstream of the filters as a filter-aid. The filtration plant consists of six filtration "trains" with a maximum filtration capacity of 31.68 MGD at a filter loading rate of 7 gpm/ft^2. The treated water is delivered to the Mule Town Conduit and then to the distribution system.

   Standby power A 130 kW diesel generator can supply sufficient power to operate the complete treatment process. The generator has been helpful during PSPS events .

   Operations plan Dated February 1998. The procedures are updated as necessary, and a copy of the operations plan is kept at the treatment plant. The CSD completed a Master Water Plan in 2007 with Pace Engineering.

Pathogen removal credits granted by the Division

Filter Operational Requirements and Log Removal Credits for *Giardia, Cryptosporidium,* and Viruses

Operation Criteria	
Filter loading rate	Not to exceed 7 gpm/sf (22,960 gpm)
Performance Standards	
The turbidity level of the filtered water shall be equal to or less than 0.1 NTU in 95% of the measurements taken each month. Filtered water from the treatment plant may not exceed 1 NTU at four-hour intervals; and shall not exceed 1.0 NTU for more the eight consecutive hours.	
Removal Credits	

Pathogen	Removal/Inactivation Required by Regulations	Removal Credit for Mixed Media Pressure Filtration	Inactivation Required by Disinfection
Giardia (8 to 14 µm)	3.0-log	2.0-log	1.0-log
Cryptosporidium (4 to 6 µm)	2.0-log	2.0-log	0.0-log
Virus	4.0-log	1.0-log	3.0-log

Section 64653 of the CCR grants a 2-log removal credit for *Giardia* cysts and *Cryptosporidium*, and a 1-log virus removal credit for direct filtration technology. The CSD has demonstrated that the alternative filtration technology of "in-line filtration" can provide 2-log removal of *Giardia* under certain conditions. To ensure that the 2-log removal of *Giardia and Cryptosporidium* is achieved, the Division requires that the CSD meet the more stringent performance standard for effluent turbidity of 0.1 NTU in at least 95% of the readings.

3. Coagulation

The CSD injects PACh into the raw water just downstream from the prechlorination injection point at the chlorine building. They have found that injection of PACh at the same location as the prechlorination provides optimal filter performance. The PACh metering pumps are in the filter building, and the PACh is delivered to the injection point through a ¾-inch pipe. A cationic polymer is also added to the unfiltered water via a metering/carrier pump system at the filtration building. A metering pump injects neat polymer into filtered water supplied by a centrifugal carrier pump. The diluted polymer is supplied at a rate of 18 gpm to the unfiltered water at a static mixer just prior to the filters. Contact time for the primary coagulant from the chlorine building to the filters is limited at peak flow rates to approximately 1.5 minutes. A backflow prevention device is installed on the carrier water pipe to prevent unfiltered water from bypassing the filter.

Chemical Addition

Chemical	Primary Use	Typical Dosage	Injection Point
Polyaluminum Chloride NTU Technologies 926	Coagulant	0.5 – 3.0 mg/L	Within static mixer outside filter building. Injected neat.
Cationic Polymer NTU Technologies ZetaFloc 20	Coagulant	0.5 – 2.0 mg/L	Within static mixer outside chemical room in filter building. Injected neat into carrier water and diluted.

Metering pumps

Chemical	Number	Make	Model	Capacity
Polyaluminum Chloride	2	Pulsafeeder Wallace & Tiernan	Pulsatron Premia 75	0.5 gph 2.5 gph
Polymer	2	Pulsafeeder Wallace & Tiernan	Pulsatron Premia 75	0.5 gph 2.5 gph

Standby metering pumps Two pumps are provided for each coagulant, one for low plant flow rates and the other for high plant flow rates. The CSD also maintains spare parts for the metering pumps. The CSD has graduated cylinders for calibrating the metering pumps each time the dosage is changed.

Coagulant feed rate The coagulant feed rate is determined and optimized by the operators based on turbidity, particle counts, and streaming current monitoring.

Pipeline Flocculation Determination

Gt number In theory, to provide adequate coagulation, coagulant aids must be rapidly dispersed through mixing in a short period of time. A mixing-energy calculation can be used to evaluate the product of the velocity gradient and residence time, or Gt value, where G is the velocity gradient (sec^{-1}) and t is the residence time (sec). Mixing energy is typically considered adequate when a Gt value is of magnitude 10^4 to 10^5.

After the addition of PACh, there is approximately 600 feet of 30-inch diameter pipe for flocculation to occur. In the past, mixing energy has been evaluated at various flow rates, and at lower flows it may not be adequate for coagulation and flocculation process to be considered direct filtration.

4. Filtration

The treatment plant has eight dual media horizontal pressure filters as shown in the following table. The first two trains were constructed in 1975, Train 3 was constructed in 1985, and Trains 4 through 6 were constructed in 1996. The treatment plant capacity is based on a maximum hydraulic loading rate of 7.0 gpm/ft^2 through each filter less the amount of water needed for backwash/rinse/rest. In 1994 the CSD submitted a demonstration study showing that the filters were able to provide adequate filtration at filter-loading rates of up to 8.0 gpm/ft^2; however, the treatment plant is hydraulically limited to a total flow rate of 23,000 gpm, 7 gpm/ft^2. Flows through the plant typically do not exceed 14 MGD; therefore, the loading rate is usually less than 3 gpm/ft^2. At this loading rate, filters are typically backwashed every 24 hours to 48 hours. Each filter train takes about one hour to complete a backwash cycle. Raw water and filtered water pipelines from Filters 1,2, and 3 *originally* used 18-inch lines running between the filter plant and chlorination building, approximately 450 feet in length. These lines remain, and may contain water, but valves are closed. The CSD considered using these lines if they were to install a roughing filter. Raw and filtered water now flow between the filter plant and chlorination building using 30-inch pipelines approximately 600 feet in length.

Maximum Filter Loading Rates

Train #	Filter #	No. of Cells	Anthracite	Sand	Gravel	Dimensions	Surface Area (ft^2)	Max flow* (gpm)
1	1	2	18"	12"	18"	8'Ø x 40'	320	2,240
	2	2	18"	12"	18"	8'Ø x 40'	320	2,240
2	3	2	18"	12"	18"	8'Ø x 40'	320	2,240
	4	2	18"	12"	18"	8'Ø x 40'	320	2,240
3	5	3	14"	14"	32"	10'Ø x 50'	500	3,500
4	6	3	14"	14"	32"	10'Ø x 50'	500	3,500
5	7	3	14"	14"	32"	10'Ø x 50'	500	3,500
6	8	3	14"	14"	32"	10'Ø x 50'	500	3,500
Total							**3,280**	22,960**

*** Based on 7 gpm/ft^2**
****5.5 MG (4 hrs)**

Filter Rates Operators set the target flow rate of each filter train in the SCADA system. A flow meter measures the flow to each filter train and a control valve on the effluent line from each train is operated by the SCADA system to meet the target flow rate.

Filter rates are normally constant and as demand increases, more filter trains are brought on line. The CSD operates the plant to minimize filter shutdowns and restarts.

Filter performance standards under Section 64653 The Division requires that the treatment system meet a more stringent performance standard for turbidity that is less than 0.1 NTU in at least 95% of the readings to ensure a 2-log removal of *Giardia*, as described previously. The performance standard is based on recommendations provided in the Division's Cryptosporidium Action Plan, which references the AWWA's surface water treatment turbidity goal of 0.1 NTU.

Operating criteria under Section 64660 As described in Section 64660 of the CCR, water treatment plants with dual media pressure filters are allowed to operate at no more than 3.0 gpm/ft^2, unless approval is given by the DDW. To obtain approval for filtration rates greater than twice the allowable operating criteria, the water supplier shall demonstrate the following as described in Section 64660 (b) (5):

(A) Provide a minimum of 99 percent Giardia lamblia cyst removal, 90 percent virus removal, and 99 percent Cryptosporidium removal; and
(B) Meet the turbidity performance standards established in section 64653(c);
(6) Filtration rates shall be increased gradually when placing filters back into service following backwashing or any other interruption in the operation of the filter;
(7) When any individual filter in a conventional or direct filtration treatment plant is placed back into service following backwashing or other interruption event, the filtered water turbidity of the effluent from that filter shall not exceed any of the individual filter turbidity performance triggers in table 64660, subparagraphs (A) through (D). The filtered water turbidity of the effluent from any individual filter in a conventional or direct filtration treatment plant shall not exceed any of the individual filter turbidity performance triggers in table 64660, subparagraphs (E) through (G).

On June 27, 1994, the CSD submitted a demonstration study to DDW. This study was completed when the treatment plant consisted of Filters 1, 2, and 3. A pilot filter was used to simulate future filters 5, 6, 7, and 8. This study, performed by Montgomery Watson in association with PACE Engineering, concluded that the existing filters were capable of a 2.0-log removal of 4-to-10-micron sized particles at typical raw water turbidities of 0.3 to 0.5 NTU and filter flow rates of 8 gpm/ft^2. The study also concluded that the pilot filter was capable of 2.5 to 4.5-log removal of 4-to-10-micron sized particles at filtration rates of up to 8 gpm/ft^2 with raw water turbidities of 7 to 10 NTU.

Filter Performance Performance standards are consistently met. The operators believe Train 6 has a broken lateral. They observe increasing sand loss and earlier breakthrough than the other filters. They also observe increased turbidities when head loss is about 7.2 ft. Operators are observing similar behavior in Train 5. Several filters require media rehabilitation.

Filter Inspection The CSD inspects the condition of the media annually (half in November, other half in March/April). The inspection log is submitted to the Division. Anthracite was added in 2009; it is usually required every 3 to 4 years.

Filter Backwash Filter Train #1 example: This filter train consists of 2 filters, each with two filter cells. During a backwash cycle, each cell is backwashed sequentially. Filter Cell 1A is backwashed by filtering raw water through Cells 1B, 2A, and 2B. The filtered water from these three cells is directed to Cell 1A for backwashing. A backwash control valve regulates the flow based on the operator set point and measurements taken from the raw water flow meter for the filter train. Typical backwash flow rate is 13.5 gpm/ft^2. The backwash cycle lasts for 10 to 12 minutes per filter cell and surface wash is used throughout the backwash. The entire backwash cycle is approximately 65 minutes per filter train. **All other trains backwash similarly. Backwash water is semi-treated, the water has been perchlorinated with PACh and polymer and has been filtered by one cell, but it does not have post chlorination or complete filtration.**

Frequency of backwashing The filters are backwashed automatically when a pressure drop across the filter is 7 to 8 feet, or a predetermined run time, or other set point such as high filter effluent turbidity. Summer filter runs are 24 to 36 hours, winter runs are typically 48 to 60 hours due to lower flow rates. The CSD adjusts the filter run time that will trigger a backwash to match when they estimate the pressure drop will reach 7 to 8 feet of head. The electric motor driven filter control valves take approximately 3 minutes to cycle from fully closed to fully open. Filtration rates are increased gradually after a backwash cycle.

Backwash Water Recycling Backwash water is initially discharged to ponds for settling to occur. Backwash water is then recycled at an injection point approximately 30 feet from the chlorine building in the 600-ft conveyance pipe. Filter rinse water is discharged to a pond behind the filters; this water is also recycled. The CSD maintains an operational goal of backwash rates of less than 10% of the total flow and turbidity of less than 2.0 NTU to be returned to the headworks for recycling. Coagulant is not added to the recycled backwash water.

Filter to Waste Filters are operated in waste mode following backwash or other interruptions until the filtered water turbidities drop to approximately 0.05 NTU, typically 15 minutes to 30 minutes depending on time of year.

Surface Water Wash Filters are equipped with rotating surface washers supplied with filtered water.

Surface Wash Backflow Prevention A double check valve is installed on the surface wash supply pipe.

Discussion Monthly treatment records show that the combined filter effluent is less than 0.1 NTU, and consistently meets all turbidity standards. Additionally, the CSD monitors the

particle concentrations in the 2–5-micron range and the 5–15-micron range in both the raw water and the combined filter effluent. To meet the requirements of the Long-Term 1 Enhanced Surface Water Treatment Rule (LT1), the CSD needed to demonstrate that the filters can achieve at least a 2.0-log reduction in cryptosporidium sized particles (2-5 micron) through filtration. The permit will be amended to change the monthly turbidity performance standard to 0.1 NTU in at least 95% of the measurements collected during the month.

5. **Disinfection**

Process Description The CSD uses gas chlorination for the disinfection of the raw and filtered water. Chlorine is introduced into the carrier water supplied by the booster pump via two eductors, one for pre-chlorination and one post-chlorination. Chlorine gas is supplied to the eductors through two sets of gas rotameters for each educator, one at 100 pounds per day (ppd) and the other at 200 ppd. The flow rate through the rotameters is controlled by the carrier water flow rate, which then controls an automatic valve that adjusts the chlorine flow rate to meet the CSD's target chlorine residuals of about 0.2 -0.5 mg/L for pre-filtration and 1.0-1.5 mg/L for post-filtration.

Capacity At the maximum production rate of 33 MGD, the CSD can provide a maximum chlorine dosage of 1.5 parts per million (ppm) through pre- and post-chlorination combined using the 200 ppd rotameters for both locations or 1.1 ppm if only using the 100 ppd rotameter for pre-chlorination. The 200 ppd rotameter has not been turned on for about 1 ½ years because flows have been low and because it does not respond to SCADA, so they don't use unless they need to.

Injection Points Prechlorination: chlorine gas is injected into the 30-inch raw water main which tees from the 45-inch Mule Town conduit, just outside the chlorinator building. Post chlorination: chlorine is added to the 30-inch filtered water effluent main, just outside the chlorination building, prior to the connection to the 45-inch Mule Town Conduit.

Backup Power In the event of a power failure, a 130-kW diesel generator is utilized to provide all power requirements for the treatment facility. A 6 second delay between power loss from PG&E and generator start-up prevents nuisance start-ups of the generator during momentary interruptions. The generator failed to start-up during a February 2022 power outage, the operator was going to research the reason it failed to start.

Disinfection Performance Standards CCR Section 64654 Disinfection must be sufficient to provide a 1-log inactivation of *Giardia* cysts and 3-log inactivation of viruses. Water delivered to the distribution system must contain a minimum of 0.2 mg/L free chlorine residual. A detectable level of free chlorine residual must be maintained in at least 95% of the samples taken from the distribution system each month.

Chlorine Contact Volume

	Process	Length Diam.	Calculation $V = L \times \pi r^2$	Available Volume (gallons)	SCF	Effective Contact Volume (gallons)
Perchlorinated Segment (0.1 to 0.3 ppm)	Raw Water Main	600 ft 30 in	$V = 600 \text{ ft.} \times \pi \times (15 \text{ in} / 12 \text{ in/ft})^2 \times 7.48 \text{ gal/ft}^3$	22,030	1.0	22,030
	filters (4) assume ½ volume	40 ft 8 ft	$V = 4 \times 40 \text{ ft.} \times \pi \times (4 \text{ ft.})^2 \times 7.48 \text{ gal/ft}^3 \times (0.5)$	30,080	0.5	21,056
	filters (4) assume ½ volume	50 ft 10 ft	$V = 4 \times 50 \text{ ft.} \times \pi \times (5 \text{ ft.})^2 \times 7.48 \text{ gal/ft}^3 \times (0.5)$	58,748	0.5	41,124
	Filtered Effluent Water Main	600 ft 30 in	$V = 600 \times \pi \times (15/12)^2 \times 7.48 \text{ gal/ft}^3$	22,030	1.0	22,030
Postchlorinated Segment (1.0 to 1.7 ppm)	Mule Town Conduit to WES Camp turnout	7,625 ft 45 in	$V = 7{,}625 \text{ ft.} \times \pi \times (45/2 \text{ in} / 12 \text{ in/ft})^2 \times 7.48 \text{ gal/ft}^3$	629,932	1.0	629,932
	V_1 Total					**818,042**
	main from Conduit to WES Camp (first connection)	1,000 ft 4 in	$V = 1{,}000 \text{ ft.} \times \pi \times (2 \text{ in.} / 12 \text{ in/ft})^2 \times 7.48 \text{ gal/ft}^3$	653	1.0	653
	V_2 Total					**818,695**

CT Demonstration

	For worst case winter	For worst case summer
Temperature (low)	7.8 deg C (46 deg F)	14.4 deg C (58 deg F)
pH (high)	7.1	7.2
Required CT	42.7 mg/L – min	26.3 mg/L – min
Flow Scenarios	Maximum = 22,960 gpm	Maximum = 22,960 gpm
	Max Day = 17,222 gpm	Max Day = 17,222 gpm
	Typical = 9,722 gpm	Typical = 9,722 gpm
	WES Camp = 60 gpm	WES Camp = 60 gpm
Contact Time	(818,042 gal / 22,960 gpm) + (653 gal / 60 gpm) = 46.5 min	(818,042 gal / 22,960 gpm) + (653 gal / 60 gpm) = 46.5 min
	(818,042 gal / 17,222 gpm) + (653 gal / 60 gpm)= 58.3 min	(818,042 gal / 17,222 gpm) + (653 gal / 60 gpm)= 58.3 min
	(818,042 gal / 9,722 gpm) + (653 gal / 60 gpm) = 95.0 min	(818,042 gal / 9,722 gpm) + (653 gal / 60 gpm) = 95.0 min
Average Residual	0.8 mg/L	0.8 mg/L
Available CT	37.2, 46.6, 76.0 mg/L – min	37.2, 46.6, 76.0mg/L – min
CT Ratio	available CT / required CT = 0.8, **1.0**, **1.7**	available CT / required CT = **1.4, 1.7, 2.8**

Assumptions made in determination of contact volume:

1. The first connection is at WES camp; CT met if it is met at WES camp.
2. The length of 30-inch diameter piping from the pre-chlorine injection point to the filters is estimated to be 600 feet.
3. The length of 30-inch diameter piping from the filters to the post-chlorination injection point is estimated to be 600 feet.
4. The volume of water in the filters is estimated to be half the empty volume of the filter vessel.
5. The length of 45-inch diameter pipe from the filters to WES camp turnout 7,625 feet.
6. The length of the 4-inch main which services the WES Camp has been estimated to be 1,000 feet.
7. The 1 MG clear well at the treatment plant is not given any credit for CT calculations.
8. 3-Log virus inactivation is achieved if CT is met for 1-log Giardia inactivation.

Based on typical flow rates, the CSD appears to provide at least 1-log inactivation of *Giardia* cysts at the WES Camp and Centerville turnouts. However, CT calculations based on the plants maximum capacity, the 10-year maximum day demand, and a typical high flow rate, show that the CSD may not provide enough contact time under these conditions in the winter. However, visitation at WES camp is very limited in the winter and flow rates may be significantly lower increasing contact time. The WES camp is open to limited capacity for student day trips.

Discussion The CSD adjusts their chlorine dosage to always maintain a minimum 1-log inactivation of *Giardia* cysts at the WES Camp turnout. The CSD uses a spreadsheet, to calculate the *Giardia* cyst inactivation daily. This spreadsheet is submitted to our office each month. Chlorine gas lines and components (including rotameters) are replaced about every two years.

6. **Monitoring and Alarms**

Filtration monitoring requirements Section 64655 Combined effluent turbidity must be measured, at least once every four hours. Turbidity measurements of the individual filter effluent must be conducted continuously and recorded at least once every 15 minutes. The supplier must validate the accuracy of continuous monitoring turbidimeters on a weekly basis.

Filtration monitoring The CSD uses a Hach Surface Scatter 7 sc to monitor the raw water turbidity and Hach TU5300 turbidimeters to measure combined filter effluent turbidity and individual filter effluent in filters 1 through 8, except for filter 7. Filter 7 still uses a Hach 1720e to measure individual turbidity, which is scheduled to be replaced. The Hach 5300 TU meters have an auto cleaning feature. Particle counts are performed by Hach PCX 2200 counters.

Turbidimeter Calibration The CSD validates the turbidimeters weekly by comparison to a Hach 5200 benchtop turbidimeter. The CSD also has two Hach 2100 N benchtop turbidimeters. Turbidimeters are calibrated either monthly or quarterly. The benchtop turbidimeters are checked against gel standards to validate the calibration. The turbidimeters are also calibrated if there is a 10% or greater difference in the verification readings.

Disinfection Monitoring Requirements Section 64656: Temperature, pH, disinfectant contact time, and residual disinfectant concentration must be recorded.

Type and model of chlorine residual monitors or test kits Pre-filtration free chlorine residuals are measured by a Wallace & Tiernan Dupolox 3 amperiometric continuous

chlorine analyzer. Post-filtration free chlorine residuals are measured by an ATI A15 amperiometric continuous chlorine analyzer.

Monthly Treatment Records (Section 64664): The monthly treatment records submitted by the CSD meet the requirements of Section 64664. Information is copied from bench sheets.

Other monitoring or sampling The CSD has two Hach PCX 2200 particle counters that operate continuously, measuring the raw water and combined filter effluent particle counts in the 2-5-micron range and 5–15-micron range. The CSD's SCADA system is used to calculate the log removal. Past particle count data submitted to the Division since October 2005, showed the finished water turbidity was consistently less than 0.1 NTU, the average daily reduction in particles in the 2 -5-micron range has been greater than 2.0 log each month.

MONITORING & ALARMS

Parameter	Location	Sample Frequency	Recorded	Alarmed (yes/no)	Alarm Setpoint and Action[2]
Filter Flowrate	raw water, each train	continuous	Yes	No	
Turbidity	raw	continuous	Yes	Yes	2.5 NTU – operator notified
Turbidity[2]	individual filter train	continuous	Yes	Yes	0.5 NTU – filter shutdown
Turbidity[2]	combined effluent	continuous	Yes	Yes	0.3 NTU – plant shutdown *(suggest 0.2)* 0.2 NTU – operator notified *(suggest 0.1)*
Free Chlorine Residual	Pre-filtration	continuous	Yes	No	Recorded manually, not on chart
Low Free Chlorine Residual	Post-filtration	continuous	Yes	Yes	0.3 mg/L – operator notified[1] 0.2 mg/L – plant shutdown[1]
High Free Chlorine Residual	Post-filtration	continuous	Yes	Yes	3.0 mg/L – plant shutdown
Water temp	Pre-filtration	continuous	No	No	
Water pH	Pre-filtration	grab	Yes	No	Recorded manually
Current meter	Pre-filtration	continuous	No	Yes	50 – operator notified
Particle Count	pre & post filtration	continuous	Yes	No	1.0-log removal – operator notified
Filter high diff. Pressure				Yes	11-ft – shutdown filter train
Utility power failure				Yes	operator notified
Generator "on"				Yes	operator notified
Coagulant Feed Failure				Yes	operator notified
Surface wash low pressure				Yes	operator notified

Parameter	Location	Sample Frequency	Recorded	Alarmed (yes/no)	Alarm Setpoint and Action[2]
Cl_2 low discharge pressure				Yes	operator notified
Cl2 leak				Yes	operator notified
Filter Building power				Yes	operator notified
Cl_2 building power				Yes	operator notified
Air supply pressure				Yes	operator notified

[1] Varies with the time of year and flow rates.

[2] Turbidity alarms are equipped with delays of 2 to 3 minutes, so that momentary spikes don't set off the alarms.

Alarm Testing The alarms are tested annually.

Discussion An auto-dialer makes several calls until someone responds: calls are made first to an operator, then a pager, then an answering service. The CSD may add pond level alarms. The monitoring and alarms appear to be adequate to enable system operators to operate the treatment plant according to surface water treatment regulations and respond to system upsets. Operators are notified of conditions that include: high effluent turbidity, low chlorine residual, high/low 1.0 MG tank level, power failure, and a chlorine gas leak. The treatment plant is required to meet a combined effluent performance standard of 0.1 NTU for turbidity. It may suit the CSD to alter the alarm structure to reduced alarm levels, 0.1 NTU for operator notification and 0.2 NTU for plant shutdown.

The chlorine cylinders are equipped with an automatic shutoff valve if chlorine gas is detected in the chlorination building.

7. **Federal Long Term 2 Enhanced Surface Water Treatment Rule (LT2)**

Disinfection Profiling The purpose of the LT2 is to reduce illness linked to *Cyrptosporidium* and other microbial pathogens and to address the risk tradeoffs with the control of disinfection byproducts. Based on the results of monitoring for total trihalomethanes (TTHMs) and the five regulated haloacetic acids (HAA5s) performed during 2002, the CSD was not required to perform disinfection profiling.

LT2 Monitoring Plan Filtered systems were required to collect E. Coli samples once every two weeks for 12 months. On March 18, 2008, the CSD submitted 24 months of raw water fecal coliform results from 2006 and 2007 to the Division along with their intent to grandfather prior raw water fecal coliform monitoring data. The CSD continued to report the results from two raw water bacteriological samples per month through November 2009 and one per month since then.

Monitoring Results The CSD collects one raw water sample each month for E. coli monitoring. Based on past data submitted by the CSD on March 18, 2008, the average level of E. coli bacteria in the CSD's lake source was below a most probable number (MPN) of 10 E. coli per 100 ml. The federal LT2 allows systems to receive a waiver from cryptosporidium monitoring requirements if the average level of E. coli in the source water is less than 100 per 100 ml. The CSD met this requirement, and the source was classified in Bin 1 for purposes of the LT2.

8. **Groundwater Sources**

Liquid chlorine can be injected into the discharge piping of the well pump for individual well chlorination, or at the well manifold of all three wells.

The CSD maintains chemical metering pumps for the chlorination of the water provided by the wells when necessary. Although tests indicate that there is no contamination of the wells, since the CSD also provides treated surface water, chlorination is required to meet the SWTR requirement for a measurable disinfection residual throughout the distribution system.

D. TRANSMISSION FACILITIES

The Mule Town Conduit is the major transmission main in the distribution system. It operates by gravity and delivers raw water from the Whiskeytown Dam to the treatment plant and treated water from the treatment plant to the 4.0 MG Tank. The main is approximately 8 miles long; 4.8 miles of 45" diameter pipe and 3.2 miles of 42" diameter pipe. The pipe is cement lined steel. The CSD reports that most of the Mule Town Conduit is in good condition except for a small section that was apparently bed with natural backfill containing many rocks. The CSD inspects the air relief valves and blow-offs on the conduit annually. The operator was concerned about pipe velocities exceeding the maximum for the 18-inch and 24-inch pipe around the chlorine building. They plan to have an engineer evaluate pipe velocities and possible scouring.

E. DISTRIBUTION SYSTEM

1. Booster or Reducing Stations

Station	Location	Capacity	From Zone	To Zone	Comments
Lower Amber Ridge PRV-1	China Gulch Rd & Sylvan Ln	2-inch 6-inch	2	3	Underground vault
Upper Amber Ridge PRV-2	Happy Valley & Meeks Landing Ln	3-inch 8-inch	2	3	2-inch relief valve Above ground (each are for high flow, low flow, and for a bypass)
Upper Majestic PRV-3	Majestic View & Happy Valley	6-inch	3	4	6-inch relief valve Underground vault
Lower Majestic PRV-4	End of Majestic View	2-inch 6-inch	3	4	4-inch is a relief valve Underground vault
Chestnut PRV-5	Red Leaf & Olinda	2.5-inch 10-inch	2	5	3-inch relief valve Underground vault
South Booster Station	Happy Valley Rd. & Old Happy Valley Rd.	4,500-gpm	6	2	3, 150-hp pumps (1500 gpm ea.), pumps are operated to balance output from wells.
North Booster Station	Cloverdale & Clear Creek		1	7	Two 50-hp VFD pumps and one 5-hp centrifugal pump.

Source: 2007 Master Water Plan – Clear Creek Community Services District

Discussion The South Booster Station pumps water from the wells into the main distribution system and storage tanks when water is not available from the surface water treatment plant. The North Booster Station delivers water to the Veterans Cemetery, the county landfill, and Igo School.

2. Pressure Zones

Pressure Zone	Pressure Range	Primary Pressure Control Device Water Sources	No. Conn.
Zone 1 – Muletown Conduit	47-230 psi	1 MG Whiskeytown Clearwell Tank	1 WES Camp
Zone 2 – Main	24-156 psi	4.0 MG Tank and 0.025 MG Regulating Tank	1919
Zone 3 – Amber Ridge	90-93 psi	Upper and Lower Amber Ridge PRV s	145
Zone 4 – Majestic View	51-140 psi	Upper and Lower Majestic View PRV Stations	157
Zone 5 – Chestnut Improvement Area	56-94 psi	Chestnut PRV	78
Zone 6 – Wells	66-100 psi	Wells and 0.032 MG and 0.35 MG Tanks (105 psi at lone service connection)	1
Zone 7 – Cloverdale	22-147 psi	Cloverdale - North Pump Station	5

Source: 2007 Master Water Plan – Clear Creek Community Services District & previous DDW inspection report

Discussion Under normal operating conditions, the CSD's distribution system is primarily served from the 4.0 MG Tank by gravity either directly or via pressure reducing valves (PRVs). Zone 7 receives water from Zone 1 through North Booster Station. Zone 6 typically receives water from the Main Zone through a PRV but can also receive water from the CSD's wells when they are in operation.

3. Mains

A description of distribution mains is in the following table:

Material	Amount	Size	Condition
Cement Lined Steel	18 miles	36-42"	good
Asbestos Cement	19 miles	4-24"	fair-poor
PVC	65 miles	4-12"	good

4. Leak History The CSD reported 29 service connection breaks/leaks and 16 main breaks in 2020. One of the main breaks required a boil water advisory.

F. WATER QUALITY & MONITORING

1. Bacteriological Monitoring

Description of program The CSD collects three samples per week from among 12 routine sample sites identified in the CSD's Bacteriological Sample Siting Plan (BSSP). The 12 sites

appear to be representative of the distribution system. The CSD collects raw water samples from each of the well sources each calendar quarter when operating, and the surface water source is sampled monthly prior to treatment. The samples are delivered to Basic Labs, a state-certified lab, for analysis. The CSD has remained in compliance with the total coliform rule during the last 12 months.

Number of samples required Three per week based on population.

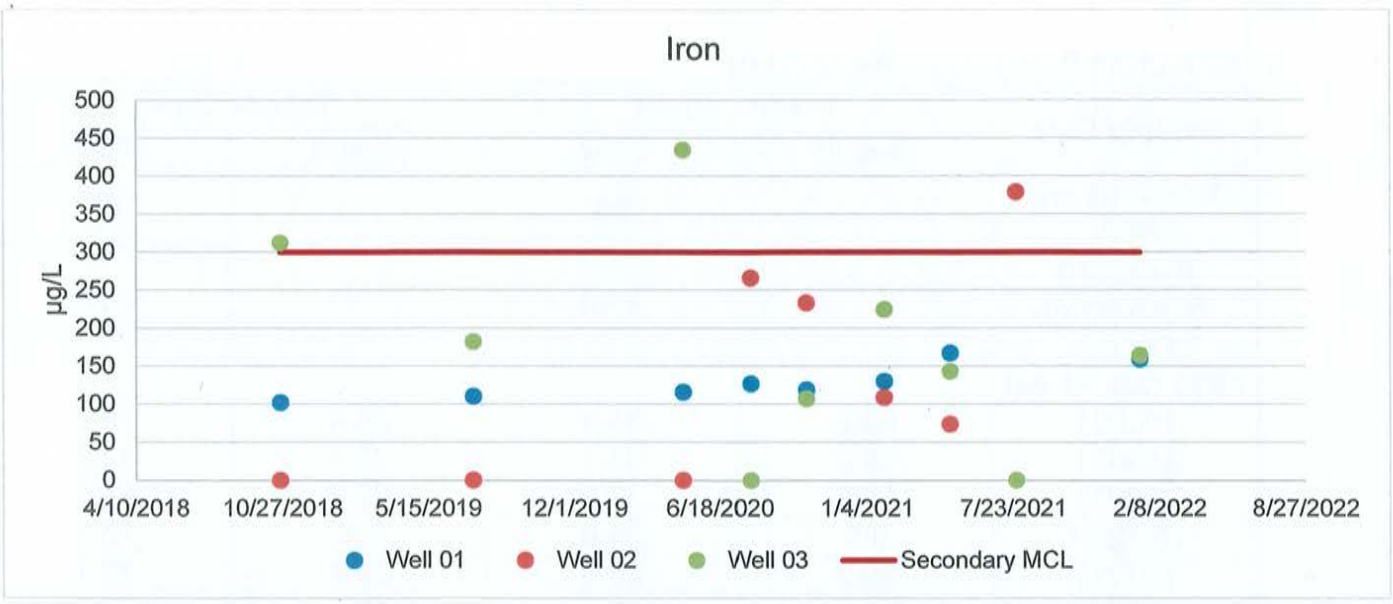
BSSP The CSD submitted an updated BSSP on January 6, 2022, which includes source water monitoring in compliance with the Groundwater Monitoring Rule.

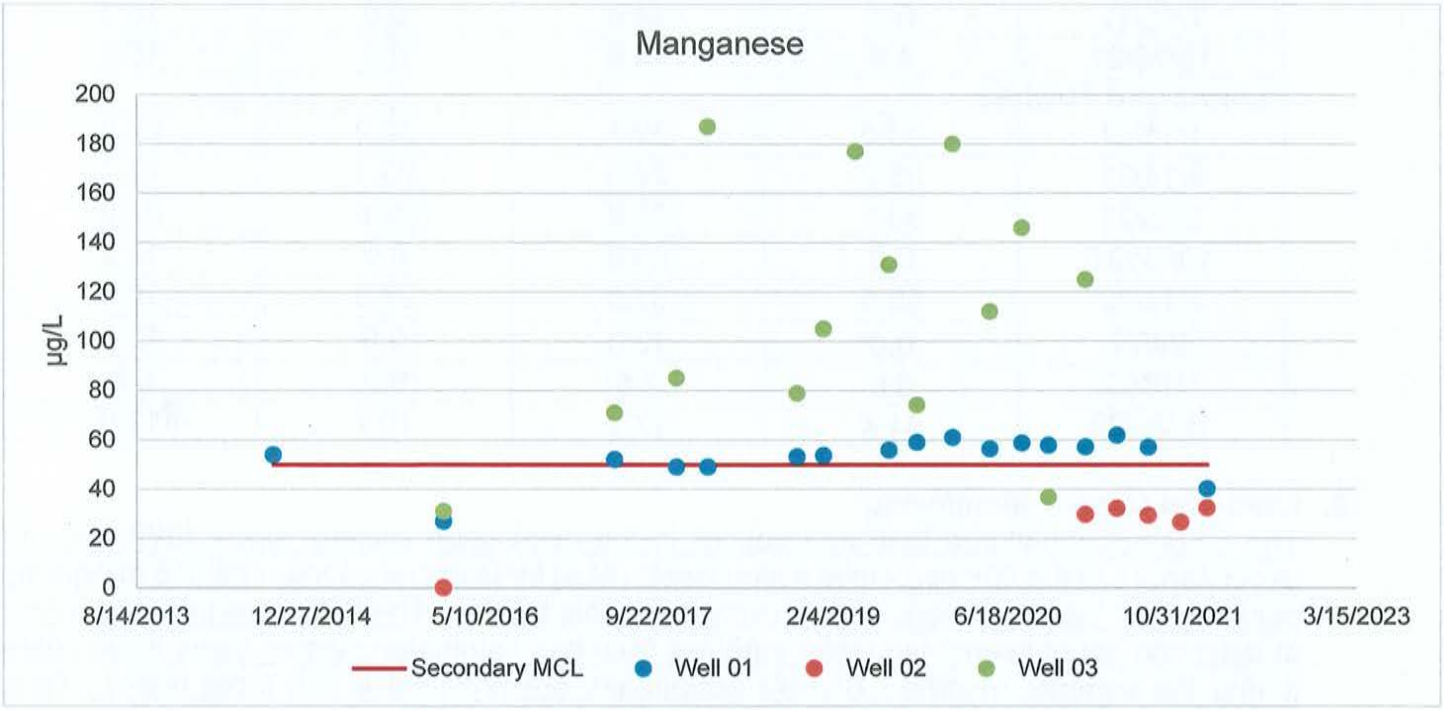
2. **Chemical Monitoring**

Description of program Samples are collected by CSD personnel based on chemical monitoring schedules provided by the Division. The wells are designated as active but do not operate very often. The chemical sampling schedule is described below.

Chemical Group	Frequency
Groundwater	
General Parameters	9 years
Inorganic Parameters	9 years – waived through 2019
Iron	Well 03 quarterly when operating
Manganese	Well 01 and 03 Quarterly when operating
Nitrate	1 year
Nitrite	3 years
Radiological	9 years
VOC	6 years
SOC	waived
1,2,3-TCP	waived
Perchlorate	Every 3 years
Surface Water	
General Parameters	9 years
Inorganic Parameters	9 years
Nitrate	1 year
Nitrite	3 years
Radiological	9 years
VOC	Waived
SOC	Waived
1,2,3-TCP	Waived

Discussion Chemical monitoring of the CSD surface water source is current. Nitrate samples are due for Well 01, 02, and 03. Perchlorate is due for Well 02, and 03. All three wells contain iron and manganese as shown in the charts below. Wells 02 and 03 contain levels of manganese above the secondary MCL and Wells 02 and 03 occasionally show levels of iron above the secondary MCL. The wells are rarely used, but when the wells are in service, manganese samples are to be collected quarterly from Wells 01 and 03 and iron is to be collected from quarterly from Well 03. Otherwise, iron and manganese are collected every nine years. The secondary maximum contaminant levels (MCL) for iron and manganese are 300 and 50 ppb as a running annual average.





3. Distribution Haloacetic Acid (HAA5) and Trihalomethane (TTHM) Monitoring

A public water system that serves 3,300 to 9,999 people with treated surface water is required to collect two dual samples quarterly in the distribution system or two dual sample sets per year if meeting the 40/30 certification. On February 13, 2008, the CSD submitted a 40/30 Certification Letter, requesting a waiver of the Initial Disinfection System Evaluation requirement of the Stage 2 Disinfection Byproducts Rule (DBPR). Based on past monitoring, the Division allowed the CSD to reduce monitoring for TTHMs and HAA5s to one paired sample per year at a location representing maximum residence time during the month of warmest water temperature. The CSDs Locational Running Annual Average (LRAA) HAA5 results have since exceeded the 30 ppb; therefore, the CSD was required to return to quarterly monitoring. The CSD submitted an updated DBPR monitoring plan on February 2, 2016.

Disinfection Byproducts Monitoring

Sample Date	TTHMs (ppb)		HAA5s (ppb)	
	Result	LRAA	Result	LRAA
Action Level / MCL		**80**		**60**
Reduced Monitoring Trigger		**< 40**		**< 30**
5880 Oak Street				
1/11/21	36.9	34.4	26.4	25.7
4/14/21	29.8	32.1	23.1	22.9
7/15/21	32.3	32.8	22.7	23.6
10/12/21	0.0	24.8	0.0	18.1
1/11/22	39.2	25.3	30.4	19.1
4/8/22	18.4	22.5	10.3	15.9
7/18/22	0.0	14.4	0.0	10.2
10/26/22	4.8	15.6	0.0	10.2
Lorina and Towhee				
1/11/21	42.5	39.1	22.2	23.8
4/14/21	35.2	37.0	23.1	22.9
7/15/21	38.1	38.3	22.6	22.9
10/12/21	0.0	29.0	0.0	17.2
1/11/22	50.5	31.0	27.3	18.4
4/8/22	0.0	13.3	0.0	12.5
7/18/22	0.0	7.6	0.0	6.8
10/26/22	34.4	17.2	19.7	11.8

2. Lead and Copper Monitoring

The CSD has monitored lead and copper in the distribution system, since 1992, with no exceedances of the 90th percentile action levels (ALs) for lead and copper of 0.015 milligrams per liter (mg/L) and 1.3 mg/L, respectively (see table below). The CSD is required to collect at least one set of twenty tap water samples from the distribution system every three years during the summer months. Sample summaries are provided in the table below. Next samples are due in 2025, between June 1st and September 30th.

Lead and Copper Monitoring

Round	Date	Action Levels: Pb = 0.015 mg/L; Cu = 1.3 mg/L			
		No. Collected	No. Required	90th percentile Lead (mg/L)	90th percentile Copper (mg/L)
1	11/13/92	40	40	0.011	1.100
2	3/3/93	40	40	0.0055	0.608
3	6/25/97	20	20	ND	0.797
4	12/22/98	20	20	0.010	0.668
5	8/23/01	20	20	0.014	0.963
6	6/24/04	20	20	0.0063	0.725
7	8/6/07	20	20	0.008	1.237

Round	Date	Action Levels: Pb = 0.015 mg/L; Cu = 1.3 mg/L			
		No. Collected	No. Required	90th percentile Lead (mg/L)	90th percentile Copper (mg/L)
8	9/22/10	20	20	0.005	1.104
9	8/22/13	20	20	0.0085	0.853
10	8/26/16	20	20	ND	0.789
11	7/8/19	20	20	ND	0.637
12	6/27/22	20	20	0.0027	0.399

5. **Additional Monitoring**
Records show the Aggressive Index (AI) of the water is 10.4 (7/3/2018) which is considered moderately aggressive. Since the distribution system contains asbestos cement water mains, the CSD needs to collect asbestos samples from the distribution system at least every nine years.

6. **Water Quality-Monitoring Plan** Not required for systems with less than 10,000 service connections.

7. **Drinking Water Source Assessment Program (DWSAP)**

Sources	DWSAP Status	Completion Date	Comments
Whiskeytown Lake	Complete	April 2003	Completed by the Redding District Office
Wells 1-3	Complete	December 2002	E-file

8. Emergency Response Plan (ERP) On 5-24-04, the CSD submitted a plan under the title of "Emergency/Disaster Response Plan," which describes in detail what will be done if there is an emergency.

9. **Consumer Confidence report (CCR)** CCRs are completed annually, distributed to customers, and posted on the CSDs website.

G. OPERATION & MAINTENANCE

1. Planning & Personnel

The CSD maintains maps of the distribution system at the office for field personnel. The maps show all valves and mains and are updated as changes to the system are made. Each CSD truck is also provided with a valve book containing the locations of each main valve.

The CSD's treatment plant is classified as a Grade T5 treatment plant, which requires a state-certified Grade T5 treatment operator as its chief operator and state-certified Grade T3 or higher treatment operators as shift operators. The CSD is classified as a Grade D2 distribution system, which requires a state-certified Grade D2 distribution system operator as its chief operator and state-certified distribution operators as its shift operators. The CSD's operators meet these requirements. The CSD's operators are summarized in the table below.

Certified Operators

Name	Title	Distribution Grade	Treatment Grade
Bill Palmaymesa	Chief Operator	D3	T5
Toby Ladewig	Operator	D3	T3
Chad Krick	Operator	D3	T2
Robert Chacon	Distribution Supervisor	D2	
Roger Ladewig	Maintenance II	D1	T1

2. **Cross-Connection Control Program**
The CSD's Rules and Regulations for Water Service, effective April 15, 1992, Article VIII – Cross-Connection Control Ordinance is on file with the Division. Backflow prevention devices are to be tested annually.

Backflow Devices

Year	Total Number in System	Number Installed	Number Tested	Number Failed	Number Repaired/ Replaced	Comments
2018	85	1	85	14	8	42 inactive assemblies
2019	85	1	84	6	4	42 inactive assemblies
2020	88	4	84	2	4	

Backflow Device Test Personnel Roberto Chacon certification # 16468 (AWWA/USC).

Discussion All records of device locations, testing status, etc., are maintained by the CSD in designated notebooks and spreadsheets. CSD personnel are responsible for testing the devices. Repairs are arranged for and paid by the customer. The CSD evaluates all new service connections for potential backflow hazards. The CSD also requires all commercial and industrial connections to have a backflow prevention device, typically a reduced pressure principle backflow prevention device (RP). The CSD's cross-connection program appears to meet requirements in general, however, it is unclear why the number of failed vs number of repaired or replaced assemblies in 2018 do not match. In this case, the CSD should provide a note or explanation in the eAR.

Historical Note: Originally there were three pipelines in the meter vault at the chlorination building that could allow water to bypass the filters; a 10-inch pipeline, a 14-inch pipeline, and a 36-inch pipeline. The CSD removed a spool piece from the 10-inch pipeline and utilizes a double-block-and-bleed system for the 14-inch and 36-inch pipelines, which is appropriate protection.

3. **Complaints**
Complaints are called into the office where personnel fill out a work order which is usually given to an operator for follow up. Records of the original complaint, complainant, time and date of complaint, and actions taken by the CSD to resolve the complaint are kept on file.

Complaints 2020

Type	Number	Comments
Taste and odor	3	Taste issue, flushed
Color	0	
Turbidity	0	
Low/High Pressure	8	Cause was customer PRV
Other	13	Mainline rupture caused outage
Total	24	

4. **Emergency Response**
   An updated Water Quality Emergency Notification Plan (ENP) was received on June 14, 2019.
   Emergency Notification Notify public primarily through text messages, CSD website, radio, television, and by phone if necessary.

5. **Main Disinfection Program**
   All replacement mains and valves are swabbed with a 6% sodium hypochlorite solution prior to installation. The repaired section is flushed, and a bacteriological sample is collected. The CSD follows AWWA procedures for using solid calcium hypochlorite tablets to disinfect new main installations. Special bacteriological samples are reported to the Division following a repair or installation. DDW has a copy of the Emergency Disinfection Plan, received December 2008.

6. **Valve Maintenance/Exercising Program**
   The CSD has a valve maintenance program. Though not required by drinking water regulations, it is strongly recommended that public water systems operate main valves on a regular basis to help ensure valves operate properly when needed, especially during an emergency such as a main break and repair. The original system was constructed as an irrigation system, and reportedly had few isolation valves. Valves are covered and raised to grade. A list and maps showing the location of all known valves are available to CSD personnel. The CSD has begun adding isolation valves each year to reduce the number of people affected by water main breaks and maintenance.

7. **Flushing**
   The CSD systematically flushes dead ends each year.
   Approximate number of dead ends 34 **Percent with flushing valves** 100%
   Discussion Based on the low number of complaints reported, it appears that the CSD's flushing program is adequate.

H. RESILIENCY AND PREPAREDNESS (required per SWRCB Resolution # 2017-012)

1. **Fire** Defensible space of at least 100 feet is maintained around all structures managed by the water system (*California Public Resources Code, 4291).*
2. **Flooding** There are no drinking water facilities vulnerable to flooding.
3. **Drought** The water system has experienced drought related shortages in recent years and has negotiated water transfers with adjacent water systems to make up shortages in surface water allocations. The water system also uses groundwater to supplement surface water.

In the summer of 2021, the US Bureau of Reclamation reduced Clear Creeks surface water allocation to 425 acre-ft, which was used in June alone. Due to the ongoing drought, the CSD is not receiving any of its contracted allotment of water through USBR and will supplement water by purchasing water from the McConnell Foundation, City of Redding, and pumping groundwater.

4. **Backup Power** The water system has a 130-kW generator, installed in 2018, to operate the water treatment plant in the event of power outages. There is also a portable 225 kW generator stored at the office, that can be used at the well field, booster pump stations, or main office. The CSD may be able to use the generator replaced at the WTP to run the office, but an additional portable generator would help if power were needed at two other facilities. Additionally, the CSDs generator at the WTP failed to start during a February 2022 power outage; the CSD needs to evaluate what failure conditions occurred and provide a remedy.

I. OVERALL SYSTEM APPRAISAL AND SUMMARY

Overall, the water system is well operated, and records supplied by the CSD show that the treated water meets drinking water standards.

Based on typical flow rates, the CSD appears to provide at least 1-log inactivation of *Giardia* cysts at the WES Camp and Centerville turnouts.

After the 2018 Carr Fire, the CSD began to report a 50-75 percent loss in filter runtime specifically when algae and increased turbidity are present resulting in extra backwashes and an increase of sludge accumulating in the backwash ponds. Filter inspections are showing an accelerated loss of media due possibly due to a broken lateral and/or increased backwashing. The CSD reports that the filters need to undergo media rehabilitation, specifically filters TR1, TR5 and TR6.

The CSD installed a new generator in 2018, which failed to start during a February 2022 power outage. The CSD will need to evaluate this and ensure that the generator will turn when there is a power outage.

The CSD has described needing additional storage and would like to replace the 1976 1 MG Cor-ten steel tank with a larger tank, possibly up to 4 MG. The 1 MG tank drains in less than an hour if the water treatment plant is off-line and the Centerville CSD muletown pressure zone is at maximum demand. The CSD has stated that the coal tar epoxy coating on the roof has failed.

The CSD has experienced some significant breaks in the over 50-year-old distribution system, which has identified a need for additional isolation valves and replacement or repair of valves that no longer function. The inability to isolate areas of the distribution system when a break occurs causes the CSD delay water service further out in the system and extent delays in water service. The CSD has applied for funding through the DFA, in June 2020, to replace sections of aging distribution piping.

The CSD has had a couple of instances where unchlorinated filtered water was released to distribution, but operators were able to pull back all or most of the water before reaching the 1 MG tank. Plant operations and alarms should be reviewed to avoid this possibility of a reoccurrence.

At the water treatment plant some of the valves need to be repaired or replaced. DDW observed failing actuators, and some valves that leak air, water, or oil. For most of the older valves, replacement parts are no longer available, and replacement is the only option.

J. Attachments

System Deficiency Record
Facility and Distribution Aerial Views
Process Diagram

Report prepared by: Katie Connaughton, P.E.

Kate Connaughton 11-22-22

Signature Date

SYSTEM DEFICIENCY RECORD

Name of System **Clear Creek CSD** System Number **4510016**

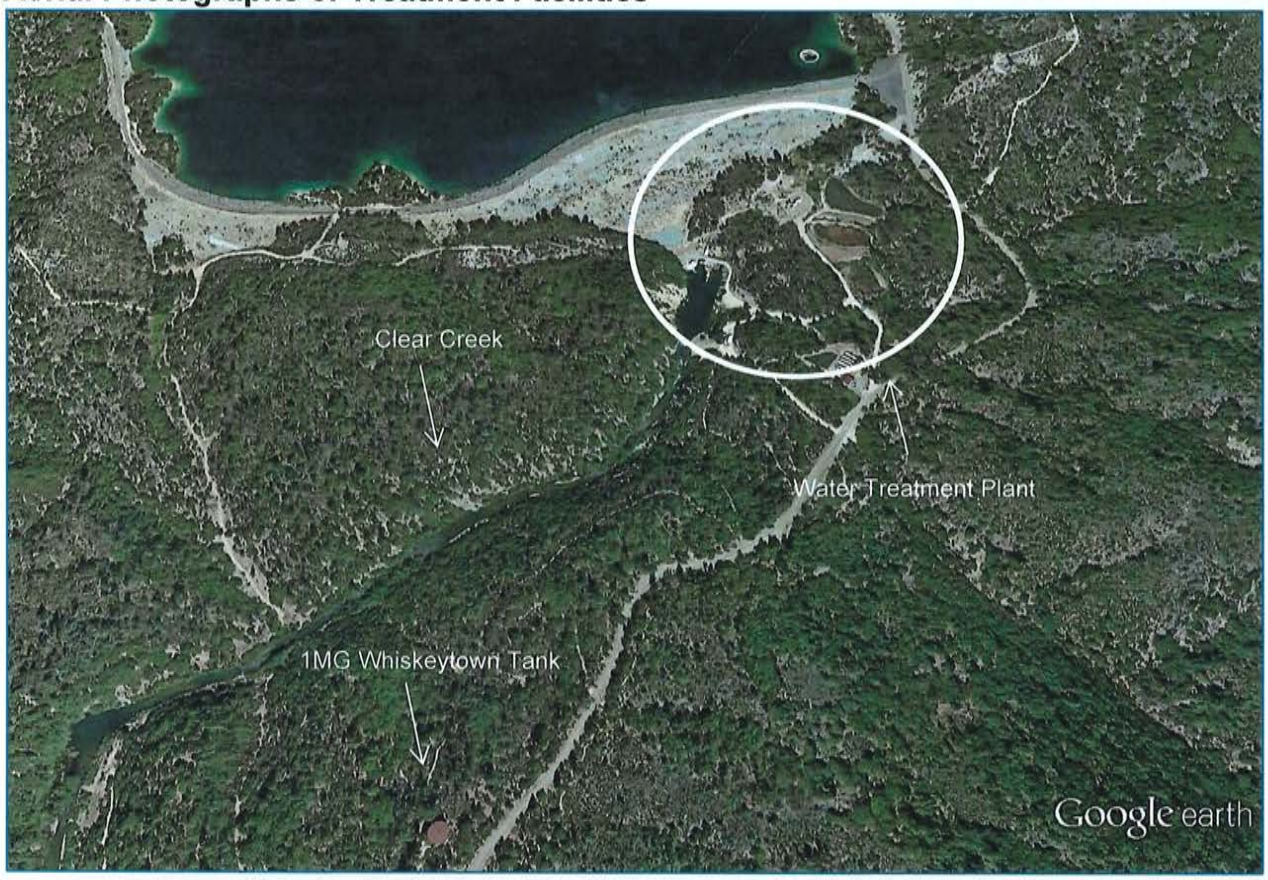
Date Noted	Description of Needed Correction	Order No.	Corrected
1/15/15	Submit a Drinking Water Source Assessment for the groundwater source (Wells Nos. 1, 2, and 3)	R	Located in file
1/15/15	Submit a demonstration that the treatment plant provides the required 1-log inactivation of *Giardia* cysts under increased flow and cold-water conditions (see CT calculations)	R	Verify once WES Camp reopens
9/20/19	Nitrate due now for surface water source,	1	Completed 10/8/19
9/20/19	Replace meter at Well 2, in for repair	R	9/21/19
9/20/19	Verify backflow device testing info reported in eAR	R	For 2019 report
9/20/19	Double check units when reporting water production quantities	R	Yes
2022	Ensure that generator turns on during power outages	2	
2022	Schedule and perform filter rehabilitation for Trains 1 (filters 1 and 2), 5 (filter 7), and 6 (filter 8)	4	
2022	Operators are concerned that the pipe velocities in the 18-inch and 24-inch pipes are too great and may result in scouring. Plans to have evaluated by an engineer	R	
2022	Chlorine injectors 200lb do not respond to SCADA, can't read rotameters. Not used unless needed	4	
2022	Replace or repair leaking backwash valves and actuators	4	
2022	Replace or repair backwash control valves leaking oil	4	
2022	Evaluate plant operations/alarms to stop unchlorinated/filtered water from leaving the treatment plant	4	

Order Number:

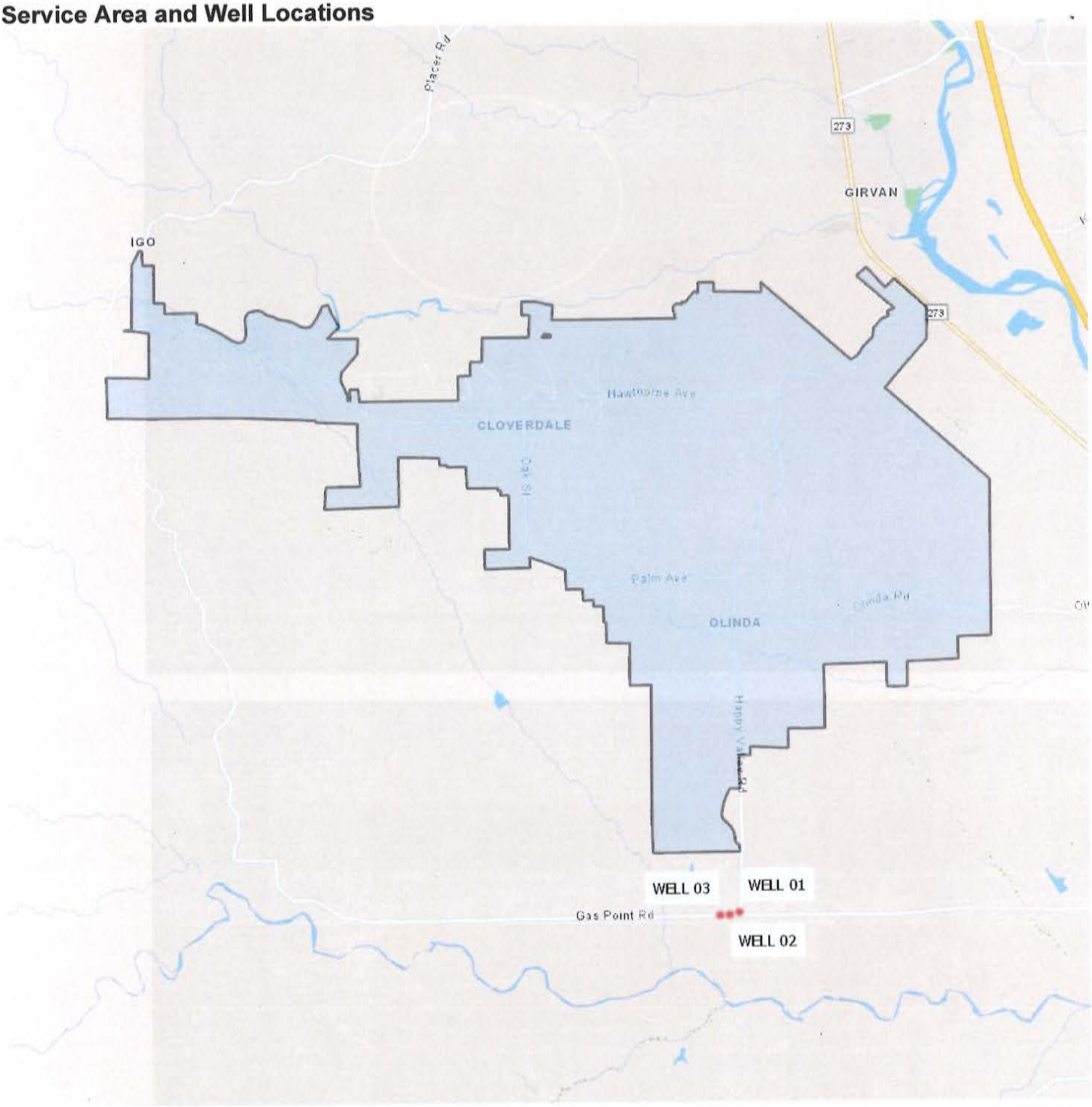
1. Correct within 30 days
2. Correct within 3 months
3. Correct within 6 months
4. Correct within a year or provide a plan with schedule for long-term project to correct.

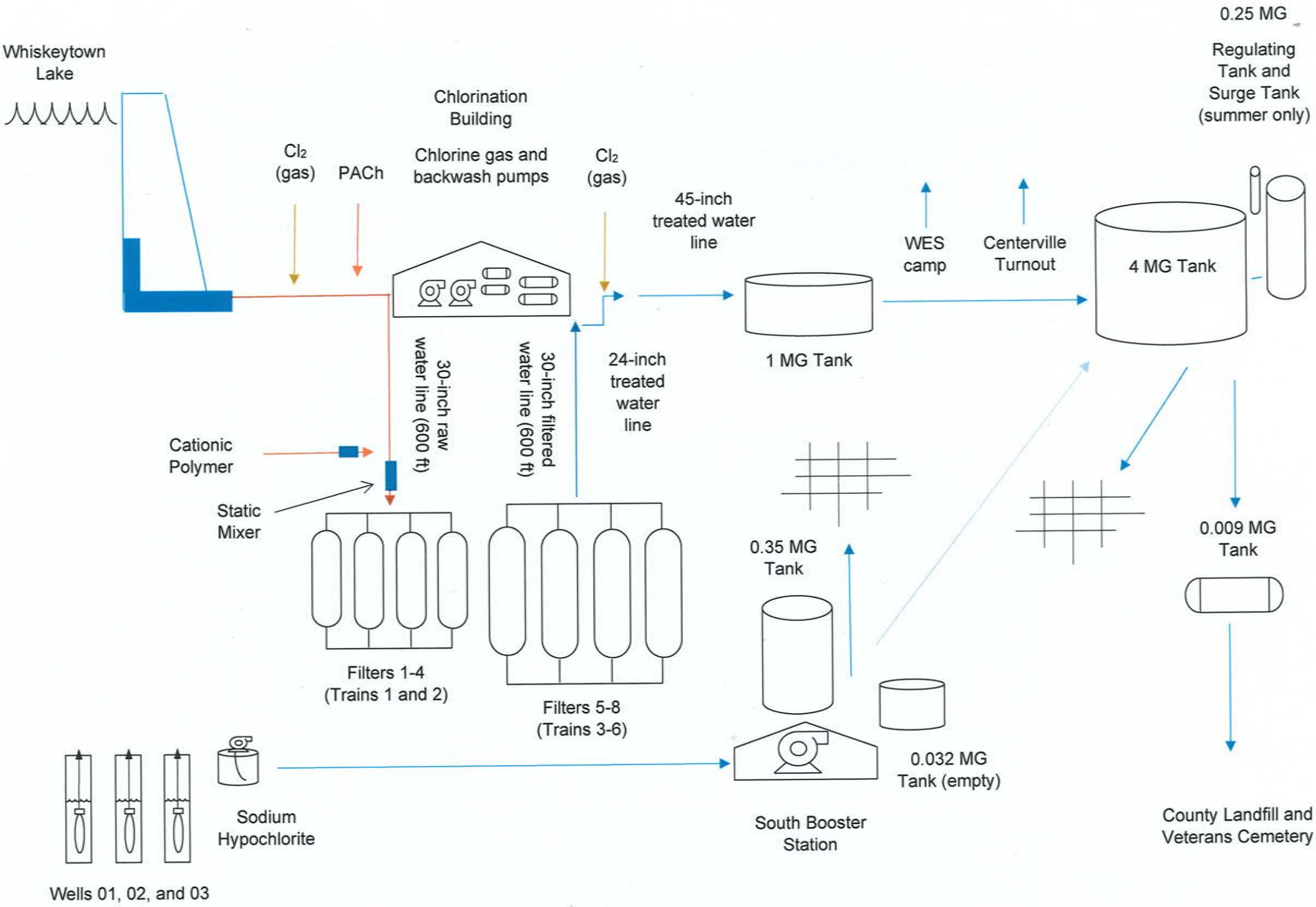
R. Reminder

Aerial Photographs of Treatment Facilities



Service Area and Well Locations




Whiskeytown Lake
Chlorination Building
Cl_2 (gas)
PACh
Chlorine gas and backwash pumps
Cl_2 (gas)
45-inch treated water line
WES camp
Centerville Turnout
0.25 MG Regulating Tank and Surge Tank (summer only)
4 MG Tank
1 MG Tank
24-inch treated water line
30-inch raw water line (600 ft)
30-inch filtered water line (600 ft)
Cationic Polymer
Static Mixer
Filters 1-4 (Trains 1 and 2)
Filters 5-8 (Trains 3-6)
0.35 MG Tank
0.009 MG Tank
0.032 MG Tank (empty)
Sodium Hypochlorite
South Booster Station
County Landfill and Veterans Cemetery
Wells 01, 02, and 03

5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

MEMO

Date: December 18th 2024

To: Board of Directors

From: General Manager – Paul Kelley

Re: **6d – Leaks and Repairs Report and Options – (**Discussion/Action)

Discussion/Action:

6.d – Leaks and Repairs Report and Options – (Discussion/Action)

In November the Board received a report from the Distribution Supervisor on all of the Distribution division activities.

There was also a discussion of the large number of emergency leak's and leak repairs. Since then there have been more leaks – including one on Thanksgiving and repaired the next day.

Since the beginning of November there have been 12 emergency repair leaks. The Board requested this item to have a discussion of the leaks and repairs and options for resolving these issues.

Some options:

- Find an estimated cost for key areas
- Include in the developing Clear Creek CSD "Major Repairs and Replacement" Spreadsheet that is similar to a CIP.
- Hold Community meetings in targeted areas.
- Keep working on the Distribution Improvement grant that was submitted to the State in 2021/22
    - Note: the State informed the district that there was no money for this grant in February of 2024. Its hoped the State Fiscal condition will improve and there will be funding in 2025
- Develop another "Line replacement" grant and submit to State Water Boards or SRF (State Revolving fund) or other funding agency.
- Develop a strategy on leak locations and increasing repair areas
- Other Funding and or replacement methods

Attached: November list of leaks/projects supplied by the Distribution Supervisor
November December List of Emergency Repair leaks (12)
List of recent leaks with impacted/effected accounts numbers

Recommendation:

Review, Discussion, Review and Provide Staff Direction

(This List from the November Board meeting - Reported by Dist. Sup. Morgan Raue

Active leaks

-5745 Monte Vista/behind TDS 16" main AC (large area shut down lack of valves that work))

-Happy Valley Road/Taffy Ln 12" main AC needs a new 4" Valve

-Canyon Dr/China Gulch/Cal Fire 6" Schedule 40

-Artic/Happy Valley Road 2" valve off a 16" main (large area shut down lack of valves that work)

-Meeks Landing 4"

Service Line leaks from ¾ "to 4"

17667 Flowers

17925 Olinda

5537 Olive

49670 Happy Valley

17077 Hawthorn

18465 Gilman

6655 Happy Valley rd

Ave 16575 Hawthorn 2"

7330 Whitehouse Rd (galvanized pipe)

17026 Dorrel (galvanized pipe)

This does not include curb stops that need to be replaced by leaking/broken or ones that do not lock for shutdowns.

Isolation Valves to Replace

16" Saddle Trail/Hawthorn

14" Palm/Monte Vista (corner)

14" Oak St./Hawthorn

14" Oak St./Scout Ave.

14" Scout AV/ Telephone Gulch

14" Olinda/Hopekay

10" Fuzzy/Krone

10" Coyote/ Linnie LN.

8" Monte Vista (dirt area)

8" Palm Ave.

6" Fuzzy Lane (in driveway)

6" Setting Sun

6" Windsor LN.

4" Clover Marie

3" Poco Ln

3" Leda Ln

3" Bunny LN.

Hydrant replacements

Hopekay Ln./Olinda Rd. 8' line (no shut off valve for hydrant, need to add valve/ valve on Olinda also does not work large area will be shut down.)

Line Repairs from November 7th - December 5th, 2024

November 7, 2024
Location: Lassen Ave.& Monte Vista Rd.
Description: Main line repair (14" AC)
Total hours: 24
Personnel: 5 people

November 8, 2024
Location: Krone Ave. & Dorvel Ln.
Description: Main line repair (4" AC)
Total hours: 6 (with vac trailer)
Personnel: 5 people

November 8,2024
Location: Lassen Ave.
Description: Service line crossing (4" PVC)
Total hours: 10 (includes 7 hours with Axner Construction)
Personnel: 5 people

November 10 ,2024
Location: Flowers Ln.
Description: Main line repair (10" AC)
Total hours: 11 (Includes 7 hours with Axner Construction)
Personnel: 2 people

November 13,2024
Location: Wendell Way/ Hawthorne Ave.
Description: Fire hydrant repair (hit by tree company)
Total hours: 8 (includes 2 hours with Davis Excavating)
Personnel: 2 people

November 18,2024
Location: Coyote Ln.
Description: Service line repair (2" x 20')
Total Hours: 7 (with vac trailer)
Personnel: 3 people

November 21, 2024
Location: 17515 Flowers Ln.
Description: Service line repair (2" PVC)
Total Hours: 6
Personnel: 3 people

November 29, 2024
Location: 17720 Flowers Ln.
Description: Main line repair (10” AC)
Total Hours: 8
Personnel: 4 people

December 3, 2024
Location: 17197 Dorvel Ln.
Description: Main line repair (6” AC)
Total Hours: 11 (includes 3 hours with Davis Excavation)
Personnel: 3 people

December 3, 2024
Location: 17591 Flowers Ln.
Description: Service line repair (2” PVC and ¾” Poly)
Total Hours: 4 (with vac trailer)
Personnel: 4 people

December 5, 2024
Location: 17590 China Gulch Dr.
Description: ¾” service line repair
Total Hours: 3
Personnel: 4 people

December 5, 2024
Location: 16335 China Gulch Dr.
Description: 2” Corp stop replacement from 8” main, 2” PVC service line replacement, ¾” Poly service line replacement
Total Hours: 5
Personnel: 4 people

Note: All repairs were emergency work.

Leak Tracker 2024

Date	Leak Address	Streets Affected	Number of Customers Affected	Notified
10/16/2024	China Gulch Dr	China Gulch Dr, China Way, Cowan Ct, Cerro Ct, Siesta Ct, Bohn Blvd, Jaydee Ln, Brehaven Ln, Quiet Dr, Richards Way	101	☑
11/8/2024	Lassen Ave	Lassen, Krone, Dorvel, Monte Vista, Happy Way, Zanita Trail, Wild Bill Way, Roy Ln, Shank Rd, Old Ranch Rd, Jerry Ln, Jujo Dr, Walu Dr, Jack Rabbit Ln, Pine St, and West side of Olinda Rd	197	☑
11/21/2024	17515 Flowers Ln	Flowers	75	☑
11/28/2024	17720 Flowers Ln	Flowers	70	☑
12/2/2024	17197 Dorvel Ln	Dorvel & Krone	29	☑
12/5/2024	16335 China Gulch Dr	Richards Way, China Gulch, Sylvan Ln and Windsory Ln	101	☑
12/5/2024	17590 China Gulch Dr	Richards Way, China Gulch, Sylvan Ln and Windsory Ln	101	☑

5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

MEMO

Date: December 18th 2024

To: Board of Directors

From: General Manager – Paul Kelley

Re: **6e – Ordinance 2024-10 Reserve Policy** (Discussion/Action)

Discussion/Action:

6.e – **Ordinance 2024-10 Reserve Policy** (Discussion/Action)

The last updated Reserve policy was from 2008. It was adopted via Ordinance 2008-11 on December 17th 2008 in response to the State's potential raid on Special District funds. (Old Ordinance Attached - Policy on Website)

This updated Reserve policy is a little more broad to include goals like better overall financial management strategy for the District and to provide a foundation for sustainable delivery of services.

Since 2008 (and 2012 revision), there is a new water rate and fee structure, and there are state loan requirements to have restricted funds.

This updated Reserve Policy has been reviewed by the Finance committee and is ready for approval.

Recommendation:

Review, Discussion, Approve Ordinance 2024-10 to adopt the Reserve Policy

CLEAR CREEK COMMUNITY SERVICES DISTRICT

ORDINANCE NO. 2024-10

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE CLEAR CREEK COMMUNITY SERVICES DISTRICT TO ADOPT THE CLEAR CREEK COMMUNITY SERVICES DISTRICT *Reserve Fund Policy*.

WHEREAS, the Clear Creek CSD is a Special District and has a constitutional authority under Article XIIIB of the State to establish such reserve funds as the Board of Directors deem "reasonable and proper"; and

WHEREAS, the Board of Directors recognizes that Reserves are developed as part of an overall financial management strategy for a District, and CCCSD is a fiscally responsible local government agency pursuing a sound reserve policy; and

WHEREAS, The Board of Directors recognizes the need to establish a Reserve Fund Policy to enable the foundation of the sustainable delivery of services; and

WHEREAS, the prudent and fiscally responsible management of the District calls for reserve funds be established and maintained to fund expenses and to reiterate the Boards authority for the use of funds.; and

WHEREAS, The Board of Directors recognizes the need to establish restricted and un-restricted reserves for specific needs – including restricted reserves for State loans that require restricted reserves for repayment; and

WHEREAS, the Board of Directors desires to provide to the District's customers the best possible service and sound fiscal management through the adoption of this updated Reserve Fund policy; and

NOW, THEREFORE, IT IS ORDERED, that the Clear Creek Community Services District does hereby adopt the Clear Creek CSD *Reserve Fund Policy* dated December 18, 2024 to replace all prior Reserve Fund Policies.

PASSED AND ADOPTED, by the Board of Directors of the Clear Creek Community Services District, this 18th day of December 2024 by the following vote:

Motion: Second:

Ayes: __ Noes: ___ Absent:___ Abstain:___

_____ Attest: _____

Terry Lincoln, Chair of the Board

Paul Kelley, General Manager
And Secretary to the Board of
Directors of the Clear Creek
Community Services District

Reserve Fund Policy

Document Type: Reserve Fund Policy
Administering Entity: General Manager, Board of Directors
Date Approved: December 18, 2024
Last Amendment Date: November 2012 (November 2008)
Approved By: Paul Kelley, General Manager, Board of Directors
Indicative Time for Review: Bi-Annually (Every Two Years)
Responsibility for Review: General Manager, Board of Directors

DISCUSSION AND INTENT OF THIS POLICY

All governments are required to report equity - assets minus liabilities - in terms of net assets.

The accumulated equity does not include net investments (funds already spent on capital assets, less outstanding debt), because net investments should not be viewed as available funds for future activities.

Clear Creek Community Service District (CCCSD) is a Special District and has a constitutional authority under Article XIIIB to establish such reserve funds as the Board of Directors deem "reasonable and proper". Reserves are developed as part of an overall financial management strategy for a district, and CCCSD is a fiscally responsible local government agency pursuing a sound reserve policy.

CCCSD is responsible for building and maintaining millions of dollars' worth of infrastructure critical to the continued long-term economic health of the CCCSD and the southern Shasta County area.

CCCSD's cash reserve accounts were established as part of the overall financial management strategy for the district.

Reserves are the foundation of the sustainable delivery of services. Through reserves the CCCSD offers customers/ratepayers and taxpayers significant benefits including:

- Savings by balancing budgets
- Stable rates
- Well maintained infrastructure
- Investment in the future
- Ready for emergency situations

CCCSD complies with accounting requirements when reporting reserves.

The intent of this policy is to:

- Establishes a comprehensive reserve policy to ensure use of the accumulated public funds cover only reasonable and necessary expenses.
- Distinguishes between restricted and unrestricted net assets. Establishes distinct purposes for all reserves held by the district.
- Establishes target levels where appropriate, i.e., minimum, and maximum amounts for the accumulation of reserves necessary for maintaining the CCCSD's credit worthiness and to minimize external borrowing and interest expense.
- Identifies events or conditions that prompt the use of each. Conforms to the CCCSD's plan to acquire or build capital assets.
- Receives Board of Directors approval in the form of an Ordinance adopting the policy.
- Requires periodic review of reserve balances and the rationale of maintaining such balances.

RESERVE POLICY

The District segments its reserves into the following categories:

- **Unrestricted General Reserves** – held to facilitate the operations of the CCCSD like working capital for cash flow requirements, operational reserves for flexibility to respond quickly to unforeseen events or emergency repairs or water quality issues.
- **Designated Restricted Funds** - held to satisfy specific purposes set by requirements of creditors, law, grantors, contributors, statutes or by internal requirements of ordinances or contracts.
- **Discretionary Reserve Funds** - not required by creditors, law, grantors, statute, etc. The purpose of establishing these funds is to ensure adequate levels of reserves or funds are designated for legitimate purposes that are critical to the success of stable short- and long-term operation of the District.

DESCRIPTION OF RESERVE POLICY

Unrestricted General Reserves – held to facilitate the operations of the CCCSD, like working capital for cash flow requirements, operational reserves for flexibility to respond quickly to unforeseen events or emergency repairs or water quality issues.

- **General Reserves** – are replenished through the District's budget process as "additions to reserves". This account is the General Fund Checking for the day to day operations and expenses of the District. The number of additions are based on the needs of the District. The Board approves the additions to reserves through the budget process and reviews annually. Funds held in General fund Checking (Asset Account 5000).

Designated Restricted Funds –held to satisfy specific purposes set by requirements of creditors, law, grantors, contributors, statutes or by internal requirements of ordinances or contracts. Detail descriptions below:

- USBR Emergency Reserve (CD)
- Filtration Plant Reserve (CD)
- Filter Plant Repayment Reserve (Yearly Loan Payment – Funded by Fee)
- Backwash Recycle Water Reserve (Yearly Loan Payments & 1 Year's Payment – Funded by Fee)
- WIIN Act Fee Repayment Reserve (Funded by Fee)
- Backwash Ponds Carr Fire Project Reserve
- Carr Fire Funds Account
- Customer Water Deposits

Detailed Description

- **USBR Emergency Reserve (CD)** –held to satisfy the requirements contained in the long-term water service contract with the Bureau of Reclamation. The minimum amount of this fund should be $35,000 as established in the contract. The current balance is held in a CD (Certificate of Deposit) Current Assets Account 7001. The triggering event for use is a declaration by the Board of Directors that an emergency situation exists on the conduit, and is likely to jeopardize health and safety standards, fish, and wildlife, etc., if immediate corrective action is not taken. The CCCSD is contractually obligated to replenish the funds if depleted within years.

- **Filter Plant Reserve (CD)** – held to satisfy the requirement by the Department of Water Resources Revolving Loan Fund. This reserve is required to equal two semi- annual payments of the DWR filter plant debt service, in the amount of $244,000. The current balance is held in a CD Asset. The triggering event for use is default on the loans on the part of CCCSD. In that instance, DWR would seize the funds to satisfy the amount due, and the district would then be contractually obligated to replenish the fund.

- **Filter Plant Repayment Reserve (Loan Payment Account)** – a separate bank account and has been established to deposit the $7.55 fee collected on the monthly water bills included in the Base Water Rate to make the semi-annual payments for the filter plant loan.

- **Backwash Recycle Project Reserve (Loan Payment)** – held to satisfy the requirement of the California State Water Resources Control Board for Publicly Owned Treatment Works (POTW) Construction Financing. Clean Water State Revolving Fund Project No. C-06-8130-110. Project Funding Agreement No. D1501028 was $933,143.00 by the State with $466,572.00 in principle to be paid back to the State and Contingent Principal Forgiveness of $466,571.00. Term of the Agreement is from March 1, 2016 to June 31, 2047. Authorized by Ordinance 2015-06 a separate bank account (Asset Account 5025) has been established to deposit the $.38 Backwash Recycle Project Fee collected on the monthly water bills included in the Base Water Rate to make payments to the Backwash Recycle Project loan. This account is restricted for the annual loan payments and to hold the required amount for one year's principle and interest payment as per loan agreement – minimum balance ($17,689.08) till end of loan agreement.

- **WIIN Act Fee Repayment Reserve 72225** –Contract No. 14-06-200-489-A-P between the U.S. Department of the Interior Bureau of Reclamation and CCCSD in the amount of $859,452 was approved by the board in December of 20220 and had a final payment due December 1, 2023. This WIIN Act payment of the District's infrastructure obligation converted its contract for 15,300AFY to a perpetual contract. The District made no payments until a credit of $207,952 was found in early 2021 and applied as a payment. After that credit/payment, the obligation was $651,500 and the District calculated the cost to customers during the Prop 218 Rate Schedule a fee of $1.88. This was based on the customers repaying this cost over a 12-year period. Monies were paid from the General Fund Checking Account in lieu of getting an outside loan to pay back this obligation – essentially borrowing from operating reserves for two fiscal years. Final payment on the $651,500 obligation was made in October of 2023 and converted the contract to a perpetual one. After the $1.88/month fee was established this reserve account was not established for a number of months and the fee was absorbed into the General Checking. This amount is $27,496.78 resulting in the final amount "borrowed" from the General Checking to be: $624,003. This Reserve fund is the $1.88 fee that is included in the Base Water Rate is designated for this reserve and is transferred annually to the General Fund Checking from WIIN Act Repayment Asset Account 5010. The repayment of the General Fund WIIN act payment loan started in FY 24 as $55,000/year reserve will stay in place until the funds are paid back in full approximately 10 years.

- **Backwash Ponds Carr Fire Project Reserve** –held to satisfy the Grant Program FEMA-4282-DR-CA and Cal OES ID: 089-91008 in the amount of $1,903,821. The 2018 CARR Fire destroyed the adjacent watershed to the CCCSD backwash recycle ponds and surface

runoff and subsurface flow has increased, which impacts the ability of the ponds to recycle backwash water. The project includes construction of an underdrain pipe network, recycle pumps, structural concrete bottom and side slopes to the ponds, pond overflow outlets and SCADA replacement. The total project had an original estimate of $3.6 Million and was updated to $6 million after design and construction bids were received. Money received through Grant Program FEMA-4282-DR-CA and Cal OES ID: 089-91008.

- **Carr Fire Account** – Asset Account 5035 includes funds received from JPIA after the Carr fire incident and used by the district for emergency repairs from the Fire. This account will need to be reconciled with JPIA, and potentially unneeded/unused funds returned.

- **Customer Water Deposits** –held in trust for customers as required by CCCSD Rules and Regulations. There is no target amount for this fund and the triggering event for use is to satisfy delinquent accounts or refund to customers under certain terms and conditions outlined in district rules and regulations. There is currently no designated account to hold these funds and they are put into the General Fund Checking Asset Account and are tracked as a Long-Term Liability 9500 on the Balance sheet.

DISCRETIONARY RESERVE FUNDS –not required by creditors, law, grantors, statute, etc. The purpose of establishing these funds is to ensure adequate levels of reserves or funds are designated for legitimate purposes that are critical to the success of stable short- and long-term operation of the District.

- State Loan Repayment Reserve (funded by Fee)
- Penalties Reserve
- Operational Reserve
- Capital Improvements and Modernization Reserve
- Emergency Fund Reserve

- **State Loan Repayment Reserve (Funded by Fee)** – a separate bank account has been established to deposit the $1.00 fee collected on the monthly water bills included in the Base Water Rate for the State Loan Repayment. This amount was established for the anticipated loan or grant for system improvements. Funds are held in Asset Account and are designated now as discretionary, for current and future grant or loan needs. In 2024, the District attained a Grant Anticipation Loan from RCAC to implement the Backwash Ponds Concrete Lining project and this fund will be used for the loan costs to implement a $6 million grant funded project.

- **Penalties Reserve** –Used for tracking purposes only during times of drought when there are penalties assessed for over usage of water. These funds are deposited into the General fund checking Asset Account**.**

- **Operational Reserve** – Currently funded monthly by 4.1% of the current water usage rate collected from customers each month and are designated for operations and held in Asset Account 5045. This reserve can also hold the "year end fund balance" for excess funds from an operational year and could be used for budgeting the next year as fund balance transfer revenue. The triggering event for use is reserve funding approval by the Board of Directors. Target: $1,000,000

- **Capital Improvements and Modernization Reserve 75200** –a capital improvement fund for infrastructure additions and improvements within the distribution system. The current balance is held in Asset Account 5030. This account is funded by transferring 1.8% of the Base Rate charges collected and transferred each month at reconciliation. to allow for future storage, line loops, etc., without concern for depletion of the fund. The triggering event for use is project funding approval by the Board of Directors. Target amount is: $1,500,000

- **Emergency Fund Reserve 75210** –held in Asset Account 5015. The triggering event for use is project funding approval by the Board of Directors for emergency situations. Target amount is: $250,000

Reserves for agency operations can help ensure customers experience stable rates and security that CCCSD can respond to short and long-term emergencies without delay made necessary by seeking out loans, grants, etc. Once emergency and operational reserves are considered, many Districts consider other reserves like rate stabilization, major repairs and replacement and equipment upgrades.

The ability to maintain adequate reserves is critical to providing reliable, stable service insuring the district's overall financial strength. Adequate reserves directly affect the district's bond rating and ability to access favorable interest rates, securing the ability to finance and/or construct infrastructure necessary to the existing system and expand facilities for future demand.

CLEAR CREEK COMMUNITY SERVICES DISTRICT

ORDINANCE 2008-11

AN ORDINANCE BY THE BOARD OF DIRECTORS OF THE CLEAR CREEK COMMUNITY SERVICES DISTRICT, HEREINAFTER REFERRED TO AS BOARD OF DIRECTORS, ADOPTING THE RESERVE FUND POLICY DATED NOVEMBER 2008.

WHEREAS, the Board of Directors has determined that in light of the negative opinion in the 2001 Little Hoover Commission regarding independent water districts reserve fund balances; the recent loss of property tax in excess of $380,000 due to a shift to the State of California and the ongoing State budget crisis; and

WHEREAS, the Board of Directors determined that the District needs to establish a comprehensive reserve policy to ensure use of the accumulated public funds cover only reasonable and necessary expenses; and

WHEREAS, the Board of Directors also wishes to distinguish the differences between restricted and unrestricted net assets; purposes for all reserves; establish target levels and minimum and maximum amounts; and

WHEREAS, the Board of Directors understands the necessity to identify triggering events and conditions that prompt the use of each fund; and,

NOW, THEREFORE, BE IT ORDAINED by the Board of Directors that the District does hereby adopt the Reserve Fund Policy dated November 2008.

BE IT FURTHER ORDAINED that the Board of Directors will also require a periodic review of reserve balances and the rationale of maintaining such balances.

PASSED AND ADOPTED THIS 17th day of December, 2008 by the following vote:

Motion: Director Fust Second: Director Ciapponi

Ayes: 5 Noes: 0 Abstain: 0 Absent: 0

Johanna Kennedy
Chairman

ATTEST:
Char Workman-Flowers, CEO/CFO, and
Secretary to the Board of Directors

5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

MEMO

Date: December 18th 2024
To: Board of Directors
From: General Manager Paul Kelley
Re: **7 –** General Manager Report

Report:
A quick activity report, more by the General Manager verbally at the meeting:

Starting the week of November 19th, 2024

- Worked on the three grant projects: - (Update on this agenda)
  - Backwash ponds –
    - Concrete pour is complete
    - Pictures submitted, Punch list is in review and testing to commence soon.
    - Still - Looking for ways to updated the website
  - Distribution System Improvement Grant – Nothing new to report, waiting for update from State on inquiry of status.
    - State had informed the District Early '24 that no money was available.
    - The District & PACE Eng have sent the State a note requesting update and next steps
  - ARPA This has been submitted to County for reimbursement and some reimbursements
    - Meter Registers and Endpoints to be worked with Badger and then installed
    - We have received the funds from the County
-
- Staff – Changes at the District
  - Is fully staffed and employees went through an ACWA/JPIA full day of training
  - ACWA/JPIA also doing a liability assessment and report on updates to IIPP
- The CUSI – new customer database software is looked at to help with meter Reading
  - The new challenge is getting CUSI to port information accurately to QuickBooks.
  - This appears to be worked out as we get closer to FY 24 Budget to Actuals completion
- The Audit RFP had responses, the Finance Committee was staffed and made a recommendation
- The Association of California Water Agencies (ACWA) and the ACWA Joint Powers Insurance Agency (JPIA) had their semi annual conference the first week of December.
  - JPIA update:
    - Liability rates have gone up 7-8% but less than last year
    - Workers comp rates holding stable
    - Cyber Security – rates ok, but increasing, more tools for Districts and warnings.
  - ACWA
    - More weather forcasting tools – and Atmospheric rivers – in panels and Exhibit hall
    - Fisheries challenges and crazy stories from Southern Ca basin
    - Technology for leaks/GIS/and pumps and energy – solar
    - Healthy Rivers update
    - USBR – CVP Family reception with State Water Project
  -
- Other/More – Verbal

5880 Oak Street, Anderson, CA 96007
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MEMO

Date: December 18th 2024

To: Board of Directors

From: Chief Plant Operator: Bill Palmaymesa & Distribution Field Supervisor: Morgan Rau
General Manager Paul Kelley & Administrative Assistant Amity Valdez

Re: **8 –** Operation Report

Administration

There were 260 Accounts that are 90+ days delinquent totaling $88,751.20
There were 238 Accounts that are 60-90 Days delinquent totaling $23, 488.98
There were 433 Accounts that are 30-60 Days delinquent totaling $44,208.23

The office staff have been collaborating with the distribution team to install new transponders and integrate them into the CUSI system. This will enable us to conduct more electronic meter reads and achieve greater accuracy in our readings. We issued thirty-seven 24-hour door hangers and only had to discontinue service for seven customers, as the remaining customers either made payments or arranged payment plans.
Our meter reading process commenced early this month due to the Christmas holiday. We are still resolving some issues with the electronic readers and our utility management system. Recently, we implemented a few updates to the CUSI system, which we believe will enhance the accuracy and timeliness of our readings and billing.
Overall, we are working together as a cohesive team, supported by a dedicated group of staff.

WTP OPERATIONS - The WTP produced 192af of SW; Clear Creek CSD used 123AF of SW in November (110AF – M&I, – 13 Ag). 2578AF total SW for WY24/25. Well Water Production- 0 af . (Palmaymesa)

- Staff has been busy with routine maintenance, monitoring, and operation of the WTP. The recent rains have caused some turbidity spikes. The WTP is producing 2MGD.
- BW Pond Repair Project: Approximately 1195 cubic yards of concrete have been poured into the pond bottom and side slopes. Pond #3 concrete liner is complete. Staff assisted the Contractors with setting up automatic pumps to keep the water out of the new pond during the recent storms. A walk through is scheduled for mid-December to develop a punch list to finalize this portion of the project.
- Staff has inspected filters #1-#4, taking advantage of the warm weather. Depressions were noted in Cell A of Filter #1.
- WTP backflow devices have been tested and all have passed.
- WTP Staff replaced the 12'' backwash control butterfly valve and electric actuator on Train#2.
- WTP Staff repaired the November 8th main line leak on Krone/Fuzzy Rd. and the November 10th Flowers Rd. main line leak.
- Train#6 (Filter#8) remains offline, and the valves locked out. This is due to the damaged media bed, sand in the underdrain system and leaking control valves.

Distribution Operations Report

Distribution Supervisor: Morgan Rau

Leak Management: From November 7th to December 5th, we experienced a significant number of emergency leaks, totaling 12. Flowers Lane was the most affected area, with four leaks. We are collaborating with new contacts at PG&E to address the sensitive infrastructure of main lines and service lines. We have provided them with detailed locations, roads, and maps to prepare for future tree falls in the area. This issue is expected to recur annually with tree-falling companies, so we are developing a long-term plan with PG&E.

Meter Reading: Our meter reading process has become much more efficient, cutting meter read time in half. Additionally, we installed over 100 new registers per meters, which have been successfully integrated into our system and billing.

Contractor Collaboration: We have engaged new contractors to obtain quotes for upcoming repairs and paving projects. We aim to complete asphalt work on Setting Sun Drive and Lassen Avenue as soon as weather conditions permit.

Organization and Maintenance: Significant efforts are underway to organize and clean our shop. We are re-purposing old dirt from leak dig-outs, which not only puts it to good use but also frees up valuable yard space.

Backflow Testing: Backflow testing has been completed, with only one failure, and the affected party has been contacted. We are also becoming more familiar with the new cross-connection laws.

Training and Development: Our team has participated in training sessions with JPIA, utilizing their training library to focus on the specific training needed.

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MEMO

Date: December 18th 2024

To: Board of Directors

From: Chief Plant Operator: Bill Palmaymesa & Distribution Field Supervisor: Morgan Rau
General Manager Paul Kelley & Administrative Assistant Amity Valdez

Re: **8 –** Operation Report – Continued – Pictures of Pond 3 Liner Project - Dec 2024

5880 Oak Street, Anderson, CA 96007
Phone: (530) 357-2121 Fax: (530) 357-3723

MEMO

Date: December 18th 2024

To: Board of Directors

From: General Manager – Paul Kelley

Re: **9 –** Standing Committee Report

Report: From members of the Committees listed:

Note:

9.a – Agriculture –

9.b – Finance – Met December 10th – item on this agenda.

9.c – Planning / Steering – First Quarter 2025