



AGENDA

Engineering and Operations Committee Meeting

Board Room
3707 Old Highway 395
Fallbrook, CA 92028

Wednesday, May 1, 2024
3:30 PM

1. **CALL TO ORDER**
2. **PLEDGE OF ALLEGIANCE**
3. **ROLL CALL:** Flint Nelson (Chair), Steve McKesson (Vice Chair), Members Robert Marnett, Dale, Gasca, and Alternate Aragon
4. **SEATING OF ALTERNATES**
5. **ADDITIONS/DELETIONS/AMENDMENTS TO THE AGENDA**
6. **APPROVAL OF THE AGENDA**
7. **PUBLIC COMMENT**

Any person may address the Committee at this time upon any subject not identified on this Agenda, but within the jurisdiction of Rainbow Municipal Water District; however, any matter that requires action will be referred to staff for a report and action at a subsequent meeting. As to matters on the Agenda, an opportunity will be given to address the Committee when the matter is considered.

Members of the public may make comments in person by submitting a Speaker Slip to the Board Secretary, virtually through virtual or teleconference options, or by submitting an email to tquintanar@rainbowmwd.ca.gov no less than one hour prior to the posted start time of the meeting. Comments shall be made in an orderly manner, and profanity, slander, or abusive language which is disruptive to the meeting will not be tolerated. Individuals have a limit of three (3) minutes to make comments and will have the opportunity when called upon by the presiding officer.
8. **APPROVAL OF MINUTES**
 - A. February 7, 2024
9. **FIVE-YEAR CIP UPDATE**
10. **PRIVATE ROAD IMPROVEMENTS INVOLVING DISTRICT FACILITIES OR EASEMENTS**
11. **INSOURCING REPAIRS OF CUSTOMER BACKFLOW DEVICES**
12. **COMMENTS & REQUESTS**
 - A. General Manager's Comments
 - B. Engineering & CIP Program Manager's Comments

- C. Operations Manager's Comments
- D. Committee Member's Comments

13. BOARD ACTION UPDATES

14. AS-NEEDED SERVICES EXPENDITURES SUMMARY

15. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT MEETING

16. ADJOURNMENT - To Wednesday, June 5, 2024

ATTEST TO POSTING:

/s/Terese Quintanar
Terese Quintanar
Secretary of the Board

4/25/2024 3:28 PM
Date and Time of Posting
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*Those who have joined by dialing a number on their telephone, can dial *9 to alert us of a request to speak, and *6 to unmute, once called upon by the presiding officer.*

In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted at the District's Administrative offices not less than 72 hours prior to the meeting date and time above. All public records relating to each agenda item, including any public records distributed less than 72 hours prior to the meeting to all, or a majority of all, of the members of District's Board, are available for public inspection in the office of the District Secretary, 3707 Old Highway 395, Fallbrook, CA 92028

If you have special needs because of a disability which makes it difficult for you to participate in the meeting or you require assistance or auxiliary aids to participate in the meeting, please contact the District Secretary, (760) 728-1178, by at least noon on the Friday preceding the meeting. The District will attempt to make arrangements to accommodate your disability.

**MINUTES
ENGINEERING AND OPERATIONS COMMITTEE MEETING
OF THE RAINBOW MUNICIPAL WATER DISTRICT
FEBRUARY 7, 2024**

1. **CALL TO ORDER** – The Engineering and Operations Committee Meeting of the Rainbow Municipal Water District on February 7, 2024, was called to order by Chairperson Nelson at 3:30 p.m. in the Board Room of the District, 3707 Old Highway 395, Fallbrook, CA 92028. Chairperson Nelson, presiding.

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL:**

Present: Member Marnett, Member McKesson, Member Nelson

Also Present: General Manager Wiley, Operations Manager Gutierrez, District Secretary Quintanar, Construction and Meters Supervisor Lagunas, Information Technology Manager Khattab, Engineering and CIP Program Manager Williams, Finance Manager/CFO Williams

Also Present Via Teleconference or Video Conference:

Director Johnson, Senior Project Manager Tamimi, Senior Project Manager Parra, Administrative Analyst Barrow, Administrative Assistant Montano

Two members of the public, Cari Dale and Mig Gasca were present via teleconference or video conference.

4. **INSTRUCTIONS TO ALLOW PUBLIC COMMENT ON AGENDA ITEMS FROM THOSE ATTENDING THIS MEETING VIA TELECONFERENCE OR VIDEO CONFERENCE**

Chairperson Nelson read the participation information aloud.

5. **SEATING OF ALTERNATES**

No alternates were seated. none

6. **ADDITIONS/DELETIONS/AMENDMENTS TO THE AGENDA (Government Code §54954.2)**

There were no amendments to the agenda.

7. PUBLIC COMMENT RELATING TO ITEMS NOT ON THE AGENDA (Limit 3 Minutes)

There were no comments.

***8. APPROVAL OF MINUTES**

A. November 1, 2023

Motion:

To approve the minutes.

Action: Approve, Moved by Member Marnett, Seconded by Member McKesson.

Vote: Motion carried by unanimous vote (summary: Ayes = 3).

Ayes: Member McKesson, Member Nelson, Member Marnett

9. GENERAL MANAGER COMMENTS

Mr. Wiley introduced the District’s Finance Manager/CFO, Rick Aragon, and reported that in December, Dupont and 3M reached a settlement agreement concerning PFAS (perfluorooctanoic acid). The settlements were based on flow rates and concentration per source, and across the industry, the settlement amount fell short of costs related to the treatment of PFAS. Many agencies are opting into the agreement for the funds. If an agency opts out, it retains its rights in the future to pursue funds for damages. We have no PFAS detected in our imported water, so RMWD opted out in December. Mr. Wiley explained what PFAS are and provided some background on the UCMR5 Mandate that requires water districts to test. The data from the testing is being published now, and the testing technology has become much more accurate. A map is available of the sources affected by PFAS and it is widespread. There are some fairly expensive treatments. The final MCLs have not been set but it’s been proposed that 4 parts per trillion (ppt) would be the level agencies would have to meet. Many agencies are taking sources offline where PFAS is detected.

He continued to report about the detachment from the San Diego County Water Authority (SDCWA). There are two main activities that now have to take place. One is the construction of two southern pump stations, which has begun. Staff is also working on an Operations Plan, as defined in the Settlement Agreement, establishing the details of the transfer of facilities and other technical details. We will have a draft of the Plan this month. There will be two aqueduct connections from the MWD pipelines. Aqueduct 1 is a little more challenging.

He announced a vacancy in Division 3 of the RMWD Board following the resignation of Mig Gasca. He explained the appointment process to date and that two of the seven interviewed candidates, Lisa Herman and Cari Dale, will attend the February 27, 2024,

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Board Meeting for the continuation of the interview process and formal Board appointment.

He also reported on plans for joint committee and Board workshops, starting in March. We will focus on the five-year Capital Improvement Program (CIP) and the Engineering and Operations and Budget and Finance Committees will both participate. Over the next few months, we'll be talking about costs, CIP needs, reserve targets, and more.

Recent storms have been good for water supply throughout the state and in Colorado. At this point, we are at about 75 percent of normal in the Sierras or 50% of the April average. The Colorado side is about 90 percent of normal and reservoirs are at above-average levels. The State Water Project allocation will likely increase. However, MWD has experienced a loss in sales revenue. Their bi-annual budget estimate includes significant rate increases of 13 percent on January 1, 2025, and an 8 percent increase in 2026.

Mr. Gasca asked what MWD's increase would be to RMWD customers, now that we have detached from the SDCWA. Mr. Wiley answered that we are uncertain of the impact, but do know it will affect the wholesale costs.

Mr. Nelson stated that we've seen a trend of declines in water consumption, asked if MWD has done all they can to reduce costs to the delivery of service, and opined that when demand is falling, supply needs to adjust. Mr. Wiley answered that there was a lot of discussion of this the last time we saw an increase. This time, it appears they have made cuts, but they charge volumetrically but their fixed costs are the challenge. MWD is in the process of reviewing its rate structure. Discussion ensued regarding the balance of revenues and supply.

10. ENGINEERING AND CIP PROGRAM MANAGER COMMENTS

Mr. Williams reported that a status update of CIP projects will be provided to the Committee shortly. Staff is currently working on a five-year plan.

11. OPERATIONS MANAGER COMMENTS

Mr. Gutierrez reported that due to the rain received last week, staff started sending sewage to Oceanside. Staff has been working long hours to man pump stations and controls of the sewer lift station, and we have experienced two water main breaks as well. There was also a tree down, temporarily impeding staff's access to a facility. Mr. Gutierrez explained general tasks performed by staff and some specific instances being handled by staff.

Mr. Nelson referenced the manhole covers the District previously invested in. Mr. Gutierrez responded that those are holding up and we also have rain pans that capture the rainwater to keep it from infiltrating manholes. He explained additional equipment and efforts to track extra flows. Once the Thoroughbred Lane Lift Station is complete, it will alleviate the issue, but the staff also have routine tasks that will continue.

Mr. Gasca asked for an update on the meter repairs. Mr. Wiley reported that there have been a few discussions lately at the Budget and Finance Committee and Board meetings,

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and staff has been active in repairs. Much of that was done last year and there are not as many problematic meters as we thought. 600 Meter registers have been replaced and more are on order. However, as we complete repairs and normal usage is returned, the policy allows the District to back bill three months for malfunctioning meters. Staff is confirming and reaching out to customers to make payment arrangements. Going forward, staff is reviewing where meter capacity is being exceeded and how to address the issue, which is complex. The goal is to be equitable to all customers. Staff plans to have a solution to present in the next couple of months. Mr. Gutierrez provided additional details about the meter issues and answered questions about the impact of recent rains on the sewer system and the status of the Thoroughbred Pump Station.

Mr. Nelson expressed satisfaction with the thought and planning to find an equitable and legal solution.

12. COMMITTEE MEMBER COMMENTS

There were no comments.

13. BOARD ACTION UPDATES

Mr. Williams reported that on January 23, 2024, the Board of Directors approved an agreement for construction management services with Valley Construction for the Pump station project, and approved a Notice of Completion and Acceptance of minor facilities constructed by customers. An update was also provided to the Board about the headquarters building and the reinvigorating of the ad hoc committee. Mr. Wiley explained that the Sheriff's department does not want to move ahead with shared facilities with the District and that we've had damages to our headquarters building and need to determine a plan for rehabilitation or construction of a new building.

14. APPOINTMENT OF CHAIRPERSON AND VICE CHAIRPERSON

Mr. Nelson and Mr. McKesson were appointed Chair and Vice Chair on February 1, 2023. Mr. Mig Gasca has relayed interest in being appointed to this Committee, and a Board Member will also be appointed.

Motion:

To maintain the existing committee assignments, of Mr. Nelson as Chair and Mr. McKesson as Vice Chair.

Action: Approve, Moved by Member McKesson, Seconded by Member Marnett.

Vote: Motion carried by unanimous vote (summary: Ayes = 3).

Ayes: Member McKesson, Member Nelson, Member Marnett

Chairman Nelson asked Rick Aragon to serve as the alternate.

Motion:

To appoint Rick Aragon as the Alternate.

Action: Moved by Member Nelson, Seconded by Member McKesson.

Vote: Motion carried by unanimous vote (summary: Ayes = 3).

Ayes: Member McKesson, Member Nelson, Member Marnett

***15. AS-NEEDED SERVICES EXPENDITURES SUMMARY**

There were no new updates.

16. CIP UPDATE PRESENTATION

Mr. Williams provided a presentation, reporting that the Fiscal Year 2023/24 approved budget summary includes \$3.2M for ten potable projects, \$5M for one wastewater project, and \$6M budgeted for one wholesale water efficiency project.

He named District-wide projects underway, and that staff is recommending a mid-year budget adjustment for the San Luis Rey Imported Return Flow project. Mr. Williams presented a map indicating project locations and provided status updates. He also provided a five-year Water, Wastewater, and Wholesale Water Efficiency CIP listing, a list of completed projects and 2023/24 ongoing projects, and an update on the Water System Monitoring Program.

Mr. Nelson asked if Hazzard Construction sought additional time for their project from RMWD and the County. Mr. Wiley confirmed that was not the case.

Mr. Williams continued to report that the Camino Del Ray Waterline Relocation Project will be County-funded. RMWD's portion of the Live Oak Road Bridge Replacement Project will be done in the next six weeks. The Magee and Huntley-Gomez Emergency Generators project is 85 percent complete, and the Electrical Panel Switches Project is 20 percent complete, with three more sites to go. Staff proposes to bundle the remaining work into one project. The Gird to West Lilac Pipeline relocation project will require additional studies. The District Headquarters emergency roof repair is 60 percent complete and staff is recommending a mid-year budget adjustment of \$150,000. Mr. Williams also reported on projects being postponed and ongoing projects, by division.

West Lilac, Rancho Amigos, and Dentro De Lonas pump station project has begun, and the contract has been incentivized for early completion. The Thoroughbred Lane Lift Station is 85 percent complete, and work is ongoing.

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The new or rehabilitated District Headquarters will be addressed by an ad hoc committee and conceptual studies and other studies will be available for the committee to reference.

The Tank Maintenance and Fall Protection is ongoing, and some security cages were added to some tanks. USG Water is performing the work.

Regarding the Morrow Tank, we've partnered with Atlas Geotech to continue monitoring and will have more data at the end of this year.

17. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT SCHEDULED ENGINEERING AND OPERATIONS COMMITTEE MEETING

The next meeting will be a joint Board Meeting in March, and the five-year Capital Improvement Projects will be discussed at that time.

18. ADJOURNMENT

The meeting was adjourned by Chairman Nelson at 5:02 p.m.

Flint Nelson, Committee Chairperson

Terese Quintanar, District Secretary

COMMITTEE INFORMATION

Item No. 9

COMMITTEE MEMBERS

May 1, 2024

SUBJECT

FIVE-YEAR CIP UPDATE

DESCRIPTION

Staff will provide an update regarding the five-year Capital Improvement Plan at the meeting.

COMMITTEE INFORMATION

Item No. 10

COMMITTEE MEMBERS

May 1, 2024

SUBJECT

DISCUSS PRIVATE ROAD IMPROVEMENTS INVOLVING DISTRICT FACILITIES OR EASEMENTS

DESCRIPTION

Staff will provide a verbal update and requests discussion at the meeting.

COMMITTEE INFORMATION

Item No. 11

COMMITTEE MEMBERS

May 1, 2024

SUBJECT

INSOURCING REPAIRS OF CUSTOMER BACKFLOW DEVICES

BACKGROUND

RMWD is responsible for annually testing all 4,933 backflows in the District to ensure compliance with State and Federal laws aimed at protecting the public drinking water supply. In particular, the California Code of Regulations, Tit. 17, § 7605, states that *“Backflow preventers shall be tested at least annually or more frequently if determined to be necessary by the health agency or water supplier. When devices are found to be defective, they shall be repaired or replaced in accordance with the provisions of this Chapter.”* In years past, RMWD struggled to meet compliance with this regulation. For example, in 2020 and years prior, the District failed to test all devices, did not consistently send out notices, and, therefore, could not lock off services for customer non-compliance. Since then, RMWD has made significant improvements to its backflow testing program.

- In 2021, RMWD contracted backflow testing services to ensure all devices were tested within the calendar year.
- In 2022, RMWD eliminated contracted testing services and successfully tested all backflows with District staff. Note: eliminating contracted services saves the District and it’s ratepayers over \$100K annually.
- In 2022, RMWD began sending failure notifications and, if after multiple attempts to gain compliance from affected customers, locking off of water service for non-compliance.

RMWD now has a successful backflow testing program that meets the annual needs consistently. Backflow testing is performed by the Cross-Connection Control and Backflow Technician as well as Meters department staff. A repair notice is sent to the owner if a backflow fails its annual test. Additional notifications are mailed to unresponsive customers. If there is no cooperation from the customer, the lock-off procedure is initiated. This entire process is performed and overseen in-house.

Backflows prevent pollutants and contaminants from entering the public drinking water supply. RMWD provides annual backflow testing services to its ratepayers at a minimal cost of \$4.81 per month (\$57.72 annually) for backflows up to 2 inches in size. Larger backflows, 3-inch and greater, cost \$8.14 monthly (\$97.68 annually). Per District Standards, backflows are to be installed immediately after the meter on the customer’s side and is owned by the ratepayer. Therefore, the ratepayer is responsible for backflow maintenance, including repairing and retesting failed devices to ensure compliance. The Board of Directors requested RMWD staff examine the feasibility of insourcing backflow repairs when needed. Staff began collecting and analyzing data, which details staff’s research and findings documented in this staff report.

DESCRIPTION

Purpose of a Cross-Connection Control (CCC) Program

A cross-connection connects a public water system where a contaminant or pollutant can be present. Contamination of the potable drinking water system can occur when back-pressure, backflow, or back-

siphonage emerges, thus enabling contaminants or pollutants to reverse flow and enter the public water supply. A backflow device prevents backflow and protects the public and water distribution system.

The California Code of Regulations (CCR) and the Environmental Protection Agency (EPA) require public water systems to safeguard their water supplies by implementing a cross-connection control (CCC) program. The scope of a comprehensive CCC program includes provisions for protecting the drinking water supply by pinpointing connections where hazards can be present and determining their degree of risk. The CCC program enforces an appropriate backflow prevention assembly at these locations. The CCC Technician administers the program and confirms backflows are functioning appropriately to protect the public and the water system.

Analysis of Insourcing Backflow Repairs

Per the current RMWD Administrative Code, RMWD staff tests all backflows in the District, yet repairs are the customer's responsibility. Staff researched and analyzed the feasibility of insourcing backflow repairs by forecasting the anticipated backflow failure rate. In 2022, there were 856 failed backflows out of 4,933, which equates to a 17% failure rate. In 2023, there were 733 failures out of 4,933, which is a 15% failure rate. Therefore, a 15% failure rate is used for the anticipated failures. RMWD staff also estimated the costs for parts to rebuild failed backflows. A worst-case repair scenario could justify replacing the entire backflow if it is unrepairable, and that is taken into account. Lastly, the team studied the labor for backflow repairs and how it could affect staffing.

Anticipated Parts Costs

RMWD's backflows consist of Reduced Pressure Principle Backflow Prevention Assemblies (RP). Anticipated Parts Costs are calculated by the system's number of make and model RP backflows. For example, there are approximately 3,200 Wilkins 975XL2 backflows in RMWD's system. Using the 15% failure rate:

(3,200 Wilkins Backflows) (15% failure rate) = 480 forecasted Wilkins annual failures
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We anticipate 544 failures from this specific make and model (Wilkins 975XL2). The cost for parts to repair or replace a backflow varies depending on the size, manufacturer, and failure problem. Most repairs can be accomplished via a rebuild kit. There can be scenarios where a backflow is unrepairable and would require replacement, but those are rare circumstances. If RMWD insourced backflow repairs, inventory of parts, rebuild kits, and backflows will need to be stocked. Below is a breakdown of the forecasted annual inventory and the costs depending on size, make, and model.

Wilkins 975XL2

(3,200 Wilkins 975XL2) (15% failure rate) = 480 forecasted Wilkins 975XL2 annual failures
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Part Description	Model Number	Cost	Inventory #	Total Cost
Rubber Repair Kit (.75 – 1 inch)	RK34-975XLR	\$47.15	x150	\$7072.50
Rubber Repair Kit (1.5 – 2 inch)	RK114-975XLR	\$77.20	x150	\$11,580
Complete Repair Kit (.75 – 1 inch)	RK34-975XLC	\$115.00	x20	\$2,300
Complete Repair Kit (1.5 – 2 inch)	RK114-975XLC	\$175.00	x20	\$3,500
Check Seat (.75 – 1 inch)	952-18S	\$12.30	x50	\$615
Check Seat (1.5 – 2 inch)	954-18S	\$20.80	x50	\$1,040
.75-inch Wilkins Backflow	975XL2	\$537	x10	\$5,370
1-inch Wilkins Backflow	975XL2	\$567	x10	\$5670
1.5-inch Wilkins Backflow	975XL2	\$1,050	x10	\$10,500
2-inch Wilkins Backflow	975XL2	\$1,170	x10	\$11,700
			480 repairs/replace	Total = \$59,347.50

*Note: If any failed backflow is unrepairable, it is assumed to be replaced with a Wilkins 975XL2 for this analysis.

Febco 825Y

(900 Febco 825Y) (15% failure rate) = **135** forecasted Febco 825Y annual failures

Part Description	Model Number	Cost	Inventory #	Total Cost
Rubber Repair Kit (.75 – 1 inch)	905111	\$51.10	x30	\$1,533
Rubber Repair Kit (1.5 – 2 inch)	905112	\$103	x30	\$3,090
Check Stem Assembly (.75 – 1 inch)	905044	\$63.40	x10	\$634
Check Stem Assembly (1.5 – 2 inch)	905055	\$94.50	x5	\$472.50
Complete Repair Kit (.75 – 1 inch)	825Y	\$376	x3	\$1,128
Complete Repair Kit (1.5 – 2 inch)	825Y	\$576	x3	\$1,728
			81 repairs	Total \$8,585.50

Watts 009M2

(600 Watts 009M2) (25% failure rate) = **150** forecasted Watts 009M2 annual failures

*Note: a 25% failure rate is used for the Watts backflow because it frequently fails.

Part Description	Model Number	Cost	Inventory #	Total Cost
Rubber Repair Kit (.75 – 1 inch)		\$81.60	x30	\$2,448
Rubber Repair Kit 1.5-inch		\$126	x20	\$2,520
Rubber Repair Kit 2-inch		\$128	x20	\$2,560
Complete Repair Kit .75-inch		\$161	x2	\$322
Complete Repair Kit 1-inch		\$248	x3	\$744
Complete Repair Kit 1.5-inch		\$396	x2	\$792
Complete Repair Kit 2-inch		\$481	x2	\$962
			79 repairs	Total \$12,078

Summary of Anticipated Parts Costs

- Forecasted Failures based on 2022 data = 856 failures
- Forecasted Failures based on 2023 data = 733 failures
- Failure rate based on 2022 data = 856 fails / 4,933 backflows = 17% failure rate
- Failure rate based on 2023 data = 733 fails / 4,933 backflows = 15% failure rate
- Inventory stocked = (600 rebuild kits or parts) + (40 backflows) = 640 repairs/replace
- Total estimated parts cost for yearly inventory = \$80,011 (does not include taxes)
- We forecast \$80,011 needed to stock inventory for repairs up to 2 inches in size.

Note: we do not stock inventory for 856 (17%) or 733 (15%) failures, as some backflows may be repaired by flushing and cleaning the device. Therefore, this study predicts 640 rebuild kits, parts, and backflows needed to insource backflow repairs.

The tables above illustrate the forecasted parts needed and the costs for inventory to insource repairs for backflows 2-inch and smaller. Keep in mind that prices for parts for a 2-inch backflow are significantly higher when compared to smaller parts. For example, a rubber repair kit for a 1-inch Febco costs \$51.10, compared to the same rubber repair kit for a 1.5-inch Febco, which costs \$103. Therefore, costs for backflow repair services should escalate accordingly to size. A further cost-of-service study is needed to determine the potential cost-of-service for RMWD backflow repairs based on size.

The data above does not include 3-inch or larger backflows, as that forecast is much more difficult to predict. The repair kits and whole units are much more expensive. For example, a 3-inch Wilkins RP is \$3,500, and a 6-inch is over \$6,000. There are 85 backflows between 3 inches and 10 inches in RMWD.

Service Calls and Training

Per the current Administrative Code, all backflow maintenance and repairs are the responsibility of the ratepayer or owner. If RMWD were to assume responsibility for backflows, staff would be required to respond and repair all backflows, including leaky relief valves and after-hour scenarios. The Cross-Connection Control and Backflow Technician is the only person in the District trained in “backflow repairs.” Meters personnel are certified “backflow testers” but are not trained in repairing backflows. There is an array of RMWD personnel who assume after-hours Water Standby that could be subject to responding to backflow repair situations. Therefore, extensive backflow repair training is a requirement for insourcing backflow repairs. Any employee subject to Standby duty must be trained in “backflow repairs.” A person does not need to be certified in backflow testing to repair a backflow; however, only a certified backflow tester can approve a device. Thus, in an after-hours scenario, a backflow tester (Meters Department personnel) would need to make an additional trip out the next business day to test and certify the device repaired.

District and Customer’s Responsibility

Insourcing backflow repairs could create confusion about where the divide is for the Customer and District sides and who is responsible. As it stands today, the divide is at the meter. Anything after the meter is the customer’s responsibility. District staff anticipates that insourcing repairs would potentially extend the divide point, and RMWD could then be liable for the customer’s plumbing after the meter and up to the backflow. For example, the meters in the River Village Shopping Center are in the sidewalk. Still, the backflows are 10-20 feet away from the meter and up against the buildings to prevent tripping hazards in the middle of the sidewalk. Insourcing backflow repairs could move the dividing point to the backflow. RMWD could be responsible for the customer’s plumbing between the meter and the backflow (see attached District Standard Drawing W-1). Additionally, RMWD could be liable for maintaining and repairing broken isolation valves and pressure regulators associated with the backflow device.

Theft, Vandalism, or Accident

Concerns about insourcing backflow repairs are theft, vandalism, and accidents. RMWD and neighboring agencies have been prone to backflow theft, where the thief cuts the backflow out of the ground for scrap metal recycling, leaving the customer without water and a geyser shooting up in the air. RMWD would be liable for replacing stolen backflows in these scenarios. In addition, RMWD would be responsible for damaged backflows that arise from vandalism or vehicle accidents. FPUD, our neighboring agency, assumes responsibility for the before-mentioned scenarios and has shared the struggles due to theft, vandalism, and accidents, especially during midnight and early morning hours. RMWD could inherit a similar responsibility by insourcing backflow repairs.

Backflow Ownership Transition

If RMWD inherits responsibility for backflow maintenance, customers who recently had their backflows repaired or replaced could express frustration. Imagine a customer who recently invested in repairing or replacing their device, and now RMWD is taking ownership and potentially raising their rate to include backflow repair services. Insourcing backflow repairs would benefit non-compliant customers and would negatively affect cooperative customers.

Staffing

RMWD now has a successful backflow testing program. Taking on backflow repair services could overwhelm the CCC program. Additional staff would be required to insource backflow repairs to address the approximate 15% failure rate. A minimum of one full-time meter services technician with backflow experience would need to be added to the team. The full burden rate for a Utility I in Meters is \$239,844 annually. In addition, a new truck would be necessary for the new team member. Ideally, the new truck needs a lifting crane to repair larger backflows. The cost for a truck of this magnitude is \$100,000.

One advantage to insourcing backflow repairs is fewer administrative duties for the CCC program due to the elimination of notices being sent to customers with failed devices, although water shutdown notices may be needed for more extensive repairs.

All or None

If the Board supports insourcing backflow repairs, staff request an “all or none” approach. The team presumes insourcing backflow repairs and replacements to be a fixed fee based on backflow size. Creating an opt-in or out backflow repair program would be difficult to administer, in particular with RMWD personnel in the field responsible for repairs. Additionally, it could lead to billing discrepancies. Insourcing backflow repairs would raise monthly fixed rate charges for all customers with backflow devices

The cost for insourcing backflow repairs is \$319,855 annually. This does not include the approximately \$100,000 needed to purchase and outfit a new truck, nor does it include costs associated with training, overtime, fuel, uniforms, PPE, and backflow theft, vandalism, and accidents.

POLICY/STRATEGIC PLAN KEY FOCUS AREAS

- Strategic Focus Area Two: Asset Management
- Strategic Focus Area Four: Fiscal Responsibility
- Strategic Focus Area Five: Customer Service

ENVIRONMENTAL

In accordance with CEQA guidelines Section 15378, the action before the Board does not constitute a “project” as defined by CEQA, and further environmental review is not required at this time.



Robert Gutierrez
Operations Manager

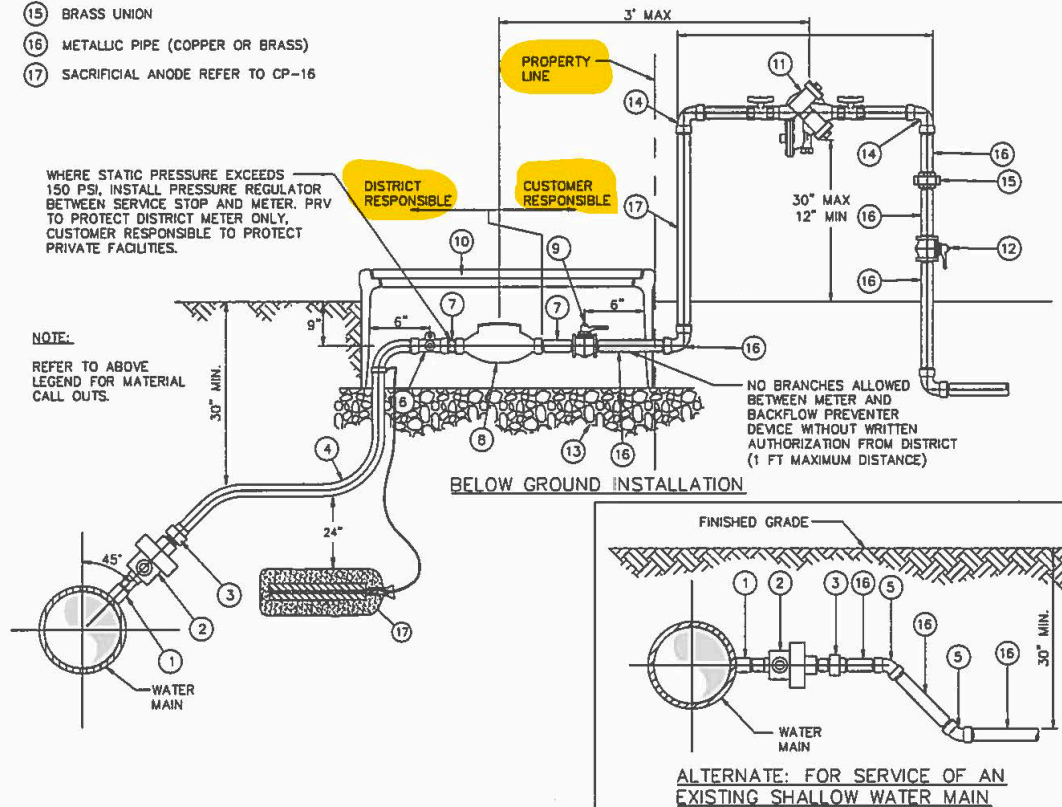
1/22/2024

MATERIAL LIST

- ① FORGED STEEL HALF-COUPLING, THREADED, CLASS 3000 WELDED TO PIPE PER W-5. (CML&C PIPE) OR DOUBLE STRAP, STAINLESS STEEL, TAPPING COLLAR (PVC OR DUCTILE IRON)
- ② BRASS CORP STOP
- ③ BRASS MALE/COPPER ADAPTER
- ④ TYPE "K" COPPER TUBING
- ⑤ 45° COPPER ELL
- ⑥ BRASS SERVICE STOP, B-11 W INSTALLED FOR LEFT HAND OPERATION PER RMWD SPEC. 15057 2.03
- ⑦ BRASS METER TAILS WITH GASKETS
- ⑧ WATER METER SUPPLIED BY DISTRICT
- ⑨ BRASS BALL VALVE
- ⑩ HDPE PLASTIC METER BOX AND COVER, FOR 1" USE 20"X26" BOX (BLACK) FOR 1.5" & 2" USE 26"X39" BOX (BLACK), FOR DOUBLE CHECK USE 2 METER BOXES OR ONE LARGE
- ⑪ STATE APPROVED REDUCED PRESSURE BACKFLOW PREVENTION DEVICE
- ⑫ BRONZE BALL VALVE, CLASS 125.
- ⑬ 6" BASE OF 3/4" ROCK
- ⑭ 90° METALLIC ELBOW (COPPER OR BRASS)
- ⑮ BRASS UNION
- ⑯ METALLIC PIPE (COPPER OR BRASS)
- ⑰ SACRIFICIAL ANODE REFER TO CP-16

TYPICAL CONSTRUCTION NOTES:

1. USE SILVER SOLDER FOR COPPER PIPE JOINTS.
2. MORTAR COUPLING AND MALE THREADS OF CORP STOP AFTER CONNECTING TO A MORTAR - COATED STEEL PIPE.
3. APPLY BITUMASTIC COMPOUND TO COUPLING AND MALE THREADS OF CORP STOP AFTER CONNECTING TO A TAR / WRAPPED STEEL PIPE.
4. PIPE THREADS SHALL BE CLEAN, SHARP, AND WRAPPED WITH A PIPE THREAD SEAL TAPE.
5. WHERE METER BOX IS LOCATED IN CONCRETE OR ASPHALT TRAFFIC AREAS, CONTACT DISTRICT FOR AN APPROVED CONCRETE METER BOX.
6. ON 1-1/2" & 2" METERS (WHICH ARE FLANGED), PROVIDE THREADED COMPANION FLANGES, 150-LB.
7. ALL BRASS FITTINGS TO BE DOMESTIC PRODUCTS.
8. WRAP BURIED COPPER WITH 10 MIL CALPICO TAPE OR POLYETHYLENE ENCASEMENT.
9. METER TO BACKFLOW - ANY DISTANCE GREATER THAN 3' NEEDS APPROVAL FROM ENGINEER
10. AS APPROVED BY DISTRICT, DOUBLE CHECK TO BE INSTALLED BELLOW GRADE IN METER BOX.



RAINBOW MUNICIPAL WATER DISTRICT

APPROVED: *Shay Stewart*

RCE # 79790 EXP.09/30/2016

REVISION	APPROVED	DATE

**TYPICAL 1" TO 2"
WATER SERVICE INSTALLATION**

STANDARD DRAWING NO.

W-1

JULY 2016

**AS-NEEDED CONTRACT EXPENDITURES REPORT
APRIL 2024**

CONTRACT INFO	FUND SOURCE	ASSIGN. NO.	STATUS	DATED	DESCRIPTION	CONTRACT AMOUNT	AUTHORIZED ASSIGNMENT	INVOICED TO DATE	
Title: On-Call Civil Engineering Services, PSA #22-25 Firm: Ardurra Expires: 11/2/25 CCO:									
CONTRACT AMOUNT:						\$ 150,000			
		2023-__							
					Unspecified		\$ 150,000.00	\$ -	
						TOTALS:	\$ 150,000	\$ 150,000.00	\$ -
Title: On-Call Civil Engineering Services, PSA #22-26 Firm: Dexter Wilson Eng. Expires: 11/2/22 CCO:									
CONTRACT AMOUNT:						\$ 150,000.00			
		2023-__							
					Unspecified		\$ 150,000.00		
						TOTALS:	\$ 150,000	\$ 150,000.00	\$ -
Title: On-Call Civil Engineering Services, PSA #22-27 Firm: Harris & Assoc. Expires: 11/2/25 CCO:									
CONTRACT AMOUNT:						\$ 150,000			
		2023-__							
					Unspecified		\$ 150,000.00		
						TOTALS:	\$ 150,000	\$ 150,000.00	\$ -
Title: On-Call Civil Engineering Services, PSA #22-28 Firm: Water Works Engineers Expires: 11/2/25 CCO:									
CONTRACT AMOUNT:						\$ 150,000			
		2023-__							
					Unspecified		\$ 150,000.00	\$ -	
						TOTALS:	\$ 150,000	\$ 150,000.00	\$ -
Title: On-Call Real Estate Services, PSA #22-29 Firm: Anderson & Brabant Expires: 11/3/25 CCO:									
CONTRACT AMOUNT:						\$ 50,000			
		2023-__							
					Unspecified		\$ 50,000.00	\$ -	
						TOTALS:	\$ 50,000	\$ 50,000.00	\$ -

**AS-NEEDED CONTRACT EXPENDITURES REPORT
APRIL 2024**

CONTRACT INFO	FUND SOURCE	ASSIGN. NO.	STATUS	DATED	DESCRIPTION	CONTRACT AMOUNT	AUTHORIZED ASSIGNMENT	INVOICED TO DATE
Title: On-Call Real Estate Services, PSA #22-30 Firm: Epic Land Solutions Expires: 11/3/25 CCO:								
CONTRACT AMOUNT:						\$ 50,000		
	Non CIP	2023-01	Closed	2/13/23	Bonsall Reservoir - Appraisal for Rental & Sale of Property. Beck Reservoir - Apparials for Sale of Property.		\$ 7,000.00	\$ 7,000.00
					Unspecified		\$ 43,000.00	\$ -
TOTALS:						\$ 50,000	\$ 50,000.00	\$ 7,000.00
Title: On-Call Land Surveying Services, PSA #22-33 Firm: GIS Surveyors, Inc. (GSI) Expires: 1/3/2026 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
	Non-CIP	2024-01	Open	3/28/24	Bonsall Reservoir Staking		\$ 4,840.00	
					Unspecified		\$ 95,160.00	\$ -
TOTALS:						\$ 100,000	\$ 100,000.00	\$ -
Title: On-Call Land Surveying Services, PSA #22-34 Firm: KDM Meridian Expires: 1/3/2026 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
	CIP	2023-01	Open	2/9/23	Live Oak Park Bridge - Staking of 8" and 16" Water main.		\$ 7,480.00	\$ 4,923.00
	Non-CIP	2024-02	Open	2/9/24	Kendall Farms Staking		\$ 10,000.00	\$ 10,000.00
					Unspecified		\$ 82,520.00	\$ -
TOTALS:						\$ 100,000	\$ 100,000.00	\$ 4,923.00
Title: On-Call Land Surveying Services, PSA #22-35 Firm: Right-of-Way Eng. Expires: 1/3/2026 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
	Non-CIP	2023-01	Closed	2/1/23	Genista Place - Staking of existing utility easements.		\$ 2,860.00	\$ 2,450.00
	Non-CIP	2023-02	Closed	2/6/23	Via Monserate/Ramona - Staking of existing utility easements.		\$ 7,500.00	\$ 2,692.34
	Non-CIP	2023-03	Closed	2/28/23	Via Mariposa - Staking of existing easment.		\$ 2,970.00	\$ 2,545.00
	Non-CIP	2023-04	Closed	8/9/23	Maravilla Lane - Staking of existing pipeline.		\$ 6,750.00	\$ 5,908.70
					Unspecified		\$ 79,920.00	\$ -
TOTALS:						\$ 100,000	\$ 100,000.00	\$ 13,596.04
Title: On-Call Geotechnical Services, PSA #22-36 Firm: Atlas Tech Consultants Expires: 1/6/2026 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
	Non-CIP	2023-01	Open	2/21/24	Morro Tank Movement		\$ 42,550.00	
					Unspecified		\$ 100,000.00	\$ -
TOTALS:						\$ 100,000	\$ 142,550.00	\$ -

**AS-NEEDED CONTRACT EXPENDITURES REPORT
APRIL 2024**

CONTRACT INFO	FUND SOURCE	ASSIGN. NO.	STATUS	DATED	DESCRIPTION	CONTRACT AMOUNT	AUTHORIZED ASSIGNMENT	INVOICED TO DATE
Title: On-Call Geotechnical Services, PSA #22-37 Firm: Leighton Consultants Expires: 1/6/2026 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
	600013	2024-01	Open	2/26/24	West Lilac, Rancho Amigos, & Dentro Pump Stations		\$ 84,177.00	
					Unspecified		\$ 15,823.00	\$ -
TOTALS:						\$ 100,000	\$ 100,000.00	\$ -
Title: On-Call Geotechnical Services, PSA #22-38 Firm: Ninyo & Moore Expires: 1/6/2026 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
	CIP	2023-01	Closed	4/4/23	Sumac Communication Tower Photovoltaic & Battery System -		\$ 9,732.00	\$ 562.50
					Unspecified		\$ 90,268.00	\$ 562.50
TOTALS:						\$ 100,000	\$ 90,268.00	\$ 562.50
Title: On-Call Construction Management & Insp. Services, PSA #23-04 Firm: Acrostic Expires: 5/23/26 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
	CIP	2024-01	Open	3/22/24	District wide Construction Management Services		\$ 100,000.00	
					Unspecified		\$ -	\$ -
							\$ 100,000.00	
Title: On-Call Construction Management & Insp. Services, PSA #23-05 Firm: Ardurra Expires: 5/23/26 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
					Unspecified		\$ 100,000.00	\$ -
TOTALS:						\$ 100,000	\$ 100,000.00	\$ -

**AS-NEEDED CONTRACT EXPENDITURES REPORT
APRIL 2024**

CONTRACT INFO	FUND SOURCE	ASSIGN. NO.	STATUS	DATED	DESCRIPTION	CONTRACT AMOUNT	AUTHORIZED ASSIGNMENT	INVOICED TO DATE
Title: On-Call Construction Management & Insp. Services, PSA #23-06 Firm: Valley CM Expires: 5/23/26 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
	Non-CIP	2023-01	Open	8/2/23	District staff support with coordination & logistics in finalizing the Standard Specifications and Drawings.		\$ 18,500.00	\$ 5,550.00
	Both	2023-02	Open	8/4/23	Inspection support services on various District projects.		\$ 51,993.00	\$ 1,908.00
					Unspecified		\$ 29,507.00	\$ -
					TOTALS:	\$ 100,000	\$ 70,493.00	\$ 7,458.00
Title: On-Call Environmental Services, PSA #23-07 Firm: Helix Expires: 5/23/26 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
	Non-CIP	2023-01	Closed	8/4/23	Nesting bird surveys for upcoming tree trimming at District headquarters.		\$ 2,025.00	\$ 652.50
	600013	2023-02	Open	8/17/23	Environmental compliance support for the West Lilac, Rancho Amigas, & Dentro de Lomas Pump Station project.		\$ 6,240.00	\$ 5,880.00
	530001	2023-03	Open	10/24/23	LS-1 Replacement environmental compliance support services		\$ 43,711.00	\$ 18,083.97
	600013	2024-04	Open	1/12/24	Pump Stations Bird Surveys		\$ 3,200.00	\$ 3,151.30
	Non-CIP	2024-05	Open	3/19/24	Bird Nesting Surveys Canonita Tank & HQ B-Plant		\$ 2,025.00	
	Non-CIP	2024-06	Open	4/18/24	Environmental Beck Reservoir		\$ 4,262.00	
					Unspecified		\$ 61,463.00	\$ -
					TOTALS:	\$ 100,000	\$ 38,537.00	\$ 27,767.77
Title: On-Call Environmental Services, PSA #23-08 Firm: RECON Expires: 5/23/26 CCO:								
CONTRACT AMOUNT:						\$ 100,000		
		2024-			Unspecified		\$ 100,000.00	\$ -
					TOTALS:	\$ 100,000	\$ 100,000.00	\$ -