RAMONA MUNICIPAL WATER DISTRICT

Regular Meeting of the Board of Directors
Ramona Community Center
434 Aqua Lane, Ramona, CA 92065
Tuesday, February 14, 2023
Closed Session: 5:00 P.M.
Open Session: 6:00 P.M.

To join this meeting virtually:
https://zoom.us/j/92350802274?pwd=bElPUUMxYWw3dU5ZR0E3WjExWlpwQT09
Or by phone: 1 669 900 9128
Meeting ID: 923 5080 2274 & Meeting Passcode: 921239

AGENDA

Opening of Meeting- 5:00 P.M.

Call to Order

Roll Call Attendance

Opportunity for Members of the Public to Address the Board Regarding Closed Session Agenda Items

G. Closed Session – NOT OPEN TO THE PUBLIC

G.1. Conference with Legal Counsel - Existing Litigation
Pursuant to Government Code section 54956.9(d)(1)-(1 case) Plantier, et al. v. Ramona Municipal Water District (Case No. 37-2014-00083195-CU-BT-CTL/D069798/S243360)

PUBLIC SESSION- TIME CERTAIN: 6:00 P.M.

A.1. Call to Order, Report Out of Closed Session (if any), and Pledge of Allegiance

A.2. Consideration of Non-Agenda Items Which Arose Subsequent to the Posting of the Agenda

A.3. Adoption of Agenda for Meeting of February 14, 2023

A.4. Opportunity for Members of the Public to Address the Board on any Subject within its Jurisdiction but not on the Agenda

A.5. Announcements and/or Informational Reports from Board and/or Staff

A.5.a. General Manager's Report with Staff Activity Report

A.5.a.-1. General Manager Activity/Informational Report and Staff Report - January 2023

A.5.b. Committee Reports

A.5.b.-1. Ad Hoc Reports

A.5.b.-2. Liaison Reports

Ramona Unified School District Board
Ramona Community Planning Group
Ramona Design and Review Committee
San Diego Country Estates Association Board
Ramona Chamber of Commerce
Leadership Council
San Diego County Water Authority

B. Ministerial Items

B.1. Consent Calendar

(All matters on the consent calendar are to be approved by one motion unless a Board Member requests separate action on a specific item)

B.1.a. Adoption of the Regular Board Meeting Minutes for January 10, 2023 — General Manager

Recommendation: To adopt the Minutes for January 10, 2023.

B.1.b. Acceptance of Monthly Financial Reports – December 2022 — Finance

Recommendation: No staff recommendation.

C. Public Hearing/Bid Openings

(This space on the agenda is reserved in the event there is a public hearing or bid opening)

D. Agenda Items which Anticipate Possible Input from Members of the Public

(This space on the agenda is reserved in the event a member of the public is scheduled to address the Board)

E. Agenda Items which Anticipate Possible Input from Other Agencies/Consultants

(This space on the agenda is reserved in the event another agency/consultant is scheduled to address the Board)

F. Agenda Items which Anticipate Possible Input from Staff

F.1. Discussion and Direction On Capacity Fee Charges for Accessory Dwelling Units When There is Not an Existing Residence — General Manager

Recommendation: Staff respectfully requests that the Board discuss and provide direction to Staff accordingly to take no action or to propose a Legislative Code amendment for Board consideration at a future board meeting.

F.2. Discussion and Possible Action to Accept the Updated February 2023 Water Facilities Plan — Engineering

Recommendation: District staff respectfully recommends that the Board accept the updated February 2023 Water System Infrastructure Facilities Plan.

G. Closed Session (items continued from above if not completed prior to open session)– NOT OPEN TO THE PUBLIC (see above for listed items)

H. Remaining Agenda Items & Report Out of Closed Session (If Any)

H.1. Directors' Reports of Reimbursed Meetings

Pursuant to Legislative Code Section 2.08.140, members of the Board who receive reimbursement from the District for their actual and necessary expenses for attending meetings outside the District shall either prepare a written report to be submitted at the next subsequent Board meeting or make a verbal report during the next regular Board meeting. The report shall detail the information that may be of benefit to the District that was presented at the meeting.

I. Closing Agenda Items

I.1. Date and Time for the Next Regular Meeting

March 14, 2023 - 6:00 p.m.

Adjourn

Ramona Municipal Water District in complying with the Americans with Disabilities Act (ADA), requests individuals who require specific accommodations to access, attend or participate in the Board Meeting, due to a disability, to please contact the Administrative Services Department at least two business days prior to the scheduled meeting to ensure that the District may assist you.
Telephone: (760) 789-1330; T.D.D.: (760) 789-9497.

NOTE: ANY ITEM APPEARING ON THIS AGENDA MAY BE DISCUSSED AND ACTION MAY BE TAKEN AT THE DISCRETION OF THE BOARD OF DIRECTORS

The Agenda was posted at least 72 hours before the meeting in a location freely accessible to the public. Additions to the Agenda may be made in accordance with Section 54954.2 of the California Government Code. Agenda item memorandums or documents prepared for the Board of Directors are available for public review at the RMWD office, 105 Earlham Street, Ramona, California during normal business hours, Monday through Friday 7:30 a.m. to 4:00 p.m. and the agenda is posted at the Ramona Public Library. The Agenda is also posted at Ramona Community Center, 434 Aqua Lane, Ramona, California.

RAMONA MUNICIPAL WATER DISTRICT

AGENDA MEMO

Agenda Item No. A.5.a.-1.
Regular Board Meeting of February 14, 2023

Jim Hickle, President
and Members of the Board of Directors
Ramona, CA 92065

RE: GENERAL MANAGER'S REPORT WITH STAFF ACTIVITY JANUARY 2023

Members of the Board:

Purpose

To report on previous months and anticipated activities by each District department and division.

Background

The Board has asked staff to provide monthly reporting of past and anticipated District activities.

Discussion

The attached reports are a summary of District activities for the month of January 2023, and anticipated activities for February 2023. Activities are items beyond regular operational duties.

Fiscal Impact

None.

Recommendation

Note and file informational report.

Prepared by: Tim Clement, Administrative Services Manager
Joe Lomeli, Water Operations Manager
Jim Anderson, Wastewater Operations Superintendent
Mike Metts, District Engineer
Joe Spence, Chief Financial Officer

Submitted by: Erica Wolski, General Manager

ATTACHMENT:

Attachment 1 January 2023 A.5.a.-1. Page 2-10

RAMONA MUNICIPAL WATER DISTRICT

105 Earlham Street
Ramona, CA 92065-1599

Telephone: 760-789-1330
Facsimile: 760-788-2202

Date: February 14, 2023

To: Board of Directors

From: Erica Wolski, General Manager

Subject: General Manager Information Report and Staff Activity for January 2023

General Manager

New Agenda Software:

Our Board Secretary has been working with Granicus to begin using Peak Agenda Management software. You may see some "testing" of this product for preparation of the March agenda, and we will hopefully have it live in April/May. In addition, to making it easier for staff to prepare the board agenda packets, this product offers several customer friendly additions:

- Options for subscribing to receive a text or email when a board agenda is published
- Ability to search by keyword and other options of all published agendas uploaded into the new system
- Ability to click on a hyperlink in the agenda that will take you directly to the agenda item in the packet
- Ability to click on a hyperlink within the agenda memo that will take you directly to a presentation

Untreated System Update:

Potential use of the District's untreated water system is officially included in the San Pasqual Valley Groundwater Sustainability Agency's (GSA) planning process. There is a draft "Technical Memorandum 3 – Water Sources for Potential Recharge Projects" (TM3) published on January 27, 2023 that includes details of how and where untreated water from the District may be used. The GSA also held a stakeholder meeting on January 31, 2023 to discuss updates to the planning process, including TM3. The GSA recharge evaluation schedule is as follows:

- Potential Recharge Strategies: Jan – May 2023 with workshop in Apr 2023
- Model Simulations: Jan – Jul 2023 with workshops in Apr and Jun 2023
- Preliminary Feasibility Study Report: Feb 2023 - Feb 2024 with workshop in Nov 2023

TM3 and the presentation from the January 31, 2023 stakeholder meeting can be found on the County of San Diego's website:
https://www.sandiegocounty.gov/content/sdc/pds/SGMA/san-pasqual-valley.html

The District will begin developing a plan for untreated water system decommissioning for the zones that are not anticipated to be required to operate a recharge project for the GSA and will provide this to the Board in the coming months. Meetings with the untreated water system Legislative Code Update ad hoc committee may be required or via a similar engagement process to obtain input from Board members and the affected customers.

Water Operations

Collection Division:

During this activity report period from January 1st thru the 17th the district had a total of six inches of rain. The weekend of January 14th thru 17th storm had an impact on both wastewater plants, but primarily the Santa Maria Wastewater Plant (WWTP) and collections system. Santa Maria and Collections staff worked vigorously through four-day storm to prevent the potential of any spills and to identify the locations of inflow and infiltration (I&I) in the collection system.

Over the past few years, Collections staff installed "smart" manhole covers at strategic locations in both the Santa Maria and San Vicente collection systems. Having the smart covers provided the ability to gather live flow data at any given time. Two of are placed prior to entering the Santa Maria WWTP and during the 4-day event showed an average daily flow 2.3 MGD with a max day flow of 2.75 MGD on January 17th.

Santa Maria WWTP Influent Flow Data from Smart Manhole Covers

Typical Plant Flow (MGD)	Santa Maria Smart Cover Flow Data (MGD)			
Annual Average Dry Weather	1/14/2023	1/15/2023	1/16/2023	1/17/2023
0.65	1.85	2.11	2.46	2.75

During the storm event, Collections staff began to CCTV the collections system using the smart covers with high flows to identify where most of the I&I was occurring. After the storm passed, Collections took advantage of the ground saturation to continue to CCTV the sewer to look for areas of high infiltration. Collections also contracted with two CCTV companies to assist RMWD staff. During the week of January 23rd, the RMWD Collections staff and two contract companies (Down Stream and Houston Harris) were able to CCTV 55,888 feet of the collections systems, which is approximately 10% of the District's total collection system. Staff are currently reviewing the CCTV footage to identify projects to reduce infiltration that will be included in the Santa Maria and San Vicente Wastewater Facilities Plan Updates.

CCTV Footage Completed After January 2023 Storm

Collections System	CCTV Footage (Linear Feet of Collection System)
San Vicente	21,957
Santa Maria	33,931
Total	55,888

Distribution Division:

Systems assisted utilities department on throttling down the feeder/pump watermain in the San Diego Country Estates community. Staff was able to maintain pressure above 80 psi and still slow down the leak to a manageable volume. The water main was 8" asbestos concrete. The leak was a one-inch poly service on an eight-inch AC pipeline. No other customers were affected beyond the customer with the service line leak.

Meter Services Division:

Shutdown notification for Ash St main break and Hughes PRV, closing service orders, going over read reports, reverse 911 phone service preparation for Ash St unplanned shutdown.

Staff installed a temporary highline to maintain service to three businesses during the 14th street pipeline break that occurred near the intersection of 14th and Highway 67.

Utilities Construction:

Staff made repairs to 3 main line breaks during the month of January, in two of the three pipeline repairs staff were able to use six-inch stainless repair clamps to minimize the shutdown outages.

The locations of two of the repairs were at the intersection of Elm Street and Ash Street and on the west end of the district on Airmail Ln.

The third pipeline repair occurred on January 27th at the intersection of 14th street and Hwy 67, on-call staff was notified at approximately at 3:30 am and shut down by 4:00 am. The break was on a 6" AC water line that was installed in 1957. Staff replaced approximately 17 ft with C-900 PVC pipeline.

Wastewater Operations

San Vicente:

- Grit chamber decommissioning complete.
- Repaired lower Spray field pump and replaced check valve.
- Scheduled dive service to install SS mesh on Pond #3 outlet. Completed.

- Reached out for several fence repair quotes. Car accident on San Vicente Road damaged approximately 100' of fence line.

Santa Maria:

- Headworks project-Working with project manager and contractor.
- Working with engineering and contractor on 20" effluent transmission pipeline project.
- Removed 21 influent pump blockages.
- Managed high flows month due to rain and I&I.

Engineering

The following activities were ongoing or completed in the month of January 2023 for capital projects underway within the District service area:

- Water Facilities Plan Update: Response to comments and finalization of the Water Facilities Plan Update has been ongoing, with presentation of the plan to the Board at the February 2023 Board Meeting.

- Effluent Transmission Main: Contractor has continued to install the pipeline on the west and east ends of the project (outside County property). The County is processing a new temporary construction easement for Ramona Grassland Preserve access for the remainder of the alignment. Work will continue outside the County permitted area until the new temporary construction easement is received.

- Chavez & Snow Loop Improvements: These projects are being incorporated into the updated Water Facilities Plan but are contingent on the District's untreated system decommissioning plan. District staff continue to work on acquiring the easements for these two improvements; however, design and construction is on hold until the District finalizes its design on decommissioning the untreated system.

- Kennedy Tank Rehabilitation: This project is being incorporated into the updated Water Facilities Plan but is contingent on the District's untreated system decommissioning plan. Once the Facilities Plan is approved and a decision is made on the decommissioning plan, District staff will begin work on this project. This project is also being coordinated with ongoing discussions with the City of San Diego.

- Completion of the San Vicente Water Reclamation Plan Grit Removal System Abandonment Project: Contractor completed the work in the field. Items left for closing of the project include as-built drawings and final cleanup. (Contractor Jennette Company, Inc.)

- Completion of the Hughes Street Pressure Reducing Station Project. Contractor completed the work in the field. Items left for closing of the project include as-built drawings and startup. (Contractor: Underground Utilities, Inc.)

- Ongoing construction for the Santa Maria Headworks and Influent Pump Station Project: Construction continues to progress satisfactorily. (Contractor: GSE Construction Co.)

- Ongoing construction of the Above Ground Diesel Fuel and Unleaded Gasoline Station Project: Contractor working with supplier Bryant Fuel Systems for submittals and electrical design. (Contractor: Fleming Environmental, Inc.)

- Ongoing construction for the San Diego Country Estates (SDCE) Tank 3 Rehabilitation Project: Contractor in the process of getting submittals approved. Contractor mobilized to the site and began construction activities. (Contractor: Paso Robles Tank).

- B St, H St, 4th, 5th, 11th & 12th Streets Waterline Replacement Project: Following award of contract to Palm Engineering January Board Meeting, a Notice of Award was provided to the contractor. Once all contract documents are executed, a notice to proceed will be issued. (Contractor: Palm Engineering).

Other:

- Continue working with new/potential water and sewer customers as well as private developers as needed.

- Continued work with RCAC and NV5 on The Acres Project water feasibility study and design.

- Continued work with NV5 on Wildcat Canyon Road Pipeline Project design.

- Review and processing of local development projects through the engineering counter.

- Ongoing design of Infrastructure Replacement Projects and Tank and Reservoir Rehabilitation Projects.

- Ongoing design of the replacement of the pipeline from San Vicente Plant to the San Vicente Spray Fields.

- Ongoing support of the Recycled Water Ad Hoc Committee.

- Attend and support of Monthly Board Meetings.

- Attend San Diego Water Agencies' Standards committee meetings and review of proposed revisions as required.

Finance/Purchasing/Fleet Maintenance

- Completed annual inspection by the Fire Marshal, examining the Operations yard and facilities, and the Community Center.
- Following Board authorization, staff opened the California Asset Management Program investment account and completed the initial deposit into the fund.
- Attended the CalPERS 2023 Stakeholder Forum, discussing financial, investment, and legislative matters concerning the public pension system.
- Developed an RFP for the District's Comprehensive Water Rate Study.
- Processed 72 purchase orders.

Administrative Services

- Recruitment activity for three vacancies
- Preparation for and beginning of 2023 Backflow Testing
- Continued support of Park Ad Hoc Committee
- Continued monitoring of Local, Regional, and State drought communications.

Anticipated February 2023 Activity

Water Operations

Systems Division:

- Draw first quarter THM and HAA5 potable water samples for year 2023.
- Assist Contractor with vibration test on Poway #5 pump gear head.
- Annual potable water tank inspections and sediment cleaning at Black Canyon, Bargar, and Julian tanks.

Collection Division:

- Manhole maintenance on 2 manholes. Raise 1", recenter and pour a slab on MH 11075 and raise 12" and grout on MH 10018.
- Begin Annual Cleaning of San Vicente system near Bellemore area approximately 35,565 linear feet.
- Submit monthly California Integrated Water Quality System(CIWQS) No Spill Report to State Water Resources Control Board.

Utilities Construction:

- Install 2 new Jute Mats to manage erosion on the effluent 20" pipeline of Mt. Woodson reservoir.

- Install two 3” treated water services in Snows service area
- Continue with mandated valve exercise program 714 valves required on an annual basis.
- Demo and repair sidewalk on 14th St. damage caused during the 6” ac pipeline break on January 27th.
- Replace 8” non-functional inline gate valve on Gymkhana Rd.
- Replace run off water seepage recovery tank at Mt. Woodson Reservoir that is pumped into the untreated Woodson Steel tank.

Meters Services Division:

- Continue with CIP radio read meter conversion and meter accuracy bench testing.
- Read 8,144 radio read and 1,488 manual read meters.

Wastewater Operations

San Vicente WRP:

- Install Upper Spray field pump maintenance hoist.
- Solids handling/storage design.
- Monthly Waste Discharge Reports.
- Working with NV5 and Dudek on design and information for the Wildcat Canyon Road Pipeline.
- Working to establish a new lab contract.

Santa Maria WRP:

- Headworks project.
- Effluent pipeline.
- Monthly Waste Discharge Reports.
- Working to establish a new lab contract.

Finance/Purchasing/Fleet Maintenance

- Publish the Comprehensive Water Rate Study RFP. Proposals will be due back 3/15 with the anticipation of presenting the Study’s contract to the Board of Directors at the April meeting.
- Attend an all-day Tyler Technologies ERP Pro user training conference. Trainers will be providing insights into implementing digital processing workflows.

Administrative Services

- Recruitment activity for three vacancies
- Preparation for onboarding of new employees

- Continuation of 2023 Backflow Testing, first quarter
- Preparation for 2022 Consumer Confidence Report/Annual Quality Report
- Preparation for 2023 4th Grade Poster Contest
- Continued monitoring of Local, Regional, and State drought communications

Ramona Municipal Water District
Construction Projects Status Report
February 14, 2023

Status As of:	Project Number	Project Name	Contractor/ Consultant	Contract Amount ($) Including Board Approved Change Orders	% Change Orders	Current Contract Amount ($)	Scheduled Completion	Estimated % of Work Completed	Status/Remarks
1/31/2023	J0 55264	Santa Maria WRP Headworks & Influent Pump Station	GSE Construction	$ 6,823,900	1.6%	$ 6,931,991	7/31/2023	62%	Construction is in progress.
1/31/2023	J0 55264	Santa Maria WRP Headworks & Influent Pump Station	Valley Construction Management	$ 553,150	-	$ 553,150	7/31/2023	62%	CM will continue as long as construction is in process.
1/31/2023	JO 55256	Effluent Pipeline Project	Downing Construction	$ 5,162,039.56	0.0%	$ 5,162,039.56	6/30/2023	66%	Construction is in progress
1/31/2023	JO 51261-02	Hughes Street Pressure Reducing Station	Underground Utilities	$ 144,575.00	-1.8%	$ 141,970.31	3/31/2023	100%	Construction completed in the field.
1/31/2023	JO 51270	Above Ground Diesel Fuel & Unleaded Gasoline Station Project	Flemming Environmental	$ 579,717.00 *	-15.2%	$ 491,823.00	3/24/2023	15%	Construction is in Progress, Contractor working on project submittals ahead of fabrication
1/31/2023	JO 54233	SVWRP Grit Removal System Abandonment Project	Jennette Company	$ 86,000.00	0.0%	$ 86,000.00	3/31/2023	100%	Construction completed in the field.
1/31/2023	JO 51949-03	SDCE Tank 2 Rehabilitation Project	Paso Robles Tank	$ 617,826.00	0.5%	$ 620,849.80	2/15/2023	98%	Contractor working on final punch list items. Tank is back in service.
1/31/2023	JO 51949-04	SDCE Tank 3 Rehabilitation Project	Paso Robles Tank	$ 1,117,522.00	0.0%	$ 1,117,522.00	5/30/2023	5%	Construction in progress.
1/31/2023	JO-51940A-13	B St, H St, 4th, 5th, 11th & 12th Streets Waterline Replacement Project	Palm Engineering	$ 1,741,499.00	0.0%	$ 1,741,499.00	7/3/2023	0%	Contractor Awarded the Project at the January Board Meeting

Notes:

* The Board of Directors approved a change order for this project at the Nov 2022 Board Meeting.

MINUTES FOR THE MEETING
OF THE BOARD OF DIRECTORS
OF THE RAMONA MUNICIPAL WATER DISTRICT
January 10, 2023

Meeting held Via In-Person and Teleconference
Pursuant to Ramona Municipal Water District Board Resolution 22-1587

PRESENT

Jim Hickle	President
Jeff Lawler	Vice President
Jim Piva	Secretary
Gary Hurst	Treasurer
Jacob Zoria	Director

Opening of Meeting 5:00 P.M.

The Closed Meeting of the Board of Directors of the Ramona Municipal Water District was called to order by President Hickle at 5:00 p.m.

Roll Call.

Pledge of Allegiance

Opportunity for Members of the Public to Address the Board Regarding Closed Session Agenda Items.

None.

The Board entered closed session at 5:02 p.m.

G. Closed Session – NOT OPEN TO THE PUBLIC

G.1. Conference with Legal Counsel - Existing Litigation
Pursuant to Government Code section 54956.9(d)(1)-(1 case) Plantier, et al. v. Ramona Municipal Water District (Case No. 37-2014-00083195-CU-BT-CTL/D069798/S243360)

Closed session ended at 6:00 p.m. Legal Counsel reported that for Item G.1. direction was given with no reportable action taken.

Opening of Public Session Meeting - TIME CERTAIN 6:00 P.M.

A.

A.1. Call to Order

The Regular Meeting of the Board of Directors of the Ramona Municipal Water District was called to order by President Hickle at 6:00 p.m.

A.2. Consideration of Non-Agenda Items Which Arose Subsequent to the Posting of the Agenda

None.

A.3. Adoption of Agenda for Meeting of January 10, 2023

M\S\C MOTION TO ADOPT THE AGENDA FOR THE MEETING OF JANUARY 10, 2023 (Piva/Lawler)

AYES: Hickle, Hurst, Lawler, Piva, Zoria
NOES: None
ABSTAIN: None
ABSENT: None

A.4. Opportunity for Members of the Public to Address the Board on any Subject within its Jurisdiction but not on the Agenda

None.

A.5. Announcements and/or Informational Reports from Board and/or Staff

A.5.a. General Manager's Report with Staff Activity Report

General Manager Wolski requested the Board approve the current agenda with a correction on the title of Item B.1.b. to read November 2022. She also reported of the completion on the Ramona Fire Department divestiture and the upcoming County of San Diego Fire Advisory Board's formation of the Ramona Fire subcommittee.

A.5.b. Committee Reports

A.5.b.-1. Ad Hoc Reports

Director Lawler & Director Piva deferred their presentation of the Parks and Recreation Committee until later in the meeting during Item F.4.

President Hickle reported on the Recycled Water Usage Committee of an upcoming TBD meeting with San Diego Country Estates to discuss recycled water options.

A.5.b.-2. Liaison Reports

Director Piva nominated Director Zoria to be the new liaison to the Ramona Design and Review Committee. President Hickle appointed.

Director Lawler will be meeting with the San Diego Country Estates to discuss upcoming recycled water use agreements.

Director Piva reported that he and General Manager Wolski met with the Chamber of Commerce and Leadership Council and discussed various community issues and also reported that the District has joined the Chamber of Commerce.

A.6. Discussion and Possible Action to Elect Officers of the Ramona Municipal Water District Board of Directors

Recommendation: It is recommended the Board of Directors elect officers for 2023 to comply with Legislative Code Section 2.08.050.

A brief Board discussion to choose officers for 2023 followed. Director Hurst asked District Counsel to render an opinion concerning nominating officers individually rather than as a slate. District Counsel provided clarification the question.

M\S\C MOTION FOR THE OFFICERS TO BE CHOSEN AS A SLATE; JIM HICKLE AS PRESIDENT, JEFF LAWLER AS VICE-PRESIDENT, JIM PIVA AS SECRETARY, GARY HURST AS TREASURER AND JACOB ZORIA AS DIRECTOR-AT-LARGE (Piva/Hickle)

AYES: Hickle, Lawler, Piva, Zoria
NOES: None
ABSTAIN: Hurst
ABSENT: None

A.7. Adjourn to Ramona Public Facilities Corporation Board Meeting
President Hickle adjourned to the regular meeting of the Ramona Public Facilities Corporation Board Meeting at 6:14 p.m. *(Minutes of the Ramona Public Facilities Corporation are a separate item to be considered at the next Ramona Public Facilities Corporation Board meeting)*

A.7.a. Call to Order

A.7.b. Election of Officers

M\S\C MOTION FOR A SLATE OF OFFICERS FOR THE RAMONA PUBLIC FACILITIES CORPORATION; JIM HICKLE AS PRESIDENT, JEFF LAWLER AS VICE-PRESIDENT, JIM PIVA AS SECRETARY, GARY HURST AS TREASURER AND JACOB ZORIA AS DIRECTOR-AT-LARGE (Piva/Lawler)

AYES: Hickle, Hurst, Lawler, Piva, Zoria
NOES: None
ABSTAIN: None
ABSENT: None

A.7.c. Approval of Minutes for January 11, 2022

M\S\C MOTION TO APPROVE THE MINUTES OF JANUARY 11, 2022 FROM THE RAMONA PUBLIC FACILITIES CORPORATION MEETING (Hickle/Piva)

AYES: Hickle, Hurst, Lawler, Piva, Zoria
NOES: None
ABSTAIN: None
ABSENT: None

A.7.d. Adjourn to the Regular Meeting of the Ramona Municipal Water District Board of Directors

A.8. Reconvene to Regular Meeting of the RMWD Board of Directors

President Hickle adjourned the regular meeting of the Board of Directors of the Ramona Public Facilities Corporation at 6:16 p.m. and reconvened the regular meeting of the Board of Directors of the Ramona Municipal Water District.

B. Ministerial Items

B.1. Consent Calendar

(All matters on the Consent Calendar are to be approved by one motion unless a Board Member requests separate action on a specific item).

B.1.a. Adoption of the Regular Board Meeting Minutes for December 13, 2022

Recommendation: To adopt the Minutes for December 13, 2022.

B.1.b. Acceptance of Monthly Financial Reports – November 2022

Recommendation: No staff recommendation.

B.1.c. A Resolution of the Ramona Municipal Water District Authorizing All or Partial Remote Teleconference Meetings as Needed During the Covid-19 Local and State Emergency Pursuant to the Brown Act Provisions

Recommendation: Approve attached Resolution to allow for virtual/partially virtual meetings as needed for the next 30 days.

B.1.d. Authorization to Award a Contract for Construction of the B St., H St., 4th, 5th, 11th & 12th Streets Waterline Replacement Project and Find that the Project is Exempt from CEQA

Recommendation: Staff respectfully recommends the Board authorize the General Manager to award a contract for construction of the B St., H St, 4th, 5th, 11th & 12th Streets Waterline Replacement Project to Palm Engineering & Construction Co. Inc. and find that the Project is exempt from environmental review pursuant to Section 15302 of the California Environmental Quality Act (CEQA) Guidelines.

B.1.e. Approval of Certified Backflow Tester List for 2023

Recommendation: Staff respectfully recommends the Board of Directors approve the Backflow Tester list for 2023.

M\S\C **MOTION TO APPROVE THE CONSENT CALENDAR WITH THE CORRECTION OF ITEM B.1.B. TO READ NOVEMBER 2022** [Item B.1.c. Resolution No. 23-1589] **(Hurst/Lawler)**

AYES: Hickle, Hurst, Lawler, Piva, Zoria
NOES: None
ABSTAIN: None
ABSENT: None

C. Public Hearing/Bid Openings
(This space on the agenda is reserved in the event there is a public hearing or bid opening)

D. Agenda Items which Anticipate Possible Input from Members of the Public
(This space on the agenda is reserved in the event a member of the public is scheduled to address the Board)

E. Agenda Items which Anticipate Possible Input from Other Agencies/Consultants
(This space on the agenda is reserved in the event another agency/consultant is scheduled to address the Board)

F. Agenda Items which Anticipate Possible Input from Staff

F.1. Consider Adoption of Ordinance to Amend RMWD Legislative Code Chapter 4.08 "Investment Policy" and Adoption of Resolution to Authorize Investments In the San Diego County Treasurer's Pooled Money Fund

Recommendation: Staff respectfully recommends that the Board (1) adopt the attached ordinance to approve the proposed changes to the Legislative Code's Investment Policy and (2) adopt the attached resolution to authorize investment in the San Diego County Treasurer's Pooled Money Fund.

General Manager Erica Wolski reported a correction to the "FDIC insured amount" amended in a late agenda correction. Chief Financial Officer Joe Spence gave a presentation of the updates to the legislative code explaining the details of the changes. Board discussion followed.

M\S\C **MOTION TO ACCEPT THE PRESENTATION, ORDINANCE AND RESOLUTION (Hurst/Lawler)**

AYES: Hickle, Hurst, Lawler, Piva, Zoria
NOES: None
ABSTAIN: None
ABSENT: None

F.2. Consideration To Adopt An Ordinance To Amend District Legislative Code Section 7.28.070, "Down-Sizing Water Service"

Recommendation: It is respectfully recommended that the Board approve the attached Ordinance to modify the District Legislative Code.

General Manager Wolski briefly introduced the item explaining the reasons for the amendment. Board discussion and comments followed, with the Board thanking District staff for solutions that benefit customers.

M\S\C MOTION TO ACCEPT THE ORDINANCE (Piva/Hickle)

AYES: Hickle, Hurst, Lawler, Piva, Zoria
NOES: None
ABSTAIN: None
ABSENT: None

F.3. Report Out from the Parks and Recreation Ad Hoc Committee and Consideration to Approve the Ad Hoc's Recommendation that the Board Give the General Manager Direction to Send Notice of Nonrenewal of the Current RPRA Agreement and Prepare a New Agreement

Recommendation: It is recommended that the Board give the General Manager direction to provide notice to RPRA of nonrenewal of the current RPRA lease agreement and prepare a new agreement for RPRA and the sub leaseholders and report out on progress at the April 2023 board meeting.

Director Piva began with an update on the benefits of the recent divestiture of the District's fire and emergency services that will enable the water district to finance projects at Wellfield Park with a possible annual investment of up to $500,000. Director Lawler briefly summarized the formation and purpose of the ad hoc committee and described park enhancement opportunities that the Board is hoping to address in the future. General Manager Wolski gave a historical overview presentation of the park from commencement to the present reporting on opportunities for future growth through investment of infrastructure and maintenance of the park. She highlighted the importance of community involvement, working closely with the RPRA (Ramona Parks and Recreation Association) and a greater District role in the approval of projects. Board discussion followed.

M\S\C MOTION TO APPROVE THE RECOMMENDATION (Piva/Lawler)

AYES: Hickle, Hurst, Lawler, Piva, Zoria
NOES: None
ABSTAIN: None
ABSENT: None

F.4. Review and Discuss the Preliminary Draft of the Ramona Wellfield Park Facilities Plan

Recommendation: No action required. Board members to provide feedback to staff on preliminary draft of Facilities Plan.

General Manager Wolski explained details on the drafting of a preliminary Facilities Plan to effectively understand assets, sub leaseholders, and infrastructure of Wellfield Park. Board questions and discussion followed.

G. Remaining Agenda Items

G.1. Directors' Reports of Reimbursed Meetings

Pursuant to Legislative Code Section 2.08.140, members of the Board who receive reimbursement from the District for their actual and necessary expenses for attending meetings outside the District shall either prepare a written report to be submitted at the next subsequent Board meeting or make a verbal report during the next regular Board meeting. The report shall detail the information that may be of benefit to the District that was presented at the meeting.

H. Closing Agenda Items

H.1. Date and Time for the Next Regular Meeting

February 14, 2023 - 6:00 p.m.

President Hickle adjourned the meeting at 7:26 p.m.

Adjourn

Jim Hickle, President
Board of Directors
RAMONA MUNICIPAL WATER DISTRICT

RAMONA MUNICIPAL WATER DISTRICT

AGENDA MEMO

Agenda Item No. B.1.b.
Regular Board Meeting of February 14, 2023

Jim Hickle, President
and Members of the Board of Directors
Ramona, CA 92065

RE: ACCEPTANCE OF MONTHLY FINANCIAL REPORTS – DECEMBER 2022

Members of the Board:

Purpose
To present monthly financial reports for the month of December 2022.

Background
Accounts with December financial activity are closed during the month of January and submitted to the Board in February.

Discussion
The monthly reports for December 2022 are submitted.

Fiscal Impact
None.

Recommendation
No staff recommendation.

Prepared by: Janeen Myers, Accounting Supervisor
Submitted by: Erica Wolski, General Manager

ATTACHMENTS:

Attachment 1	December 2022 Financials	B.1.b. Page 2-17

RAMONA MUNICIPAL WATER DISTRICT

UNAUDITED STATEMENT OF REVENUE & EXPENSES
ALL OPERATING FUNDS
FOR DECEMBER 2022 AND THE SIXTH FISCAL MONTH ENDING DECEMBER 31, 2022

	MONTH OF December	Y TO D December-22	Y TO D BUDGET	VARIANCE FAV (UNFAV)
SUMMARY - ALL OPERATING FUNDS				
REVENUE				
WATER FUND	$ 1,881,154	$ 10,360,356	$ 10,361,113	$ (757)
FIRE FUND	496,418	2,739,755	3,281,638	(541,883)
PARK FUND	15,258	87,879	88,218	(339)
SAN VICENTE SANITATION FUND	262,904	1,611,883	1,649,650	(37,767)
SANTA MARIA SANITATION FUND	323,514	2,054,658	2,071,300	(16,642)
GENERAL FUND	72,217	334,685	337,050	(2,365)
TOTAL REVENUE BY FUND	**3,051,466**	**17,189,215**	**17,788,969**	**(599,753)**
EXPENSES				
WATER FUND	(1,113,808)	(8,014,909)	(8,194,957)	180,048
FIRE FUND	(3,792)	(602,538)	(3,896,925)	3,294,387
PARK FUND	(14,526)	(97,533)	(80,000)	(17,533)
SAN VICENTE SANITATION FUND	(245,094)	(945,791)	(1,023,770)	77,980
SANTA MARIA SANITATION FUND	(256,359)	(1,032,430)	(1,034,376)	1,946
GENERAL FUND	(327,537)	(2,057,000)	(2,324,987)	267,987
TOTAL EXPENSES BY FUND	**(1,961,116)**	**(12,750,200)**	**(16,555,014)**	**3,804,814**
NET REVENUE LESS EXPENSES BEFORE TRANSFERS	**1,090,351**	**4,439,015**	**1,233,955**	**3,205,061**
TRANSFERS TO CAPITAL FUNDS[1]	(401,667)	(2,410,000)	(2,410,000)	-
TOTAL TRANSFERS	(401,667)	(2,410,000)	(2,410,000)	-
NET REVENUE LESS EXPENSES AFTER TRANSFERS	**$ 688,684**	**$ 2,029,015**	**$ (1,176,045)**	**$ 3,205,061**

[1]Capital Transfers made in July and accrued over a 12 month period

RAMONA MUNICIPAL WATER DISTRICT

UNAUDITED STATEMENT OF REVENUE & EXPENSES
WATER FUND
FOR DECEMBER 2022 AND THE SIXTH FISCAL MONTH ENDING DECEMBER 31, 2022

	MONTH OF December	Y TO D December-22	Y TO D BUDGET	VARIANCE FAV (UNFAV)
FUND 01 - WATER				
REVENUE				
TREATED WATER SALES[1]	$ 987,433	$ 5,888,758	$ 5,728,647	$ 160,111
UNTREATED WATER SALES[1]	28,939	508,225	493,299	14,926
CONSTRUCTION WATER SALES	39,209	78,237	42,025	36,212
PUMPING CHARGES	151,433	957,781	1,005,956	(48,175)
TOTAL WATER/PUMPING REVENUE	1,207,014	7,433,000	7,269,926	163,074
WATER SYSTEM CHARGES	584,646	2,519,985	2,721,746	(201,761)
PENALTIES & LATE CHARGES	15,651	123,610	111,738	11,873
SERVICE CONNECTIONS	-	2,016	3,528	(1,511)
OTHER OPERATING REVENUE	50	21,774	24,564	(2,789)
TOTAL OTHER OPERATING REVENUE	600,347	2,667,386	2,861,575	(194,189)
PROPERTY TAX - SECURED[2]	33,333	200,000	200,000	-
INTEREST INCOME & UNREALIZED GAIN (LOSS)	40,459	22,106	25,870	(3,764)
OTHER NON-OPERATING REVENUE	-	37,863	3,742	34,122
TOTAL NON-OPERATING REVENUE	73,793	259,970	229,612	30,358
TOTAL REVENUE	**1,881,154**	**10,360,356**	**10,361,113**	**(757)**
EXPENSES				
VARIABLE CWA COST OF PURCHASED WATER - TREATED[1]	(374,354)	(3,120,593)	(3,061,186)	(59,407)
VARIBALE CWA COST OF PURCHASED WATER - UNTREATED[1]	-	(426,347)	(476,672)	50,325
FIXED CWA COST OF PURCHASED WATER	(160,262)	(961,571)	(943,059)	(18,512)
PUMPING FACILITIES EXPENSES	(189,212)	(1,148,492)	(873,103)	(275,390)
OTHER CHARGES - DUE TO POWAY	(2,437)	(25,126)	(15,000)	(10,126)
CHANGE IN WATER INVENTORY	(18,604)	(47,009)	-	(47,009)
TOTAL COST OF WATER/PUMPING EXPENSES	(744,869)	(5,729,138)	(5,369,020)	(360,119)
ADMINISTRATION	(86,170)	(507,408)	(589,957)	82,549
SYSTEMS	(104,760)	(633,441)	(743,418)	109,977
TRANSMISSION AND DISTRIBUTION	(153,740)	(1,000,378)	(1,257,889)	257,511
VEHICLE MAINTENANCE	(23,940)	(141,942)	(179,977)	38,035
LAKE RAMONA	(330)	(2,602)	(54,697)	52,095
TOTAL OPERATING EXPENSES BY DEPARTMENT	(368,940)	(2,285,770)	(2,825,937)	540,167
TOTAL EXPENSES[3]	**(1,113,808)**	**(8,014,909)**	**(8,194,957)**	**180,048**
NET REVENUE LESS EXPENSES BEFORE TRANSFERS	**767,346**	**2,345,447**	**2,166,157**	**179,291**
GENERAL& ADMIN COST ALLOCATIONS	(161,885)	(1,021,590)	(1,135,228)	113,638
TRANSFERS TO CAPITAL FUNDS[4]	(225,000)	(1,350,000)	(1,350,000)	-
TOTAL TRANSFERS	(386,885)	(2,371,590)	(2,485,228)	113,638
NET REVENUE LESS EXPENSES AFTER TRANSFERS	**$ 380,461**	**$ (26,143)**	**$ (319,071)**	**$ 292,928**

[1] Net of PSAWR Credits

[2] Property Tax Revenues are accrued over a 12 month period

[3] Does not include Depreciation Expense

[4] Capital Transfers made in July and accrued over a 12 month period

RAMONA MUNICIPAL WATER DISTRICT

UNAUDITED STATEMENT OF REVENUE & EXPENSES
FIRE AND PARK FUNDS
FOR DECEMBER 2022 AND THE SIXTH FISCAL MONTH ENDING DECEMBER 31, 2022

	MONTH OF December	Y TO D December-22	Y TO D BUDGET	VARIANCE FAV (UNFAV)
FUND 02 - FIRE				
REVENUE				
FIRE SERVICE CHARGE	$ 9,401	$ 42,522	$ 52,495	$ (9,972)
FIRE/PARAMEDIC - TAX ROLL[1]	222,084	1,332,506	1,332,506	-
AMBULANCE CHARGES	357	103,558	520,000	(416,442)
FIRE PREVENTION/RESPONSE FEE	-	-	35,000	(35,000)
EMS SUBSCRIPTION	-	-	3,750	(3,750)
OTHER OPERATING REVENUE	54,870	54,870	-	54,870
TOTAL OPERATING REVENUE	286,713	1,533,456	1,943,750	(410,294)
PROPERTY TAX - SECURED[2]	200,000	1,200,000	1,200,000	-
INTEREST INCOME/UNREALIZED GAIN (LOSS)	9,706	6,298	75	6,223
GRANT INCOME	-	-	137,813	(137,813)
TOTAL NON-OPERATING REVENUE	209,706	1,206,298	1,337,888	(131,589)
TOTAL REVENUE	**496,418**	**2,739,755**	**3,281,638**	**(541,883)**
EXPENSES				
CDF - SCHEDULE A - FIRE PREVENTION	-	(538,781)	(3,510,500)	2,971,719
CDF - SCHEDULE C - OPERATING EXPENSES	(3,792)	(63,757)	(386,425)	322,668
TOTAL OPERATING/NON-OPERATING EXPENSES	(3,792)	(602,538)	(3,896,925)	3,294,387
TOTAL EXPENSES[3]	**(3,792)**	**(602,538)**	**(3,896,925)**	**3,294,387**
NET REVENUE LESS EXPENSE	**$ 492,627**	**$ 2,137,217**	**$ (615,288)**	**$ 2,752,505**
FUND 03 - PARK				
REVENUE				
PROPERTY TAX - SECURED[2] - DISTRICT A	$ 14,603	$ 87,618	$ 87,618	$ -
INTEREST INCOME/UNREALIZED GAIN (LOSS)	655	261	600	(339)
TOTAL NON-OPERATING REVENUE	15,258	87,879	88,218	(339)
TOTAL REVENUE	**15,258**	**87,879**	**88,218**	**(339)**
EXPENSES				
PARK DISTRIBUTIONS[3]	(13,333)	(80,000)	(80,000)	-
OPERATING EXPENSES	(1,192)	(17,533)	-	(17,533)
TOTAL OPERATING/NON-OPERATING EXPENSES	(14,526)	(97,533)	(80,000)	(17,533)
TOTAL EXPENSES[4]	**(14,526)**	**(97,533)**	**(80,000)**	**(17,533)**
NET REVENUE LESS EXPENSES BEFORE TRANSFERS	**733**	**(9,654)**	**8,218**	**(17,872)**
TRANSFERS TO CAPITAL FUNDS[5]	(5,833)	(35,000)	(35,000)	-
NET REVENUE LESS EXPENSES AFTER TRANSFERS	**$ (5,101)**	**$ (44,654)**	**$ (26,782)**	**$ (17,872)**

[1]Fire/Paramedic Tax Roll Revenues are accrued over a 12 month period

[2]Property Tax Revenues are accrued over a 12 month period

[3]Park Distributions made Quarterly and accrued over a 12 month period

[4]Does not include Depreciation Expense

[5]Capital Transfer made in July and accrued over a 12 month period

RAMONA MUNICIPAL WATER DISTRICT

UNAUDITED STATEMENT OF REVENUE & EXPENSES
SAN VICENTE SANITATION FUND
FOR DECEMBER 2022 AND THE SIXTH FISCAL MONTH ENDING DECEMBER 31, 2022

	MONTH OF December	Y TO D December-22	Y TO D BUDGET	VARIANCE FAV (UNFAV)
FUND 04 - SAN VICENTE SANITATION				
REVENUE				
SEWER CHARGES	$ 7,912	$ 48,888	$ 56,955	$ (8,067)
SEWER - TAX ROLL[1]	239,674	1,438,046	1,438,046	-
SEWER AVAILABILITY[2]	3,292	19,750	19,750	-
TERTIARY WATER SALES	-	99,866	125,000	(25,134)
OTHER OPERATING REVENUE	-	250	500	(250)
TOTAL OPERATING REVENUE	250,877	1,606,799	1,640,250	(33,451)
INTEREST INCOME/UNREALIZED GAIN (LOSS)	12,027	5,084	9,400	(4,316)
TOTAL NON-OPERATING REVENUE	12,027	5,084	9,400	(4,316)
TOTAL REVENUE	**262,904**	**1,611,883**	**1,649,650**	**(37,767)**
EXPENSES				
ADMINISTRATION	(13,037)	(81,033)	(89,655)	8,622
TREATMENT	(169,938)	(517,872)	(485,036)	(32,837)
COLLECTIONS	(35,976)	(182,498)	(219,534)	37,036
REVERSE OSMOSIS	(26,142)	(164,388)	(229,547)	65,159
TOTAL OPERATING EXPENSES BY DEPARTMENT	(245,094)	(945,791)	(1,023,770)	77,980
TOTAL EXPENSES[3]	**(245,094)**	**(945,791)**	**(1,023,770)**	**77,980**
NET REVENUE LESS EXPENSES BEFORE TRANSFERS	**17,810**	**666,092**	**625,880**	**40,212**
GENERAL& ADMIN COST ALLOCATIONS	(47,738)	(301,247)	(334,747)	33,500
TRANSFERS TO CAPITAL FUNDS[4]	(66,667)	(400,000)	(400,000)	-
TOTAL TRANSFERS	(114,405)	(701,247)	(734,747)	33,500
NET REVENUE LESS EXPENSES AFTER TRANSFERS	**$ (96,595)**	**$ (35,155)**	**$ (108,867)**	**$ 73,712**

[1]Sewer Tax Roll Revenues are accrued over a 12 month period

[2]Sewer Avalibility Revenues are accrued over a 12 month period

[3]Does not include Depreciation Expense

[4]Capital Transfers made in July and accrued over a 12 month period

RAMONA MUNICIPAL WATER DISTRICT

UNAUDITED STATEMENT OF REVENUE & EXPENSES
SANTA MARIA SANITATION FUND
FOR DECEMBER 2022 AND THE SIXTH FISCAL MONTH ENDING DECEMBER 31, 2022

	MONTH OF December	Y TO D December-22	Y TO D BUDGET	VARIANCE FAV (UNFAV)
FUND 05 - SANTA MARIA SANITATION				
REVENUE				
SEWER CHARGES	$ 19,140	$ 64,947	$ 113,691	$ (48,744)
SEWER - TAX ROLL[1]	292,052	1,752,309	1,752,309	-
TERTIARY WATER SALES	-	221,674	185,000	36,674
OTHER OPERATING REVENUE	2,600	11,550	9,400	2,150
TOTAL OPERATING REVENUE	313,791	2,050,480	2,060,400	(9,920)
INTEREST INCOME/UNREALIZED GAIN (LOSS)	9,723	4,178	10,900	(6,722)
TOTAL NON-OPERATING REVENUE	9,723	4,178	10,900	(6,722)
TOTAL REVENUE	**323,514**	**2,054,658**	**2,071,300**	**(16,642)**
EXPENSES				
ADMINISTRATION	(11,320)	(75,374)	(79,655)	4,280
TREATMENT	(212,485)	(750,355)	(728,609)	(21,746)
COLLECTIONS	(32,553)	(206,701)	(226,113)	19,412
TOTAL OPERATING EXPENSES BY DEPARTMENT	(256,359)	(1,032,430)	(1,034,376)	1,946
TOTAL EXPENSES[2]	**(256,359)**	**(1,032,430)**	**(1,034,376)**	**1,946**
NET REVENUE LESS EXPENSES BEFORE TRANSFERS	**67,156**	**1,022,228**	**1,036,925**	**(14,696)**
GENERAL& ADMIN COST ALLOCATIONS	(56,024)	(353,550)	(392,964)	39,414
TRANSFERS TO CAPITAL FUNDS[3]	(104,167)	(625,000)	(625,000)	-
TOTAL TRANSFERS	(160,191)	(978,550)	(1,017,964)	39,414
NET REVENUE LESS EXPENSES AFTER TRANSFERS	**$ (93,035)**	**$ 43,678**	**$ 18,961**	**$ 24,717**

[1]Sewer Tax Roll Revenues are accrued over a 12 month period

[2]Does not include Depreciation Expense

[3]Capital Transfers made in July and accrued over a 12 month period

RAMONA MUNICIPAL WATER DISTRICT

UNAUDITED STATEMENT OF REVENUE & EXPENSES
GENERAL FUND
FOR DECEMBER 2022 AND THE SIXTH FISCAL MONTH ENDING DECEMBER 31, 2022

	MONTH OF December	Y TO D December-22	Y TO D BUDGET	VARIANCE FAV (UNFAV)
FUND 06 - GENERAL				
REVENUE				
LEASE/RENT INCOME	$ 19,965	$ 118,124	$ 118,180	$ (56)
OTHER OPERATING REVENUE	1,173	7,266	8,437	(1,171)
TOTAL OPERATING REVENUE	21,138	125,390	126,616	(1,226)
PROPERTY TAX - SECURED[1]	33,333	200,000	200,000	-
INTEREST INCOME/UNREALIZED GAIN (LOSS)	17,729	8,662	9,800	(1,138)
OTHER NON-OPERATING REVENUE	17	633	634	(1)
TOTAL NON-OPERATING REVENUE	51,080	209,295	210,434	(1,139)
TOTAL REVENUE	**72,217**	**334,685**	**337,050**	**(2,365)**
EXPENSES				
BOARD OF DIRECTORS	(16,274)	(93,944)	(162,500)	68,556
GENERAL MANAGER	(33,000)	(152,348)	(229,106)	76,758
FINANCE/PURCHASING	(53,587)	(259,622)	(404,361)	144,738
CUSTOMER SERVICE	(39,331)	(193,971)	(214,462)	20,491
ACCOUNTING	(28,468)	(180,900)	(198,220)	17,320
ADMIN SERVICES	(74,114)	(483,715)	(530,354)	46,639
ENGINEERING	(62,114)	(263,291)	(317,611)	54,319
GENERAL SERVICES	(20,546)	(428,926)	(259,375)	(169,551)
WATER CONSERVATION	(103)	(284)	(9,000)	8,717
TOTAL OPERATING EXPENSES BY DEPARTMENT	(327,537)	(2,057,000)	(2,324,987)	267,987
TOTAL EXPENSES[2]	**(327,537)**	**(2,057,000)**	**(2,324,987)**	**267,987**
NET REVENUE LESS EXPENSES BEFORE TRANSFERS	**(255,320)**	**(1,722,316)**	**(1,987,937)**	**265,621**
GENERAL& ADMIN COST ALLOCATIONS	265,647	1,676,387	1,862,938	(186,551)
NET REVENUE LESS EXPENSES AFTER TRANSFERS	**$ 10,327**	**$ (45,929)**	**$ (124,999)**	**$ 79,070**

[1]Property Tax Revenues are accrued over a 12 month period

[2]Does not include Depreciation Expense

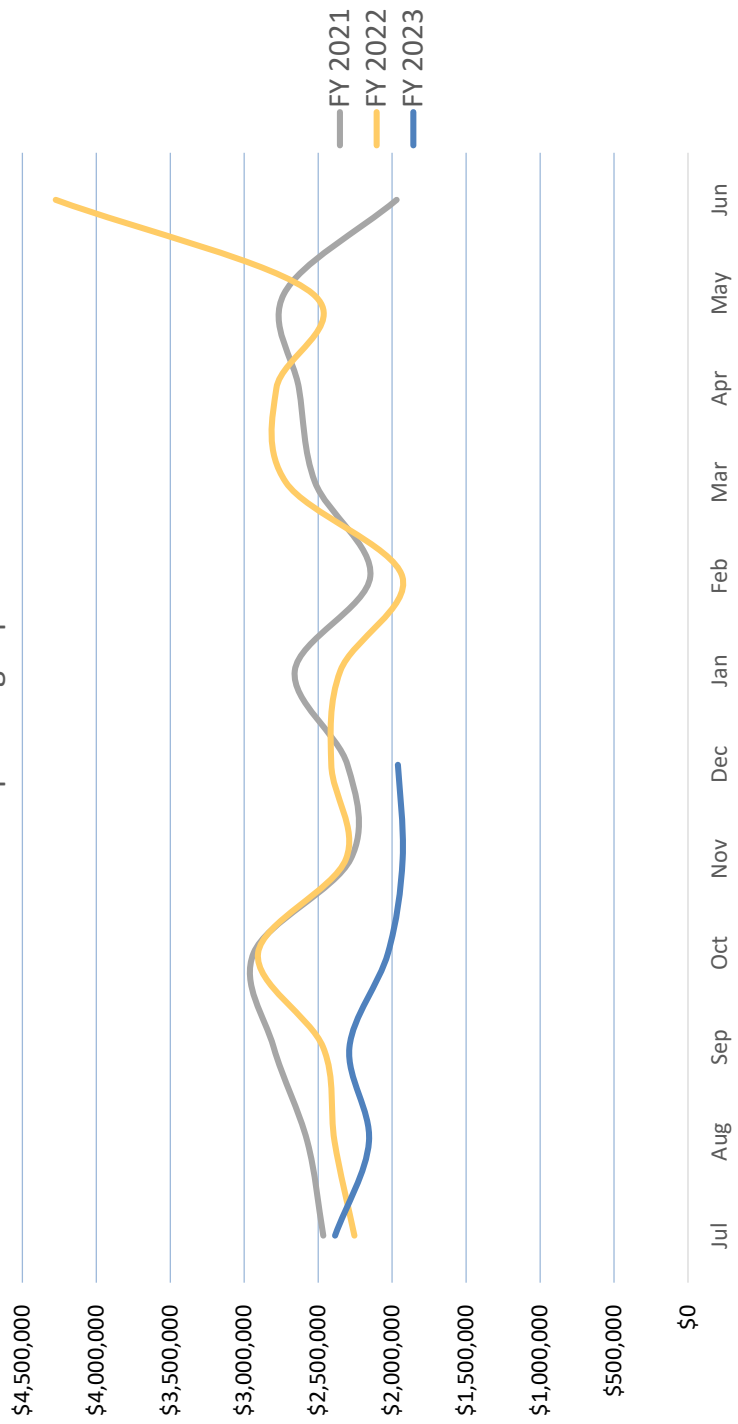
RAMONA MUNICIPAL WATER DISTRICT

OPERATING REVENUE/EXPENDITURE TREND 2022-2023

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
General													
Revenue	$ 53,896	$ 55,455	$ 44,972	$ 54,593	$ 53,550	$ 72,217							$ 334,685
Expenditures	(301,513)	(261,410)	(384,479)	(387,218)	(394,843)	(327,537)							(2,057,000)
Total	(247,617)	(205,955)	(339,507)	(332,624)	(341,293)	(255,320)	-	-	-	-	-	-	(1,722,316)
Transfers	253,973	207,270	311,506	313,985	324,006	265,647							1,676,387
Net Result	6,356	1,315	(28,001)	(18,639)	(17,287)	10,327	-	-	-	-	-	-	(45,929)
Water													
Revenue	1,266,834	2,310,270	1,665,285	2,257,936	978,877	1,881,154							10,360,356
Expenditures	(1,339,431)	(1,537,115)	(1,518,534)	(1,320,274)	(1,185,746)	(1,113,808)							(8,014,909)
Total	(72,597)	773,155	146,751	937,662	(206,869)	767,346	-	-	-	-	-	-	2,345,447
Transfers	(379,770)	(351,311)	(414,832)	(416,344)	(422,448)	(386,885)							(2,371,590)
Net Result	(452,367)	421,844	(268,081)	521,318	(629,317)	380,461	-	-	-	-	-	-	(26,143)
Fire													
Revenue	538,878	431,626	419,268	431,488	422,076	496,418							2,739,755
Expenditures	(566,202)	(27,929)	(1,297)	(377)	(2,940)	(3,792)							(602,538)
Total	(27,324)	403,697	417,971	431,111	419,136	492,627	-	-	-	-	-	-	2,137,217
Transfers	-	-	-	-	-	-							-
Net Result	(27,324)	403,697	417,971	431,111	419,136	492,627	-	-	-	-	-	-	2,137,217
Park													
Revenue	14,603	14,603	14,209	14,603	14,603	15,258							87,879
Expenditures	(13,333)	(15,243)	(13,392)	(15,723)	(25,316)	(14,526)							(97,533)
Total	1,270	(640)	816	(1,120)	(10,713)	733	-	-	-	-	-	-	(9,654)
Transfers	(5,833)	(5,833)	(5,833)	(5,833)	(5,833)	(5,833)							(35,000)
Net Result	(4,564)	(6,474)	(5,017)	(6,953)	(16,546)	(5,101)	-	-	-	-	-	-	(44,654)
San Vicente													
Revenue	274,249	275,769	252,711	294,060	252,189	262,904							1,611,883
Expenditures	(78,588)	(159,435)	(167,110)	(128,680)	(166,883)	(245,094)							(945,791)
Total	195,661	116,335	85,601	165,380	85,306	17,810	-	-	-	-	-	-	666,092
Transfers	(112,306)	(103,913)	(122,645)	(123,089)	(124,891)	(114,405)							(701,247)
Net Result	83,356	12,422	(37,043)	42,292	(39,585)	(96,595)	-	-	-	-	-	-	(35,155)
Santa Maria													
Revenue	359,087	371,712	294,081	391,614	314,650	323,514							2,054,658
Expenditures	(86,989)	(155,730)	(204,130)	(175,924)	(153,299)	(256,359)							(1,032,430)
Total	272,098	215,982	89,951	215,690	161,352	67,156	-	-	-	-	-	-	1,022,228
Transfers	(157,731)	(147,880)	(169,863)	(170,386)	(172,501)	(160,191)							(978,550)
Net Result	114,367	68,103	(79,912)	45,304	(11,149)	(93,035)	-	-	-	-	-	-	43,678
Total Operating Funds													
Revenue	2,507,548	3,459,436	2,690,526	3,444,294	2,035,945	3,051,466	-	-	-	-	-	-	17,189,215
Expenditure	(2,386,057)	(2,156,862)	(2,288,943)	(2,028,196)	(1,929,026)	(1,961,116)	-	-	-	-	-	-	(12,750,200)
Total	121,490	1,302,574	401,583	1,416,098	106,919	1,090,351	-	-	-	-	-	-	4,439,015
Transfers	(401,667)	(401,667)	(401,667)	(401,667)	(401,667)	(401,667)	-	-	-	-	-	-	(2,410,000)
Net Result	$ (280,176)	$ 900,907	$ (84)	$ 1,014,431	$ (294,748)	$ 688,684	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,029,015

RAMONA MUNICIPAL WATER DISTRICT

OPERATING REVENUE/EXPENDITURE TREND 2022-2023



RAMONA MUNICIPAL WATER DISTRICT
WATER SALES AND PURCHASES 2022-2023

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTALS
WATER SALES													
2020-21													
Untreated - Acre Feet	111.9	104.0	114.9	131.2	46.1	66.3	39.4	17.8	20.5	79.0	55.2	95.5	881.8
Treated - Acre Feet	375.1	381.8	448.0	409.2	370.2	286.8	277.7	272.1	166.0	291.3	259.9	449.4	3,987.5
Total	**487.0**	**485.8**	**562.9**	**540.4**	**416.3**	**353.1**	**317.1**	**289.9**	**186.5**	**370.3**	**315.1**	**544.9**	**4,869.3**
2021-22													
Untreated - Acre Feet	89.1	118.0	79.2	66.9	48.3	32.3	22.3	56.2	31.1	42.6	63.1	104.3	753.4
Treated - Acre Feet	303.8	505.5	313.5	434.4	190.3	347.2	164.8	341.2	165.5	347.3	184.8	528.2	3,826.5
Total	**392.9**	**623.5**	**392.7**	**501.3**	**238.6**	**379.5**	**187.1**	**397.4**	**196.6**	**389.9**	**247.9**	**632.5**	**4,579.9**
2022-23													
Untreated - Acre Feet	87.5	88.8	74.3	54.5	22.8	14.9							342.8
Treated - Acre Feet	261.6	581.6	241.5	478.8	180.1	362.4							2,106.0
Total	**349.1**	**670.4**	**315.8**	**533.3**	**202.9**	**377.3**							**2,448.8**
WATER PURCHASES													
SUPPLY CHARGES													
Water Treated - Acre Feet	438.4	453.3	383.9	348.8	270.1	257.4							2,151.9
Water Treated - $ Amount	$578,250	$597,903	$506,364	$460,067	$356,262	$339,511							$2,838,356
Water Untreated - CWA - Acre Feet	80.6	92.2	99.6	86.8	1.5								360.7
Water Untreated - CWA - $ Amount	$81,325	$93,030	$100,496	$87,581	$1,514								$363,946
Transportation Charge - Meter Delivery - CWA - $ Amount	$89,787	$94,372	$83,646	$75,359	$46,987	$44,530							$434,680
WATER EXCHANGES													
Water Exchanges (to) from Other Agencies - Acre Feet													
Water Exchanges (to) from Other Agencies - $ Amount													
Transportation Charges - Exchanges - $ Amount													
FIXED CHARGES (CREDITS)													
MWD Capacity Reservation Charge - $ Amount	$9,988	$9,988	$9,988	$9,988	$9,988	$9,988							$59,930
MWD Readiness to Serve Credit - $ Amount	($8,754)	($8,754)	($8,754)	($8,754)	($8,754)	($8,754)							($52,526)
CWA Customer Service Charge - $ Amount	$25,912	$25,912	$25,912	$25,912	$25,912	$25,912							$155,472
CWA Emergency Storage Charge - $ Amount	$54,734	$54,734	$54,734	$54,734	$54,734	$54,734							$328,405
CWA Infrastructure Access Charge	$43,791	$43,791	$43,791	$43,791	$43,791	$43,791							$262,746
CWA Supply Reliability Charge	$34,591	$34,591	$34,591	$34,591	$34,591	$34,591							$207,544
Other Charges and (Credits) Adjustments													
SAWR Water Programs - Acre Feet	(110.6)	(77.7)	(84.6)	-	(110.0)	(51.5)							(434.4)
SAWR Water Programs - $ Amount	(23,226.0)	(16,317.0)	(17,766.0)	-	(19,748.9)	(9,687.0)							(86,744.9)
Local Projects & Local Resource Program Credits - Acre Feet	(33.1)	(31.0)	(42.1)	(53.4)	(9.4)								(169.0)
Local Projects & Local Resources Program Credits - $ Amount	(5,097.4)	(4,774.0)	(12,285.0)	(10,524.0)	(1,447.6)								(34,128.0)
Total Purchases - Acre Feet	**519.0**	**545.5**	**483.5**	**435.6**	**271.6**	**257.4**							**2512.6**
Total Purchases - $ Amount	**$881,300**	**$924,475**	**$820,717**	**$772,745**	**$543,827**	**$534,616**							**$4,477,680**

Ramona Municipal Water District
Tax Allocation Worksheet Trend
Fiscal Year 2022-2023

Description	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Total
1% Property Tax	$ 109,226.49	$ 50,368.42	$ 114,435.91	$ 340,577.42	$ 2,577,827.61	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,192,435.85
Park Improv Dist.	$ 2,576.62	$ 1,188.20	$ 2,699.45	$ 8,033.10	$ 60,846.10	$ -	$ -	$ -	$ -	$ -	$ -	$ 75,343.47
San Vicente Availability	$ -	$ -	$ 35.00	$ 827.00	$ 4,645.00	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,507.00
San Vicente EDU	$ -	$ -	$ 2,760.29	$ 92,872.66	$ 334,600.69	$ -	$ -	$ -	$ -	$ -	$ -	$ 430,233.64
Santa Maria EDU	$ -	$ -	$ 2,053.90	$ 94,594.69	$ 849,169.98	$ -	$ -	$ -	$ -	$ -	$ -	$ 945,818.57
Fire - Paramedic	$ -	$ -	$ 4,607.43	$ 93,366.15	$ 476,050.28	$ -	$ -	$ -	$ -	$ -	$ -	$ 574,023.86
Delinquent Water Charge	$ -	$ -	$ -	$ (0.80)	$ 255.92	$ -	$ -	$ -	$ -	$ -	$ -	$ 255.12
Total	$ 111,803.11	$ 51,556.62	$ 126,591.98	$ 630,270.22	$ 4,303,395.58	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,223,617.51

RAMONA MUNICIPAL WATER DISTRICT
SALARIES AND WAGES TREND
As of December 31, 2022 (13 of 26 payperiods)

		Annual Budget	YTD Budget	YTD Expense	Under (Over)	% Under % -Over
General Fund						
General Manager Department						
	Salaries and Wages	$ 234,842	$ 117,421	$ 113,057	$ 4,364	3.72%
	Benefits	210,469	105,235	35,904	69,331	65.88%
	Total Department	445,311	222,656	148,961	73,695	33.10%
Engineering Department						
	Salaries and Wages	85,582	42,791	35,393	7,398	17.29%
	Benefits	85,539	42,770	44,584	(1,814)	-4.24%
	Total Department	171,121	85,561	79,977	5,584	6.53%
Finance Department						
	Salaries and Wages	1,522,187	761,094	620,547	140,547	18.47%
	Benefits	960,755	480,378	401,089	79,289	16.51%
	Total Department	2,482,942	1,241,472	1,021,636	219,836	17.71%
Water Fund						
	Salaries and Wages	2,122,787	1,061,394	900,396	160,998	15.17%
	Benefits	1,452,448	726,226	719,669	6,557	0.90%
	Total Department	3,575,235	1,787,620	1,620,064	167,556	9.37%
San Vicente Sanitation						
	Salaries and Wages	578,185	289,093	261,695	27,398	9.48%
	Benefits	403,713	201,858	196,663	5,195	2.57%
	Total Department	981,898	490,951	458,358	32,593	6.64%
Santa Maria Sanitation						
	Salaries and Wages	677,354	338,677	307,454	31,223	9.22%
	Benefits	437,697	218,850	219,731	(881)	-0.40%
	Total Division	1,115,051	557,527	527,186	30,341	5.44%
Total District						
	Salaries and Wages	5,220,937	2,610,470	2,238,542	371,928	14.25%
	Benefits	3,550,621	1,775,317	1,617,640	157,677	8.88%
	Total District	$ 8,771,558	$ 4,385,787	$ 3,856,182	$ 529,605	12.08%

Ramona Municipal Water District
Capital Projects
December 31, 2022

		FY 2022-23 Budget	FY 2022-23 Month	FY 2022-23 YTD	FY 2022-23 Available
FUND 43	**Water Capital Improvement Projects**				
51261	Pressure Reducing Valve (PRV)	$ 155,000	$ 16,834	$ 22,569	$ 132,431
51264	Pump Station Electric Control Center "MCC" Rehab	100,000	-	-	100,000
51270	Above Ground Gasoline and Diesel Storage Tanks	350,000	-	83,841	266,159
51272	Chavez Pipeline Loop	600,000	-	14,120	585,880
51273	Snows Zone Pipeline Loop	560,000	-	9,665	550,335
51274	Treated Water Tank	1,371,000	-	303	1,370,698
	New Warehouse Design	60,000	-	-	60,000
51276	2 - Ammonia Monochloramine Analyzer	75,000	-	-	75,000
51275	Poway #3 Pump and Pump Head	100,000	-	-	100,000
	HACH Water Quality Data Base	50,000	-	-	50,000
	Water Asset Management System Software	125,000	-	-	125,000
		$ 3,546,000	$ 16,834	$ 130,498	$ 3,415,502
FUND 26	**General Fund Capital Purchases**				
56020	Facilities - Building Renovation	$ 250,000	$ -	$ -	$ 250,000
		$ 250,000	$ -	$ -	$ 250,000
FUND 12	**Fire Fund Capital Purchases**				
52021	Engine Payoff	$ 126,200	$ -	$ 126,197	$ 3
52028	SCBA replacement	8,000	-	-	8,000
52030	Hose Replacement	6,000	-	-	6,000
52032	Ambulance Payoff	154,000	-	152,927	1,073
52033	EMS Power Cots	20,000	-	-	20,000
52036	Ambulance Re-Chassis	160,000	-	167,107	(7,107)
52037	Station 80/82 Remodel Work (Use of Grant)	329,000	-	139,476	189,524
		$ 803,200	$ -	$ 585,707	$ 217,493
FUND 10	**Water Capital Replacement Projects - Energy**				
57021	Poway #3 600 HP Motor	$ 175,000	$ -	$ -	$ 175,000
57020	Poway #2 400 HP Motor	75,000	-	17,175	57,825
		$ 250,000	$ -	$ 17,175	$ 232,825
FUND 11	**Water Capital Replacements Projects**				
51940A	Infrastructure replacement program	$ 2,400,000	$ 14,430	$ 105,775	$ 2,294,225
51942	Water meter replacement	350,000	10,809	127,891	222,109
51952	Vehicle Replacement	100,500	-	82,992	17,508
51953	Poway Pump Station low flow Natural Gas Engines	80,000	-	14,206	65,794
51949	Tank and Reservoir Rehab Program	1,300,000	-	221,155	1,078,845
51961	Treated Non-Potable Backflows (Fire Hydrants)	185,000	-	-	185,000
	Lake Pump Replacement	175,000	-	-	175,000
51962	Poway # 2 Pump Rebuild	75,000	-	42,407	32,593
51964	Operations Water System SCADA HMI / Hardware	75,000	-	-	75,000
51963	Valve exercise equipment	50,000	794	40,052	9,948
51965	18 " Pipeline Replacement	300,000	30,081	30,081	269,919
		$ 5,090,500	$ 56,114	$ 664,560	$ 4,425,940
FUND 13	**Park Capital Replacement Projects**				
53001	Park Capital Projects	$ 248,000	$ -	$ 246,964	$ 1,036
	Community Center Air Conditioners	20,000	-	-	20,000
		$ 268,000	$ -	$ 246,964	$ 21,036

		FY 2022-23 Budget	FY 2022-23 Month	FY 2022-23 YTD	FY 2022-23 Available
FUND 14	**San Vicente Capital Improvement Projects**				
51470	Above Ground Gasoline and Diesel Storage Tanks	$ 75,000	$ -	$ -	$ 75,000
	Collections Asset Management System	10,000	-	-	10,000
	Sprayfield Storage Building	40,000	-	-	40,000
	Sludge Storage Area	100,000	-	-	100,000
		$ 225,000	$ -	$ -	$ 225,000
FUND 15	**Santa Maria Capital Improvement Projects**				
51570	Above Ground Gasoline and Diesel Storage Tanks	$ 75,000	$ -	$ -	$ 75,000
	Collections Asset Management System	30,000	-	-	30,000
		$ 105,000	$ -	$ -	$ 105,000
FUND 22	**San Vicente Capital Replacements Projects**				
54197	Telemetry - Plant	$ 10,000	$ -	$ -	$ 10,000
54198	UF & RO membranes	60,000	-	-	60,000
54202	Collection system infrastructure	200,000	-	-	200,000
54205	Filter media	25,000	-	-	25,000
54206	Asphalt	10,000	-	-	10,000
54212	Solids Handling Study	100,000	-	23,037	76,963
54213	Collection System Inflow & Infiltration	75,000	-	-	75,000
54214	Manhole rehab	30,000	-	-	30,000
54216	Freightliner Vactor Truck Payment	45,000	-	44,831	169
54218	Sprayfield Maintenance	20,000	-	-	20,000
54223	Grit Removal System	120,000	-	-	120,000
54224	Wastewater Vehicle	59,000	-	46,495	12,505
	Collections CCTV Camera and Transponder Equipment	50,000	-	-	50,000
54225	Headworks Rehabilitation	100,000	-	-	100,000
	Pond Valve & Pipeline Configuration Design	35,000	-	-	35,000
		$ 939,000	$ -	$ 114,363	$ 824,637
FUND 24	**Fire Mitigation Capital Replacements Projects**				
52021	Engine Payoff	$ 62,200	$ -	$ 62,157	$ 43
52400	Station 80 Remodel	200,000	-	7,168	192,833
52401	Third Ambulance	285,000	-	277,800	7,200
		$ 547,200	$ -	$ 347,125	$ 200,075
FUND 25	**Santa Maria Capital Replacements Projects**				
55244	SM Collection system infrastructure	$ 200,000	$ -	$ -	$ 200,000
55247	Telemetry - Plant	10,000	3,991	3,991	6,009
55252	Spray field fence replacement	10,000	-	1,504	8,496
55253	Asphalt repair	10,000	-	-	10,000
55255	SM Spray field maintenance	20,000	1,054	7,366	12,634
55256	Effluent Transmission Pipe	2,100,000	6,589	20,601	2,079,399
55264	Influent pump station/Screening and Grit Removal	6,830,000	297,126	2,154,650	4,675,350
55268	Freightliner Vactor Truck Payment	45,000	-	44,831	169
55273	Collection System Inflow & Infiltration	100,000	-	-	100,000
55275	Manhole rehab	30,000	-	-	30,000
	Relocation of 21" Main	350,000	-	-	350,000
	Tertiary Chlorine Storage Building Repairs	15,000	-	-	15,000
55279	SM Wastewater Vehicle Replacement	59,000	-	46,940	12,060
55280	Emergency Backup Power Generator	75,000	-	-	75,000
	Centrifuge Polymaster Chemical Blending Mixer	15,000	-	-	15,000
	Sludge Containment Cover	25,000	-	-	25,000
	Collections CCTV Camera and Transponder Equipment	40,000	-	-	40,000
		$ 9,934,000	$ 308,760	$ 2,279,882	$ 7,654,118
	Total of all Projects	**$ 21,957,900**	**$ 381,708**	**$ 4,386,274**	**$ 17,571,626**

RAMONA MUNICIPAL WATER DISTRICT
STATEMENT OF CASH AND INVESTMENTS
DECEMBER 31, 2022

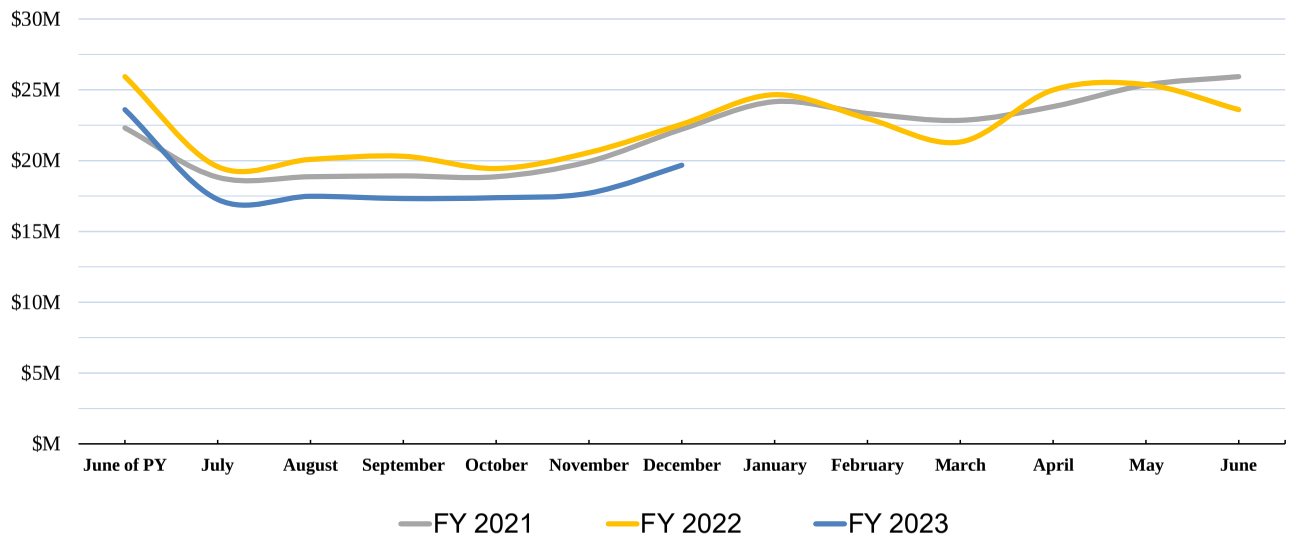
	BEGINNING BALANCE	ACTIVITY	ENDING BALANCE
CASH AND INVESTMENTS BY ACCOUNT			
Local Agency Investment Funds[1]	$ 37,365,495	$ 21,450	$ 37,386,945
General Checking	6,018,831	3,038,087	9,056,918
TOTAL CASH AND INVESTMENTS	**$ 43,384,326**	**$ 3,059,537**	**$ 46,443,864**
CASH AND INVESTMENTS BY FUND			
OPERATING FUNDS			
01 Water Fund	$ 7,883,114	$ 165,019	$ 8,048,133
02 Fire Fund	1,564,812	1,619,362	3,184,174
03 Park Fund	121,306	16,360	137,666
04 Sewer - San Vicente	2,372,368	(53,416)	2,318,951
05 Sewer - Santa Maria	1,790,989	469,857	2,260,846
06 General Fund	3,649,439	78,146	3,727,585
Total Operating Funds	**17,382,028**	**2,295,327**	**19,677,355**
DEBT SERVICE FUNDS			
51 Water Debt Service	574,521	121,192	695,713
Total Debt Service Funds	**574,521**	**121,192**	**695,713**
CAPITAL PROJECTS & EQUIPMENT			
10 Cap. Replacement - Energy	960,557	46,872	1,007,429
11 Cap. Replacement - Water	4,811,724	957,994	5,769,718
12 Cap. Improvement - Fire	(325,641)	214,667	(110,975)
13 Cap. Replacement - Park	(147,765)	(29,971)	(177,736)
14 Cap. Improvement - San Vicente	507,392	2,523	509,915
15 Cap. Improvement - Santa Maria	2,549,782	12,679	2,562,461
22 Cap. Replacement - San Vicente	2,067,711	154,388	2,222,100
24 Cap. Improvement - Fire Mitig. Fees	501,789	2,495	504,284
25 Cap. Replacement - Santa Maria	9,138,154	(779,252)	8,358,902
26 Cap. Improvement - General Fund	720,568	3,583	724,151
43 Cap. Improvement - Water	4,643,507	57,040	4,700,547
Total Cap Proj & Equip	**$ 25,427,777**	**$ 643,018**	**$ 26,070,795**
TOTAL CASH AND INVESTMENTS BY FUND	**$ 43,384,326**	**$ 3,059,537**	**$ 46,443,864**

[1]LAIF Balance reported at Fair Market Value
All investments are in compliance with the Ramona Municipal Water District Investment Policy.

CASH BALANCE TRENDS

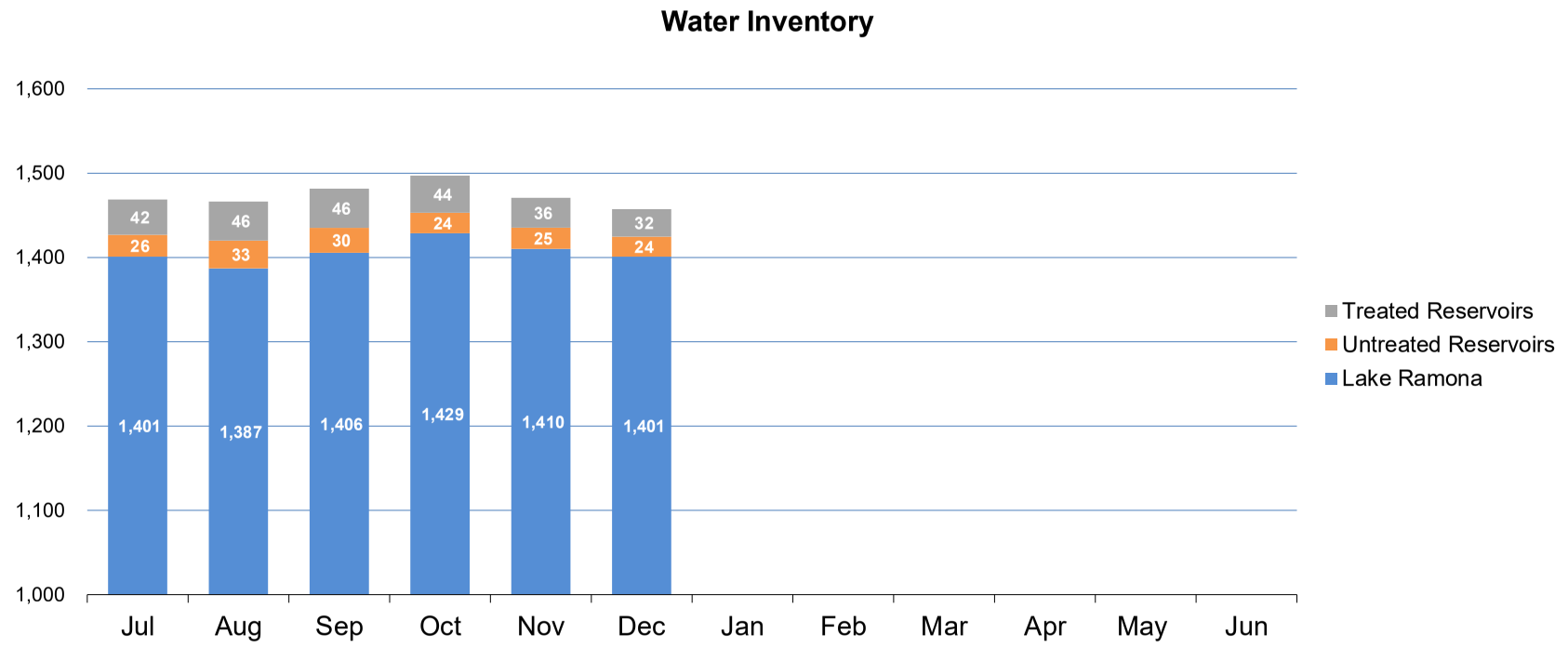
	June of PY	July	August	September	October	November	December	January	February	March	April	May	June
2022-23 Fiscal Year													
Operating	$ 23,598,701	$ 17,258,259	$ 17,481,453	$ 17,322,570	$ 17,382,028	$ 17,701,803	$ 19,677,355						
Debt Service	915,598	907,752	912,176	569,887	574,521	588,315	695,713						
Capital	25,107,898	27,537,464	26,379,586	25,757,522	25,427,777	24,925,407	26,070,795						
Total	$ 49,622,196	$ 45,703,476	$ 44,773,215	$ 43,649,979	$ 43,384,326	$ 43,215,525	$ 46,443,864						
2021-22 Fiscal Year													
Operating	$ 25,930,520	$ 19,572,125	$ 20,086,308	$ 20,309,169	$ 19,442,088	$ 20,573,320	$ 22,572,610	$ 24,656,044	$ 22,970,101	$ 21,315,692	$ 24,988,851	$ 25,366,695	$ 23,598,701
Debt Service	902,507	902,507	906,499	571,977	575,652	596,226	717,852	781,476	797,490	767,908	885,445	904,775	915,598
Capital	22,591,305	26,559,713	26,391,993	25,652,834	25,437,146	25,399,849	25,400,513	25,892,263	25,738,425	26,106,990	27,039,084	25,805,486	25,107,898
Total	$ 49,424,332	$ 47,034,345	$ 47,384,800	$ 46,533,981	$ 45,454,886	$ 46,569,395	$ 48,690,975	$ 51,329,783	$ 49,506,016	$ 48,190,590	$ 52,913,379	$ 52,076,956	$ 49,622,196
2020-21 Fiscal Year													
Operating	$ 22,308,228	$ 18,826,899	$ 18,864,465	$ 18,923,593	$ 18,862,816	$ 19,933,978	$ 22,219,637	$ 24,164,357	$ 23,326,583	$ 22,845,187	$ 23,816,157	$ 25,343,298	$ 25,930,520
Debt Service	854,958	854,958	860,826	533,321	541,741	566,132	697,788	757,922	773,601	741,294	836,472	890,087	902,507
Capital	22,745,902	23,894,579	23,747,785	23,791,673	23,610,762	23,283,680	24,526,743	24,541,367	24,567,320	24,217,246	23,373,753	23,072,194	22,591,305
Total	$ 45,909,087	$ 43,576,435	$ 43,473,076	$ 43,248,587	$ 43,015,319	$ 43,783,790	$ 47,444,168	$ 49,463,646	$ 48,667,505	$ 47,803,727	$ 48,026,382	$ 49,305,579	$ 49,424,332
2019-20 Fiscal Year													
Operating	$ 22,527,538	$ 18,541,296	$ 18,603,575	$ 18,564,058	$ 18,957,195	$ 18,849,837	$ 21,320,497	$ 23,723,338	$ 21,633,383	$ 21,162,780	$ 23,886,736	$ 22,238,302	$ 22,308,228
Debt Service	728,110	728,110	735,693	409,189	414,299	431,976	601,798	680,243	692,015	642,231	830,989	840,535	854,958
Capital	23,290,355	24,875,652	24,642,658	24,788,405	24,555,559	24,266,296	25,419,114	24,788,316	23,704,178	23,350,348	23,829,912	22,852,874	22,745,902
Total	$ 46,546,003	$ 44,145,057	$ 43,981,926	$ 43,761,652	$ 43,927,053	$ 43,548,109	$ 47,341,409	$ 49,191,898	$ 46,029,576	$ 45,155,359	$ 48,547,637	$ 45,931,711	$ 45,909,087

Operating Cash Balance Trends



RAMONA MUNICIPAL WATER DISTRICT
WATER INVENTORY
December 31, 2022

	BEGINNING INVENTORY			ACTIVITY FOR MONTH INVENTORY INCREASE / (USAGE)		ENDING INVENTORY		
	acre feet	cost/acre ft	total value	acre feet	total value	acre feet	cost/acre ft	total value
Lake Ramona	1,410	$ 1,332	$ 1,877,707	(9)	$ (11,408)	1,401	$ 1,332	$ 1,866,299
Reservoirs								
Untreated	25	$ 1,402	$ 35,272	(1)	$ (1,765)	24	$ 1,406	$ 33,507
Treated	36	$ 1,738	$ 61,702	(3)	$ (5,431)	32	$ 1,735	$ 56,271
Total Reservoirs	61	$ 1,599	$ 96,974	(4)	$ (7,196)	56	$ 1,595	$ 89,778
Total Water Inventory	**1,471**	$ 1,343	**$ 1,974,680**	**(14)**	**$ (18,604)**	**1,457**	$ 1,342	**$ 1,956,077**



RAMONA MUNICIPAL WATER DISTRICT

AGENDA MEMO

Agenda Item No. F.1
Regular Board Meeting of February 14, 2023

James Hickle, President
and Members of the Board of Directors
Ramona, CA 92065

RE: DISCUSSION AND DIRECTION ON CAPACITY FEE CHARGES FOR ACCESSORY DWELLING UNITS WHEN THERE IS NOT AN EXISTING RESIDENCE

Members of the Board:

Purpose

To provide additional information on the agenda item from the December 13, 2022, Board meeting and obtain Board direction on capacity fees for accessory dwelling units when there is not an existing residence.

Background

This item was discussed at the December 13, 2022, and additional information was requested by the Board. The agenda memo and presentation from December 13, 2022, are attached to this memo.

Discussion

The Board requested additional information on two items:

1. The amount of capacity available in the District's water and sewer systems?

2. How are other water and sewer agencies handling this issue?

Available District Water and Sewer Capacity

Water System Capacity

Detailed calculations regarding Water System Capacity are included in Attachment 3. The District has sufficient water system capacity to serve approximately an additional 27,000 EDUs, over and above the requirements of water service to the Barona Reservation. While the District's source of supply is adequate to serve a relatively large amount of growth, there may be areas of the District's system that have limited storage or limited fire flow that will need additional evaluation if a large number of water connections, as ADUs or otherwise, were to be

requested. But generally, the District does not anticipate any limitations on adding ADUs on the water system.

Sewer System Capacity

Detailed calculations regarding Water Reclamation Plant Capacity are included in Attachment 4.

San Vicente Water Reclamation Plant Capacity

The San Vicente Water Reclamation Plant (SVWRP) has a design capacity of 0.8 million gallons per day (MGD) and currently has an average tributary flow of 0.5 MGD or operating at 63% of design capacity. The plant is designed to serve 4,000 EDUs (based on a unit flow of 200 gallons per EDU per day), with approximately 3,910.13 EDUs sold or reserved at this plant. Therefore, approximately 90 EDUs remain available for purchase or use, and 98% of the EDU-based capacity is sold or reserved.

Santa Maria Water Reclamation Plant Capacity

The Santa Maria Water Reclamation Plant (SMWRP) has a design capacity of 1.0 MGD, with a current average tributary flow of 0.63 MGD, or at 63% of design capacity. The plant can serve 5,000 EDUs (based on a unit flow of 200 gallons per EDU per day), with approximately 4,801.12 EDUs sold or reserved at this plant. Therefore, approximately 198.88 EDUs remain available for purchase or use, and 96% of the EDU-based capacity is sold or reserved.

Summary

The District has sufficient capacity in its water system to support additional connections in the majority of the service area and does not anticipate needing to make substantial capital improvements that would be funded by capacity fees.

The District has limited capacity at both wastewater treatment plants and could potentially face sewer connection moratoriums at both plants depending on the number of connections that occur in future years. The District is currently evaluating both plants, as both may have flow capacity for additional connections but would need upgrades to the treatment capacity (e.g. such as increased aeration) to treat the more concentrated flow that is being experienced due to water conservation over the last decade. The District expects this report to be available in approximately June 2023 and can provide an update to the Board at the following board meeting.

Due to the potential impact on the wastewater plants, the Board may wish to consider the following options:

1. Continue current practice of charging capacity fees for ADUs connected simultaneously with a single-family home.

2. Continue the current practice of charging sewer capacity fees for ADUs connected simultaneously with a single-family home but consider not charging water capacity fees

for all ADUs and direct staff to draft a proposed Legislative Code amendment for the Board to consider.

3. Consider not charging water or sewer capacity fees for all ADUs and direct staff to draft a proposed Legislative Code amendment for the Board to consider.

Other Agencies' Responses to the ADU Issue

Local Agencies

Water and wastewater districts have taken various approaches to this issue. The City of Oceanside adopted ordinances[1] between 2020 and 2022 that waive all development impact fees for ADUS, except for school fees. Therefore, water and wastewater capacity fees are not charged; however, the City will charge a pro-rated water buy-in fee for ADUs if there is a need to upsize the water meter. The City may have taken this approach as it is required to meet affordable housing requirements by the state.

Fallbrook Public Utilities District (FPUD) provides water and wastewater services and does not charge capacity fees for ADUs. Leucadia Wastewater District provides wastewater services and does not charge capacity fees for ADUs. However, it is not clear if there is an intent to purposely eliminate charges to ADUs or to avoid the confusion in adopted and proposed legislation between 2016 and present where some ADUs could be charged capacity fees and some could not be charged capacity fees.

Valley Center Municipal Water District provides water and wastewater services and has indicated it will be updating its code in 2023 for ADUs and intends to charge capacity fees whenever it is allowed to do so.

Industry Associations

ADU-related legislation began earlier than reported at the December 13, 2022 meeting. The first ADU-related bill that potentially affected water and wastewater agencies was Senate Bill 1069 passed in 2016. This legislation allowed local agencies to provide for the creation of ADUs in single-family and multi-family residential zones and one of the criteria included was the adequacy of water and sewer services. If the ADU was "contained within the existing space of a single-family residence or accessory structure", the utility could not require a separate connection and could not charge capacity fees. However, for detached ADUs, separate connections could be required, and capacity fees could be charged "proportionate to the burden of the [ADU], based upon either its size or the number of plumbing fixtures, upon the water or sewer system." Senate Bill 13 was passed in 2019 and prohibited local agencies, special districts, etc. from imposing any impact fees on ADUs smaller than 750 square feet and for larger ADUs for the charge to be proportional to the square footage of the primary dwelling unit.

1 City of Oceanside's Accessory Dwelling Unit webpage: https://www.ci.oceanside.ca.us/gov/dev/planning/adu/default.asp

It should be noted that many water and wastewater industry groups, such as the Association of California Water Agencies (ACWA), California Special Districts Association (CSDA) and California Association of Sanitation Agencies (CASA) issued opposition letters to both Senate Bills 1069 and 13. Generally, water and wastewater districts have been opposed to these bills as it eliminates the ability for local agencies to have "growth pay for growth" and requires having existing customers subsidize potential capital improvements needed for the system by these new ADU demands.

In their joint comment letter on Senate Bill 13, the Fire Districts Association of California, the California Fire Chiefs Association, and CSDA argued,

> *Special districts provide millions of Californians with essential local services, such as fire protection, parks and recreation, flood control, libraries, and more…Given that revenue for local governments is tightly restricted by the California Constitution, fees are one of the few ways that special districts can offset for the indirect costs of growth. It is irresponsible to promote growth with no plan to address the impact of that growth or mechanism to fund the needs of the new residents. If legislation succeeds in spurring development of ADUs by SB 13 prohibiting fees, the families inhabiting the new ADUs and their neighbors would suffer from inadequate public safety, parks, and other fundamental services. We would be trading one crisis for another.*

Fiscal Impact

See December 13, 2022 Agenda Memo.

Recommendation

Staff respectfully requests that the Board discuss and provide direction to Staff accordingly to take no action or to propose a Legislative Code amendment for Board consideration at a future board meeting.

Prepared and Submitted by: Erica Wolski, PE, General Manager

ATTACHMENTS:

Attachment 1	December 13, 2022 Agenda Memo "Discussion and Direction on Capacity Fee Charges for Accessory Dwelling Units When There is not an Existing Residence"	F.1. Page 5-9
Attachment 2	December 13, 2022 Board Presentation "Capacity Fee Charges for ADUs"	F.1. Page 10-17
Attachment 3	Available District Water System Capacity	F.1. Page 18-19
Attachment 4	Available District Sewer System Capacity	F.1. Page 20-23

RAMONA MUNICIPAL WATER DISTRICT

AGENDA MEMO

Agenda Item No. F.2.
Regular Board Meeting of December 13, 2022

James Hickle, President
and Members of the Board of Directors
Ramona, CA 92065

RE: DISCUSSION AND DIRECTION ON CAPACITY FEE CHARGES FOR ACCESSORY DWELLING UNITS WHEN THERE IS NOT AN EXISTING RESIDENCE

Members of the Board:

Purpose

To discuss and obtain Board direction on capacity fees for accessory dwelling units when there is not an existing residence.

Background

Over the last five years or so, the State has adopted legislation to change the requirements for accessory dwelling units ("ADUs") in order to streamline permitting of housing across the state. The majority of the requirements are for local land use, planning and building departments, which in the District's case is handled by the County of San Diego.

Section 65852.2 (f)(2) of the California Government Code ("GC") requires that ADUs not be considered a "new residential use for the purpose of calculating connection fees or capacity charges for utilities, including water and sewer service, unless the [ADU] was constructed with a new single-family dwelling." Also, GC Section 65852.2(f)(4) states that a separate utility connection (e.g water meter and service lateral and/or sewer lateral) cannot be required unless certain conditions are met. Section 7.28.040 of the District's Legislative Code entitled "New Water Service" provides as follows:

> An owner requesting new water service shall pay all fees, deposits, and installation costs associated with the requested water service; provided, however, that accessory dwelling units shall not be considered a new residential use for the purposes of calculating connection fees or capacity charges. In addition, it shall not be required for an owner to install a new or separate connection directly between the accessory dwelling unit and the District, and no related connection fee or capacity charge shall be assessed for an accessory dwelling unit that is contained within the existing space of a single-family

residence or accessory structure, has independent exterior access from the existing residence, and the side and rear setbacks are sufficient for fire safety.

Therefore, the District typically does not require connection fees or capacity charges for up to two ADUs (one ADU and one junior ADU) per parcel if the parcel has an existing single-family residence and meets the requirements of the law.

Note that per GC Section 65852.2(k) an occupancy permit cannot be issued for an ADU prior to the issuance for the certificate of occupancy for the main single-family residence.

Discussion

Because Section 65852.2(f)(2), only addresses the issue of not considering the ADU a new use (and thus not requiring the payment of capacity charges/connection fees) when there is already an existing single-family home, Staff is seeking clarification on the interpretation of the Legislative Code in the following circumstances:

1. Existing single family homes that are on a well and would like to connect to the water system or sewer system and also build an ADU; and

2. New single family home construction where an ADU is built simultaneously.

In the first case, the single-family home could be connected first and after connected to the District's system, the homeowner then could commence with permitting and constructing an ADU. The issue could also arise where an ADU already exists on a parcel with a single-family home and the additional capacity fees required for connecting water and sewer to the parcel for both structures is cost prohibitive and results in the homeowner remaining on a contaminated or inadequate well or a failing septic system.

In the second case, a potential way to avoid paying capacity fees for the ADU is to build a single-family residence first and then to apply later to the County and District to build the ADU and/or junior ADU. However, due to the time and costs involved in County permitting, this two-step process could be considered difficult and inefficient.

Because this issue could be open to interpretation based on State law and the District's Legislative Code, Staff is seeking direction from the Board about how it would like to apply the charging of capacity fees to parcels in situations #1 and #2 noted above.

If capacity fees are charged for the ADUs in the two situations, each ADU is charged for 0.5 to 1.0 equivalent dwelling units (EDUs) for water and sewer depending on the number of bedrooms and the presence of a kitchen as shown in Table 1. Table 2 shows the water and sewer capacity charges that would be required. Table 3 shows example capacity and connection charges for new single-family home with a 2-bedroom ADU.

Table 1 Water and Sewer EDUs per Occupancy Type in District's Legislative Code

Occupancy Type	Water EDUs	Sewer EDUs
Single family home	1.0	1.0
ADU		
Studio	0.7	0.8
1 Bedroom	0.8	0.9
2 Bedrooms	1.0	1.0
ADU without kitchen	0.5	0.5

Table 2 Estimated Capacity Fees Required

Occupancy Type	Water EDUs	Water Capacity Fees*	Sewer EDUs	Sewer Capacity Charges	Total Fees
Single family home	1.0	$11,163	1.0	$16,864	$28,027
Single family home plus studio ADU	1.7	$18,977	1.8	$30,355	$49,332
Single family home plus 1 bedrooom ADU	1.8	$20,093	1.9	$32,042	$52,135
Single family home plus 2 bedrooom ADU	2.0	$22,326	2.0	$33,728	$56,054
Single family home plus ADU without kitchen	1.5	$16,744	1.5	$25,296	$42,040
Single family home plus 2 ADUs	2.0-3.0	$22,326 - $33,489	2.0-3.0	$33,728 - $50,592	$56,054 - $84,081

**$9,196 per EDU plus assumes in a storage deficient zone which requires $1,967 for storage mitigation per EDU*

***Assuming project is in the Santa Maria Sewer Service Area at $16,864 per EDU.*

Table 3 Capacity and Connection Fees for an Example Project (Single Family Home with 2 Bedroom ADU)

Charge Description	Cost ($)
New Water – ¾" meter (2 EDUs)	
SDCWA Capacity Charge (2023) – <1" meter	$5,859
RMWD Capacity Charge (1-1-22) – 2 EDUs	$22,326
RMWD Meter and Lateral Installation Cost (1-1-22) – ¾" meter (Deposit)	$3,257
Total – Water Only	**$31,442**
Total – Water Only if ADU Capacity Charge Waived	$20,279
Savings on Water Connection	**$11,163**
New Sewer – (2 EDUs)	
RMWD Capacity Charge – 2 EDUs	$33,728
Inspection Fee per Cleanout - 1	$150

Sewer Lateral Installation Fee*	$10,000
Total – Sewer Only	**$43,878**
Total – Sewer Only if ADU Capacity Charge Waived	$27,014
Savings on Sewer Connection	**$16,864**

**Estimated cost – customers connected to sewer are required to hire a contractor to install the lateral.*

If capacity charges are not required for the ADU's, the District would not receive one-time capacity fees for the District of approximately $11,163 and $16,864 to the water and sewer capital improvement funds, respectively. It should be noted that the District is currently not receiving capacity fees for ADUs which are built on parcels with existing single-family residences per State law and the existing Code.

There would be more water and sewer in the near term if ADUs were encouraged to be built simultaneously rather than delayed or eliminated from the project. Table 4 shows anticipated water and sewer billing for a typical single-family home and a 2-bedroom ADU. A typical water bill in the District is for a ¾-inch meter and use of 17 units per month for a single family home. The estimated water usage for a 2-bedroom ADU is 8 HCF as it is assumed the irrigation volume would remain the same. The addition of a 2-bedroom ADU would provide an additional $750 in water revenue and $822 in sewer revenue annually for a total of $1,571 that would not be received by the District for the services provided to the customers if the ADU were not constructed.

Table 4 Sales Revenue Generated by Example Project

Occupancy Type	**Monthly Meter Charge (3/4")**	**Water Usage (HCF)**	**Volumetric Water Charges ($/month)****
Single family home	$38.47	17	$132.77
2-bedroom ADU	-*	8	$62.48
Total Water Bill	**$233.72 per month or $2,804.64 per year**		
Additional water revenue due to addition of ADU:	**$749.76 per year**		
Occupancy Type	**EDUs**	**Sewer Charges ($/month)**	**Sewer Charges ($/year)**
Single family home	1.0	$68.46	$821.57
2-bedroom ADU	1.0	$68.46	$821.57
Total Sewer Bill	**$136.92 per month or $1643.14 per year**		
Additional sewer revenue due to addition of ADU:	**$821.57 per year**		

**Same meter used and no upsize typically required*

***$7.81 per unit as of January 1, 2023*

Fiscal Impact

See above in discussion.

Recommendation

Staff respectfully requests that the Board discuss and provide direction to Staff accordingly to take no action or to propose a Legislative Code amendment for Board consideration at a future board meeting.

Prepared and Submitted by: Erica Wolski, PE, General Manager

Capacity Fee Charges for ADUs

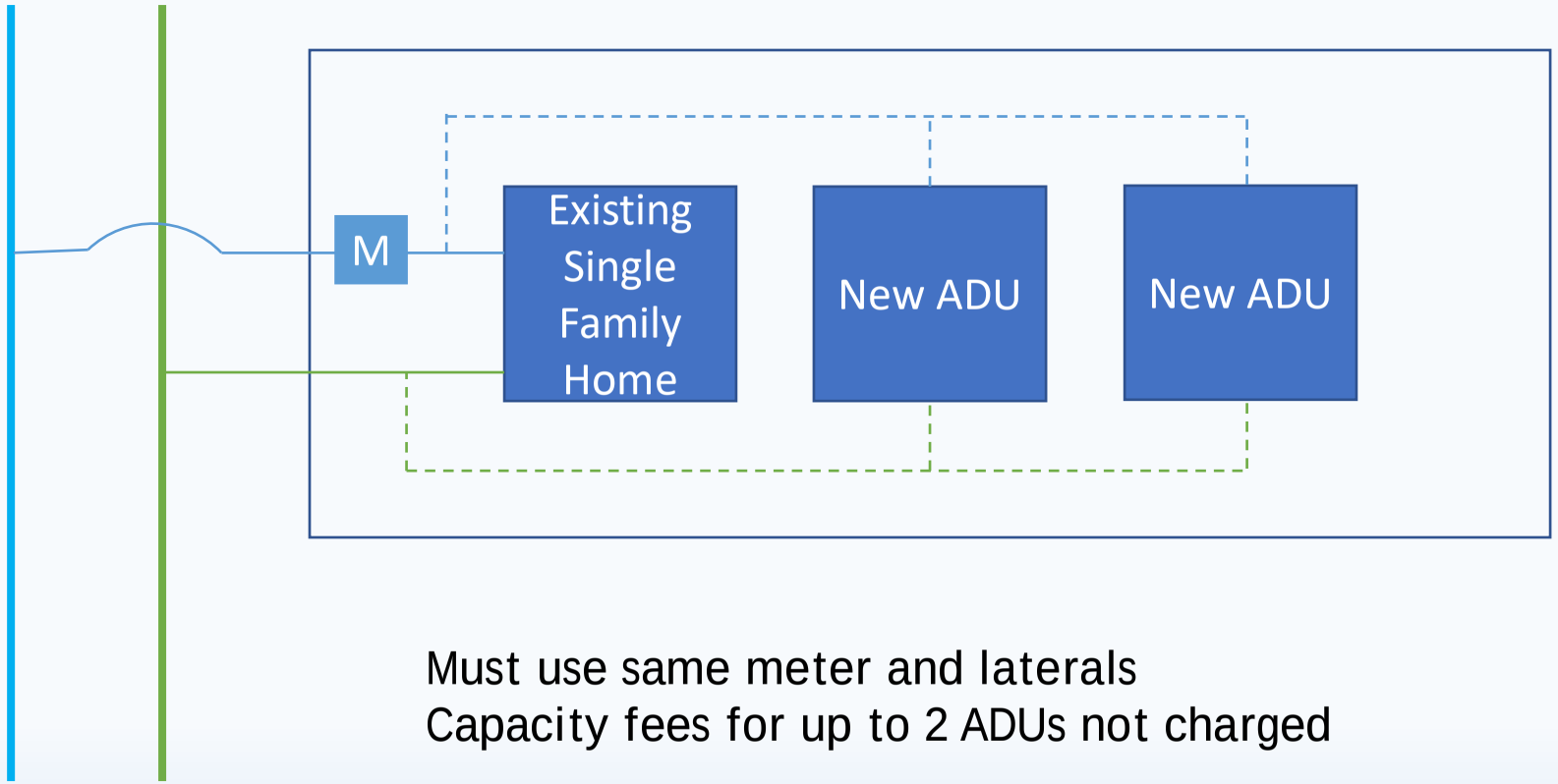
Agenda Item F.2.

December 13, 2022

Assembly Bill 68

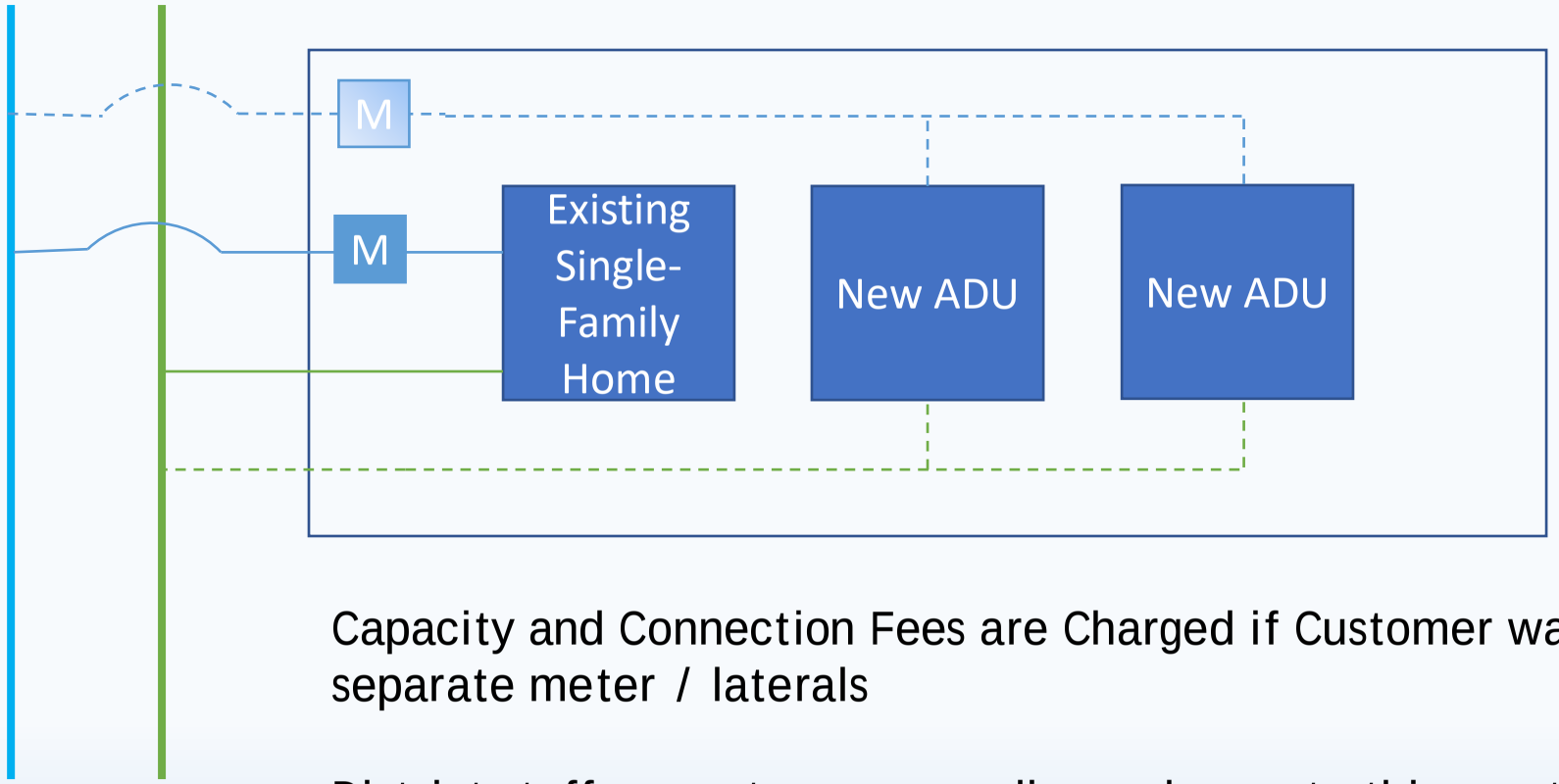
- Passed in October 2019
- First of several ADU-related bills to streamline permitting of new housing across the state
- If there is an existing single-family home that proposes to build an ADU:
  - It must use the same meter/lateral
  - RMWD cannot charge capacity fees or connection fees

Example – Where Fees are Not Charged



Must use same meter and laterals
Capacity fees for up to 2 ADUs not charged

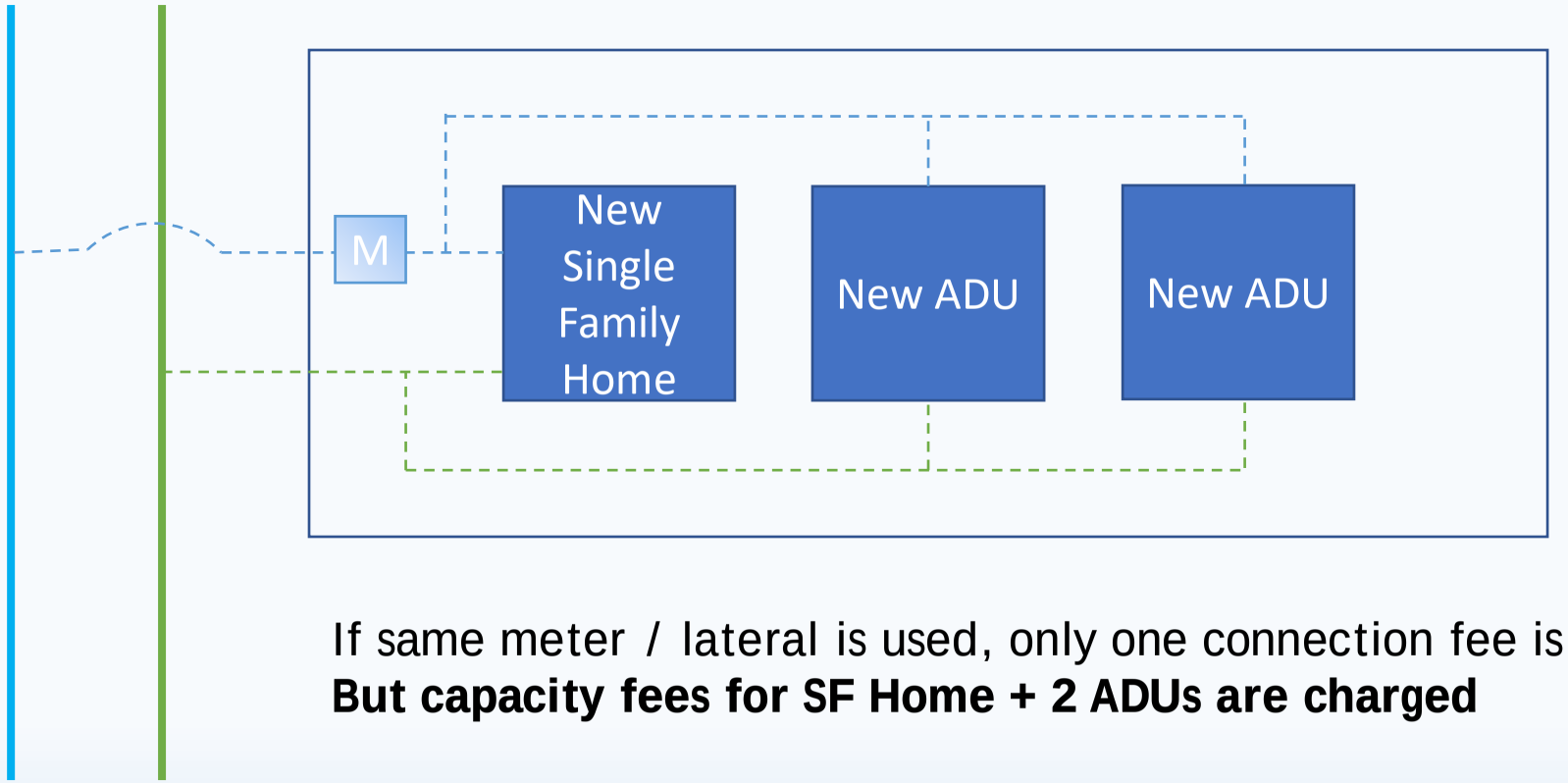
Example Where Fees are Charged – Separate Meters / Laterals



Capacity and Connection Fees are Charged if Customer wants separate meter / laterals

District staff are not recommending a change to this practice

Example Where Fees are Charged – SF Home and ADUs Built Concurrently or Connect to System Concurrently



If same meter / lateral is used, only one connection fee is charged
But capacity fees for SF Home + 2 ADUs are charged

Current Workaround

- Customers can avoid the capacity fees charges if:
  - 1) SF Home is built or connected first
  - 2) Then ADU(s) are built

Options for Board Discussion

- Do nothing, existing policy complies with state code
- Recommend staff bring proposed code change back at future board meeting to allow for staff to not charge capacity fees if single family home is built or connected simultaneously with ADUs

Questions?

Available District Water System Capacity

Two recent documents detail the District's available water capacity and adequacy to serve existing and potential customers: 2020 Urban Water Management Plan (UWMP) completed in June 2021 and the 2022 Water Master Plan Update (WMPU) completed in January 2022.

Tables 1 and 2 show historical demand from 1999 to 2007, when District water demand was at its recent highest, and from the more recent period of 2017 to 2020. Table 2 also shows the projected water demand from the UWMP and WMPU. The District is also in the process of designing a water line to serve potable water to the Barona Band of Mission Indians. The near term and ultimate water demand for the Barona project are included in Table 2. In 2040, the District is projecting an annual use of approximately 6,800 acre-feet per year (AFY) of treated water compared to the 7,473 AFY used in 2004. As noted in the footnote to Table 2, the 2025-2040 projections do not include the possibility of switching current untreated water customers to treated water. Fiscal year 2022 untreated water usage was 753 AFY and if all untreated customers were moved to the treated system, the 2040 estimated usage would be approximately 7,500, which is slightly higher than the 2004 peak, but still within the range of water demand that the District is able to meet.

Table 1. Historical Water Use

Water Demand	Historical Water Demand (AFY)								
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Total	9,358	11,184	10,720	12,246	11,103	11,986	10,397	11,066	12,169
Treated	5,592	6,818	6,384	6,339	6,902	**7,473***	6,838	6,892	7,484
Untreated	3,766	4,366	4,336	4,907	4,201	4,513	3,559	4,174	4,685

**Max treated water demand since 1999.*

Table 2. Recent and Projected District Water Use

Water Demand	Historical Water Demand (AFY)				Projected Water Supply (AFY)			
	2017	**2018**	**2019**	**2020**	**2025**	**2030**	**2035**	**2040**
From UWMP*	5,030	5,241	4,254	4,747	4,838	4,977	5,120	5,268
From WMPU**	3,515	3,793	3,332	3,573	3,648	3,780	3,911	-
Barona Project					442	971	1,500	1,500
UWMP plus Barona	**-**	**-**	**-**	**-**	**5,280**	**5,948**	**6,620**	**6,768**

**From Tables 4-1 and 1-1, 2020 UWMP. These values assume 0.6% growth based on estimated 0.6% population increase and included untreated water use for agricultural irrigation.*

***From Tables 2.7 and 2.14, 2022 WMPU. These values assume 1.2% annual increase based on the addition of Cumming Ranch, additional groundwater users connecting to the system and the Hidden Valley Ranch project. These values do not include untreated water usage as the analysis was originally completed prior to approval of decommissioning the untreated water system.*

The District is supplied 100% imported water from the San Diego County Water Authority (SDCWA) via the RAM-3 Flow Control Facility or when SDCWA supply is not available via the RAM-2 Flow Control Facility that provides water from the City of Poway's Water Treatment Plant. The capacity of these connections are 32 and 18.6 cubic feet per second (cfs), respectively, or 23,167 and 13,466 AFY, respectively. At an equivalent dwelling unit (EDU) value of 554 gallons per day (gpd), the District could theoretically serve an additional 27,000 EDUs via RAM-3 and 11,000 EDUs via RAM-2 in 2040. (Note that this rough analysis did not consider maximum day or peak hour peaking factors).

While the District's source of supply is adequate to serve a relatively large amount of growth, there may be areas of the District's system that have limited storage or limited fire flow that require additional evaluation if a large number of water connections, as ADUs or otherwise, were to be requested. But generally, the District does not anticipate any limitations on adding ADUs on the water system.

Available District Sewer System Capacity

San Vicente Water Reclamation Plant Capacity

The San Vicente Water Reclamation Plant (SVWRP) has a design capacity of 0.8 million gallons per day (MGD), with an average flow of 0.5 MGD, or at 63% of design capacity. The plant can serve 4,000 EDUs (based on a unit flow of 200 gallons per EDU per day), with approximately 3,910.13 EDUs already sold or reserved at this plant, leaving approximately 90 EDUs for purchase or use and 98% of the EDU-based capacity is either sold or reserved.

The District also charges up to $10 per acre per year or $10 per year per parcel (if less than one acre) in sewer availability fees in the San Vicente Sewer Service Area. There are currently 48 parcels that are charged this sewer availability fee and are not receiving sewer. Assuming that 1 EDU needs to be reserved per parcel, the District should reserve 48 EDUs for potential sewer connections from these parcels.

There are also two elementary schools located in the San Vicente Sewer Service Area: Barnett Elementary and James Duke Elementary. The schools are charged sewer fees based on average daily attendance (ADA), assuming 60 people (students and staff) per EDU. To ensure that capacity remains available at the plant, the District has assumed the maximum enrollment at both schools. Based on Ramona Unified School District (RUSD) records, the highest enrollment for both schools was in 2003-2004. Both schools have an approximate student to staff ratio of 9.3. This ratio was used to estimate the maximum number of staff. The number of EDUs the District estimates that need to be reserved for the two elementary schools are shown in Table 1.

Table 1. EDUs Reserved for RUSD Schools in the San Vicente Sewer Service Area

School Name	Current Enrollment	Highest Enrollment Year	Estimated Max Enrollment	Estimated Max Staff	ADA	EDUs Reserved Per School
Barnett	478	2003-2004	623	67	690	11.5
James Duke	467	2003-2004	676	73	749	12.5
Total						**24.0**

Table 2 shows that there are approximately 90 EDUs remaining in the San Vicente Sewer Service Area. Meaning that the capacity sold or reserved in the San Vicente Sewer Service Area is approximately 97.8%, despite plant flow being at 62.5% of its permitted design capacity. For every ADU built, the District assigns the appropriate EDU to the parcel and reduces the number of EDUs available, even if the District does not receive capacity fees for the ADU-related EDU. Due to the low number of EDUs remaining in the San Vicente Sewer Service Area, at some point, the District may need to put a moratorium on additional sewer connections.

Table 2. Available EDUs in the San Vicente Sewer Service Area

Category	EDUs
Total Plant Capacity	4,000
EDUs Sold	3,838.13
Sewer Availability Charge Capacity Reservations	48
RUSD Capacity Reservations	24
Total Assigned EDUs	**3910.13**
EDUs Available for Purchase	89.87

Santa Maria Water Reclamation Plant Capacity

The Santa Maria Water Reclamation Plant (SMWRP) has a capacity of 1.0 MGD, with a current tributary average flow of 0.63 MGD, or 63% of design capacity. The plant can serve 5,000 EDUs (based on a unit value of 200 gallons per EDU per day), resulting in approximately 4,801.12 EDUs already sold or reserved at this plant, Therefore, there are approximately 198.88 EDUs remaining for purchase or use, and 96% of the EDU-based design capacity is either sold or reserved.

The District has approximately 22 sewer laterals that are connected to the system and for which there is no record that capacity fees were paid for these connections. The District refers to these as “undocumented” EDUs. The District has approximately 29 sewer laterals that the District had documents indicating that the connection paid for some EDUs but the amount of EDUs purchased is not sufficient to cover their actual usage. It is estimated that approximately 108 EDUs are currently in use but have either not been purchased or the documentation is not available for the purchase. The District also has 44 parcels that were included in Assessment District (AD) 82-1 that are not currently connected to sewer. While AD 82-1 included both commercial and residential parcels, the District is assuming that 1 EDU per parcel should be reserved for these unsewered parcels.

Similar to the San Vicente Service Area, the District is reserving capacity for the RUSD District office and schools in the Santa Maria Service Area. A ratio of 9.3 students to staff was used to estimate the estimated maximum staff at estimated maximum enrollment. The number of EDUs the District estimates that need to be reserved for the two elementary schools are shown in Table 3.

Table 3. EDUs Reserved for RUSD Schools in the Santa Maria Sewer Service Area

School Name	Current Enrollment	Highest Enrollment Year	Estimated Max Enrollment	Estimated Max Staff	ADA	EDUs Reserved Per School
Mountain Valley*	142	2005-2006	268	-	268	4.46
District Office			-	162	162	2.70
Mt. Woodson Elementary	369	2003-2004	656	71	727	12.12
Ramona Elementary	373	2004-2005	652	70	722	12.03
Ramona Community School	243	2010-2011	243	26	269	4.48
Olive Peirce Middle School	768	2003-2004	1,095	118	1,213	20.22
Montecito High School	142	2005-2006	268	29	297	4.95
Ramona High School	1,441	2003-2004	1,927	207	2,134	35.57
Total						**96.53**

**Currently only 2-3 days per week, but assumed 5 days per week for this analysis.*

Table 4 shows that there are 198.88 EDUs remaining in the Santa Maria Sewer Service Area. not including the proposed Cumming Ranch development. Due to the low number of EDUs remaining in the Santa Maria Sewer Service Area, at some point, the District may need to establish a moratorium on new sewer connections, including ADUs, until the plant is expanded or re-rated.

Many parcels in the Santa Maria Sewer Service Area are on septic and a recent informal survey of the Acres neighborhood with approximately 300 unsewered parcels showed that 75% of these unsewered parcels are interested in sewer service. The District has requested technical assistance from the State Water Resources Control Board to evaluate the feasibility of connecting these customers via grant funding. If the survey was expanded to the entirety of the Santa Maria Sewer Service Area, it is likely that additional parcels would also like to connect to sewer system if extension of sewer collection lines could be made economically feasible via grant funding. The remaining number of EDUs is currently too low to support providing sewer service to the entire Santa Maria Sewer Service Area, assuming all parcels were connected.

Table 4. Available EDUs in the Santa Maria Sewer Service Area

Category	EDUs
Total Plant Capacity	5,000
EDUs Sold	4,552.59
EDUs Reserved for Assessment District 82-1 Parcels	44
Undocumented EDUs*	108
RUSD Capacity Reservations	96.53
Total Assigned or Reserved EDUs	**4,801.12**
EDUs Available for Purchase	198.88
Projected EDUs for Cumming Ranch**	121
Available for Purchase Less Cumming Ranch	77.88

* *Estimated Undocumented EDUs*

** *Pending payment of capacity fees*

RAMONA MUNICIPAL WATER DISTRICT

AGENDA MEMO

Agenda Item No. F.2.
Regular Board Meeting of February 14, 2023

Jim Hickle, President
and Members of the Board of Directors
Ramona, CA 92065

RE: DISCUSSION AND POSSIBLE ACTION TO ACCEPT THE UPDATED FEBRUARY 2023 WATER FACILITIES PLAN

Members of the Board:

Purpose

To provide the Board of Directors an updated Water Facilities Plan (Facilities Plan, WFPU) for review and acceptance.

Water System Infrastructure Background

The Ramona Municipal Water District was formed on August 15, 1956, and in 1967 acquired the Ramona Irrigation District which was formed in 1925. The District owns and operates approximately 220 miles of water mains, 4,500 valves, 1,500 fire hydrants, 9,700 water meters, 12 pump stations, 22 storage tanks, one reservoir and other miscellaneous appurtenance. All facilities require ongoing maintenance, repairs, and eventual replacement.

In February 2017, the Board accepted the Water System Infrastructure Facilities Plan (Facilities Plan), which identified existing needs for water infrastructure and provided a plan to address those needs over a rolling 10 years.

In July 2018, the Board accepted the update of the Facilities Plan, which identified additional projects within the water system to be implemented and various project priorities.

In April 2019, the Board received an update on projects completed to date and accepted the update of the Facilities Plan. The updated Facilities Plan was also updated in preparation of completing an update to the 1998 Water Master Plan.

In December 2019, the Board awarded a contract to Carollo Engineers to complete an update to the District's 1998 water master plan.

In December 2021, the Board was presented with the Water Master Plan Update (WMPU). The WMPU provided recommendations for improvements within the existing water system.

In November 2022, a workshop was held to present the Board and members of the public the draft Facilities Plan, which included recommendations from the WMPU. Discussion and comments were provided from members of the public and the Board.

Discussion

The final WMPU include a few updated programs and projects, based on comments received previously. The following progress has been made on the different programs and projects identified in the 2019 Facilities Plan:

- Under the Radio Read Meter Replacement program (Task 1), 5,112 meters have been replaced for a total of 8,190 since the program started.
- Under the Pump and Motor Efficiency Program (Task 2), pump efficiency tests were completed on all pump stations and pumps and motors have been rebuild or replaced where required.
- Under the Infrastructure Replacement Program (Task 3), approximately 7,050 feet of cast iron pipeline was replaced in the downtown area.
- Under the Valve Replacement Program (Task 4), 51 valves have been replaced with valve sizes varying form 4-in to 12-in in diameter. This program is being merged into the updated pipeline replacement program (Task 3).
- Under the Tank and Reservoir Rehabilitation Program (Task 5); the rehabilitation of SDCE Tank 2 was competed.
- Under the PRV Rehabilitation Program (Task 6); the Etcheverry Street and Hughes Street PRVs have been completed.
- The Replacement of the Poway Pump Station # 5 Pump with a 600 HP natural Gas Engine (Tank 7) has been completed.
- The Mount Woodson Reservoir Floating Cover Replacement (Task 8) has been completed.

Members of the Board have been provided copies of the updated 2023 Facilities Plan, outlining various required facilities, including the timing and cost of the projects.

In recent years, there has been an increase in pipeline repairs required for the existing 14-in transmission main installed in 1958. Replacement of the existing transmission main was added to the Pipeline Replacement Program (Task 3). As District transmission mains continue to age, replacement projects will continue to be identified in future years.

The WMPU recommended various projects throughout the water system for improvement of redundancy and fire flow. Those recommended projects are included under the Pipeline Replacement Program (Task 3). This program continues to address aging pipelines, typically those installed by the Ramona Irrigation District and pipelines installed prior to and during the 1950s.

The WMPU also provided recommendations for improvements prior to decommissioning of the untreated water system. Recommendations included the Snows Loop, the Chavez Loop and the addition a new treated water tank (Chavez Tank). These projects were further refined and are included under the WFPU as Tasks 12, 13 and 14, respectively. As previously discussed, decommissioning of the untreated water system is currently on hold and Task 12, 13 and 14 are identified at the end of planning year 10.

The WFPU provides projected expenditures over the next 10 fiscal years, with a focus on the first 2 to 5 fiscal years. No additional appropriation is being requested through FY 2022/2023.

The WFPU is a planning tool to provide transparency and prioritization of projects and programs, and will be periodically updated to reflect completed projects and new projects and programs, as necessary. The WFPU is not additional or unanticipated capital expenses or authorization to build. Future annual operating budgets will continue to reflect the appropriate rehabilitation and replacement programs anticipated in each fiscal year. Funding sources for the projects are determined prior to Board approval and will meet the best needs of the community and project, comply with the law, and could include grants, developer contributions, financing, capital leases and other funding mechanisms.

Water System Infrastructure Facilities Plan (Facilities Plan):

On-Going Programs:

- Radio-Read Meter Replacement Program
- Pump & Motor Efficiency Program
- Pipeline Replacement Program
- Tank & Reservoir Rehabilitation Program
- Pressure Reducing Valve Rehabilitation Program

Planned Projects:

- 18-in Poway Transmission Main Pipeline Replacement (30-in)
- 16-in Elm Street Transmission Main
- 12-in Downtown Transmission Main
- 8-in Snows Loop
- 8-in Chavez Loop
- 12-in Kennedy Pipeline

Other Projects (Funded by Others)

- 12-in Wildcat Canyon Road Pipeline
- 8-in Acres Waterline Improvements (Alternative 1A)
- 8-in Acres Waterline Improvements (Alternatives 2 & 3B)

Fiscal Impact

None.

Recommendation

District staff respectfully recommends that the Board accept the updated February 2023 Water System Infrastructure Facilities Plan.

Prepared by: Ricardo Soto, P.E.

Reviewed By: Michael Metts, P.E., District Engineer
Joe Lomeli, RMWD Operations Manager

Submitted by: Erica Wolski, P.E., General Manager

ATTACHMENTS:

Attachment 1	Draft Water System Infrastructure Facilities Plan Update, February 2023	F.2. Page 5-36
Attachment 2	Water Master Plan Update Supplement Memo – Fire Flow Analysis Update, December 2022	F.2. Page 37-47

RAMONA MUNICIPAL WATER DISTRICT

DRAFT

WATER SYSTEM INFRASTRUCTURE FACILITIES PLAN UPDATE

- FEBRUARY 2023 -

DUDEK

MEMORANDUM

Date: February 14, 2023
Subject: UPDATED WATER SYSTEM INFRASTRUCTURE FACILITIES PLAN

EXECUTIVE SUMMARY

BACKGROUND

The Water System Infrastructure Facilities Plan (Water Facilities Plan) was first introduced and accepted by the Ramona Municipal Water District (District) Board of Directors in February 2017. The Water Facilities Plan is a planning tool to help provide transparency and establish system priorities. The 2017 version of the Water Facilities Plan included projects based on operational needs within the system. Projects were identified in coordination with District operations staff and engineering department.

The Water Facilities Plan was updated in 2018 and presented to the Board for approval during a special Board Meeting on July 31, 2018. The plan was unanimously approved.

In 2019, the Water Facilities Plan was updated once again and presented to the Board during the April 9, 2019, Board meeting. The purpose of the update was to provide the Board with an update on the progress on projects and programs identified under the plan and to introduce potential new projects to be evaluated during the upcoming Water Master Plan Update (WMPU).

In 2019, the District retained the services of Carollo Engineers to complete the update to the 1998 Water Master Plan prepared by Boyle Engineering. Carollo partnered with West Cost Civil to update the District's treated water model and assist in identifying projects recommended as part of the WMPU. Carollo Engineers completed and presented the WMPU at the December 2021 Board Meeting. The WMPU was finalized in January 2022.

In November 2022, the District held a public workshop to discuss the updated Water Facilities Plan which included findings and recommendations for improvement from the WMPU. Each of the projects and programs were presented during the workshop and comments were provided by various Board of Directors and members of the public. Comments were received from the Board on the draft version of the document.

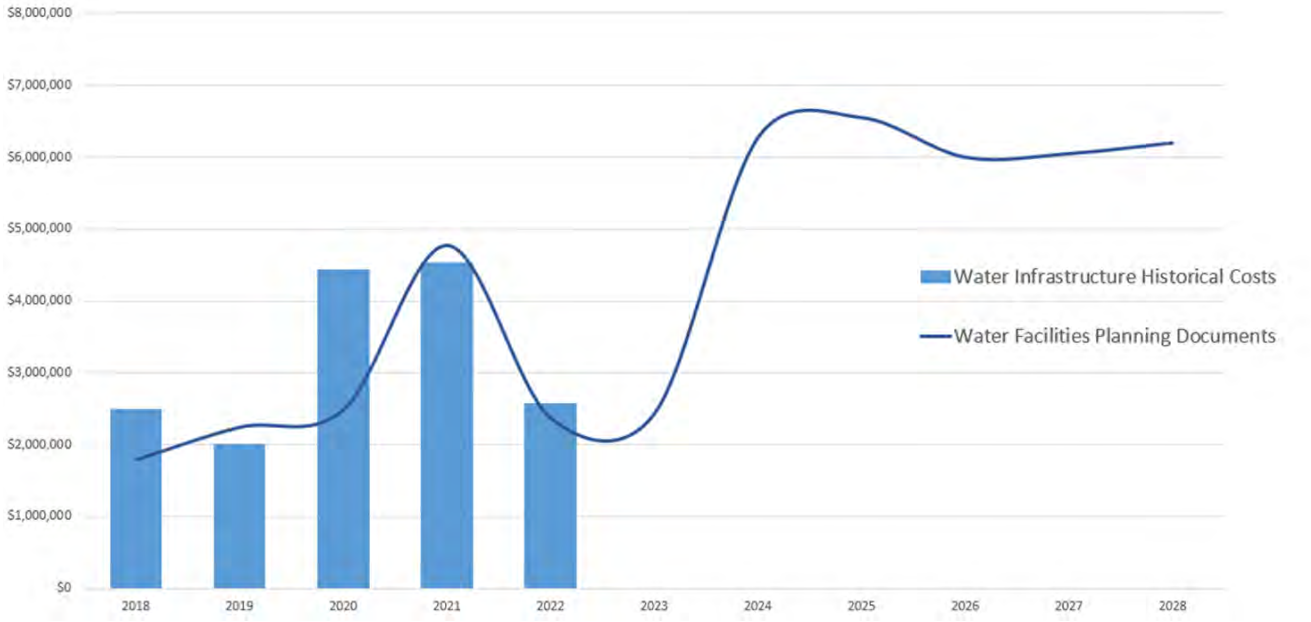
FUNDING AND EXECUTING THE WATER FACILITIES PLAN

Historical Annual Capital Spending

The District has spent $2 to $4.5 million annually, an average of $3.4 million, on water facilities capital projects between Fiscal Years (FY) 2016-2017 and 2021-2022. The District had planned to spend $2.7

million on its water facilities capital program during this same time period and therefore on average met and exceeded its planned capital spending, despite falling short in individual years.

Figure 1. Historical and Planned Spending on Water Facilities Capital Projects



At the November 2021 Water Facilities Plan workshop, staff explained that the current 2022 value of the District's Water Facilities is $252.1 million (not including Lake Ramona). **Table 1** shows the frequency that District Water Facilities will be replaced based on an annual Capital Replacement Program (CRP) spending. District assets vary in useful life with pipelines lasting 50-75 years, pump stations lasting 40-50 years and mechanical parts, such as pumps, lasting 15-20 years. Assuming that, on average, the District's assets have a useful life of 50 years, the District needs to spend at least $5 million annually to maintain its water facilities. If a system has deferred maintenance and replacement, the projected spending needs to be increased to maintain its water facilities. As the District has only spent $3.4 million between FYs 2016-2017 and 2021-2022, the District has an estimated replacement schedule of approximately 75 years and currently has a deferred maintenance and replacement backlog.

Table 1. Capital Replacement Program Spending vs System Replacement

Annual CRP ($M)	System Full Replacement in Years
$2.5	100
$3	84
$4	63
$5	50

Recommended Annual Capital Spending

The updated Water Facilities Plan is recommending a District capital program of $31.1 million over the next five years, or approximately $6.2 million annually. District staff are recommending $6 million instead of $5 million on average, to reduce the deferred maintenance and replacement backlog.

In 2019, Raftelis completed a rate and fee study that included a recommended capital budget of $6.6 million and the proposed $6.2 million is closer to this recommended range than the District has spent historically. District staff also compared the capital spending in the last two to five years on water facilities for other water agencies similar to the District. Valley Center Municipal Water District (MWD), Rainbow MWD and Fallbrook Public Utilities District (FPUD) have an annual capital budget of $5.5 to 6.0 million. Therefore, the proposed $6.2 million is within range for similar water agencies.

Execution of Capital Plan

As shown in Figure 1, the District has been able to execute or exceed the planned spending in its water facilities capital plan. In recent years, the District has committed to designing a project in one year and constructing it in the next to plan and execute projects more reliably. To ensure that the District can continually spend the budget over the five-year period, the District will work between now and the end of the next fiscal year to develop $5-6 million in shovel-ready designs. “Shovel ready” means that the final design is completed and the environmental documentation to satisfy the California Environmental Quality Act (CEQA) and other critical permitting is completed. There are two advantages to this approach: 1) having shovel ready designs makes the District more competitive on grant and loan applications as funding agencies like to issue construction funds to projects that can be completed in the near term and in a timely manner and 2) in an year that there is a delay in a planned project, the District can issue a bid for one of its shovel ready projects to ensure that the plan budget is met. The District is currently evaluating which projects can be completed by its existing engineering staff under contract and whether additional on-call engineering contracts need to be issued.

The District has traditionally only used “PAY-GO,” which means that projects are not bid for construction until sufficient funds are available in the water capital reserve accounts. This has traditionally limited the size of the project that the District can construct in any given year and has resulted in some efficiencies as it can be more cost effective to bid multiple parts of a project as one larger project rather than smaller annual projects. The District plans to explore funding options, such as grants and loans, to enable the District to execute larger projects without resulting in a large rate increase that would occur if the District were to continue to use the “PAY-GO” method.

UPDATED WATER FACILITIES PLAN

The updated Water Facilities Plan incorporates recommendations from the WMPU, comments received during the Board workshop, and input from District operations staff in close coordination with the General Manager and input from the Finance Department. This plan addresses the District’s most immediate needs within the existing treated water system and provides a planning document for budgeting purposes over the next 5 to 10 years.

The Updated Water Facilities Plan includes proposed projects within the identified Water System Programs, including the Radio Read Meter Replacement Program, Pump & Motor Efficiency Program, Pipeline Replacement Program, Tank & Reservoir Rehabilitation Program, and PRV Replacement Program. The primary purpose of these programmatic components of the Water Facilities Plan is to identify ongoing, long-term projects for rehabilitation and replacement of critical water system infrastructure. These programs will continue indefinitely, as ongoing age and deterioration of water infrastructure will necessitate replacement and rehabilitation effort.

The Pipeline Replacement Program incorporates the pipeline replacement recommendations of the WMPU, as well as operationally identified pipeline replacement projects (i.e., replacement of cast iron pipeline materials and pipeline materials that have aged beyond their useful life). Considering the 5-to-10-year scope of the Water Facilities Plan, only those projects to be completed within the next 10 years are included in this document. However, the Pipeline Replacement Program, based in the WMPU, will incorporate the replacement of District distribution pipelines over future facility planning horizons to meet minimum pipeline diameter requirements and deteriorated material replacement.

Outside of the Water Facilities Plan Program projects, there are a few pipeline projects that provide specific benefit to the District water system or are dependent on interrelated projects. For these reasons, these projects are listed separately within the Water Facilities Plan. These projects include the:

- **Project 6**: 18- to 30-inch replacement of the Poway Pump Station discharge pipeline
- **Project 7**: 16-inch Elm Street Transmission Main,
- **Projects 9-11**: Projects associated with long-term decommissioning of the untreated water system,
- **Project 8**: 12-inch Downtown Transmission Main, and
- **Projects 12-14**: Projects related to the Barona and Acres Waterline Projects

The description sheets and graphics provided within the Water Facilities Plan Update identify the proposed justification and schedule of implementation for each project. Additional information is included on Project 3: Pipeline Replacement Program, Project 3.06 4-in and 6-in Pipeline Replacement Program, Project 6, and Project 7.

Project 3 Pipeline Replacement Program

The Pipeline Replacement Program provides for the replacement of aging and deteriorating water distribution facilities throughout the District service area. Past program emphasis has been given to the replacement of existing cast iron water pipelines, primarily within the downtown portion of the community. This portion of the water system has the oldest conveyance facilities, circa 1927.

The District has experienced approximately 47 mainline breaks over the past five years. These mainline breaks represent an impact to the residential and business customers of the District. Main breaks result in unexpected lane closures and traffic delays. Water outages result in closure or reduced service for businesses, as well as residential disruption of daily life. Where possible, water services are highlined to maintain service when mainline breaks occur. However, not all services are able to be highlined.

The resulting water service outages result in District staff working overtime to repair breaks and put the system back into proper operation, preventing work on other system priorities.

Proactive replacement of aging and deteriorating infrastructure also reduces cost to District ratepayers. As shown in **Table 2,** the District spent $0.67 million over the last five years repairing main breaks. The in-house cost of repairing a mainline break is approximately $1,650 per linear foot (lf). This repair cost is compared to planned replacement costs of approximately $500 to $600 per lf, depending on the length and diameter of the main. Other impacts, including excessive pavement damage/repair, sidewalk/curb/gutter repair, and potential private property repair, increase project cost and open the District up to potential claims. The District has been fortunate that property damage related claims related to main breaks are relatively rare. Therefore, the Pipeline Replacement Program lowers overall disruption and cost to the ratepayers, as well as underscores that the District is reliable and focused on the well-being of its customers. The costs related to customer impacts and claims are not included in **Table 2** and therefore the identified $0.67 million underrepresents the economic impact to the District and community.

Table 2. Main Line Breaks 2018-2022 and Associated Costs

	In-House Repairs	Contract Repair	Total Repairs
Number of Main Breaks	44	3	47
Approximate Total Length Repaired (feet)	264	90	354
Material Costs ($)	$210,664		
District Labor Costs ($)	$224,297	$26,609	
Contractor Costs ($)	-	$210,762	
Total Cost ($)	**$434,961**	**$237,370**	**$672,331**
Average Cost Per Main Break ($)	**$9,885**	**$79,123**	**$14,305**
Cost per Length Foot of Repair ($/ft)	**$1,648**	**$2,637**	**$1,899**

New Project 3.02 - Replacement of Existing 14-inch Transmission Main

Within the Woodson-Bargar Pressure Zone, water is conveyed from the Woodson Tank to the influent side of the Olive Pump Station (OPS) through 14-inch steel transmission pipelines. These pipelines were installed in 1958 and are reaching their useful life, with a total of five recent mainline breaks. The 14-inch pipeline forms a loop around the downtown service area along Montecito Road on the north and Dye Road on the south, conveying water throughout the central and northern portions of the service area. This pipeline loop reduces headloss by serving water around the northern and southern side of the downtown area. In the event of a failure in the 14-inch pipeline, water would be required to flow around one side of the downtown area, increasing losses, and significantly impacting the ability to maintain water and fire flow service. Systematic replacement of the 14-inch pipeline is necessary to avoid potential loss of water service in the Woodson-Barger Pressure Zone.

Replacement of the 14-inch pipeline is proposed to be completed in an incremental process, with approximately one or two miles of the pipeline replaced at a time. The District will prioritize replacing portions of this pipeline in the area where main breaks have occurred, which appear to be associated with a more corrosive environment (e.g., near the creek crossings). The District could also elect to identify funding for a larger replacement project and more linear feet of the pipeline could be replaced. Either way, the District intends to design the various replacement components of the 14-inch pipeline to develop "shovel-ready" projects, to be constructed in an efficient and timely manner.

Revisions to Project 3.06 4-inch and 6-inch Pipeline Replacement Program for Fire Flow

In December 2022, the District prepared a memorandum that updated the fire flow analysis included in the final January 2022 WMPU. An error in the model resulted in overestimating the number of locations within the District that did not meet fire flow. The January 2022 WMPU recommended replacement pipe lengths of 383,000 feet and at a total cost of $126.5 million, approximately $9 million annually to be spent between 2022 and 2035. Correction of the error reduces the replacement length to approximately 125,000 and significantly reduces the amount of pipelines in each of the eight priority groups for a revised cost of $41.3 million or $3 million annually. The results of this updated analysis are reflected in Project 3.06 "4-in & 6-in Pipeline Replacement Program (Ongoing)". Due to the revisions in the priority list, the District has scheduled this project to start in FY 27/28 and will spend approximately $15 million in construction on these replacements through FY 32/33.

18- to 30-inch Poway Pump Station Discharge Pipeline Replacement

The Poway Pump Station (PPS) receives water from the San Diego County Water Authority (SDCWA) aqueduct via a flow control facility with a capacity of 32 cubic feet per second (cfs). From the PPS, the 30-inch diameter pipeline splits into two with one branch headed north via a 24-inch diameter pipeline to the 3-million-gallon (MG) West End Tank, which feeds the Highland Valley area and Downtown/West End pressure zone and the other branch headed east via an 18-inch and 30-inch pipeline to the 10-MG Woodson Reservoir, which feeds the Woodson-Bargar pressure zone. It is important for system reliability that the full maximum day demand (MDD) can be supplied to and distributed from the West End Tank and Woodson Reservoirs individually. As in the event of a major transmission main break, the District would not be able to meet demand without requesting customers significantly conserve water.

As the Ramona community relies entirely on SDCWA water, the PPS is critical to the community's water security. The PPS 18-inch discharge pipeline was previously replaced with a 30-inch pipeline, except for approximately 6,700 feet that remained 18-inch. Based on the recent Water Master Plan Update (WMPU), the 18-inch portion is recommended to be replaced with 30-inch to facilitate future water delivery through the PPS. The following analysis provides additional rationale for why the project should be completed.

In approximately 2016, the District changed from pumping 24/7 as needed throughout the day to pumping only during a 19-hour window to avoid pumping during time of use (TOU) from 4 pm to 9 pm when energy prices are higher. TOU energy prices vary but can be between 4 and 400 times the cost of electrical during non-TOU hours. Prior to 2016, the District spent approximately $1.8 million annually by pumping 24/7 as needed. However, the District has been able to save approximately $0.8 million

annually by avoiding TOU. Due to the significant cost savings, the District would like to continue avoiding TOU electric rates, whenever possible.

Tables 3 and **4** show the flow rate under maximum day demand (MDD) and peak hour demand (PHD) conditions that needs to be conveyed by the PPS under current conditions, current conditions with Barona's near-term demands added and ultimate 2035 conditions with and without Barona, assuming that only the pipeline to the West End Reservoir or Woodson Reservoir is in service. The corresponding velocity through the 30-inch pipeline, 24-inch pipeline to West End Reservoir and 18-inch pipeline restriction to the Woodson Reservoir is also shown. The San Diego Water Agency Standards (WAS) recommend a maximum velocity of 8 feet per second (fps) during peak hour demand. **Table 3** shows that under MDD conditions, the District would be able to stay below the 8 fps criteria for all scenarios except the ultimate scenario with Barona's demands in the 18-inch pipeline. **Table 4 shows that the 18-inch pipeline exceeds the maximum velocity criteria in all PHD scenarios under current and future conditions.**

Table 3. Maximum Day Demand Flowrate and Velocity through PPS Transmission Lines

Scenario	MDD		Flowrate to avoid TOU**		Velocity (fps)		
	(gpm)	(cfs)	(gpm)	(cfs)	18"	24"	30"
Current*	4,028	9.0	5,088	11.3	6.4	3.6	2.3
Current with Barona	4,772	10.6	6,028	13.4	7.6	4.3	2.7
Ultimate (2035)	4,244	9.5	5,361	11.9	6.7	3.8	2.4
Ultimate with Barona	5,732	12.8	7,240	16.1	9.1	5.1	3.3

**5.8 mgd*
***19 hours per day (9 pm to 4 pm, daily)*

Table 4. Peak Hour Demand Flowrate and Velocity through PPS Transmission Lines

Scenario	PHD*		Flowrate to avoid TOU**		Velocity (fps)		
	(gpm)	(cfs)	(gpm)	(cfs)	18"	24"	30"
Current*	6,445	14.4	8,141	18.2	10.3	5.8	3.7
Current with Barona	7,635	17.0	9,644	21.5	12.2	6.8	4.4
Ultimate (2035)	6,790	15.1	8,577	19.1	10.8	6.1	3.9
Ultimate with Barona	9,171	20.4	11,585	25.8	14.6	8.2	5.3

**MDD of 5.8 million gallons per day (4,028 gallons per minute) times a peaking factor of 1.6*
***19 hours per day (9 pm to 4 pm, daily)*

As the SDCWA connection and PPS are the District's sole source of supply, it is critical that the District be able to refill its storage in a timely manner during peak times, such as red flag events that could last multiple days. **Table 5** shows the benefit in decreased time to fill the 10 MG Woodson Reservoir while not exceeding the maximum velocity criteria of 8 fps. Currently, it takes the District greater than one day to refill the storage using the 18-inch pipeline and avoiding exceeding the maximum velocity criteria. With the increased pipeline size, the District can refill the Woodson Reservoir in approximately half a day while remaining outside of the TOU period. The District has 25.4 million gallons of potable water storage District-wide and the time to refill these reservoirs via the change in pipeline diameter is reduced from 3.6 days to

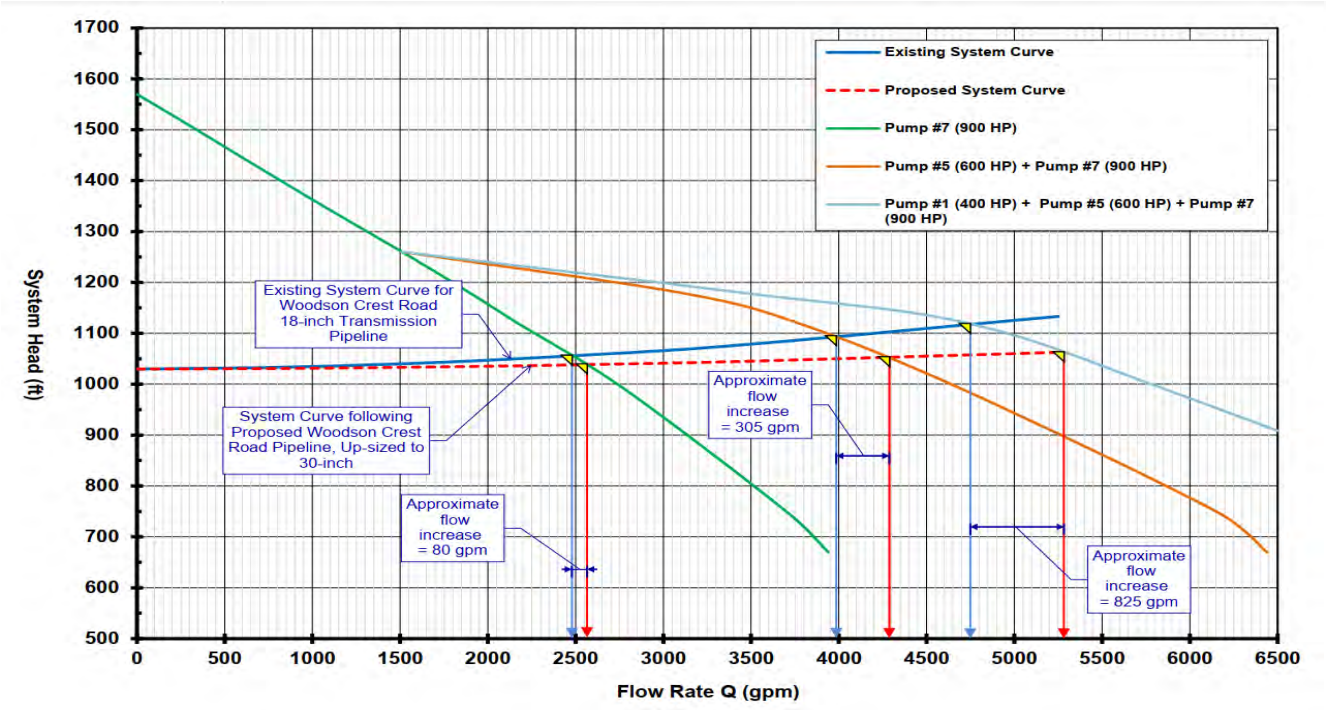
1.6 days, while avoiding TOU, which is typically has higher prices during red flag events when the need to refill is likely to be higher.

Table 5. Time to Fill Storage via 18- and 30-inch Pipelines				
Pipeline	**Max Flow at Max Velocity of 8 fps**		**Time to Refill Reservoir (Hours)**	
	(gpm)	**(cfs)**	**10 MG Woodson Reservoir**	**All District Storage (25.4 MG)**
18-inch	6,329	14.1	26.3	66.9
30-inch	14,363	32*	11.6	29.5

**Note: the maximum velocity of the 30-inch pipeline is 39.3 fps but this exceeds the SDCWA flow control facility capacity of 32 fps, so 32 fps was used.*

Figure 2 illustrates the relationship between total dynamic head (TDH) and flow (Q) relative to the PPS. The PPS has an array of pumping facilities, ranging between 400 and 900 horsepower (HP). At various times of the year, District operations staff run different combinations of these pumps. However, during red flag warnings, all reservoirs and tanks are filled and maintained full throughout the fire danger period. Under these conditions, three pumps are operated at the PPS, including the 900 HP, 600 HP and 400 HP pumps. Figure 2 shows the flow results with one, two and three pumps operating.

Figure 2. Poway Pump Station Analysis



The blue and red dashed lines are the system head curves, representing existing pipeline conditions and conditions with the proposed 30-inch replacement pipeline installed. As shown, replacement of the 18-inch portion of pipeline results in lower headloss with increasing flow rates. The impact with a single 900 Hp pump running is an increase in flow capacity of approximately 80 gallons per minute (gpm). The orange line represents the conditions with two pumps running (900 and 600 Hp). Under this scenario, flow is increased by approximately 305 gpm. The light blue line represents the condition with three pumps running (900, 600 and 400 Hp), resulting in an increased flow of 825 gpm. Figure 2 also indicates that with the current bottleneck on the 18-inch line, greater than three pumps would be needed to meet current MDD of 5,088 gpm outside of TOU but that three pumps can easily meet MDD after the increase in the line size to 30-inch.

The reduced operating losses with the proposed 30-inch pipeline installation increase the efficiencies of the PPS under the various operating scenarios, as shown in **Table 5**. Under each operating condition, pump efficiency is increased. As pumping efficiency increased, pumping cost decreases, saving the District in operating cost.

Table 5. Poway Pump Station Efficiency Computations

Description	Existing Efficiency	Projected Efficiency
One Pump Running (900 HP)	70% (900)	79% (900)
Two Pump Running (900 & 600 HP)	83% (900), 81% (600)	86% (900), 82% (600)
Three Pumps (900, 600 & 400 HP)	81% (900), 82% (600), 76% (400)	83% (900), 86% (600), 81% (400)

The annual operating cost savings are realized based on the combination of pumps used over an annual period and based on operating the pump combinations for the same number of hours per year as currently operated and at the same flows. **Table 6** identifies the annual savings related to each operating scenario, with the expected cost savings to be a median of these values.

Table 6. Projected Annual Operating Cost Savings

Description	Flow rate (gpm) and Annual Run Time (hours)	Annual Savings
One Pump Running (900 HP)	2,480 gpm, 829 hours	$1,911
Two Pump Running (900 & 600 HP)	2,480 gpm, 829 hours 1,532 gpm, 2,552 hours	$12,200
Three Pumps (900, 600 & 400 HP)	2,480 gpm, 829 hours 1,532 gpm, 2,552 hours 830 gpm, 2,552 hours	$21,802

The analyses above identified the following reasons that this 18-inch pipeline should be upsized to a 30-inch pipeline:

- The 18-inch pipeline was installed in 1958, is therefore 65 years old, and is approaching the end of its useful life.
- Failure of this pipeline would require the District to serve all customers via the 24-inch pipeline to the 3 MG West End Tank. This would require the following:
    - Pushing flow from West End Tank to Barger Tank and creating a temporary 1800 pressure zone and eliminating the 1700 pressure zone

  - Taking the 10 MG Woodson Reservoir out of service as it is at a higher elevation than the West End Tank. This would reduce the District's total storage temporarily from 25.4 MG to 15.4 MG (2.6 days at MDD to 1.7 days at MDD).
- Ability to fully supply the District system via the Woodson Reservoir if the 24-inch pipeline is out of service or a critical main break occurs in the Downtown/West End pressure zone.
- Ability to meet system demands without exceeding the 8 fps maximum velocity criteria during current and ultimate peak hour demands with and without the Barona water supply project.
- Ability to quickly refill Woodson Reservoir during peak demand periods in less than 12 hours to maintain fire flow and emergency storage during red flag and other events.
- Increase in flow per pump due to reduced headloss, allowing the District to reduce either pump run times or number of pumps operated, which reduces operation and maintenance (O&M) required and energy costs.
- Minor savings in annual energy costs of up to $20,000 at the PPS without additional changes in pump run times or pump flow rate settings. Additional optimization of the PPS pumps will be required to maximize energy savings after this pipeline project is complete.

With projected flow increases within the District between now and 2035, and to provide treated water to the Barona Reservation, it is recommended that the 30-inch replacement pipeline be installed.

16-inch Elm Street Transmission Main

The Olive Pump Station (OPS) conveys water from the West End Pressure Zone into the Woodson-Bargar Pressure, conveyed through 14-inch pipelines to the Bargar Tank. Based on the recent WMPU, a portion of the existing 14-inch pipeline is recommended to be replaced with a 16-inch pipeline to facilitate existing OPS pump operations, as well as future pump operations. The increased pipeline diameter will decrease excess headloss in the OPS discharge pipeline, thereby increasing OPS pumping efficiency and saving costs for the District.

The proposed pipeline is a replacement for the 14-inch steel pipeline in Highway 78, installed in 1958, and is at the end of its useful life. (Note: There is a 1,200 LF portion of this pipeline that is PVC and was installed in approximately 2006). This alignment on Elm Street was chosen instead of replacing the line on Highway 78. Where possible, the District prefers to avoid placing infrastructure in Caltrans encroachment areas due to the disruption in traffic when a main break occurs and the difficulty in receiving Caltrans permits for planned construction. Therefore, the proposed replacement for this pipeline is proposed to be located in a parallel alignment to Highway 78.

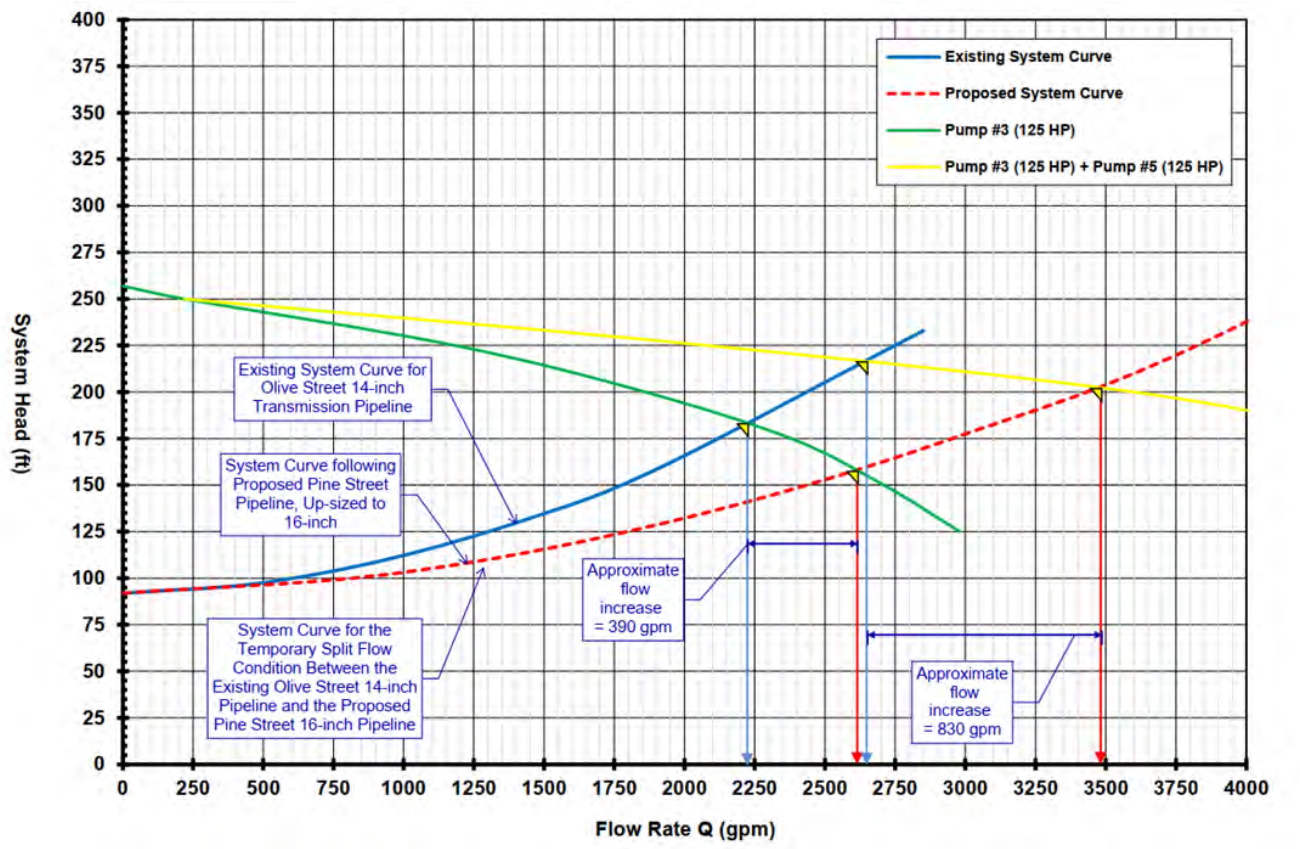
In the last five years, the District has also experienced two main breaks near Alice Street and Montecito Street in the 14-inch steel pipeline that feeds the OPS and three main breaks on the 14-inch steel pipeline that feeds the northeast area of the District's service area, paralleling the proposed pipeline to the east. These 14-inch steel lines were installed in 1958 and portions will be replaced as part of Project 3.02. Installation of the pipeline on Elm Street will provide additional reliability to the northeast part of the District's service area.

Figure 3 illustrates the relationship between total dynamic head (TDH) and flow (Q) relative to the OPS. The OPS has two existing 125 Hp pumps. While normal operating conditions require only one pump to

operate, District operations staff require both pumps to operate on a regular basis. Figure 3 shows the flow results with one and two pumps operating.

The blue and red dashed lines are the system head curves, representing existing pipeline conditions and conditions with the proposed 16-inch replacement pipeline installed. As shown, replacement of the 16-inch portion of pipeline results in significantly lower headloss with increasing flow rates. The impact with a single 125 Hp pump running (green line) is an increase in flow capacity of approximately 390 gallons per minute (gpm). The yellow line represents the conditions with two 125 HP pumps running. Under this scenario, flow is increased by approximately 830 gpm. Under current conditions, the District can pump approximately 2200 gpm with one pump and with two pumps operating can only pump approximately 2600 gpm, an increase of only 400 pm. After this project, the District will be able to pump approximately 2600 gpm with one pump and 3500 gpm with two pumps.

Figure 3. Olive Pump Station Flow



The reduced operating losses with the proposed 16-inch pipeline installation increase the efficiencies of the OPS under the two operating scenarios, as shown in **Table 3**. Under each operating condition, pump efficiency is stable or increased. As pumping efficiency increases, pumping cost decreases to save the District in operating cost.

Table 3. Olive Pump Station Efficiency Computations

Description	Existing Efficiency	Projected Efficiency
One Pump Running (125 Hp)	83% (125)	83% (125)
Two Pump Running (125 & 125 Hp)	76% (125), 81% (125)	78% (125), 84% (125)

The annual operating cost savings are realized based on the combination of pumps used over an annual period. **Table 4** identifies the annual savings related to each operating scenario, with the expected cost savings to be a median of these values.

Table 4. Projected Annual Operating Cost Savings

Description	Annual Savings
One Pump Running (125 Hp)	$1,621
Two Pump Running (125 & 125 Hp)	$3,687

The analyses identify increased flow capacity, stable or increased pumping efficiency, and increase cost savings to the District related to installation of the proposed 16-inch replacement pipeline. With projected flow increases within the District, it is recommended that the 16-inch replacement pipeline be installed.

The analyses above identified the following reasons that this pipeline project should be completed:

- This project is a replacement for the 14-inch steel pipeline located in Highway 78 and is at the end of its useful life.
- The project provides a secondary feed to the northeast portion of the District's system in the event of a pipeline break in the 20-inch line from Woodson Reservoir or in the event of main breaks in the 14-inch steel lines that feed OPS or further east of this pipeline.
- Significant increase in flow per pump at OPS due to reduced headloss, allowing the District to reduce either pump run times or number of pumps operated, which reduces operation and maintenance (O&M) required and energy costs.
- Minor savings in annual energy costs of up to $3,700 without additional changes in pump run times or pump flow rate settings. Additional optimization of the OPS pumps will be required to maximize energy savings after this pipeline project is complete.

RAMONA MUNICIPAL WATER DISTRICT
WATER SYSTEM INFRASTRUCTURE FACILITIES PLAN UPDATE
(DRAFT)

- FEBRUARY 2023 -

Task	Project Title	Planning-Level Project Costs *		
		Design, Envir. & CM	Construction	Total (10 Year)
1	Radio Read Meter Replacement Program (One Year Remaining (FY 23/24))		$ 350,000	$ 350,000
2	Pump and Motor Efficiency Program (Ongoing)		$ 600,000	$ 600,000
3	Pipeline Replacement Program (Ongoing)	$ 2,930,000	$ 33,920,000	$ 36,850,000
4	Tank & Reservoir Rehabilitation Program (Ongoing)	$ 590,000	$ 9,210,000	$ 9,800,000
5	PRV Rehabilitation Program (Ongoing)	$ 245,000	$ 1,005,000	$ 1,250,000
6	18-in Poway Transmision Pipeline Replacement (30-in)	$ 300,000	$ 8,000,000	$ 8,300,000
7	16-in Elm Street Transmission Main	$ 300,000	$ 4,750,000	$ 5,050,000
8	12-in Downtown Transmission Main	$ 300,000	$ 1,700,000	$ 2,000,000
9	8-in Snows Loop	$ 75,000	$ 425,000	$ 500,000
10	8-in Chavez Loop	$ 75,000	$ 575,000	$ 650,000
11	12-in Kennedy Pipeline	$ 250,000	$ 2,600,000	$ 2,850,000
Sub Total District Funded Projects Cost				**$ 68,200,000**
12	12-in Wildcat Canyon Road Pipeline**	$ 100,000	$ 1,200,000	$ 1,300,000
13	8-in Acres Waterline Improvements (Alternative 1A)***	$ 170,000	$ 1,850,000	$ 2,020,000
14	8-in Acres Waterline Improvements (Alternative 2 & 3B)***	$ 90,000	$ 900,000	$ 990,000
Sub Total Project Cost (Paid by Others)				**$ 4,310,000**
Total				**$ 72,510,000**

Notes:

* - The planning level costs shown are represented in 2023 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.
** - All RMWD expenses will be reimbursed and paid by developer
*** - All RMWD expenses will be reimbursed and paid under a grant.

RAMONA MUNICIPAL WATER DISTRICT
WATER SYSTEM INFRASTRUCTURE FACILITIES PLAN UPDATE
(DRAFT)

- FEBRUARY 2023 -

Task	Project Title	Planning-Level Project Costs *		
		Design, Envir. & CM	Construction	Total (10 Year)
1	Radio Read Meter Replacement Program (One Year Remaining (FY 23/24))		$ 350,000	$ 350,000
2	Pump and Motor Efficiency Program (Ongoing)		$ 600,000	$ 600,000
3	Pipeline Replacement Program (Ongoing)	$ 2,930,000	$ 33,920,000	$ 36,850,000
3.01	Main Street Cast Iron Waterline Replacement Project (Between 5th and 12th)	$ 100,000	$ 1,900,000	$ 2,000,000
3.02	Replacement of Existing 14-in Transmission Main (Ongoing)	$ 700,000	$ 7,950,000	$ 8,650,000
3.03	Replacement of Waterline Loop on HWY-78 East of Magnolia Ave.	$ 50,000	$ 550,000	$ 600,000
3.04	Upsize of SDCE 12-in Transmission Main to 16-in	$ 200,000	$ 2,300,000	$ 2,500,000
3.05	Replacement of 8-in and 10-in Cast Iron Pipeline	$ 650,000	$ 7,050,000	$ 7,700,000
3.06	4-in & 6-in Pipeline Replacement Program (Ongoing)	$ 1,230,000	$ 14,170,000	$ 15,400,000
4	Tank & Reservoir Rehabilitation Program (Ongoing)	$ 590,000	$ 9,210,000	$ 9,800,000
4.01	West End Tank (3 MG)	$ 100,000	$ 1,400,000	$ 1,500,000
4.02	Bargar Clearwell (2 MG)	$ 100,000	$ 1,200,000	$ 1,300,000
4.03	Black Canyon Tank (0.62 MG)	$ 60,000	$ 590,000	$ 650,000
4.04	Gillette Treated Tank (0.02 MG)	$ 30,000	$ 120,000	$ 150,000
4.05	Boulder Tank (0.88 MG)	$ 100,000	$ 1,900,000	$ 2,000,000
4.06	Woodson Reservoir (10 MG)	$ 100,000	$ 2,400,000	$ 2,500,000
4.07	Kennedy West Tank (5 MG) (Conversion from UT to Treated)	$ 100,000	$ 1,600,000	$ 1,700,000
5	PRV Rehabilitation Program (Ongoing)	$ 245,000	$ 1,005,000	$ 1,250,000
5.01	Relocate PRVs in vaults to above ground	$ 185,000	$ 840,000	$ 1,025,000
5.02	New PRV From Woodson/Bargar to Downtown/West End	$ 60,000	$ 165,000	$ 225,000
6	18-in Poway Transmision Pipeline Replacement (30-in)	$ 300,000	$ 8,000,000	$ 8,300,000
7	16-in Elm Street Transmission Main	$ 300,000	$ 4,750,000	$ 5,050,000
8	12-in Downtown Transmission Main	$ 300,000	$ 1,700,000	$ 2,000,000
9	8-in Snows Loop	$ 75,000	$ 425,000	$ 500,000
10	8-in Chavez Loop	$ 75,000	$ 575,000	$ 650,000
11	12-in Kennedy Pipeline	$ 250,000	$ 2,600,000	$ 2,850,000
Sub Total District Funded Projects Cost				**$ 68,200,000**
12	12-in Wildcat Canyon Road Pipeline**	$ 100,000	$ 1,200,000	$ 1,300,000
13	8-in Acres Waterline Improvements (Alternative 1A)***	$ 170,000	$ 1,850,000	$ 2,020,000
14	8-in Acres Waterline Improvements (Alternative 2 & 3B)***	$ 90,000	$ 900,000	$ 990,000
Sub Total Project Cost (Paid by Others)				**$ 4,310,000**
Total				**$ 72,510,000**

Notes:

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RAMONA MUNICIPAL WATER DISTRICT
WATER SYSTEM INFRASTRUCTURE FACILITIES PLAN UPDATE
(DRAFT)

- FEBRUARY 2023 -

		1	2	3	4	5	6	7	8	9	10	
Task	**Project Title**	**FY 23/24**	**FY 24/25**	**FY 25/26**	**FY 26/27**	**FY 27/28**	**FY 28/29**	**FY 29/30**	**FY 30/31**	**FY 31/32**	**FY 32/33**	**TOTAL**
1	Radio Read Meter Replacement Program (One Year Remaining (FY 23/24))	$ 350,000										$ 350,000
2	Pump and Motor Efficiency Program (Ongoing)			$ 150,000		$ 150,000		$ 150,000			$ 150,000	$ 600,000
3	Pipeline Replacement Program (Ongoing)	$ 1,200,000	$ 1,200,000	$ 3,750,000	$ 5,500,000	$ 1,100,000	$ 4,400,000	$ 3,200,000	$ 4,500,000	$ 6,000,000	$ 6,000,000	$ 36,850,000
3.01	Main Street Cast Iron Waterline Replacement Project (Between 5th and 12th)	$ 1,200,000	$ 800,000									$ 2,000,000
3.02	Replacement of Existing 14-in Transmission Main (Ongoing)		$ 400,000	$ 3,750,000	$ 4,500,000							$ 8,650,000
3.03	Replacement of Waterline Loop on HWY-78 East of Magnolia Ave.				$ 600,000							$ 600,000
3.04	Upsize of SDCE 12-in Transmission Main to 16-in					$ 100,000	$ 2,400,000					$ 2,500,000
3.05	Replacement of 8-in and 10-in Cast Iron Pipeline							$ 200,000	$ 1,500,000	$ 3,000,000	$ 3,000,000	$ 7,700,000
3.06	4-in & 6-in Pipeline Replacement Program (Ongoing)				$ 400,000	$ 1,000,000	$ 2,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 15,400,000
4	Tank & Reservoir Rehabilitation Program (Ongoing)	$ 1,500,000	$ -	$ 1,950,000	$ 150,000	$ -	$ 2,000,000	$ 2,500,000	$ -	$ -	$ 1,700,000	$ 9,800,000
4.01	West End Tank (3 MG)	$ 1,500,000										$ 1,500,000
4.02	Bargar Clearwell (2 MG)			$ 1,300,000								$ 1,300,000
4.03	Black Canyon Tank (0.62 MG)			$ 650,000								$ 650,000
4.04	Gillette Treated Tank (0.02 MG)				$ 150,000							$ 150,000
4.05	Boulder Tank (0.88 MG)						$ 2,000,000					$ 2,000,000
4.06	Woodson Reservoir (10 MG)							$ 2,500,000				$ 2,500,000
4.07	Kennedy West Tank (5 MG) (Conversion from UT to Treated)										$ 1,700,000	$ 1,700,000
5	PRV Rehabilitation Program (Ongoing)	$ 125,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 50,000	$ 175,000	$ -	$ 1,250,000
5.01	Relocate PRVs in vaults to above ground	$ 125,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000				$ 1,025,000
5.02	New PRV From Woodson/Bargar to Downtown/West End								$ 50,000	$ 175,000		$ 225,000
6	18-in Poway Transmision Pipeline Replacement (30-in)	$ 3,100,000	$ 5,200,000									$ 8,300,000
7	16-in Elm Street Transmission Main				$ 250,000	$ 4,800,000						$ 5,050,000
8	12-in Downtown Transmission Main							$ 200,000	$ 1,800,000			$ 2,000,000
9	8-in Snows Loop										$ 500,000	$ 500,000
10	8-in Chavez Loop										$ 650,000	$ 650,000
11	12-in Kennedy Pipeline										$ 2,850,000	$ 2,850,000
	Sub Total District Funded Projects Cost	**$ 6,275,000**	**$ 6,550,000**	**$ 6,000,000**	**$ 6,050,000**	**$ 6,200,000**	**$ 6,550,000**	**$ 6,200,000**	**$ 6,350,000**	**$ 6,175,000**	**$ 11,850,000**	**$ 68,200,000**
12	12-in Wildcat Canyon Road Pipeline**	$ 1,300,000										$ 1,300,000
13	8-in Acres Waterline Improvements (Alternative 1A)***	$ 100,000	$ 1,920,000									$ 2,020,000
14	8-in Acres Waterline Improvements (Alternative 2 & 3B)***	$ 50,000	$ 940,000									$ 990,000
	Sub Total Project Cost (Paid by Others)	**$ 1,450,000**	**$ 2,860,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**		**$ 4,310,000**
	Projected Total Expenditures Fiscal Year	**$ 7,725,000**	**$ 9,410,000**	**$ 6,000,000**	**$ 6,050,000**	**$ 6,200,000**	**$ 6,550,000**	**$ 6,200,000**	**$ 6,350,000**	**$ 6,175,000**	**$ 11,850,000**	**$ 72,510,000**

Notes:

The planning level costs shown are represented in 2023 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

* -

** - All RMWD expenses will be reimbursed and paid by developer

*** - All RMWD expenses will be reimbursed and paid under a grant.

Project No:	Priority Task:	CIP/CRP ID:
TBD	1	CRP
Project Title:	**Department:**	**Project Manager:**
Radio Read Meter Replacement Program	Water Operations	Joe Lomeli / Tim Warner

Project Description:

- The District currently has approximately 9,700 customer retail meters in service. Since the Meter Replacement Program began Operations staff has installed over 8,190 radio read meters to date.
- All of the meters are read either on a monthly and by monthly basis by the meter reading department, which is staffed by a supervisor and three meter reading staff members. The project proposes to gradually replace existing meters that need to be manually read with new radio read meters to eventually eliminate all manually read meters.
- Project is expected to take one more year to complete.

Justification:

- With technology being enhanced at a rapid pace and radio reads becoming the way of the future, Staff believe that the conversion to radio read meters will improve reading efficiencies, promote customer service, and the ability to maintain operations meter issues to minimum. To be reasonable operations staff has identified a 10 year program that can be completed with budgeted staff; meter replacement was able to cut the program to 6 years with FY 23/24 being the last year of the program.
- The annual budget is $350K for FY 22/23 and projected $350k for FY 23/24 to complete with the remaining meters to get replaced.
- Some meters have been removed since the program started and therefore the total number of meter to replace continue to change.

Budget Impact:

Fund 011: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Equipment:

FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 011	TBD	$ 350,000									
TOTAL FUNDING	**TBD**	**$ 350,000**									

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management											
Construction	$ 350,000	$ 350,000									
TOTAL COST	**$ 350,000**	**$ 350,000**									

Note: The costs shown are represented in 2023 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP ID:
TBD	2	CRP
Project Title:	**Department:**	**Project Manager:**
Pump & Motor Efficiency Program	Water Operations	

Project Description:

- RMWD currently has 28 active pumps and motors throughout the domestic distribution system and 10 pumps and motors on the untreated distribution system. The Pump and Motor efficiency program will provide the opportunity to move forward and remove and replace all out date non-efficient assets.
- This FY 2022/23 will complete the replacement of the pumps and motors that required replacement. After this fiscal year District Staff proposes budgeting $150,000 every other year starting on FY25/26 for as needed maintenance, repair and or replacement.

Justification:

- The program will provide the opportunity to enhance efficiencies throughout the distribution system and ensure the system is operating at the most optimum level and therefore potentially reducing energy cost and providing savings to the rate payers. The ultimate goal is to maintain the overall pumping and motor infrastructure at a 75% efficiency level or better. Pump Efficiency testing is outsourced every three years, so that operations staff can prioritize pump and motor replacements and maintain all facilities operating with the most optimum level.

Budget Impact:

Fund 010: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Location:

FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	**TBD**										
Imp. Bond	**TBD**										
Fund 010	**TBD**										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management											
Construction	$ 600,000			$ 150,000		$ 150,000		$ 150,000			$ 150,000
TOTAL COST	**$ 600,000**			**$ 150,000**		**$ 150,000**		**$ 150,000**			**$ 150,000**

Note: The costs shown are represented in 2023 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP ID:
TBD	3	CRP
Project Title:	**Department:**	**Project Manager:**
Pipeline Replacement Program	Water Operations	Joe Lomeli / Ricardo Soto

Project Description:

- Replacement of aging cast iron pipeline throughout the Districts' water system including related appurtenances associated with the pipeline including valves, water services, fire hydrants, fire service laterals, blow-offs, air valves, water test stations, etc.
- Replacement of the existing 14-in transmission on Alice Street, Olive Street, Haverford Rd east of Elm Street, Pamo Road and Pile Street.
- Replacement of 4-in and 6-in pipelines to 8-in in the order of priority as identified in the 2022 Water Master Plan Update.

Justification:

- Pipelines included under this program are beyond their designed lifespan, with the oldest being installed in the 1920's by Ramona Irrigation District. In the past 10 years various emergency repairs have been completed on pipelines identified under this program further confirming the condition and need of replacement.
- Pipelines targeted under this program include cast iron and asbestos cement pipelines that are undersized for today's standards and have been identified for replacement in the 2022 Water Master Plan Update.
- Replacement of these pipelines will provide a more reliable and robust water system and improve fire flow and hydraulics of the water system.

Budget Impact:

Fund 011: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Location:

FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 011	TBD										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$ 2,930,000	$ 50,000	$ 430,000	$ 250,000	$ 650,000	$ 150,000	$ 250,000	$ 350,000	$ 200,000	$ 300,000	$ 300,000
Construction	$ 33,920,000	$ 1,150,000	$ 770,000	$ 3,500,000	$ 4,850,000	$ 950,000	$ 4,150,000	$ 2,850,000	$ 4,300,000	$ 5,700,000	$ 5,700,000
TOTAL COST	**$ 36,850,000**	**$ 1,200,000**	**$ 1,200,000**	**$ 3,750,000**	**$ 5,500,000**	**$ 1,100,000**	**$ 4,400,000**	**$ 3,200,000**	**$ 4,500,000**	**$ 6,000,000**	**$ 6,000,000**

Note: The costs shown are represented in 2023 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

PIPELINE REPLACEMENT PROGRAM TARGETED PIPELINE FACILITIES FOR REPLACEMENT				
LOCATION	**YEAR INSTALLED**	**SIZE PIPE**	**TYPE PIPE**	**APPROX. PIPE LENGTH**
5TH ST FORM MAIN ST TO G ST	1927	4"	CI	1,500
B ST FROM 9TH TO 8TH	1927 - 1950	4"	CI	580
D St FROM 3RD TO 2ND ST	1927	4"	CI	350
E ST FROM 5TH TO 8TH	1927	4" & 6"	CI	1,700
A ST FROM 9TH ST TO 11TH ST	1927	6"	CI	850
9TH ST FROM A ST TO G ST	1927	6"	CI	2,275
F ST FROM 3RD ST TO 6TH ST	1927	6"	CI	1,750
11TH STREET FORM G ST TO H ST	1927	4"	CI	483
4TH ST FROM B TO MAIN	1927	4"	CI	323
5TH ST FROM B TO MAIN	1927	4"	CI	451
H St from 11th St to 12th St	1927	4" & 6"	CI	718
12TH ST FROM D ST TO F ST	1927	6"	CI	901
B St from 4TH TO 2ND	1927 - 1950	8"	CI	998
MAIN STREET FROM 5TH ST TO 12TH ST	1927	4" & 6"	CI	4,275
WOODCREST RD TO WOODSON RESERVOIR	1958	18"	CMLC	8,600
7TH ST FROM E ST TO I ST	1927	8"	CI	1,900
TANK HILL TO OPERATIONS YARD	1927	8"	CI	1,000
MAIN STREET FROM FLAG/TANK HILL TO 5TH ST	1927	8" & 10"	CI	1,850
G ST FROM 9TH ST TO 3RD ST	1927	10"	CI	3,850
E ST FROM 9TH TO 10TH	1957	4"	ACP	560
KELLY ST FROM WYNOLA TO KALBAUGH	1957	4"	ACP	680
ETCHEVERRY ST,HUNTER ST TO SD AVE	1957	4"	ACP	4,000
RANSOM HILL	1958	4"	CMLC	1,100
D ST FROM 12TH ST TO 14TH ST	1957	4"	ACP	1,165
WEEKEND VILLA, HWY 78	1957	4" & 6"	ACP	6,500
B ST FROM 4TH ST TO 8TH ST	1957	6"	ACP	2,300
D ST FROM 3RD ST TO 12TH ST	1957	6"	ACP	5,200
OLIVE ST FROM SUMMER GLEN TO DAVIS ST	1957	6"	ACP	3,500
DAVIS ST FROM OLIVE ST TO MONTICETO	1957	6"	ACP	3,000
WALNUT ST, JAMES ST	1957	6"	ACP	3,600
PILE ST EAST OF MAGNOLIA, ORANGE ST	1957	6"	ACP	5,200
MUSSEY GRADE RD FROM HWY 67 TO DOS PICOS	1957	6"	ACP	6,000
MONTECITO WAY	1958	6"	ACP	3,300
STEFFY RD	1958	6"	ACP	6,300
WILSON RD	1958	6"	ACP	6,300
KEYS RD SOUTH OF HANSON	1958	6"	ACP	2,600
9TH ST, ASHLEY	1958	6"	ACP	8,000
8TH ST	1958	6"	ACP	3,500
TELFORD LN	1958	6"	ACP	3,500
14TH ST FROM MAIN ST SOUTHEAST	1958	6"	ACP	2,500
MUSSEY GRADE RD, ROSEMONT TO FERNBROOK	1958	6"	ACP	13,000
MAIN ST FROM 13 TO RAMONA ST	1958	8"	ACP	2,300
16TH ST FROM MAIN TO ANGEL PL	1958	8"	ACP	3,000
DYE RD FROM HWY 67 TO SV RD	1957	10"	ACP	16,000
HIGHLAND VALLEY RD FROM HWY 67 TO TRAILER	1957	10"	ACP	11,000
RANGELAND RD, AIRPORT THROUGH SPRAY FIELDS	1958	14"	CMLC	16,000
HUNTER, ROWELY, SD AVE, HANSON, KEYS	1958	14"	CMLC	21,000
OLD JULIAN HWY, AMIGOS, MAGNOLIA, PILE	1958	14"	CMLC	15,500
PAMO, HAVERFORD, HWY 78	1958	14"	CMLC	12,000
OLIVE, ALICE, MONTECITO AT MONTECITO WAY	1958	14"	CMLC	13,000
HWY 67 FROM DYE RD TO RAMONA ST	1958	16"	CMLC	11,000
POWAY P.S TO WOODSON CREST RD	1958	18"	CMLC	3,000
SAN DIEGO AQUADUCT TO POWAY P.S.	1958	18"	CMLC	8,000
MUSSEY GRADE RD TO DYE RD	1958	18"	CMLC	3,000
WOODSON RESERVOIR TO MUSSEY GRADE RD	1958	20"	TWS	17,000

ABBREVIATIONS:

ACP - ASBESTOS CEMENT PIPE
CI - CAST IRON
CMLC - CONCRETE MORTAT LINED AND COATED
TWS - TAR WRAPPED STEEL

REPLACEMENT COMPLETED
REPLACEMENT SCHEDULED FOR FY 22/23
REPLACEMENT SCHEDULED FOR FY 23/25

Project No:	Priority Task:	CIP/CRP ID:	Location:
TBD	4	CRP	
Project Title:	Department:	Project Manager:	
Tanks and Reservoir Rehabilitation Program	Water Operations	Joe Lomeli	

Project Description:

- Storage Tank and Reservoir rehabilitation includes interior and exterior recoating and designing to current OSHA standards. Rehabilitation also addresses any miscellaneous metal and concrete repairs as necessary.
- Scope of work will be based on third party inspection of each tank and recommendations based on the findings of the inspection reports.

Justification:

- The District currently has 21 water storage tanks within the district service area. The water tanks are designed to meet daily peak demands and provide fire protection for the District's sphere of influence boundaries.
- Ongoing maintenance and recoating is necessary to maintain storage tanks operating at optimum condition while maintaining water quality.
- The scope of the work will vary from tank to tank based on the tank conditions, required repairs and third-party inspection findings and recommendations.

Budget Impact:

Fund 011: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 011	TBD	$ 1,500,000									
TOTAL FUNDING	**TBD**	**$ 1,500,000**									

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$ 590,000	$ 100,000		$ 160,000	$ 30,000		$ 100,000	$ 100,000			$ 100,000
Construction	$ 9,290,000	$ 1,400,000		$ 1,790,000	$ 120,000		$ 1,900,000	$ 2,400,000			$ 1,600,000
TOTAL COST	**$ 9,880,000**	**$ 1,500,000**		**$ 1,950,000**	**$ 150,000**		**$ 2,000,000**	**$ 2,500,000**			**$ 1,700,000**

Note: The costs shown are represented in 2023 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

	TARGETED STORAGE TANK LIST	Remarks
TREATED TANKS	Julian Tank (1 MG)	Completed FY 16/17
	Poway Forebay (Interior)(1 MG)	Completed FY 16/17
	Robinson Tank (0.5 MG)	Completed FY 17/18
	SDCE Tank # 4 (1 MG)	Completed FY 17/18
	Snows Treated Tank (0.5 MG)	Completed FY 17/18
	SDCE Tank # 1 (2 MG)	Completed FY 18/19
	SDCE Tank # 2 (1 MG) **	Completed FY 22/23
	SDCE Tank # 3 (2 MG) **	
	West End Tank (3 MG)	
	Bargar Clearwell (2 MG)	
	Black Canyon Tank (0.62 MG)	
	Boulder Tanks (0.88 MG)	
	Gillette Treated Tank (0.02 MG)	
	Woodson Reservoir (10 MG)	
UNTREATED TANKS	Woodson Steel Tank (1.5 MG)	TBD Convert to RW Tank ***
	Kennedy Tank West (5 MG)	TBD Convert to Treated Tank ***
	Kennedy Tank East (5 MG)	
	Robb Tank (1 MG)	
	Snow Untreated Tank (0.5 MG)	
	Gillette Untreated Tank (0.5 MG)	
	Yard Tank *	

Notes:

* - Currently out of service

** - Fire Storage Only

Project No:	Task:	CIP/CRP ID:
TBD	5	CRP
Project Title:	**Department:**	**Project Manager:**
PRV Rehabilitation Program	Water Operations	Joe Lomeli / Ricardo Soto

Project Description:

- Program includes maintenance, repair, relocation, and installation of Pressure Reducing Valves (PRV), as required.
- The 2022 Water Master Plan Update (WMPU) recommended installation of additional PRV's within the system, which are included in this program.

Justification:

- RMWD has over 25 PRV's throughout the distribution system. Many of them have been in operations since the early 1970's and are at the end of their service life span. The majority of these facilities have never been rehabilitated with exception of maintenance by the in-house District personnel and contract vendors. Staff has evaluated these facilities and determine that many require attention.
- PRV's are crucial infrastructure to a distribution system for the purposes of separating high/low pressure zones. Failure of these valves could potentially create damage to existing infrastructure downstream from their current location due to the increase in pressure which will amount to substantial cost and emergency repairs. District staff proposed a proactive approach to mitigate potential problems.
- Relocation of PRV's from vaults will mitigate the requirement of confined space entry. Confined spaces are one of most time-consuming responsibilities with the respect to staff Safety Training, therefore by eliminating the confined spaces promotes safety.

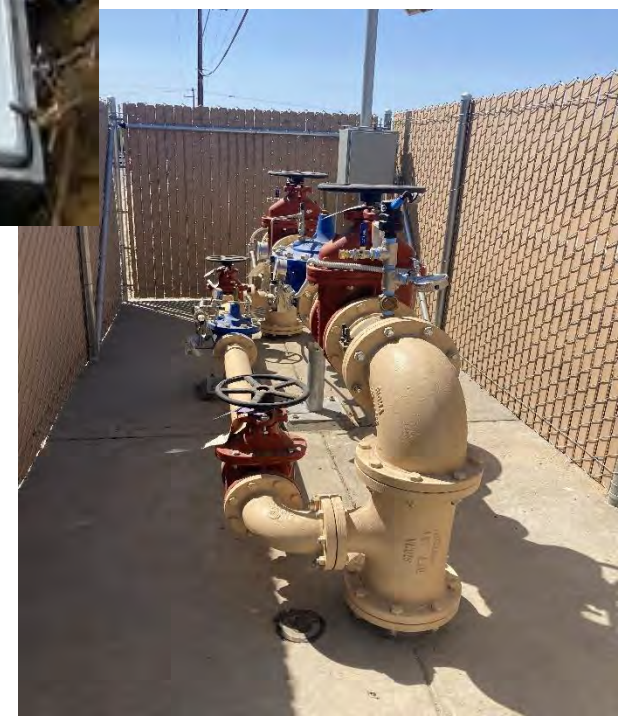
Budget Impact:

Fund 043: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase

Equipment:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 043	TBD	$ 100,000									
TOTAL FUNDING	**TBD**	**$ 100,000**									

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition	$ 10,000								$ 10,000		
Design, Environmental and Construction Management	$ 230,000	$ 125,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 40,000	$ 10,000	
Construction	$ 1,005,000		$ 140,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000		$ 165,000	
TOTAL COST	**$ 1,245,000**	**$ 125,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 50,000**	**$ 175,000**	

Note: The costs shown are represented in 2023 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP ID:
TBD	6	CRP
Project Title:	**Department:**	**Project Manager:**
18-in Transmission Pipeline Replacement (30-in)	Water Operations	

Project Description:

- Replacement of approximately 6,700 feet of 18-in transmission main between Woodson Crest and the Mount Woodson Reservoir to 30" transmission main.
- Project identified as part of the water master plan update (Project O-4).

Justification:

- The existing 18" transmission main is currently undersized and restricts pumping capacity to 11 cfs (7.1 MG). Current RMWD daily peak demand is 8.0 cfs (5.2 MG) or 73% of the maximum.
- The 6.700 ft of 18" pipeline creates a bottle neck, restricting full flow capacity from San Diego County Water Authority (SDCWA) flow control facility # 3.
- Upsize this pipeline allows the District to pump water during super off-peak period, reducing energy costs.

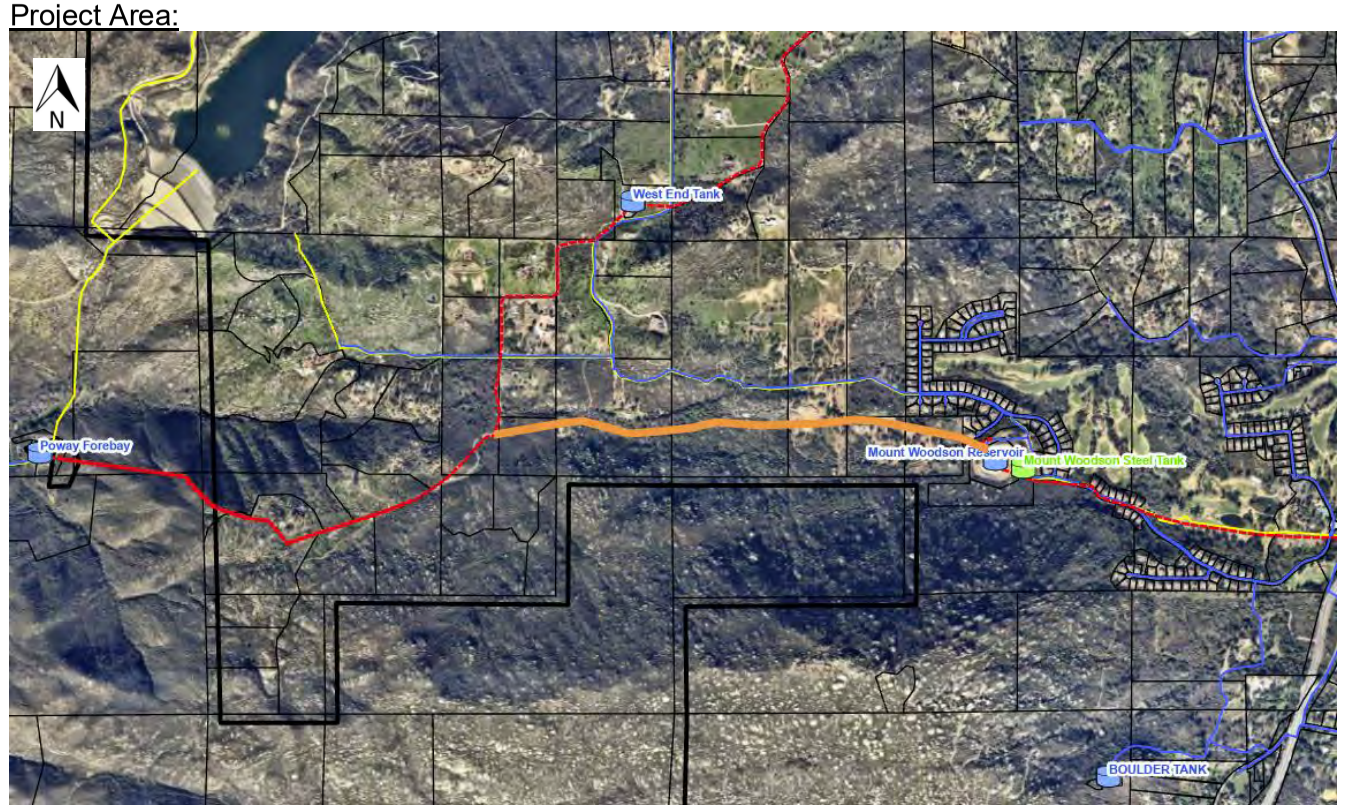
Budget Impact:

Fund 011: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Project Area:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 011	TBD	$ 3,100,000									
TOTAL FUNDING	**TBD**	**$ 3,100,000**									

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$ 300,000	$ 100,000	$ 200,000								
Construction	$ 8,000,000	$ 3,000.000	$ 5,000,000								
TOTAL COST	**$ 8,300,000**	**$ 3,100,000**	**$ 5,200,000**								

Note: The costs shown are represented in 2022 dollars and are estimates from the Water Master Plan Update prepared by Carollo Engineers. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP ID:
TBD	7	CRP
Project Title:	**Department:**	**Project Manager:**
16-in Elm Street Transmission Main	Water Operations	Joe Lomeli

Project Description:

- Installation of approximately 7,100 feet of new 16-in diameter transmission main on Elm Street from 7th Street to Haverford Rd to replace the existing transmission main on SR-78.
- Similar project identified as part of the water master plan update (Project O-5). The identified project recommended installation of the transmission main on CALTRANS right-of-way (SR-78); this alternative alignment is shorter and would install facilities outside CALTRANS right-of-way while meeting the same purpose.

Justification:

- There is an existing 14-in diameter transmission main along Caltrans (SR-78) right-of-way (Pine Street) from Olive Street to Haverford Rd. This transmission main was installed in 1957 and is towards the end of its designed lifespan and requires replacement.
- The existing 14-in pipeline is undersized and limits the ability to pump water from the Olive Pump Station to Barger Tank (1,800-ft zone). Upsizing the pipeline will improve operational conditions at the Olive Pump Station.
- This pipeline will add reliability and redundancy to the system in the event of a pipe break on the 20-in pipeline from Mt Woodson Reservoir and allow the District to maintain customers in the 1,800-ft zone in service while repairs are being completed.

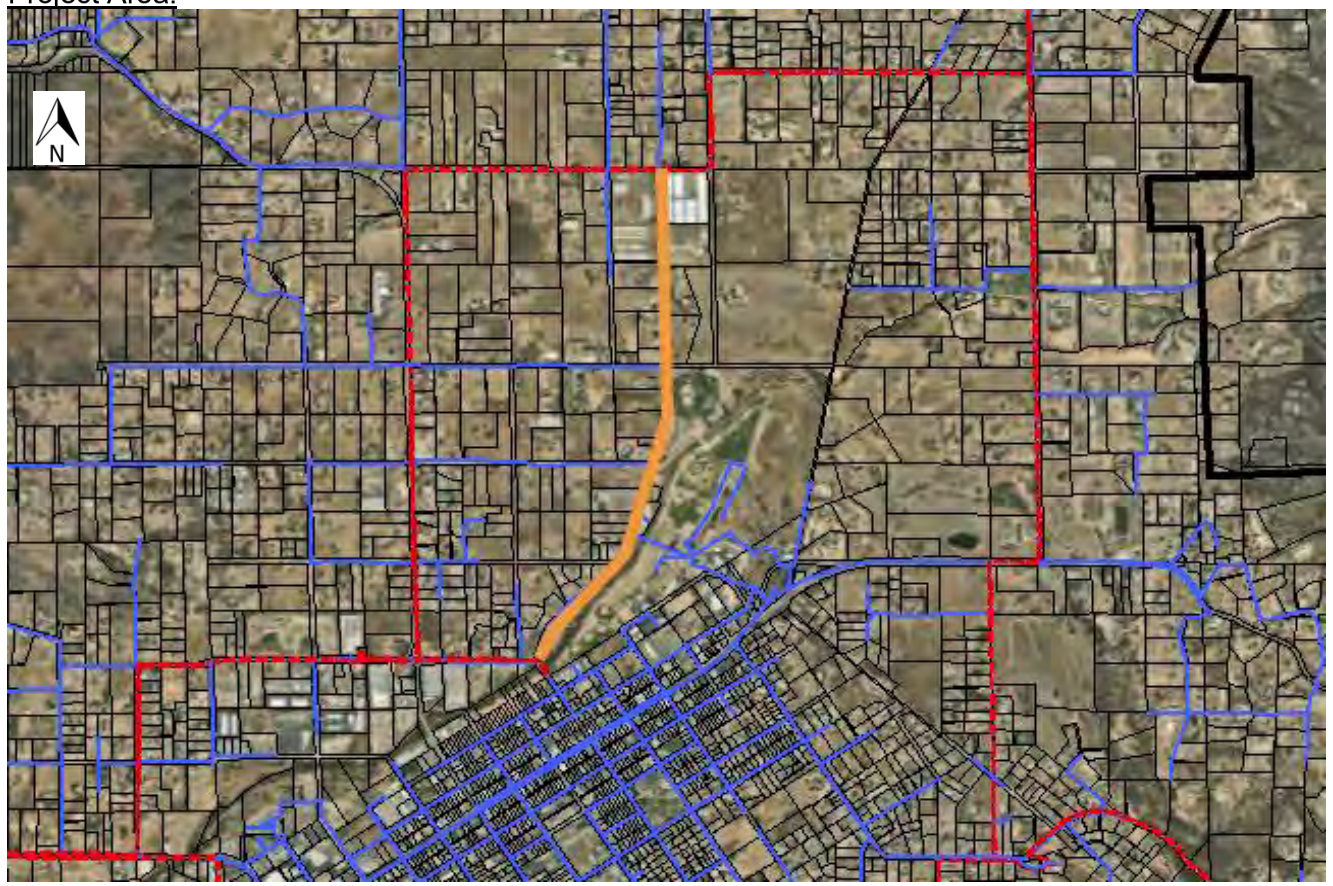
Budget Impact:

Fund 11: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Project Area:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 11/43	TBD										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$ 550,000				$ 250,000	$ 300,000					
Construction	$ 4,500,000					$ 4,500,000					
TOTAL COST	**$ 5,050,000**				**$ 250,000**	**$ 4,800,000**					

Note: The costs shown are represented in 2023 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP ID:
TBD	8	CIP
Project Title:	**Department:**	**Project Manager:**
12-in Downtown Street Transmission Main	Water Operations	

Project Description:

- Installation of approximately 4,000 feet of new 12-in diameter transmission main on Main Street, between Ramona Street and 10th Street.
- Project identified as part of the water master plan update (Project FF-2)

Justification:

- Installation of this 12-in transmission main completes looping of two existing transmission mains installed on the southbound lanes in Main Street, including the 14-in transmission main on Main Street south of Ramona street and the 12-in transmission main on Main Street north of 10th street.
- This project improves fire flow to the Downtown / West End pressure zones.

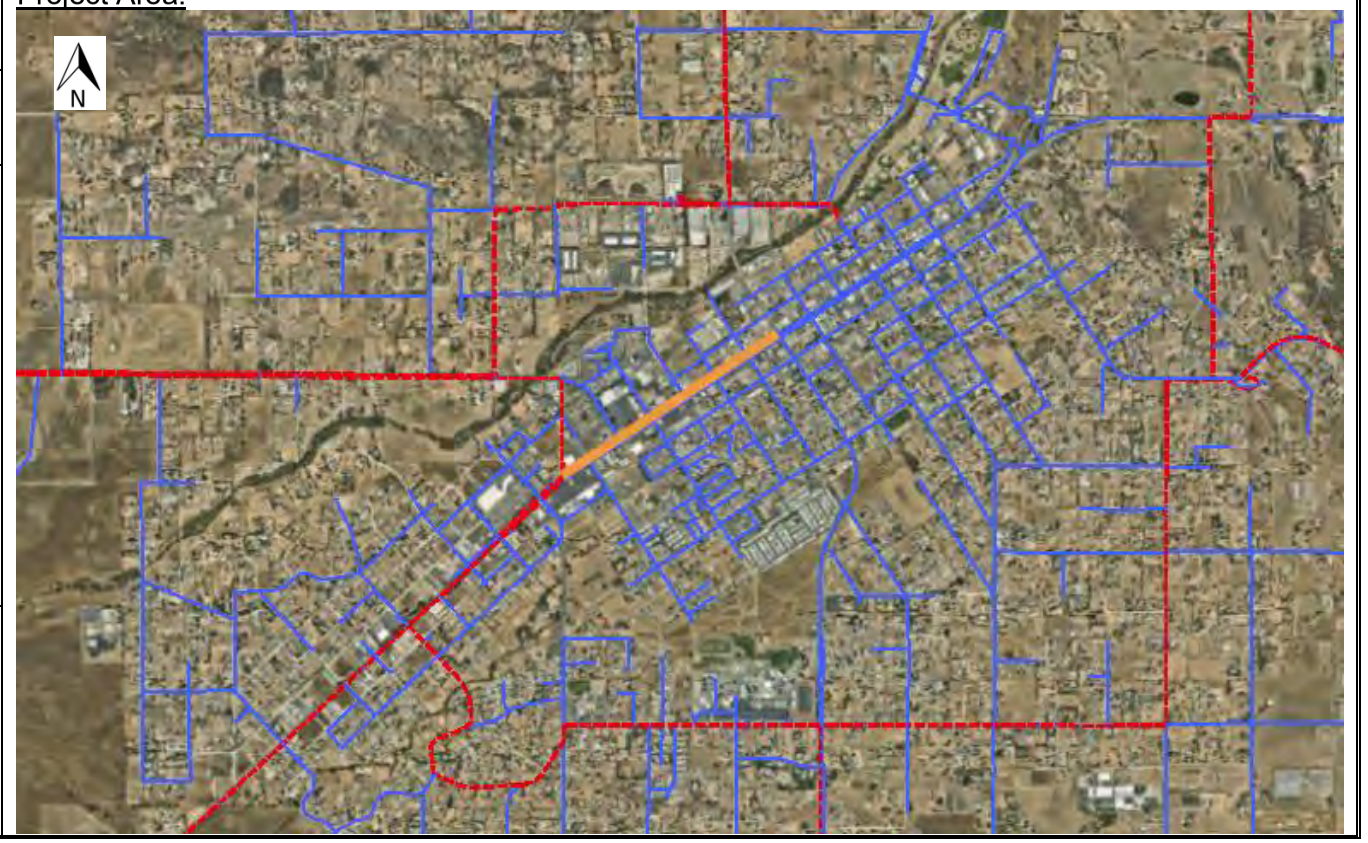
Budget Impact:

Fund 43: TBD
Fund XX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Project Area:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 043	TBD										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$ 300,000							$ 200,000	$ 100,000		
Construction	$ 1,700,000								$ 1,700,000		
TOTAL COST	**$ 2,000,000**							**$ 200,000**	**$ 1,800,000**		

Note: The costs shown are represented in 2023 dollars and are estimates from the Water Master Plan Update prepared by Carollo. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP ID:
TBD	9	CIP
Project Title:	**Department:**	**Project Manager:**
8-in Snows Loop	Water Operations	Joe Lomeli

Project Description:

- Installation of approximately 1,350 feet of 8-in pipeline from Sky High Road to Highland Valle Road, within a new easement.
- Project identified as part of the updated water master plan (Project FF-3).

Justification:

- The existing pipeline on Sky High Road is a dead-end pipeline, located within the Snow pressure zone. Based on the Master Plan, installation of this pipeline loop will increase fire flow service to the Snow pressure zone customers.
- This project is associated with the ongoing decommissioning of the untreated water system. As such, the project may be eliminated or accelerated, depending on the ultimate decision of the Board relative to decommissioning.

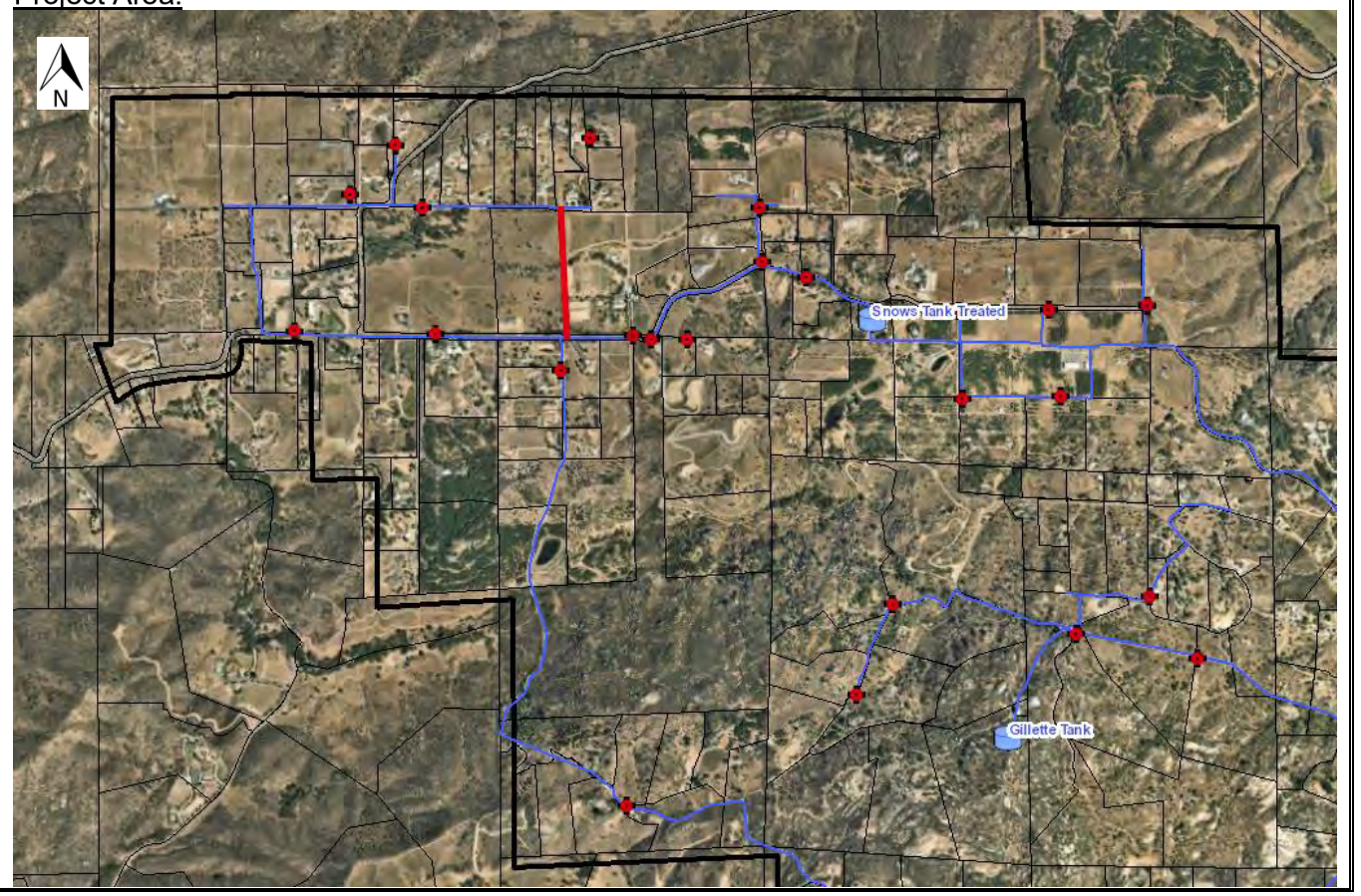
Budget Impact:

Fund 043: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Project Area:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 043	TBD										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$ 75,000										$ 75,000
Construction	$ 425,000										$ 425,000
TOTAL COST	**$ 500,000**										**$ 500,000**

Note: The costs shown are represented in 2022 dollars and are based on estimates form the water master plan prepared by Carollo Engineers. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP ID:
TBD	10	CIP
Project Title:	**Department:**	**Project Manager:**
8-in Chavez Loop	Water Operations	Joe Lomeli

Project Description:

- Installation of approximately 1,560 feet of 8-in pipeline in Starvation Mountain Rd to Camino del Aguila.
- Project identified as part of the updated water master plan (Project FF-4).

Justification:

- The existing pipeline on Starvation Mountain Rd is not looped. Completing the proposed looping pipeline to the 8-in pipeline in Camino del Aguila improves fire flow and system reliability for customers in this remote portion of the water service area.
- This project is associated with the ongoing decommissioning of the untreated water system. As such, the project may be eliminated or accelerated, depending on the ultimate decision of the Board relative to decommissioning.

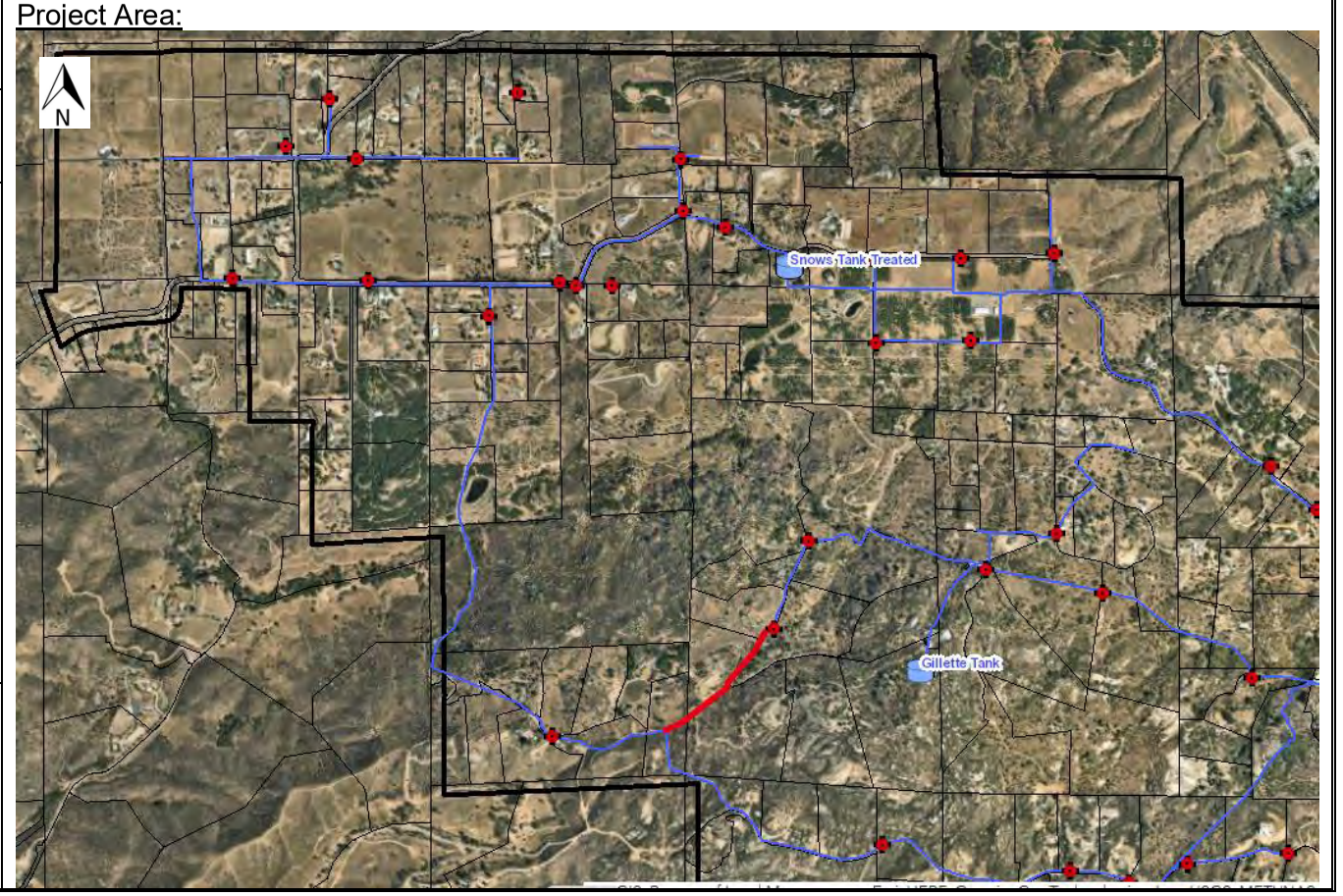
Budget Impact:

Fund 043: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Project Area:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 043	TBD										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition	$ 15,000										$ 15,000
Design, Environmental and Construction Management	$ 60,000										$ 60,000
Construction	$ 575,000										$ 570,000
TOTAL COST	**$ 650,000**										**$ 650,000**

Note: The costs shown are represented in 2023 dollars and are based on estimates from the water master plan update prepared by Carollo Engineers. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP ID:
TBD	11	CIP
Project Title:	**Department:**	**Project Manager:**
12-in Kennedy Pipeline	Water Operations	Joe Lomeli

Project Description:

- Installation of approximately 7,200 feet of 12-in pipeline form Kennedy Tank No 1 (West) to the upper Chavez pressure reducing valve (PRV).
- Fire hydrants would be included on this pipeline to further improve fire flow service in the Chavez area.

Justification:

- With the intent to convert Kennedy Tank West to a treated water tank, installing this 12-in pipeline will greatly improve fire flow conditions in the Snows pressure zone.
- This pipeline also allows for growth providing a reliable water system for the planned developments in the west side of the District service area.
- This project is associated with the ongoing decommissioning of the untreated water system. As such, the project may be eliminated or accelerated, depending on the ultimate decision of the Board relative to decommissioning.

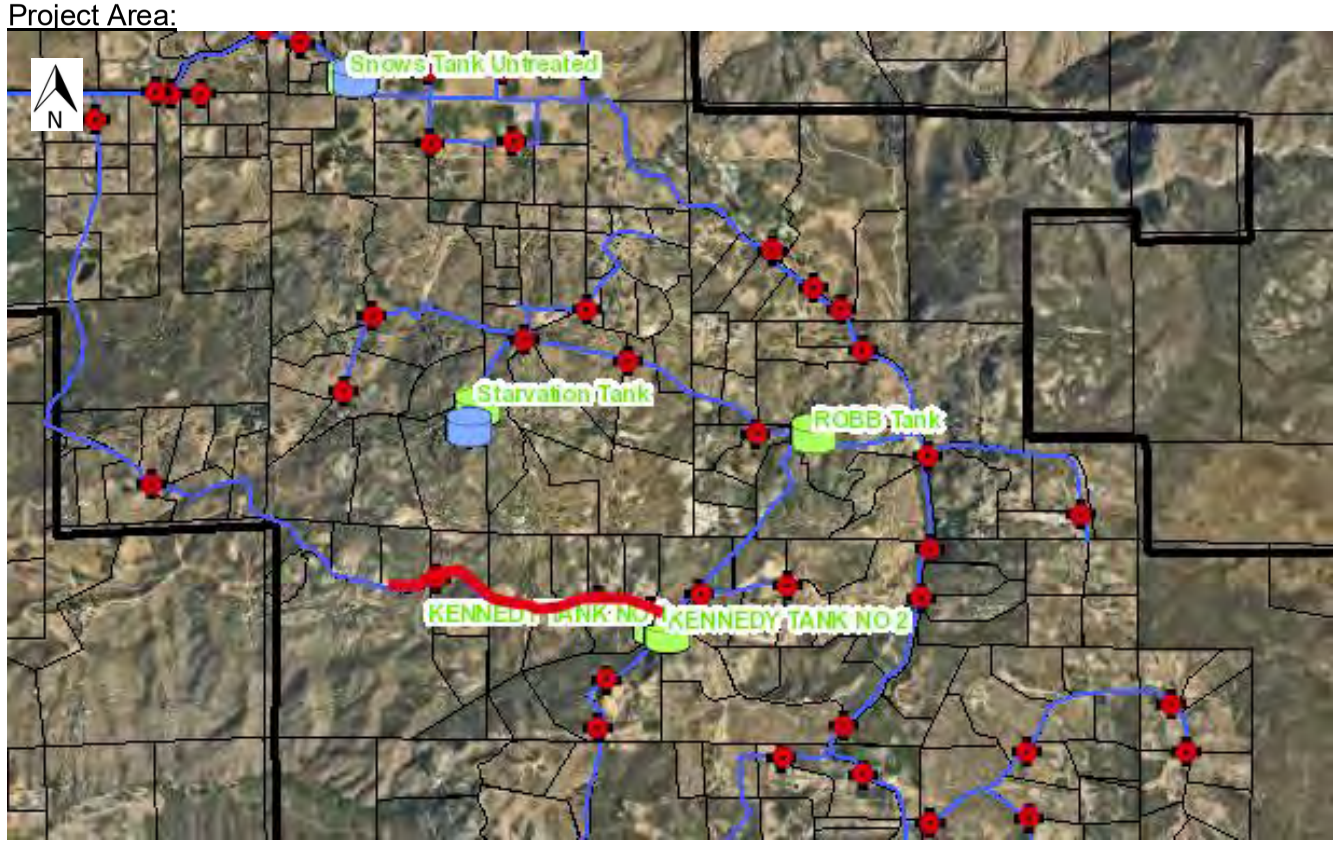
Budget Impact:

Fund 043: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Project Area:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
Fund XXX	TBD										
Imp. Bond	TBD										
Fund 043	TBD										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$ 250,000										$ 250,000
Construction	$ 2,600,000										$ 2,600,000
TOTAL COST	**$ 2,850,000**										**$ 2,850,000**

Note: The costs shown are represented in 2023 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP ID:
TBD	12	CIP
Project Title:	**Department:**	**Project Manager:**
12-in Wildcat Canyon Road Pipeline	Water Operations	Joe Lomeli

Project Description:

- Installation of approximately 2,300 feet of new 12-in diameter transmission main on Wildcat Canyon Road to the boundary of the District.
- The proposed pipeline will connect to new water service pipeline on the Barona Reservation, providing increase water reliability to the Barona Tribe.
- The Barona Tribe completely funds project.

Justification:

- The Barona Tribe petitioned the District to supply water service to its Reservation under AB1361 legislation. The District in in the process of collaborating with the Tribe, San Diego County Water Authority, Metropolitan Water District and LAFCO to prepare the agreement and design of the necessary facilities.
- The Barona Tribe will pay the total cost of these facilities.

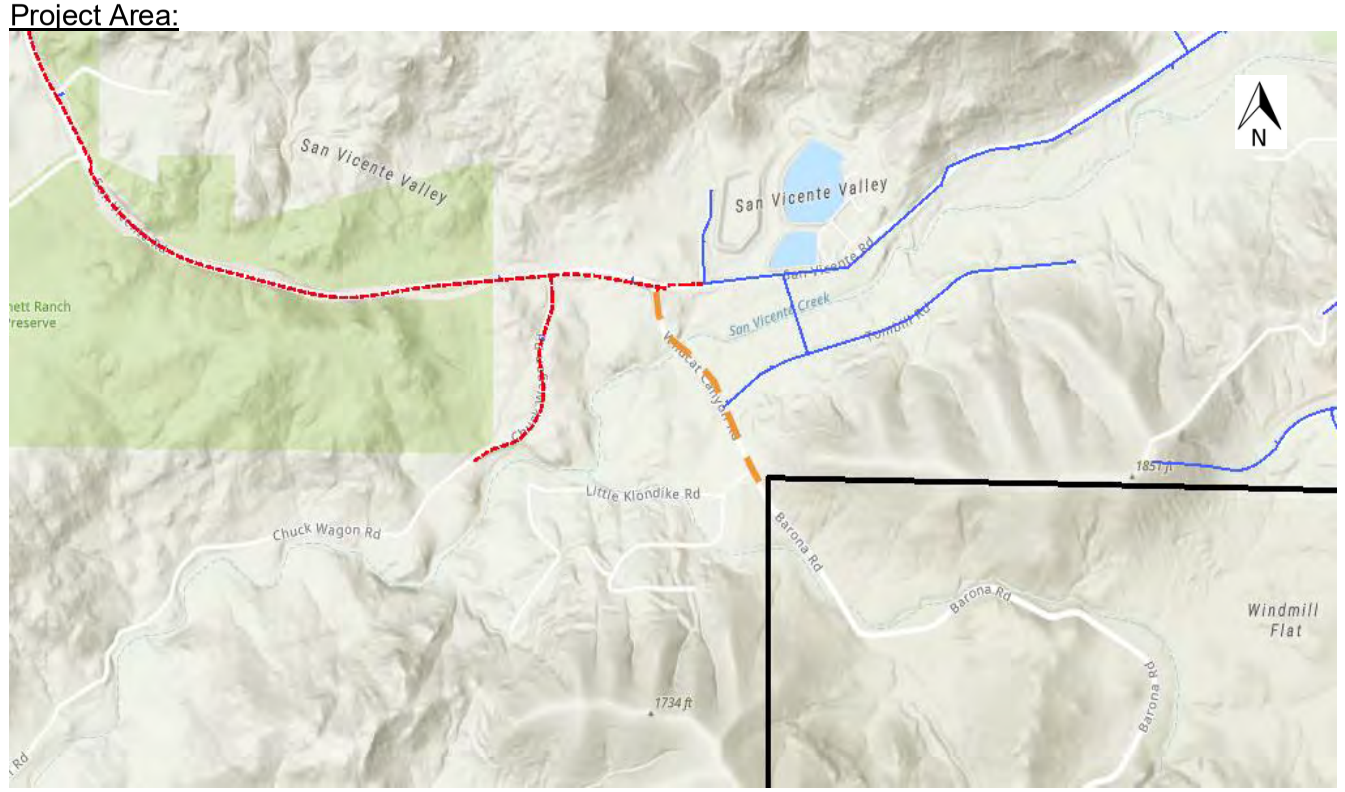
Budget Impact:

Fund 011: TBD
Fund XXX: TBD
Imp. Bond: TBD

Scheduling:

Design Phase:
Construction Phase:

Project Area:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
GRANT	100%										
Imp. Bond	TBD										
Fund 011	TBD										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$100,000	$ 100,000									
Construction	$ 1,200,000	$ 1,200,000									
TOTAL COST	**$ 1,300,000**	**$ 1,300,000**									

Note: The costs shown are represented in 2022 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP/DEVELOPER ID:
TBD	13	DEVELOPER
Project Title:	**Department:**	**Project Manager:**
8-in Acres Waterline Improvements (Alternative 1A)	Water Operations	Joe Lomeli

Project Description:

- Installation of approximately 3,300 feet of new 8-in diameter pipeline on Kalbaugh Street, Beverly Street and Haley Street (Alternative 1A – RED).
- Project is 100% funded under an existing grant.

Justification:

- Proposed waterline to provides water service to 12 parcels, which are currently served by private wells. The project also eliminates existing private "spaghetti" line connections.
- Proposed waterline also install adds new fire hydrants, improving fire flow capacity in the area.
- Project is paid under an existing grant, with no fiscal impact to the District.

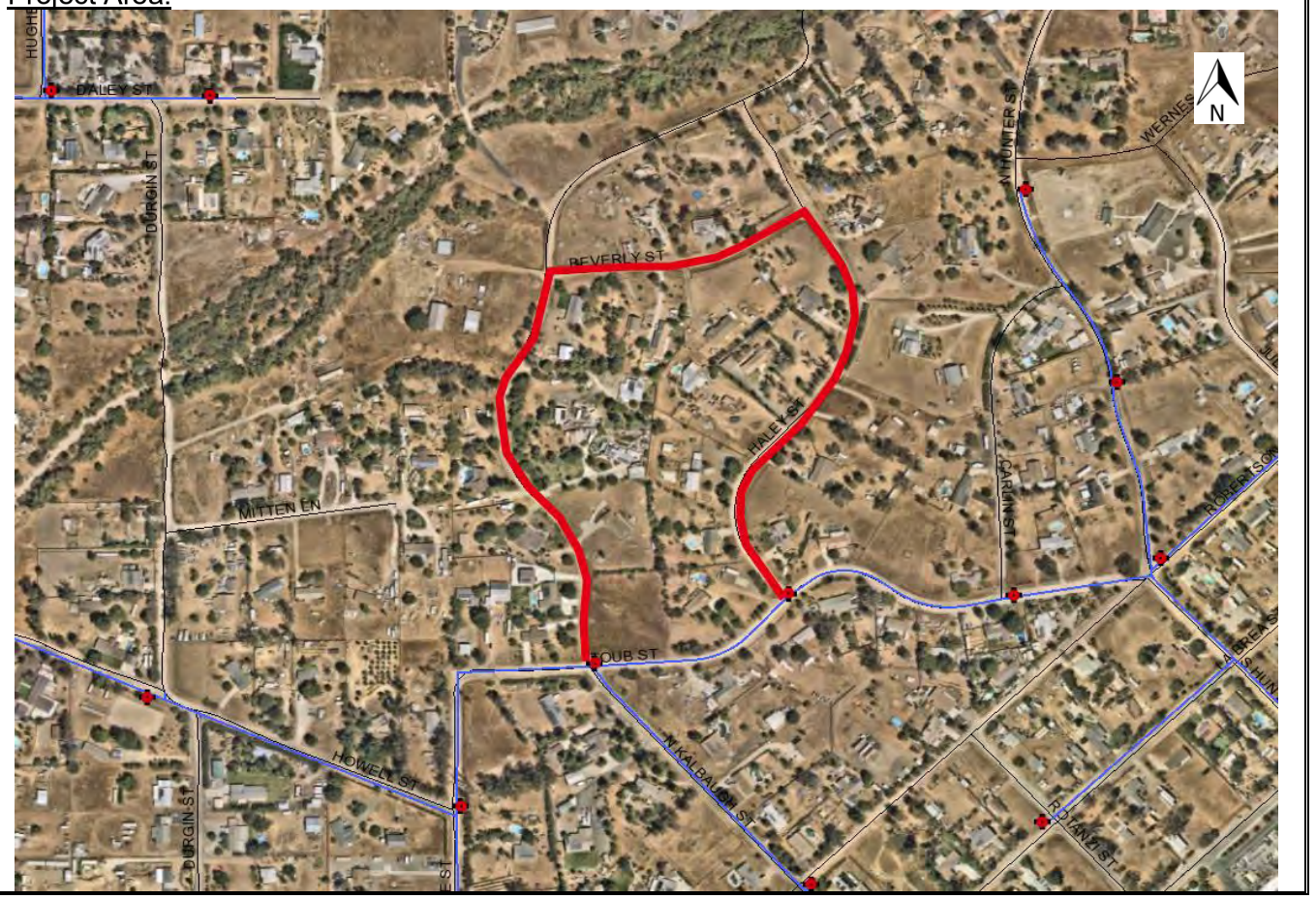
Budget Impact:

Fund 011: None
Fund XXX: None
Imp. Bond: None
GRANT: 100%

Scheduling:

Design Phase:
Construction Phase:

Project Area:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
GRANT	100%										
Imp. Bond	TBD										
Fund 011	TBD										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$ 200,000	$ 100,000	$ 100,000								
Construction	$ 1,820,000		$ 1,820,000								
TOTAL COST	**$ 2,200,000**	**$ 100,000**	**$ 1,920,000**								

Note: The costs shown are represented in 2022 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

Project No:	Priority Task:	CIP/CRP/DEVELOPER ID:
TBD	14	DEVELOPER
Project Title:	**Department:**	**Project Manager:**
8-in Acres Waterline Improvements (Alternatives 2 & 3B)	Water Operations	Joe Lomeli

Project Description:

- Installation of approximately 640 feet of new 8-in diameter pipeline on La Brea Street (Alternative 2 – GREEN).
- Installation of approximately 430 feet of new 8-in diameter pipeline on Rotanzi Street (Alternative 3B – ORANGE).
- Project to be 100% funded under a grant.

Justification:

- Proposed waterline to loop the waterlines on Kalbaugh Street, La Brea Street and Rotanzi Street. By looping the waterlines three dead end waterlines are eliminated improving fire flow capacity.
- Completing the loop on existing pipelines also adds an alternative source of water to the area of the Acres therefore creating a more robust and reliable water system with added redundancy.

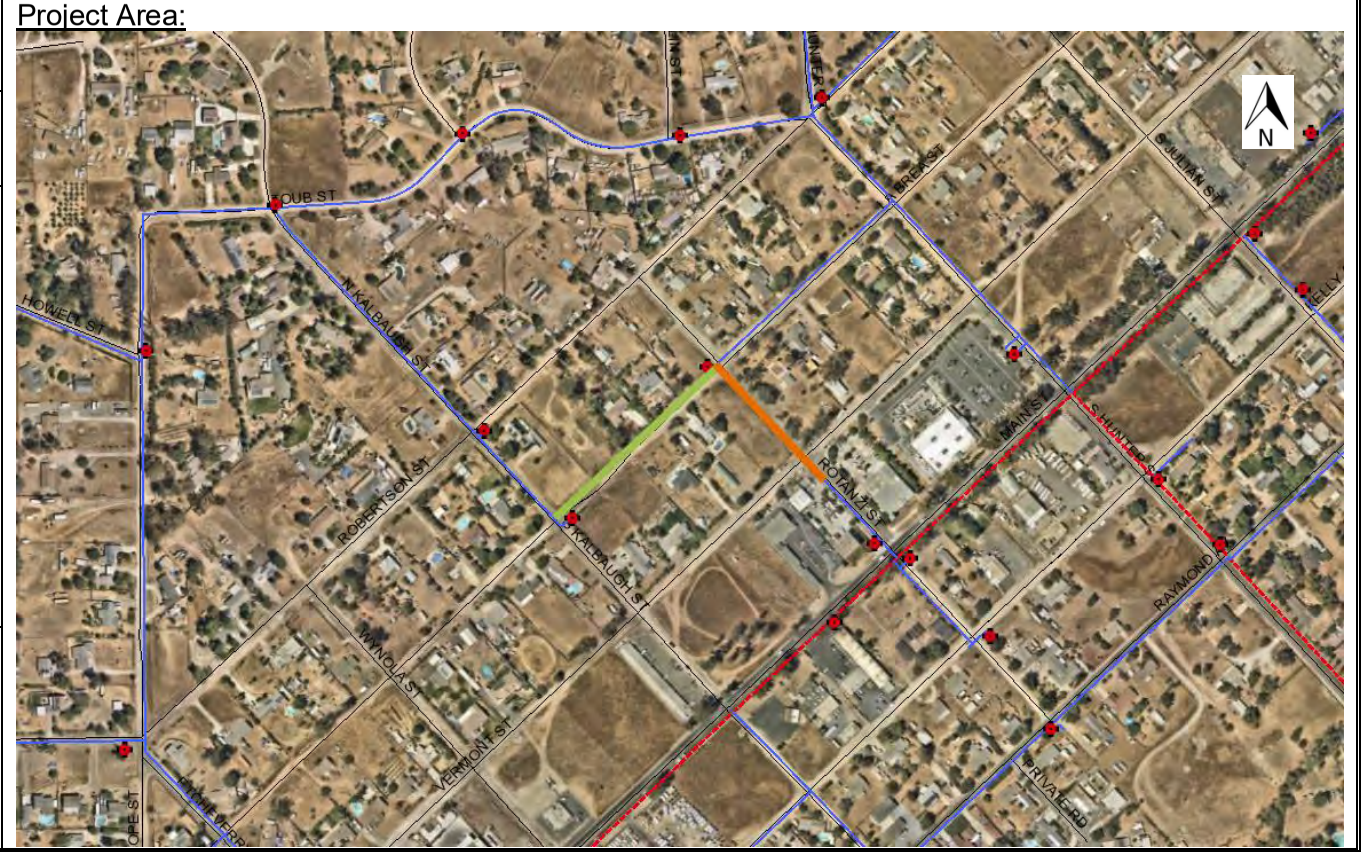
Budget Impact:

Fund 011: None
Fund XXX: None
Imp. Bond: None
GRANT: 100%

Scheduling:

Design Phase:
Construction Phase:

Project Area:



FUNDING	TOTAL FUNDING	FY 2023/24 BUDGET	FY 2024/25 BUDGET	FY 2025/26 BUDGET	FY 2026/27 BUDGET	FY 2027/28 BUDGET	FY 2028/29 BUDGET	FY 2029/30 BUDGET	FY 2030/31 BUDGET	FY 2031/32 BUDGET	FY 2032/33 BUDGET
GRANT	100%										
Imp. Bond	TBD										
Fund 011	TBD										
TOTAL FUNDING	**TBD**										

COST BREAKDOWN	TOTAL COST	FY 2023/24 PROJECTED EXPENSES	FY 2024/25 PROJECTED EXPENSES	FY 2025/26 PROJECTED EXPENSES	FY 2026/27 PROJECTED EXPENSES	FY 2027/28 PROJECTED EXPENSES	FY 2028/29 PROJECTED EXPENSES	FY 2029/30 PROJECTED EXPENSES	FY 2030/31 PR0JECTED EXPENSES	FY 2031/32 PR0JECTED EXPENSES	FY 2032/33 PROJECTED EXPENSES
Land Acquisition											
Design, Environmental and Construction Management	$ 90,000	$ 50,000	$ 40,000								
Construction	$ 900,000		$ 900,000								
TOTAL COST	**$ 990,000**	**$ 50,000**	**$ 940,000**								

Note: The costs shown are represented in 2022 dollars. These values must be adjusted for inflation and to reflect increased project definition when developing budgets for future years.

MEMORANDUM

To:	Water Master Plan Update 2022
From:	D. Michael Metts, PE / RMWD District Engineer
Subject:	WMPU Supplement, Fire Flow Analysis Update [Supplemental Review]
Date:	December 2022

Carollo Engineers and West Coast Civil (Consultant) completed the District's 2022 Water Master Plan Update (WMPU), with West Coast Civil being responsible for the hydraulic modeling portion of the WMPU. As part of the 2022 WMPU project, the existing District water model was updated to represent the existing District infrastructure and operating conditions, as well as the water demands throughout the District. Once the District staff received the updated model, District staff continued to review and use the model to evaluate proposed new developments and proposed changes in existing customer water use. During use of the updated water model, District staff identified that modeling of the Boulder Pressure Zone was incorrect. The Boulder Pressure Zone (1,976 feet) was inadvertently open to the Woodson Pressure Zone (1,800 feet). This issue impacted the fire flow analysis performed by the Consultant and the figure in the WMPU showed several nodes with fire flow deficiencies, particularly in the downtown area. After resolving the modeling issue, a new fire flow analysis (identical to that performed in the original analysis) was performed, which showed significant reduction in the number of nodes shown as fire flow deficient in the 2022 WMPU. Both pipeline size and fire flow were criteria for determining which pipelines were deficient. the revised analysis resulted in an approximate 67 percent reduction in the number of deficient pipelines that were recommended for upsizing by the WMPU. The revised information is documented herein as a supplement to the 2022 WMPU.

1 Background Information

As part of the 2022 WMPU, the District provided the then-current water system model to the Consultant. The project scope required the Consultant to update the water model to bring the infrastructure in the model up to date, incorporate current District operating data, and reflect current water demand distribution throughout the District water system. Once the model was updated, the project scope included evaluation of the District water system under a variety of operating scenarios, with and without application of appropriate fire flow conditions.

During completion of the WMPU, the Board of Directors approved decommissioning of the untreated water system. Analysis of the impacts of decommissioning was added to the project scope. The decommissioning analysis evaluated water system performance with remaining untreated water demands transferred to the treated water distribution system. Similar modeling analyses were performed for the decommissioning scenarios. The results of the decommissioning analyses were added to the WMPU as an appendix, to avoid requiring a costly rewrite of the entire WMPU document.

Once the WMPU project was complete, District staff received and began using the updated water model. As District staff began implementation of the WMPU recommendations, the water model was used to evaluate the water system performance based on specific identification of facility siting efforts (i.e., improvements FF-3, FF-4,

and FF-5). As the model was used, minor corrections were identified, with minor impact to the results of the WMPU, with the exception of the fire flow analysis and the number of pipelines included in improvement FF-1. Corrections associated with this memorandum represent a significant change to the WMPU results regarding fire flow and the pipeline prioritization list, with the revisions representing a marked increase in the existing water system fire flow capability and an associated reduction in pipelines that need to be upsized (resulting in significant savings to the District through 2035).

2 Hydraulic Model Change

Simulating the operation of a water system, particularly a large system, involves a large amount of both graphic and tabular information. From the WMPU, the District water model underwent a significant update. The original water model was developed in 1989 along with the previous water master plan development. Over the ensuing years, various information updates were incorporated, including newly constructed facilities, as well as increases and decreases in water demand. The water model also reflects the geometry of the water system, including the various pressure zones throughout the system. As shown in the WMPU, **Table 1** identifies the existing pressure zones within eh existing District water system.

Table 1. Existing Pressure Zones

Pressure Zone	HGL (ft msl)	Storage Reservoirs	Pump Stations (Zone Pumped To)	PRV (Zone Flows To)
Snow	1,150	Snow Tank	N/A	Chavez Lower
Woodson Regulated	1,429	N/A	N/A	Robb
SDCE Regulated	1,497	N/A	N/A	N/A
Rancho Villa	1,550	N/A	N/A	Rancho Villa
Tombill	1,646	N/A	N/A	Tombill
Santa Maria	1,646	N/A	N/A	Southern Oak
Mussey Grade	1,672	N/A	N/A	Mussey Grade
SDCE Regulated	1,700	N/A	N/A	Arena Arena 2 Couna
Downtown/West End	1,724	West End Reservoir	Poway PS	Woodson-Bargar
Woodson	1,800	Woodson Reservoir	Poway PS	N/A
Bargar	1,800	Bargar Clearwell	Olive Street PS	N/A
SDCE Regulated	1,840	N/A	N/A	Barona West Moonglow
SDCE	1,850	SDCE Tank 1 SDCE Tank 2 SDCE Tank 3 SDCE Tank 4 Julian Tank	Julian PS SDCE PS	27, 28
Gillette	1,900	Gillette Treated Tank	Gillette PS	N/A
Black Canyon	1,990	Black Canyon Tank	Black Canyon PS	N/A
Boulder	1,976	Boulder Tank	Boulder PS	N/A
ID-5	2,100	ID-5 Tank	ID-5 PS	N/A

Note:
Abbreviations: N/A – not applicable; SDCE – Sand Diego Country Estates.

Source: Table 3.1 Existing Pressure Zones in 2022 WMPU

As shown in **Table 1**, the Boulder Press Zone has an average hydraulic grade line (HGL) of 1,976 feet. The Boulder Pressure Zone is in the western portion of the District, as shown on **Figure 1** *(figures are at the end of the memorandum)*, serving primarily the Mt. Woodson area. The Boulder Tank is located along Mt. Woodson Road. The Boulder Pump Station conveys water from the Woodson Pressure Zone (HGL of 1,800 feet) to the Boulder Tank, having a design capacity of 1,285 gallons per minute (gpm).

Waterlines within the Boulder Pressure Zone connect to the Woodson Pressure Zone along South Woodson Drive near the Mt. Woodson entrance monument, as well as in the vicinity of Archie Moore Road and Camino Del Indio. As water is pumped into the Boulder Pressure Zone from the Woodson Pressure Zone, the valves connecting the pipelines between the two pressure zones are normally closed. In the model, a closed valve is shown by "closing" the pipeline between two nodes. It was determined that the modeled pipeline along the Archie Moore Road connection was inadvertently left open between the two pressure zones. This pipeline was closed to reflect the proper configuration of the distribution system. **Figure 1** illustrates the various pressure zones in the District water system, with the Boulder Zone shown on the left side of the figure in pink.

As discussed, analyses within the WMPU project included a fire flow analysis of the entire treated water system. To properly convey the impact of the identified issue, it is important to explain how the modeling software

completes a fire flow analysis. In the model, each demand location (node) is assigned a specific fire flow value based on the water demands connected to the node. When evaluating the fire flow capability of the system, the modeling software applies the identified fire flow at one node and evaluates the remainder of the system. The software then turns off that fire flow demand and applies the fire flow demand of another node. The software continues to evaluate fire flow at subsequent nodes until all nodes in the water system model have been evaluated. The modeling software establishes the fire flow that can be achieved, while the pressure at no other node in the water system drops below 20 pounds per square inch (psi) and/or any pipeline velocity exceeds 10 feet per second (fps). At the point which a node drops below 20 psi or a pipeline exceeds 10 fps, the model reports the fire flow for that specific node that can be achieved without causing an unacceptable pressure reduction or velocity increase in any portion of the water system.

As the Boulder Pressure Zone was "open" to the Woodson Pressure Zone in the model, the ground elevations of the Boulder Pressure Zone are too high to be properly served by the Woodson Pressure Zone. Therefore, when evaluating the fire flow of the entire water distribution system, the nodes in the Boulder Pressure Zone would drop below the 20-psi threshold in the analysis. This situation is not reflective of actual water system operation. The result is that the analysis calculated fire flow values as deficient at many nodes in the system and do not reflect what these nodes can actually provide for fire flow. As the analysis includes the entire water system, fire flow values that could be achieved across the water system were suppressed. Correction of the "open" pipeline results in an increase in predicted fire flow across the entire distribution system.

3 Revised WMPU Results

The 2022 WMPU recommendations included a multi-year programmatic replacement of 6-inch and smaller water infrastructure across the entirety of the water system. Specifically, the 2022 WMPU identified the following recommendation:

- Capital Program (CP) FF-1 (Programmatic Water Main Replacement). This program defines the programmatic replacement of water mains sized below the District's minimum water main diameter of eight (8) inches. Replacement of these pipelines will occur over an extended period. As such, the WMPU identified a recommended prioritization to focus on initial replacement of the most critical mains.

From the 2022 WMPU analysis, it was projected that 383,000 feet of 4- and 6-inch pipelines were required to be upgraded to 8-inch pipelines. **Figure 2** *(figures are at the end of the memorandum)* illustrates the results of the original analysis, showing a considerable number of system nodes identified to provide less than 50 percent of the required fire flow. The downtown Ramona area particularly showed significant fire flow deficiencies, as shown by the high number of red dots (25-50% fire flow delivered), as well as some deficiencies on the western side of the system.

After correcting the "open" condition between the Boulder and Woodson Pressure Zones, the number of pipelines identified with fire flow deficiencies decreased by approximately 67 percent. **Figure 3** *(figures are at the end of the memorandum)* illustrates the conditions within the water system when the correction is applied under maximum day demand. As shown, the number of red and orange nodes are significantly reduced. The corrected analysis does not eliminate the need to replace 4- and 6-inch pipelines throughout the system but changes the prioritization, as percent fire flow delivered along with pipeline size were the two criteria used to prioritize the pipelines. Pipelines that are 4- and 6-inches but meet 100% of fire flow requirements are therefore eliminated

from FF-1 but may ultimately be included in the District's other pipeline replacement program based on material and age.

It is noted that District staff also evaluated the existing and future maximum day demand, with and without the proposed water service to the Barona Reservation. **Figures 4 and 5** *(figures are at the end of the memorandum)* illustrate the water service conditions under these scenarios, which were previously provided as part of the September 2022 Barona Water Service Study.

4 Summary

Having identified and corrected the "open" condition between the Boulder and Woodson Pressure Zones, the total number of pipelines requiring replacement has been reduced by 67 percent from approximately 383,000 feet to 125,000 feet. **Table 2** shows the updated lengths of pipeline associated with the eight levels of risk assessment from the 2022 WMPU analysis.

Table 2. Pipeline Replacement Program Risk Assessment Results (WMPU Recommended Program FF-1)

Priority	Description	Replacement Pipe Length (ft)	
		2022 WMPU	Updated Results
1	Diameter less than or equal to 4" with less than 25% of FF* delivered	8,300	830
2	Diameter less than or equal to 4" with 25-50% of FF delivered	11,600	3,220
3	Diameter equal to 6" with less than 25% of FF delivered	0	0
4	Diameter less than or equal to 4" with 50-75% of FF delivered	3,800	6,770**
5	Diameter equal to 6" with 25-50% of FF delivered	74,200	5,770
6	Diameter less than or equal to 4" with 75-99% of FF delivered	1,200	2,570**
7	Diameter equal to 6" with 50-75% of FF delivered	137,000	47,820
8	Diameter equal to 6" with 75-99% of FF delivered	146,900	58,063
	Total	**383,000**	**125,043**

**FF = Fire flow.*
***Note: The length of these pipes increased because pipelines moved from priority 1 & 2 to 4 & 6 because of improved fire flow capability. In the updated results, a total of 11,510 feet of 4-inch pipeline meet 100-percent or greater fire flow requirements and were removed from the priority list.*

From the 2022 WMPU, the total length of pipeline replacement for the FF-1 recommendations was 383,000 feet at an estimated cost of $126.5 million between now and 2035. With the revised analysis, the total length of pipeline replacement for the FF-1 recommendations was 125,043 feet with an approximate revised cost of $41,3 million over the same period.

The 2022 WMPU has recommended a near term (2021-2025) replacement of 98,000 linear feet (approximately 18.5 miles) for those pipelines in priority groups 1 through 5. However, with the revised analysis only 16,590 linear feet (approximately 3 miles) are in priority groups 1 through 5, which is an 84% reduction in length and results in a significant near-term cost reduction. Priority groups 6 and 7 totaled 137,000 linear feet (approximately 26 miles) for replacement in 2026-2030 and has been reduced to 50,390 feet (approximately 9.5 miles). Priority 8 for replacement in 2031 and beyond was reduced from 150,000 to 58,063 linear feet (approximately 28 miles to 11 miles.

In addition to these pipelines, there are approximately 103,540 feet of dead-end pipelines that provide less than 100 percent fire flow. Analysis of these dead-end pipelines was proposed to be handled on a case-by-case basis because most of these services are supplemented with on-site water storage, in accordance with local and state fire code. Similarly, the number of dead-end pipelines requiring replacement (via upsizing or looping) for fire flow deficiencies was reduced.

District staff has incorporated the results of this analysis into the ongoing Water Facilities Plan Update. District staff will focus its initial efforts on pipelines based on the risk prioritization shown above. **Figure 6** *(figures are at the end of the memorandum)* illustrates the recommended pipeline improvements from the WMPU based on the updated model results.

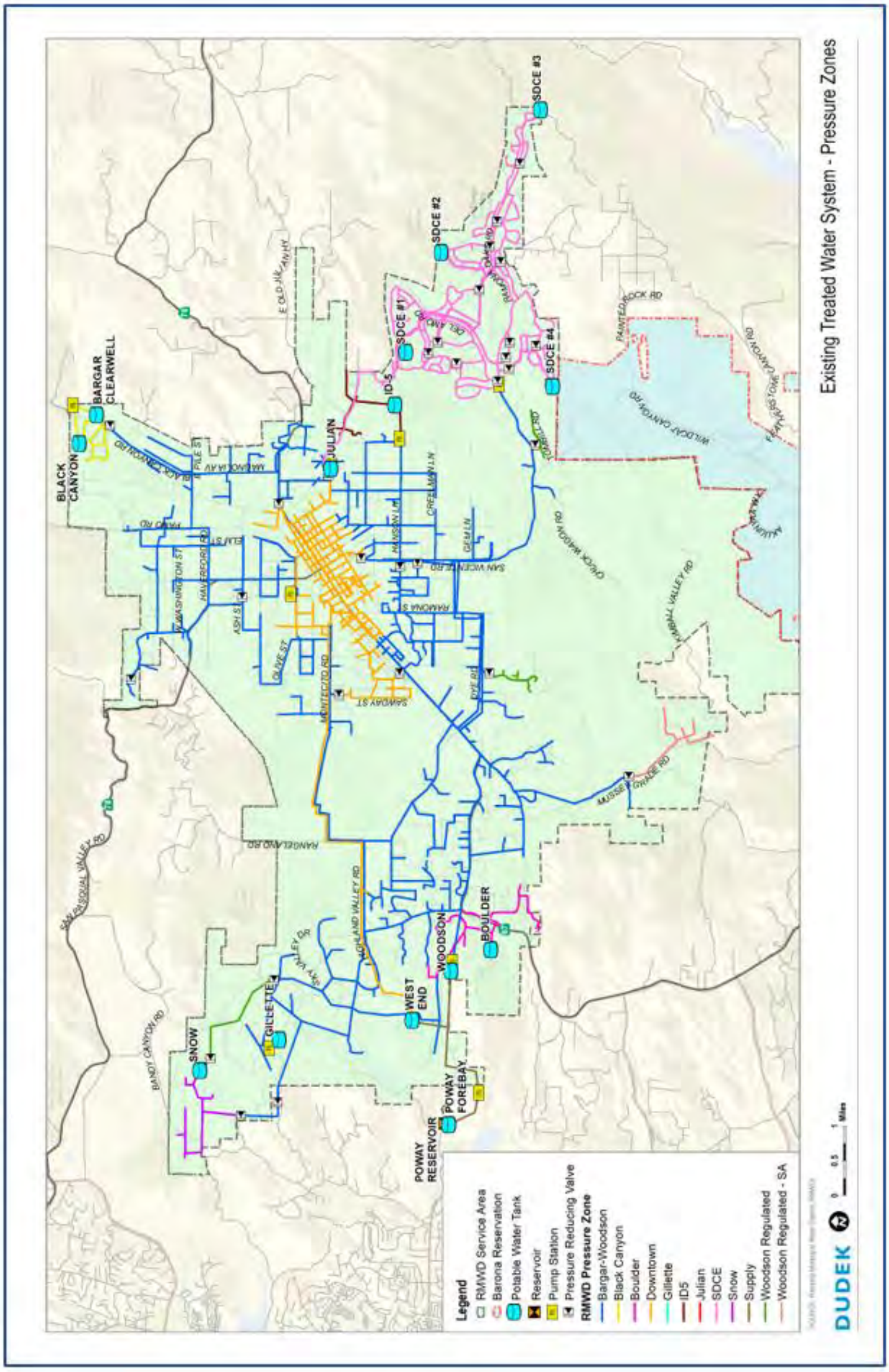


Figure 1. Existing Water System Pressure Zones

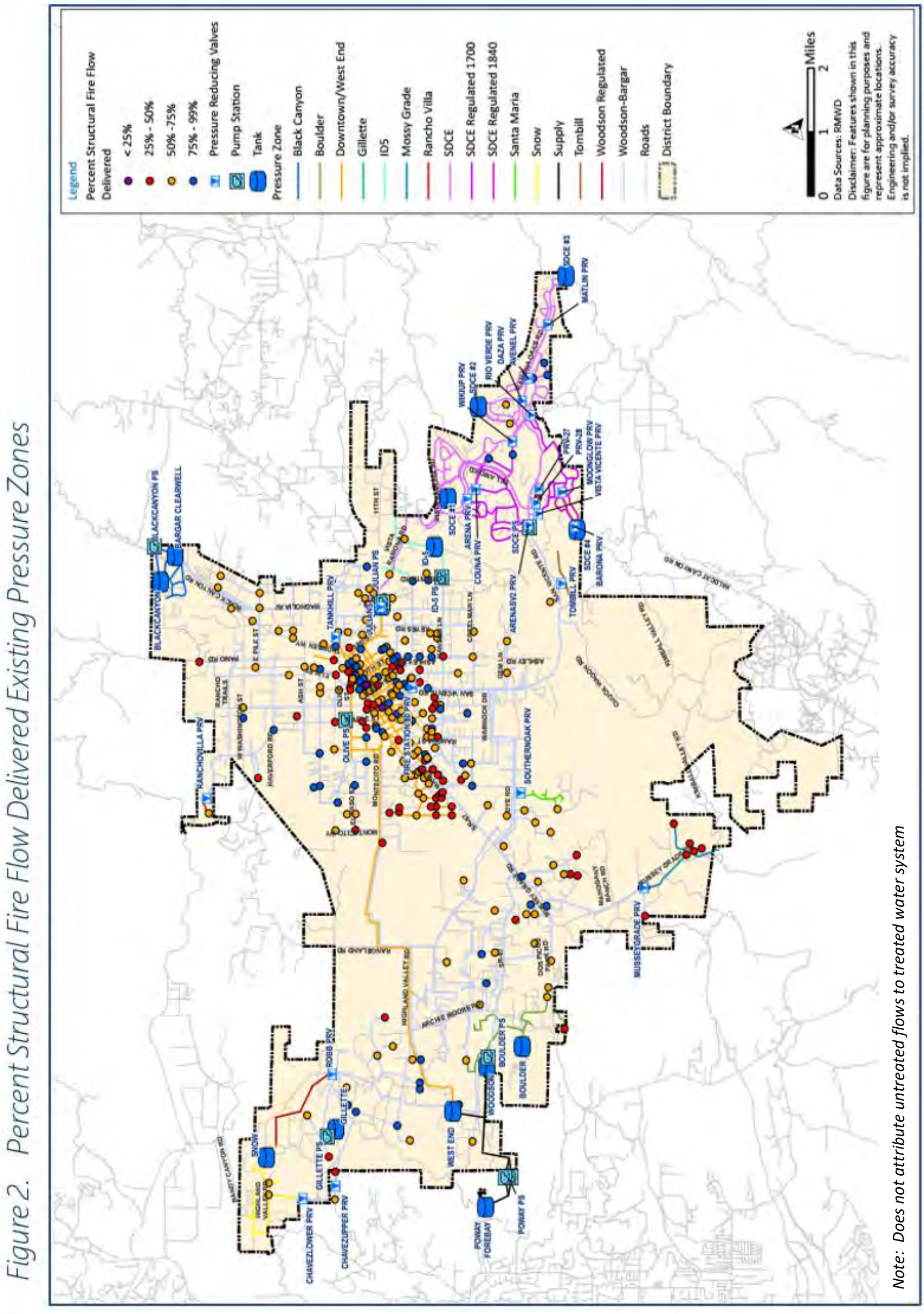
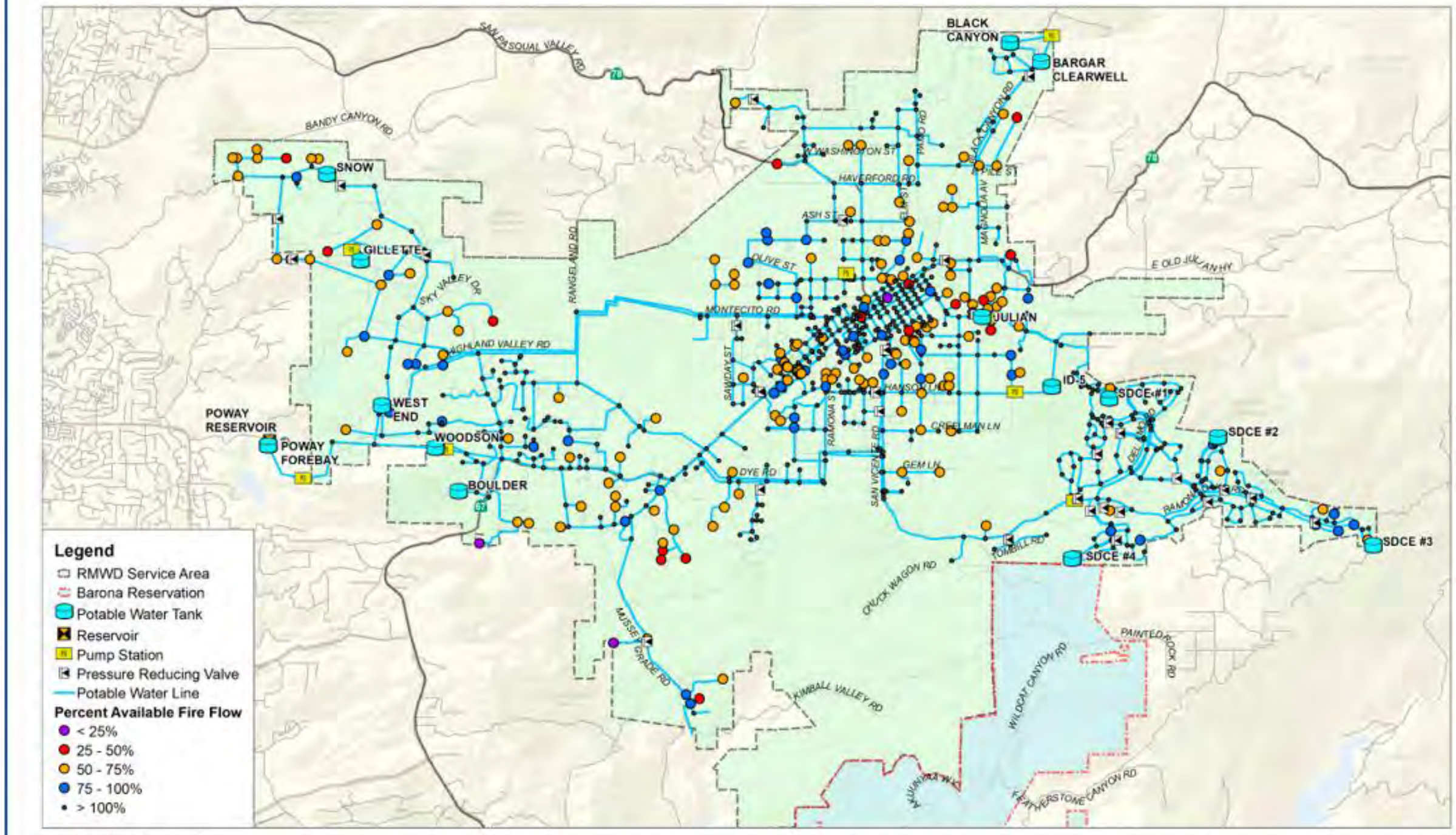


Figure 2. Percent Structural Fire Flow Delivered Existing Pressure Zones

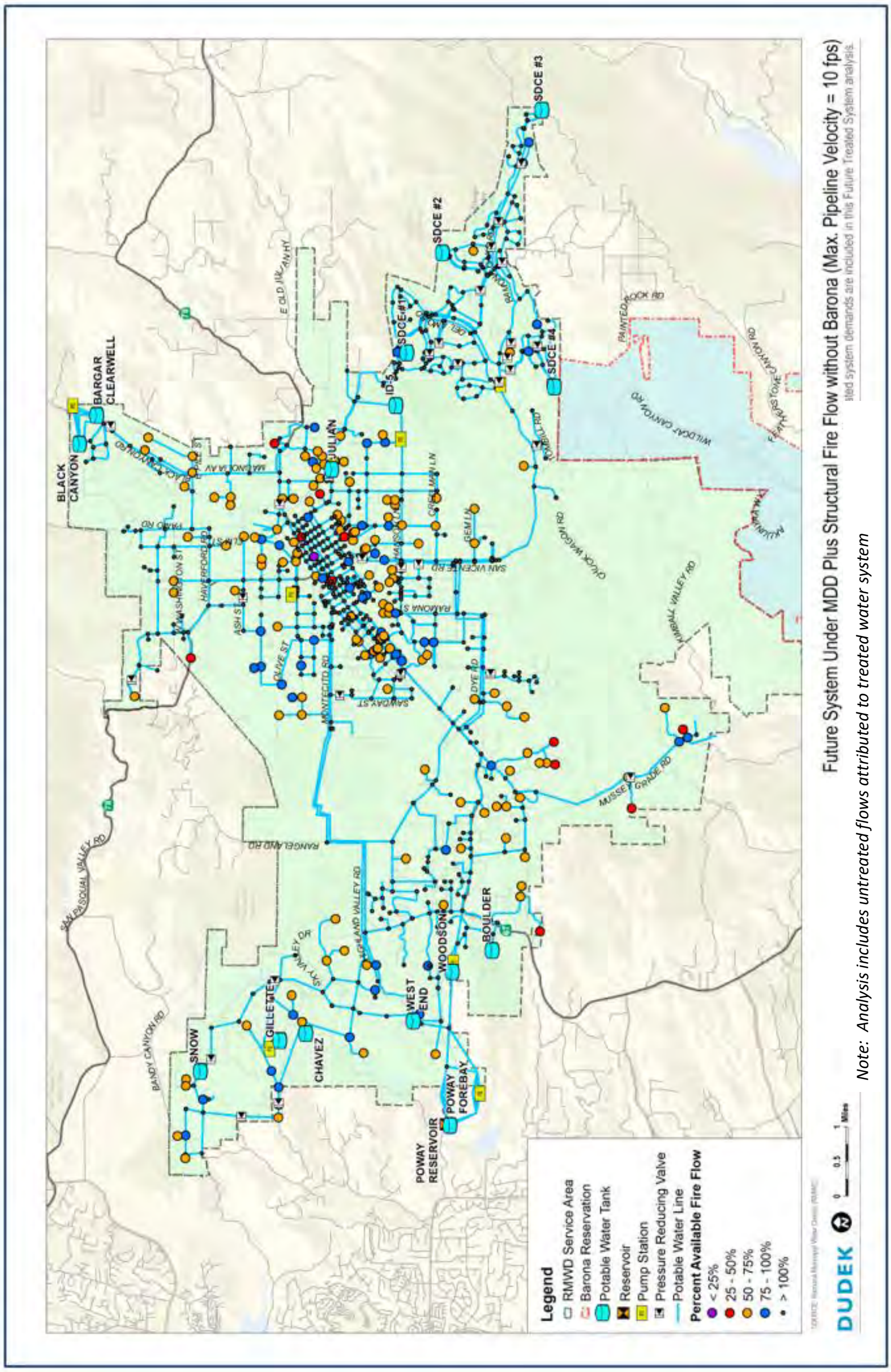
Note: Does not attribute untreated flows to treated water system

Figure 3. Percent Structural Fire Flow Delivered Existing Pressure Zones



Note: Analysis includes untreated flows attributed to treated water system

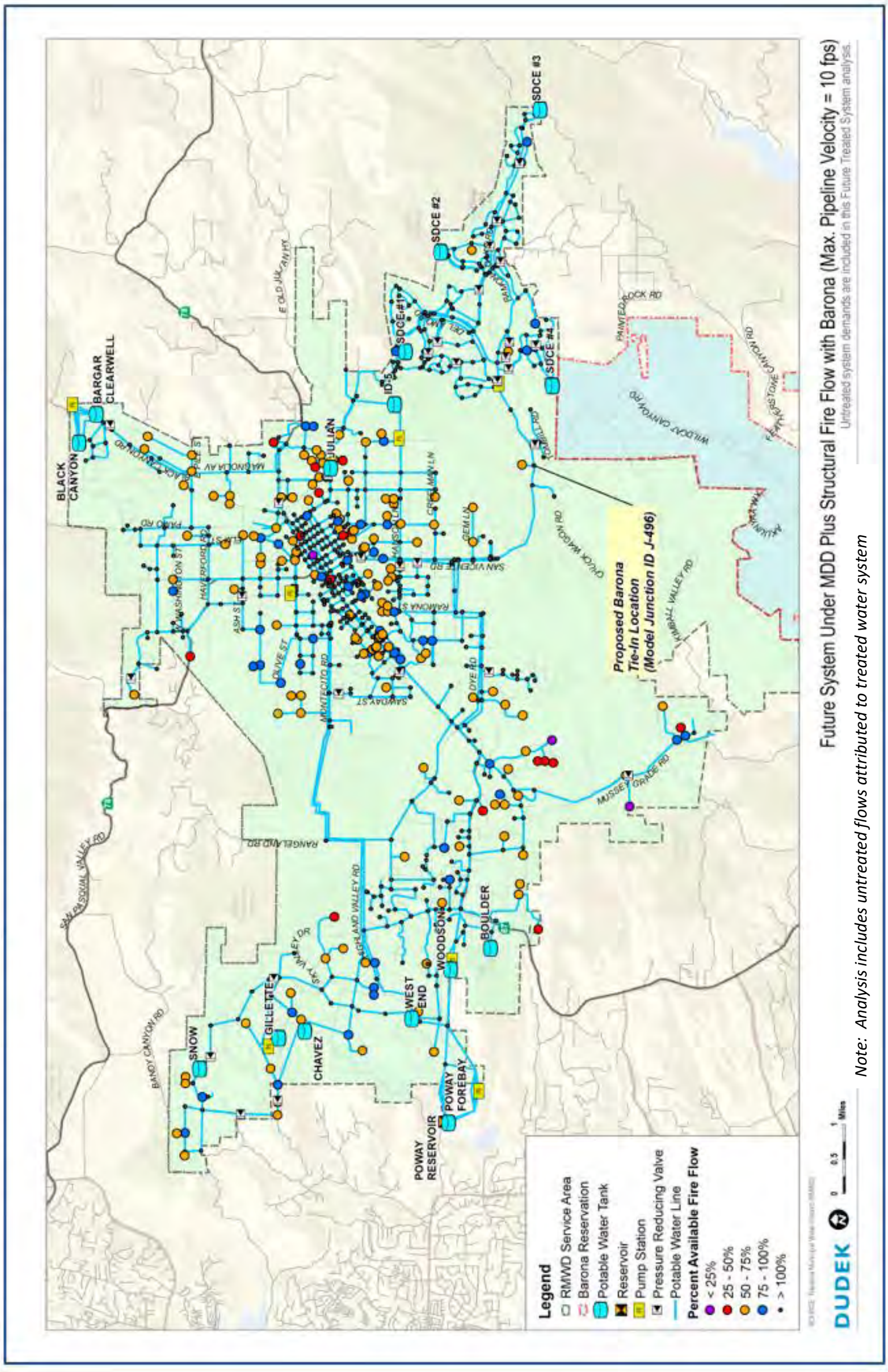
Figure 4. Future Maximum Day Demand Percent Structural Fire Flow Delivered Existing Pressure



Future System Under MDD Plus Structural Fire Flow without Barona (Max. Pipeline Velocity = 10 fps)

Note: Analysis includes untreated flows attributed to treated water system

Figure 5. Future Maximum Day Demand with Barona Service Percent Structural Fire Flow Delivered



Note: Analysis includes untreated flows attributed to treated water system

Figure 6. Improvements to Address Existing System Capacity Needs