

CITY OF REDLANDS
MUNICIPAL UTILITIES/PUBLIC WORKS COMMISSION
MEETING AGENDA
MONDAY, FEBRUARY 3, 2025

STEVE STOCKTON
Chairperson

**CHANDRASEKAR 'CV'
VENKATRAMAN**
Vice Chairperson

ROBERT MEALS
Commissioner

PAUL NORWOOD
Commissioner

THOMAS BREITKREUZ
Commissioner

DAVID GARCIA
Commissioner

ADEKUNLE OJO
Commissioner

JOHN R. HARRIS
Municipal Utilities
& Engineering
Director

GOUTAM K. DOBEY
City Engineer

FERNANDO MATA
Wastewater Utility
Manager

PAUL MARISCAL
Water Utility
Manager

IVAN PEDRAZA
Laboratory
Manager

4:00 PM Open Public Meeting
City of Redlands
Civic Campus
35 Cajon Street
Redlands, California 92373

Anyone desiring to speak on an agenda item at this meeting may do so during the consideration of that item. Due to time constraints and the number of persons wishing to give oral testimony, public comments will be limited to three (3) minutes.

- *To provide comment, simply raise your hand to speak*

The following comprises the agenda for the regular meeting of the Municipal Utilities/Public Works Commission of the City of Redlands.

CITY OF REDLANDS
MUNICIPAL UTILITIES/PUBLIC WORKS COMMISSION
MEETING AGENDA
MONDAY, FEBRUARY 3, 2025

A. ATTENDANCE & CALL TO ORDER

B. PUBLIC COMMENT

(Any person wishing to provide public comment may do so at this time.)

C. APPROVAL OF MINUTES

- a. **December 2, 2024 MUPWC Meeting**

D. COMMUNICATIONS

- a. **Annual City Council Update – March 3, 2025**
- b. **SB-1383 Program Update**
- c. **Director’s Report**

E. NEW BUSINESS

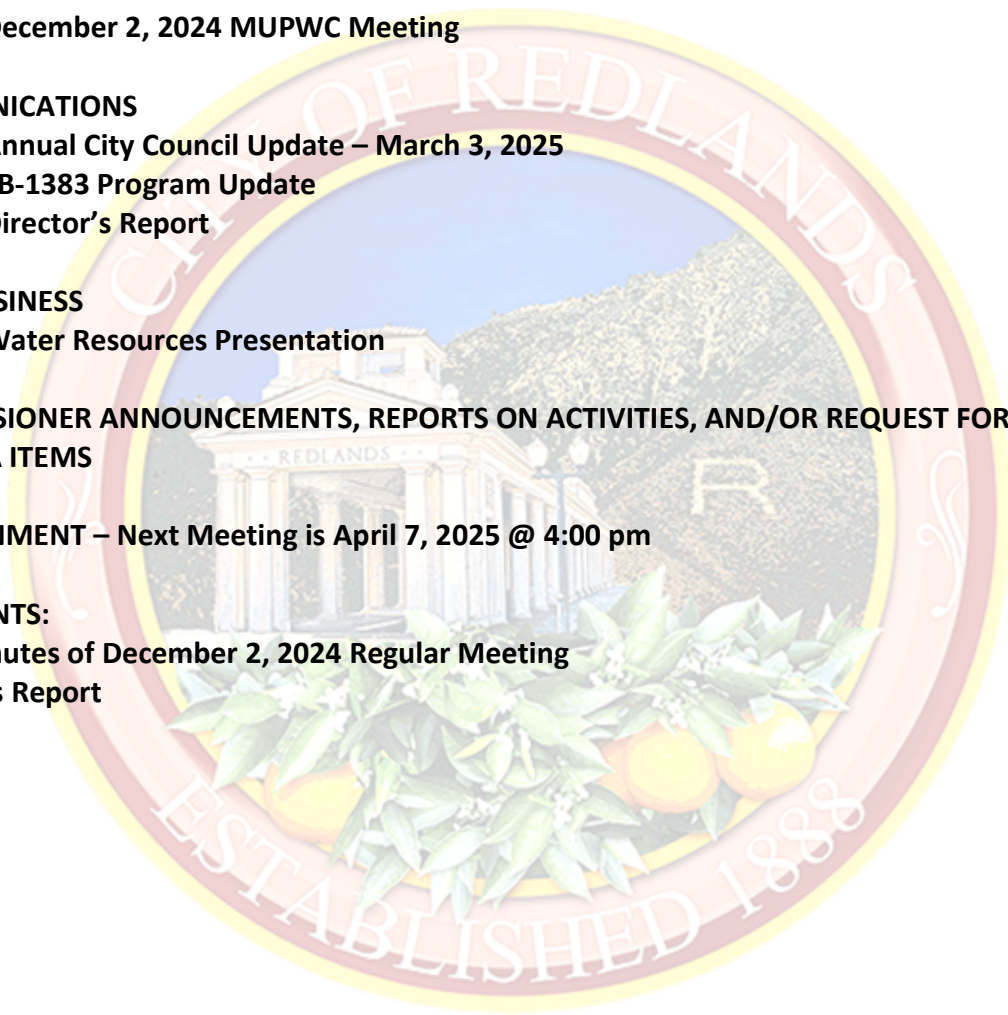
- a. **Water Resources Presentation**

F. COMMISSIONER ANNOUNCEMENTS, REPORTS ON ACTIVITIES, AND/OR REQUEST FOR FUTURE AGENDA ITEMS

G. ADJOURNMENT – Next Meeting is April 7, 2025 @ 4:00 pm

ATTACHMENTS:

- 1. Draft Minutes of December 2, 2024 Regular Meeting**
- 2. Director’s Report**



In compliance with the Americans with Disabilities Act, if special assistance is needed to participate in this meeting, contact Goutam Dobey of Municipal Utilities/Engineering Department at (909) 798-7584 x2. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35.102-35.104 ADA Title II) NOTE: Any writings or documents distributed to a majority of the Municipal Utilities/Public Works Commission regarding an open session agenda item less than 72 hours before this meeting are available for public inspection at: www.cityofredlands.org/municipal-utilitiespublic-works-commission, the Municipal Utilities & Engineering Department at 35 Cajon Street, Suite 15A, or calling (909) 798-7698.

DRAFT
(for MUPWC review on 02/03)
MINUTES

Regular meeting of the City of Redlands Municipal Utilities/Public Works Commission on December 2, 2024 at 4:00 PM in the City Council Chambers 35 Cajon St. Redlands, CA 92373.

A. ATTENDANCE & CALL TO ORDER

Present: Steve Stockton, Chairperson
David Garcia, Commissioner
Paul Norwood, Commissioner
Thomas Breitzkreuz, Commissioner

Absent: Chandrasekar 'CV' Venkatraman, Commissioner
Robert Meals, Commissioner
Adekunle Ojo, Vice Chairperson

City Council Liaison: Mario Saucedo, City Council Member

Staff: John Harris, Municipal Utilities & Engineering Director; Goutam Dobey, City Engineer; Commission Liaison/Associate Engineer; Sara White, Commission Liaison/Senior Administrative Assistant; Paul Mariscal, Water Utility Manager; Jung Park, Laboratory Manager; Johana Silva, Associate Engineer; Bryan Avellano, Assistant Engineer.

Guest Speakers: None

Commissioner Steve Stockton, called the meeting to order at 4:05 PM.

B. PUBLIC COMMENT

None.

C. APPROVAL OF MINUTES

The minutes of the meeting of October 2, 2024, were unanimously approved with revisions at the request of David Garcia. Revisions and requests to update Acronyms to include (CC) City Council noted.

DRAFT
(for MUPWC review on 02/03)
MINUTES

D. COMMUNICATIONS

a. Director's Report

Director Harris proceeds with the Director's Report and states the listed upcoming City Council Meeting Agenda items through January 21, 2025.

Upcoming City Council Meeting Agenda Items:

Agenda item not shown on Director's Report – Traffic Signal Installation on Cajon and Cypress. Waiting on grant funding and will be on the agenda soon.

WWTP P2 Project Update:

Close to finalizing the financing agreement. Will bring it to CC for approval around springtime. Still on track for an early summer bid schedule.

Water Meter Replacement Project:

Nearing the halfway completion point of this project. AMI project is complete. Smart meters, once installed in the ground immediately transmit readings.

Note added Stockton

PMP Update:

The paving project is going well. Lugonia and California have been completed prior to the holiday shopping season. Paving has now moved out to other sections of the city.

Caltrans/SBCTA Projects:

Highway 330 is now open after the closure due to the fire that damaged the guardrails and pavement. Spoke to Cal Trans District 8 Director discussing the freeway slopes and the condition and future projects pertaining to the slopes.

Please visit the following agency websites for specific project details:

Caltrans District 8 - <https://dot.ca.gov/caltrans-near-me/district-8/district-8-current-projects>

SBCTA - <https://www.gosbcta.com/projects/>

Director Harris provides an update on the move into the new City Hall building. The move is scheduled for 2026.

DRAFT
(for MUPWC review on 02/03)

MINUTES

Mr. Stockton requests information regarding the meter replacement project program. Mr. Stockton asks Mr. Harris how the Bureau of Reclamation (BOR) has involvement with the water meter replacement project. Mr. Harris provides an explanation that it is through their Water Smart program which is a water conservation funding program.

Please visit the following agency websites for specific project details:

Caltrans District 8 - <https://dot.ca.gov/caltrans-near-me/district-8/district-8-current-projects>

SBCTA - <https://www.gosbcta.com/projects/>

Cal Trans Freeway Slopes Vegetations/Irrigation:

Discussed in Caltrans/SBCTA Projects.

Q3 Capital Improvement Project Update:

Director Harris states that the well rehabs are virtually complete.

Discussion of Sunset reservoir design, size, and location. Director Harris will keep the Committee informed as this item progresses.

Question from Mr. Stockton regarding well rehabs: What is being found in the pumps when they are rehabbed? Paul Mariscal states that there is mostly just wear and tear found in the pumps when replaced.

No further questions on the Director's report.

1. NEW BUSINESS

Mr. Stockton has concerns regarding food waste. I would like to know if there are increases of debris and blockage in the mainline sewer lines with this increase of solids being disposed of. Are there unintended consequences of these rules that have been implemented regarding the food waste and disposal of it?

Mr. Beritkreuz adds that he has witnessed what he believed to be a city employee checking residential solid waste trash cans and was curious if there is an employee out monitoring the waste placed in bins.

Mr. Garcia and Mr. Stockton asked questions regarding the agenda attached Fire Map.

No further comments.

DRAFT
(for MUPWC review on 02/03)

MINUTES

2. COMMISSIONER ANNOUNCEMENTS, REPORTS ON ACTIVITIES, AND/OR REQUESTS FOR FUTURE AGENDA ITEMS

No further comments.

3. ADJOURNMENT – Next meeting is scheduled for February 3, 2025 at 4:00 PM at City Council Chambers 35 Cajon St . Redlands Ca 92373.

There being no further business the meeting was adjourned at 4:49 PM. The next meeting of the City of Redlands Municipal Utilities/Public Works Commission is scheduled for February 3, 2025.

DRAFT



City of
REDLANDS
Incorporated 1888
Municipal Utilities & Engineering Department

JOHN R. HARRIS
Director

MEMORANDUM

TO: Steve Stockton, Municipal Utilities/Public Works Commission Chair

FROM: John R. Harris, Municipal Utilities & Engineering Department Director

DATE: January 27, 2025

SUBJECT: February 3, 2025 Director's Report

Hello and thank you for serving the Redlands community as a Municipal Utilities/Public Works Commissioner (MUPWC)! City of Redlands Municipal Code Chapter 2.38 establishes the responsibilities of the MUPWC as follows:

"The commission is a resource for the City Council and City staff and buffer with the general public. In its advisory capacity, the commission shall be knowledgeable of all public works, utilities and engineering programs. The commission shall, through the individual and collective expertise of its members, provide advice to the Public Works and Municipal Utilities Departments regarding the public acceptability of proposed plans, programs and projects."

Upcoming City Council Meeting Agenda Items

- Redlands Regional Connector South Project Award (February 4)
- Recycled Water Distribution System Expansion Engineering Project Award (February 4)
- Recycled Water Reservoir CEQA Determination Award (February 4)
- Sidewalk/ADA Ramp Replacement Project Award (February 4)
- WWTP Qualified Industrial Stormwater Practitioner Support Award (February 4)
- General Pump Company Second Amendment (February 4)
- Security Fencing Project Award (February 18)
- TPC Annual Report (February 18)
- Water Utility Pavement Repair Award (March 4)
- California Street Recycled Water Pipeline Extension Project Award (March 4)

WWTP P2 Project Update

Parsons Engineering completed and submitted all WWTP Improvement Project Phase 2 documents in December 2023. MUED staff and SWRCB staff participated in a kick-off meeting

for the acceptance and use of a \$45M State Revolving Fund (SRF) loan to construct these improvements. The SRF application includes four (4) packages: General Information, Technical, Environmental, and Financial Security. We learned that the timeline for development of a Financing Agreement, which includes additional review of these packages and a general legal review, is approximately two (2) years. MUED staff has provided all requested documentation and continues to work closely with SWRCB staff to expedite this process. The project engineering plans are complete. The SWRCB legal staff recently submitted a draft Financing Agreement for City Attorney and Bond Counsel review. It is anticipated that this Agreement will be presented to the City Council in Spring 2025.

Water Meter Replacement Project

MUED is implementing a multi-year project to replace all potable and non-potable water meters within the Redlands service area. Ferguson Waterworks was selected to supply and install the water meters, meter box lids, and Automated Metering Infrastructure (AMI) water meter hardware for use in the future. Ferguson recently completed Phase 2 of the project, which focused on residential and large diameter commercial water meter replacements and AMI hardware retrofits. The water savings value associated with the completion of Phase 2 will be evaluated during the next year.

In July 2022, MUED staff submitted a BOR grant application to partially fund the three (3) remaining project phases. BOR recently approved this funding request and will provide approximately \$2.7M to complete the project. MUED staff submitted a BABA waiver request, which was approved in March 2024, to purchase and install Neptune water meters since no known AMI capable water meter manufacturers meet the BABA requirements. On September 5, 2023, the City Council awarded a new contract to Ferguson for the third and final phase of this project, which consolidates phases 3 – 5 into a single phase. The cost to complete this final project phase is approximately \$6.7M, of which approximately \$2.7M will be reimbursed by BOR. Water meters have been ordered and are being delivered in manageable batches. Ferguson began replacing water meters in mid-July 2024 and is anticipated to complete the project in March 2025. The project is currently on-budget, on-schedule, and approximately seventy percent (70%) complete. A project location map is provided as Attachment “B”.

PMP Update

City Council awarded a construction contract to Matich Corporation on October 1. The project will reconstruct eighteen (18) lane miles and will crack seal/slurry ten (10) lane miles of public streets. Portions of Lugonia Avenue and California Street within San Bernardino County’s jurisdiction were recently rehabilitated and the County will reimburse the City for this work. The final remaining project segment, a small portion of Live Oak Canyon Road, is currently being paved. A project location map is provided as Attachment “C”.

Caltrans/SBCTA Projects



Please visit the following agency websites for specific project details:

Caltrans District 8 - <https://dot.ca.gov/caltrans-near-me/district-8/district-8-current-projects>

SBCTA - <https://www.gosbcta.com/projects/>

I will continue to provide project updates and summaries for potentially impactful projects within Redlands and nearby areas.

Caltrans Projects of Interest:

1. Bridge Deck Repairs – Night work (7:00 pm-5:00 am) on Interstate 15 in San Bernardino including deck rehabilitation, concrete overlay, bridge rail/joint seal/approach slab/soffit replacement.
2. SR-330/SR-18 Guardrail Work – SR-330 was opened to traffic in both directions on November 22.

SBCTA Projects of Interest:

1. Zero-Emission Multiple Unit (ZEMU) – North America’s first federally compliant self-powered, zero-emission passenger train will be used on the Redlands Arrow Line in late-2024. ZEMU uses a hybrid hydrogen and battery technology to propel the train and power onboard electrical systems. Water vapor is the only emission generated from the propulsion system.
2. SR-210/Waterman Avenue Project – Widen eastbound on-ramp to two (2) lanes and restripe the Waterman Avenue overcrossing to provide two (2) left-turn lanes in each direction.

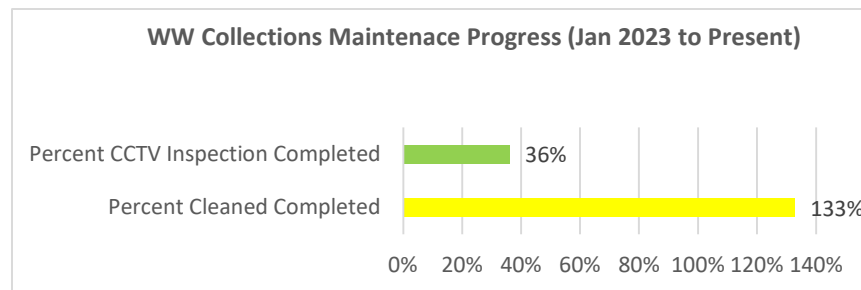
SB 1383 Organic Waste Disposal Impacts

SB 1383 mandates composting of organic food waste in lieu of disposal in receptacles that are emptied into landfill-bound collection trucks. Storing this organic waste until collection day is inconvenient for some residents and has the potential to create odor, pest attraction, and other nuisance issues. MUED believes that many residents have/will dispose of organic food waste through their kitchen sink mounted garbage disposals to avoid these issues. The Wastewater Utility Division monitors the collection system and WWTP influent composition to assess operational impacts. Additionally, WWTP Operators monitor byproducts of the treatment process, such as biogas and biosolids, to analyze process efficiency. Although private sewer laterals are not inspected or maintained by the City, MUED is not aware of any increase in backups related to SB 1383 requirements.

In 2024, a FOG pilot study was conducted at strategic collection system locations that are prone to blockages. The study used specialized bacteria that produce biosurfactants and enzymes to quickly break down FOG. Implementing this process throughout the entire collection system

would be cost-prohibitive, but may be helpful in preventing significant blockages at specific locations if organic food waste disposal becomes problematic.

During the last few years, Wastewater Utility Collection System Operators have adjusted their work schedules to allow for additional pipeline cleaning and closed-circuit television (CCTV) inspections. These tasks now begin early in the morning to improve safety and avoid delays related to commuter traffic. Collection systems of similar size (approximately 250 pipeline miles) are typically cleaned in 3.5 years and inspected via CCTV in 5.5 years. The adjustment in MUED work schedules allows the Redlands system to be cleaned and inspected much more quickly.



Additionally, BOD loading has decreased recently. This is likely related to the introduction of a new citywide Residential Food Waste Recycling Dropoff Program and revisions to the Redlands Municipal Code designed to encourage organic food waste recycling in accordance with SB 1383. A BOD Loading chart is provided as Attachment "D".

Finally, two (2) MUED Regulatory Compliance Officers (RCOs) maintain and update the Redlands FOG Management Plan and Sanitary Sewer System Management Plan to ensure that appropriate processes exist to minimize collection system blockages. The RCOs randomly visit businesses to ensure grease interceptors are installed and maintained, and that disposal practices meet regulatory requirements.

Is the City auditing residential and/or commercial organic waste disposal receptacles to gauge program participation? The Facilities and Community Services Department was not able to provide a response to this question before MUED compiled and distributed the meeting packets. I will provide a verbal response during the meeting.

Southern California Edison Public Safety Power Shutoffs – Operational Challenges

The recent Santa Ana winds led to several SCE PSPS events that presented operational challenges for the Water and Wastewater Utilities. Water Utility staff responded to fifteen (15) water facility power outages in a single week to pre-position, fuel, and maintain portable generators to provide uninterrupted potable water service through the crisis. Collectively, these generators operated for more than 400 hours continuously. The power outages reset sensitive motor control centers, communication networks, and SCADA systems. These facilities required software rebooting

applications and the reconnection of radio links to maintain service. As usual, the Water Utility staff's exceptional efforts resulted in continuous, uninterrupted water service for our customers.

Similarly, the WWTP staff's pre-event preparations ensured uninterrupted wastewater collection and treatment services for the entire community. On-site backup power generators are available for use when electrical power is lost. Also, the WWTP's participation in the SCE Emergency Load Reduction Program (ELRP) responsibly reduces the burden on the SCE power grid. Finally, Wastewater Utility on-call staffing is increased prior to/throughout these events to maintain service. These are just a few examples of the exceptional performance of a very dedicated Wastewater Utility team that are often unrecognized by the Redlands community.

Q3 Capital Improvement Project Update

The MUPWC is charged with, among other things, “*annually reviewing the City CIP under the purview of the Public Works and Municipal Utilities Departments*” (Municipal Code 2.38.030). However, during the December 7, 2020 MUPWC meeting, the Commission asked the MUED staff to provide quarterly CIP updates. A summary and status of CIP projects is provided in Attachment “E”. Highlights of current projects are provided below:

1. Multi-Year Well Rehabilitation & Booster Pump Replacements – This project is complete. In the future, groundwater wells will be rehabilitated through an on-call maintenance contract. MUED anticipates rehabilitating the following groundwater wells in the near-future:
 - a. Well 35
 - b. Agate 2 Well
 - c. East Lugonia Well 6
2. Tate WTP Raw Water Influent Pipeline Engineering – This project is underway and Carollo Engineers completed the 90% design plans. Additional potholing within Mill Creek is necessary to finalize the design. The Chambers Group is providing environmental permitting support and is coordinating with CDFW to discuss the potholing work, as well as environmental mitigation requirements for the entire project.
3. Hinckley WTP Sludge Press Engineering – City Council approved a Sole Source Procurement Waiver to purchase the equipment directly from PacPress (Anaheim), and another Sole Source Procurement Waiver to contract with Dudek, the engineer of record, to provide construction support services. The project construction/equipment installation phase will be bid in mid-2025 after the filter press and associated equipment is delivered.
4. Well Perchlorate Treatment Evaluation – This project is substantially complete. MUED staff recently reviewed the 90% design plans. A recent detection of PFAS will not require design revisions.
5. Sunset Reservoir Replacement Project – In 2023, Redlands purchased approximately twenty-two (22) acres adjacent to the existing reservoir site. The goal of this land acquisition was to allow for the construction of up to two (2) additional large (10-15 MG) partially buried reservoirs, while continuing to use the existing reservoir during

construction. In July 2024, City Council adopted the environmental document and mitigation plan for this project. MUED developed an engineering scope of work for the next project phase, which will include engineering for both reservoirs. After issuing a Request For Proposals, a Pre-Proposal Meeting was hosted on January 21. Consultant proposals are due by February 10.

6. Phase II & III Water Distribution SCADA Upgrade - Materials have been ordered. Installations are underway and will continue into 2025.
7. Water Utility Fixed Generator Installations – In February 2024, Brady & Associates completed a design package to construct and install emergency backup generator power systems at four (4) critical booster pump stations. In September 2024, City Council approved the pre-purchase of the generators and equipment submittals were finalized in January 2025. The generators are anticipated to be delivered and installed in FY 25/26.
8. Sewerline Replacement Project – The FY 24/25 project is underway and the project is currently on-budget and on-schedule.

As always, feel free to contact me anytime to discuss MUED issues, programs, projects, or concerns.

John R. Harris

jharris@cityofredlands.org

(909) 725-1963

Attachments:

A – Acronym List

B – Citywide Water Meter Replacement Project Phase 3 Location Map

C – FY 24/25 PMP Location Map

D – BOD Loading Chart

E – CIP Status List

ACRONYMS

AACE	Association for the Advancement of Cost Engineering
AF	Acre-Feet
AFD	Acre-Feet per Day
AFY	Acre-Feet per Year
ADD	Average Day Demand
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reader
APWA	American Public Works Association
ARPA	American Rescue Plan Act
ASCE	American Society of Civil Engineers
ASL	Above Sea Level
AWWA	American Water Works Association
BABA	Build America Buy American
BOD	Biological Oxygen Demand
BOR	Bureau of Reclamation
BVMWC	Bear Valley Mutual Water Company
CalOSHA	California Division of Occupational Safety and Health Agency
CalWARN	California's Water/Wastewater Agency Response Network
CC	City Council
CCR	Consumer Confidence Report
CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CO	Carbon Monoxide
Cogen	Cogeneration
CPUC	California Public Utilities Commission
CWC	Crafton Water Company
DDW	Division of Drinking Water
DIF	Development Impact Fees
DLR	Detection Limit for Purposes of Reporting
DOE	Department of Energy
DU	Dwelling Unit
EDU	Equivalent Dwelling Unit
ELRP	Emergency Load Reduction Program
EOPC	Engineer's Opinion of Probable Cost
EPA	Environmental Protection Agency
EPS	Extended Period Simulation
ERNIE	Emergency Response Network of the Inland Empire

ES	Equalizing Storage
EVWD	East Valley Water District
FCS	Facilities and Community Services Department
FOG	Fats, Oils, and Grease
FOG-MP	Fats, Oils, and Grease Management Plan
FPS	Feet Per Second
FSS	Fire Suppression Storage
FY	Fiscal Year
GC	Groundwater Council
GIS	Geographical Information System
GPCD	Gallons per capita day
GPD	Gallons per day
GPM	Gallons per minute
Hinckley WTP	Horace P. Hinckley Water Treatment Plant
HP	Horsepower
HSIP	Highway Improvement Safety Program
I-10	Interstate 10
I-210	Interstate 210
IS/MND	Initial Study/Mitigated Negative Declaration
MBR	Membrane Bioreactor
MCL	Maximum Contaminant Level
MDD	Maximum Day Demand
MG	Million Gallons
MGD	Million Gallons per Day
mg/L	Milligrams per Liter
MUED	Municipal Utilities and Engineering Department
NOx	Nitrogen Oxides
NPW	Non-Potable Water
NTU	Nephelometric Turbidity Unit
O&M	Operations and Maintenance
OS	Operational Storage
PFAS	Per- & Polyfluoroalkyl Substances
PHD	Peak Hour Demand
PMP	Pavement Management Program
PPM	Parts Per Million

PRS	Pressure Reducing Stations
PSI	Pounds per Square Inch
PSPS	Public Safety Power Shutoff
PW	Potable Water
RCO	Regulatory Compliance Officer
RW	Recycled Water
SAR	Santa Ana River
SB 1383	Senate Bill 1383
SB	Stand-by Storage
SBBA	San Bernardino Basin Area
SBV	San Bernardino Valley (formerly San Bernardino Valley Municipal Water District)
SCADA	Supervisory Control and Data Acquisition
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCE ELRP	Southern California Edison Emergency Load Reduction Program
SCE PSPS	Southern California Edison Public Safety Power Shutoff
SGMA	Sustainable Groundwater Management Act
SOC	Synthetic Organic Compounds
SOP	Standard Operating Procedure
SRF	State Revolving Fund
SSSMP	Sanitary Sewer System Management Plan
SWP	State Water Project
SWRCB-DDW	State Water Resources Control Board – Division of Drinking Water
Tate WTP	Henry Tate Water Treatment Plant
TBD	To be determined
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
TTHM	Trihalomethanes
U.S.	United States
UWMP	Urban Water Management Plan
VOC	Volatile Organic Compounds
WD	Water Distribution
WP	Water Production
WSCP	Water Shortage Contingency Plan
WSMP	Water System Master Plan
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

FY23/24 Meter Routes

Potable Water Meter
Change-Out CIP

- Route 24 - 282
- Route 25 - 492
- Route 26 - 329
- Route 27 - 344
- Route 28 - 301
- Route 31 - 271
- Route 32 - 268
- Route 33 - 314
- Route 34 - 324
- Route 45 - 159
- Route 47 - 254
- Route 48 - 221
- Route 51 - 341
- Route 52 - 355
- Route 53 - 310
- Route 54 - 335
- City of Redlands

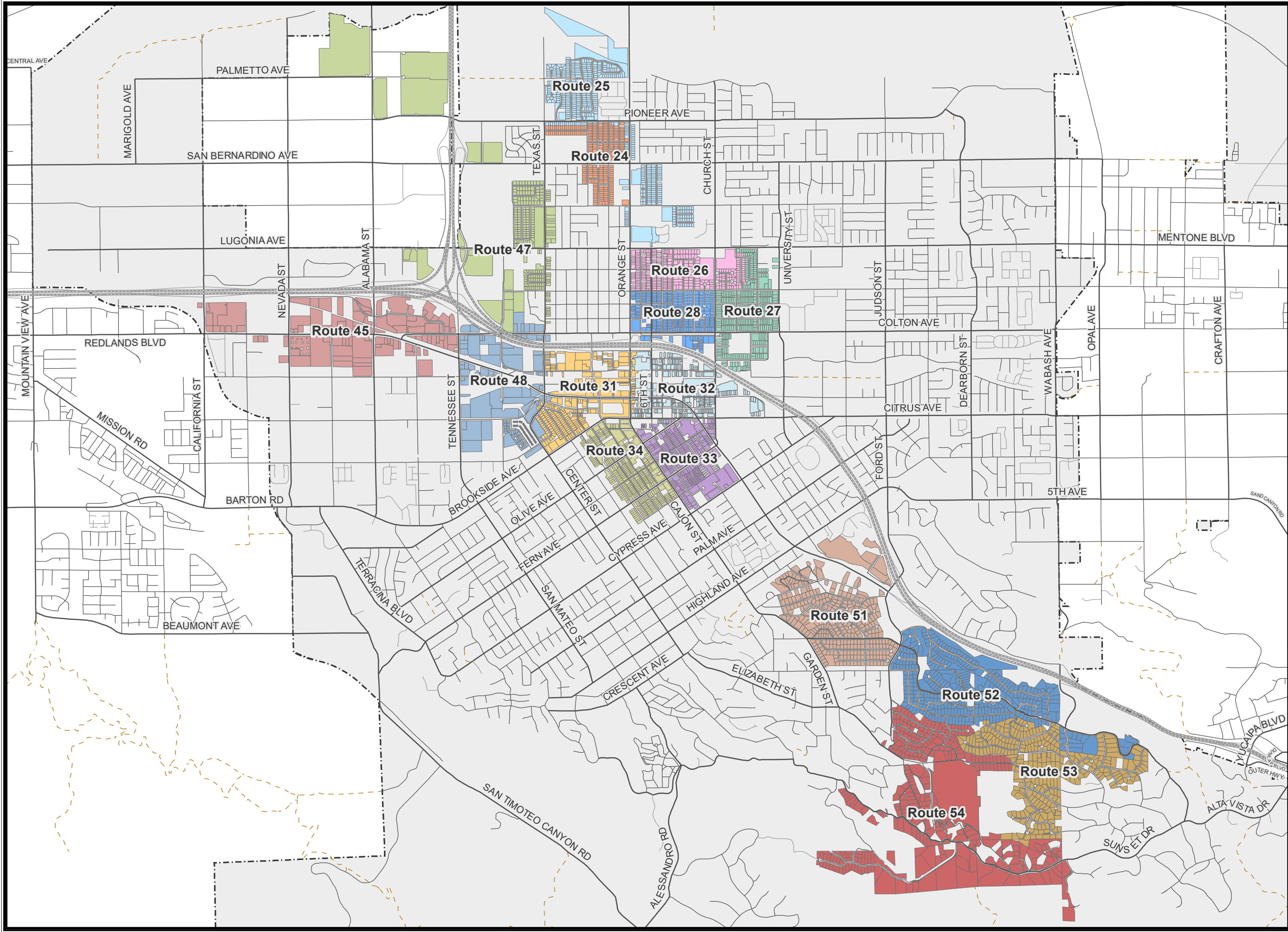
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June 14, 2022

FY23_24Potable.mxd



FY24/25 Meter Routes

Potable Water Meter
Change-Out CIP

- Route 35 - 325
- Route 36 - 278
- Route 37 - 357
- Route 38 - 261
- Route 41 - 339
- Route 42 - 255
- Route 43 - 275
- Route 55 - 341
- Route 56 - 350
- Route 57 - 351
- Route 58 - 249
- Route 61 - 343
- Route 62 - 359
- Route 63 - 455
- Route 64 - 442
- City of Redlands

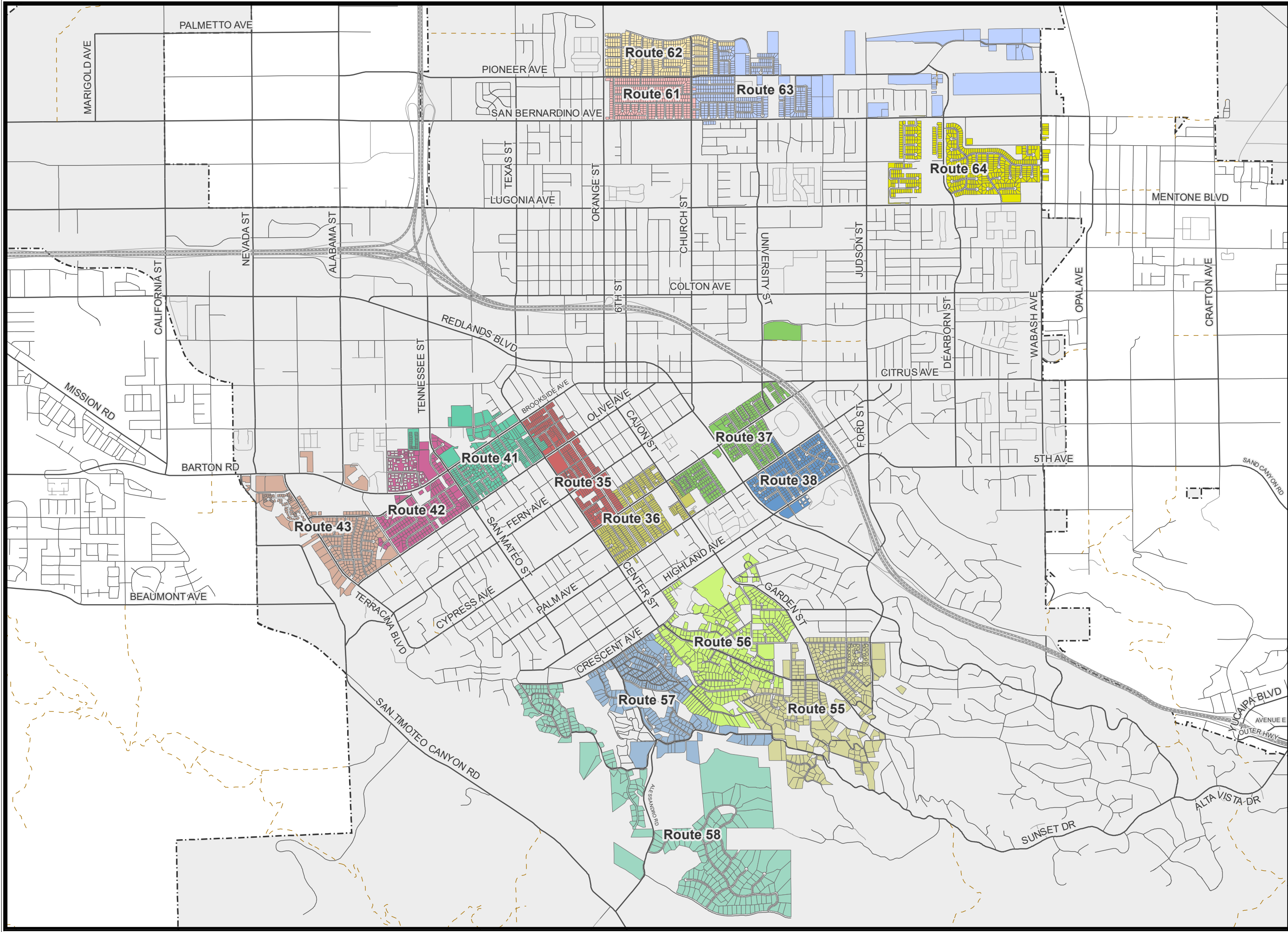
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June 14, 2022

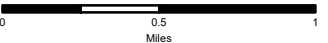
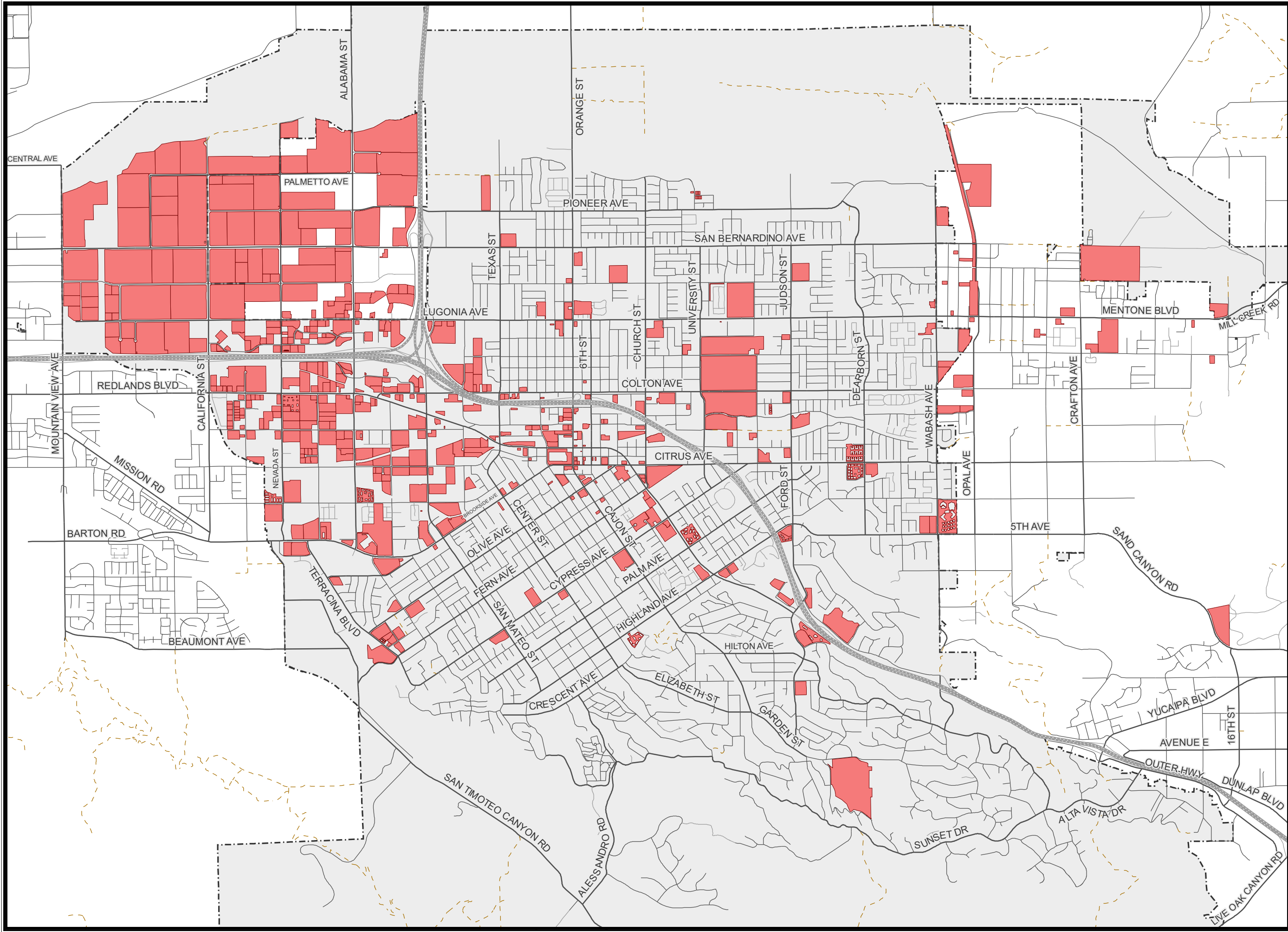
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FY25/26 Fire Protection

Potable Water Meter
Change-Out CIP

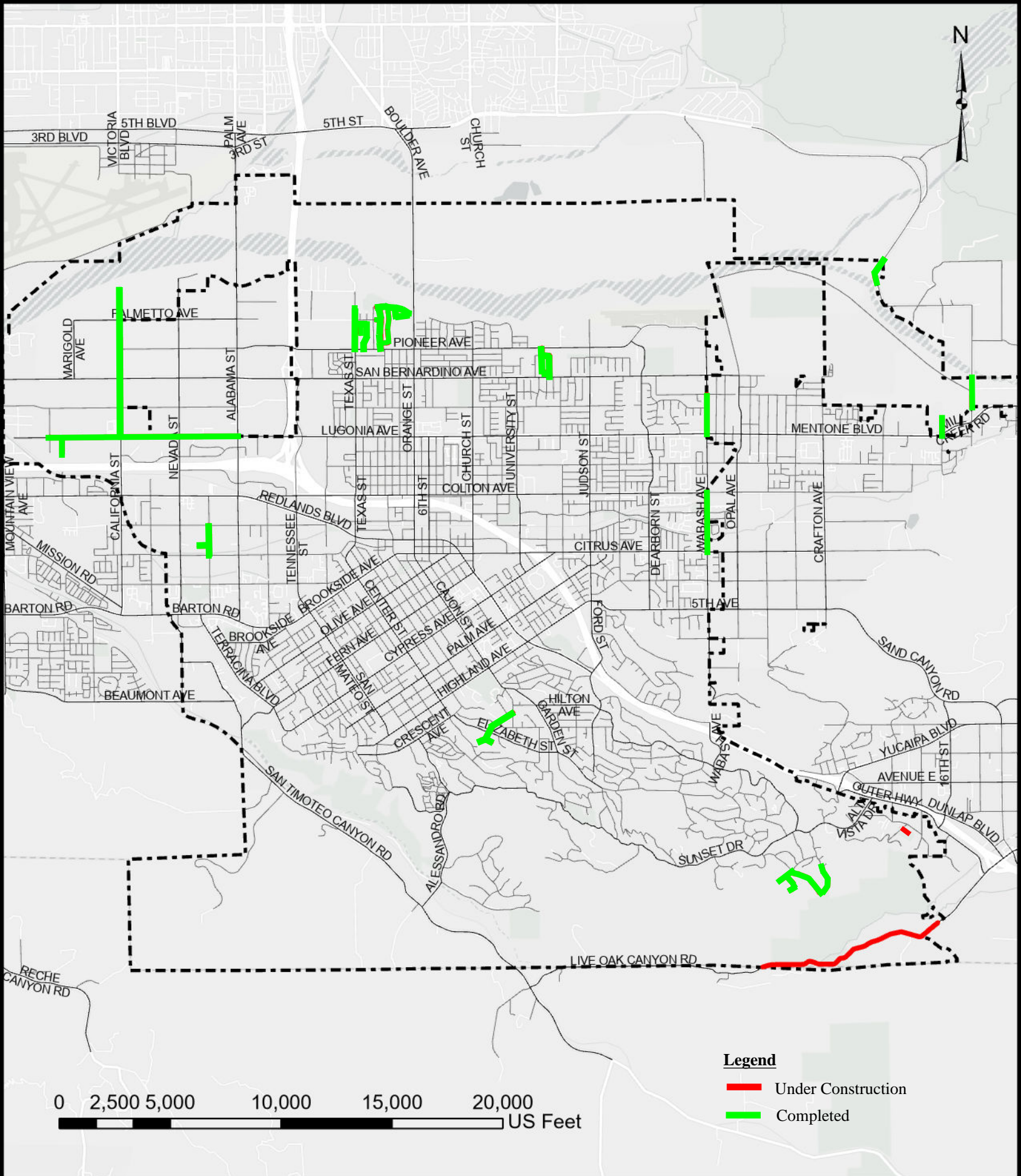
-  Fire Protection
-  City of Redlands



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May 24, 2021

FY25_26Potable_FirePro.mxd

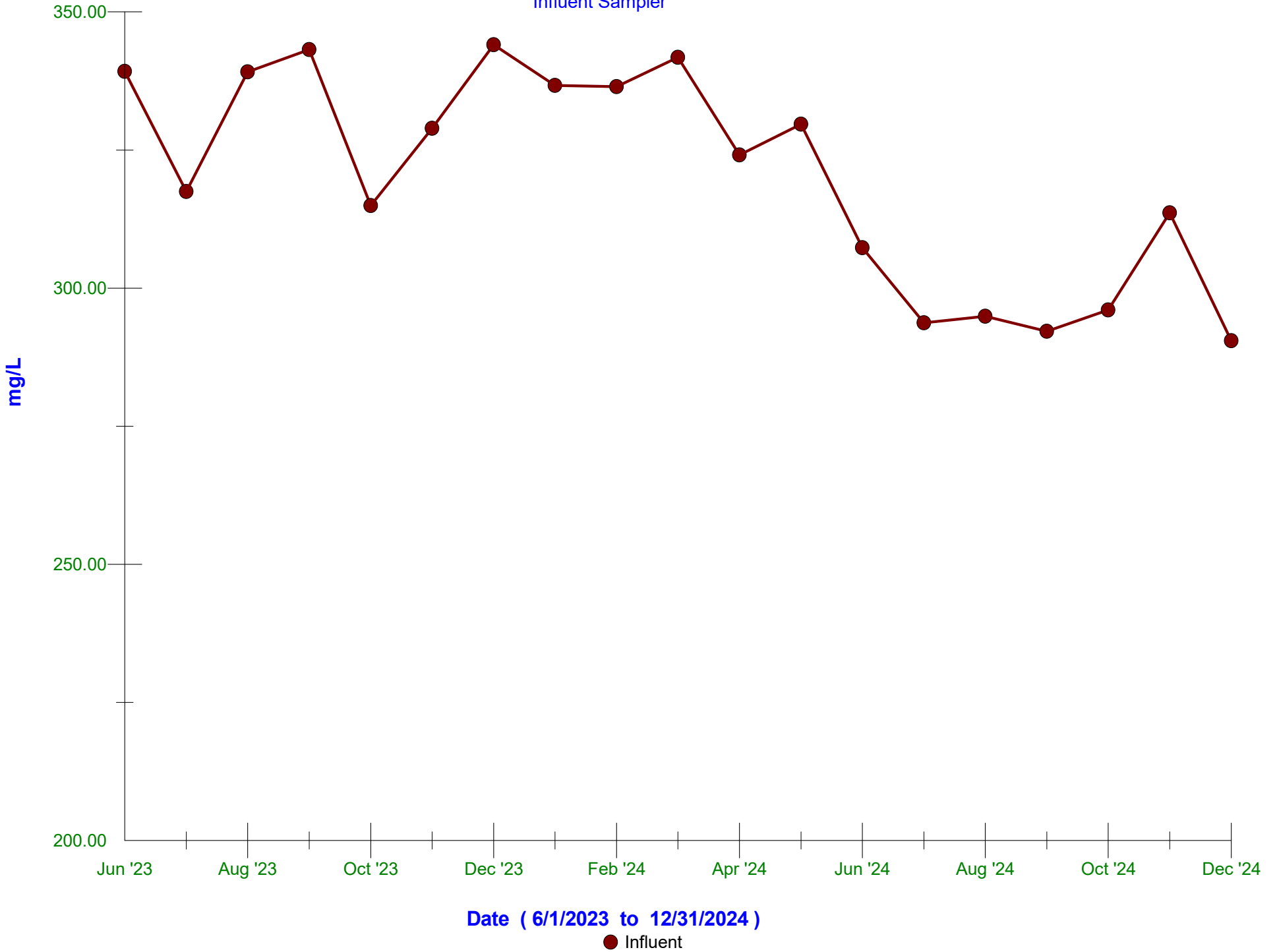


City of Redlands
**PMP 2024 STREET RESURFACING PROJECT
 LOCATION MAP**



Monthly BOD Loading

Influent Sampler



**MUNICIPAL UTILITIES AND ENGINEERING DEPARTMENT
CIP PROJECTS LIST**

PLANNING		Org Key	PL	Project Name	Project Phase	Progress	Consultant/Contractor	PM/Engineer	FY 2023-24	FY 2024-25	FY 2025-26
P1	PMP	211910		2025 Alley Paving Improvements	PLANNING	10%		Johana/Elva			\$500,000.00
P2	WATER	501910		2025 CIP Water Pipeline Replacement	PLANNING	10%		Elva/Gerard			\$4,500,000.00
P3	GENERAL	101400		2025 Citywide Sidewalk & ADA Ramp Replacement	PLANNING	25%		Gerard/Elva			\$500,000.00
P4	WASTEWATER	521910		2025 Sewer Pipeline and Manhole Rehabilitation	PLANNING	25%		Bryan/Johana			\$1,500,000.00
P5	ARTERIAL	252400		California Street Widening at Lugonia Ave	PLANNING	0%		Goutam			\$1,150,000.00
P6	WATER	501910		Hinckley WTP Parking Lot Improvements	PLANNING	0%		Veronica/Gerard			\$225,000.00
P7	PMP	211910		PMP 2025 Street Resurfacing Project	PLANNING	15%		Veronica/Gerard			\$4,000,000.00
Planning Projects - Cost Summary									\$0.00	\$0.00	\$12,375,000.00
DESIGN		Org Key	PL	Project Name	Project Phase	Progress	Consultant/Contractor	PM/Engineer	Current Budget	Current Budget	Current Budget
D1	HSP C11	200400	S400028	Traffic Signal Improvement San Bernardino/Church	DESIGN	5%	AGA Engineers, Inc.	Veronica		\$653,600.00	
D2	HSP C11	200400	S400029	Traffic Signal Hardware Improvements (16 TS)	DESIGN	5%	AGA Engineers, Inc.	Veronica		\$245,000.00	
D3	WASTEWATER	521910	521037	Concrete Step at WWTP	DESIGN	25%	Hicks & Hartwick, Inc.	Fernando/Goutam		\$50,000.00	
D4	WASTEWATER	521910	521038	Hillside Stabilization Project	DESIGN	25%	Hicks & Hartwick, Inc.	Fernando/Goutam		\$300,000.00	
D5	TRAFFIC	253400	253017	Traffic Signal Improvement Cypress/Cajon	DESIGN	100%		Elva			
D6	ARTERIAL	252400	252002	California Street Widening at Redlands Blvd	DESIGN	100%	CASC Engineering and Consulting	Gerard	\$394,345.00	\$4,300,000.00	
D7	ARTERIAL	252400	252001	Citrus Avenue Widening Project	DESIGN	95%		Elva			\$1,200,000.00
D8	TDA	241400	C400007	East Valley Corridor Project Alabama Street	DESIGN	100%		Veronica			
D9	WATER	501910	501009	Hinckley WTP Sludge Press	DESIGN	60%	Dudek	Paul/John	\$833,655.00	\$750,000.00	\$3,500,000.00
D10	WATER	501910	501028	Fixed Generators - Agate, 5th, Texas & Country Club	DESIGN	100%	Brady & Associates	Paul/Veronica	\$507,549.00	\$1,725,000.00	\$3,815,000.00
D11	HSP C10	200400	S400021	Enhanced Crosswalk- Dearborn/Judson/Colton/Wabash	DESIGN	95%		Veronica	\$250,000.00		
D12	WATER/SEWER	501/521	501048/521028	Joint Utilities Laboratory Expansion	DESIGN	60%	CDM Smith, Inc.	JP/Goutam		\$745,375.00	\$4,000,000.00
D13	TDA	241400	S241006	Orange Blossom Trail Phase 4	DESIGN	100%		Gerard		\$1,232,000.00	
D14	WATER	501910	501040	Tate Transmission Line Replacement	DESIGN	90%	Carollo Engineers, Inc.	Paul/John	\$2,075,096.00		
D15	WATER	501910	501054	Well Drilling	DESIGN	25%	Richard C. Slade & Associates	Paul/Veronica	\$290,000.00		
D16	NON-POTABLE	531910	532001	WWTP Recycled Water Reservoirs Design	DESIGN	100%	Carollo Engineers, Inc.	John	\$734,839.00		
D17	WASTEWATER	521910	521034	WWTP Rehabilitation Phase 2	DESIGN	100%	Parsons	Fernando/Goutam		\$250,000.00	\$45,500,000.00
Design Projects - Cost Summary									\$5,085,484.00	\$10,250,975.00	\$58,015,000.00
BID & AWARD		Org Key	PL	Project Name	Project Phase	Progress	Consultant/Contractor	PM/Engineer	Current Budget	Current Budget	Current Budget
B1	WATER	501910		Sunset Reservoir Replacement	BID & AWARD	10%		Paul/John			
B2	HSP C11	200400	S400030	Traffic Signal Timing & Phasing Improvements (16 TS)	BID & AWARD	25%		Veronica		\$718,100.00	
B3	NONPOTABLE	532920		Recycled Water System Expansion Project	BID & AWARD	75%	N2W Engineering, Inc.	Bryan		\$332,500.00	
B4	WATER	501910	501065	AWIA Security Fencing Installation for Water Facilities	BID & AWARD	75%	EverFence Corporation	Paul/Bryan		\$2,239,918.85	
B5	GENERAL	101400	MUED25002	2024 Citywide Sidewalk & ADA Ramp Replacement	BID & AWARD	75%	Tryco General Engineering	Elva		\$489,012.50	
B6	WASTEWATER	521910	S531021	Recycled Water for California St Orange Groves Project	BID & AWARD	75%	Q&E Pipeline Company	Goutam		\$629,664.00	
B7	CRP	200400	F400032	Redlands Regional Connector (South) Project	BID & AWARD	75%	KOA Consultants/Metrocell Construction	Veronica		\$623,911.38	
Bid & Award Project - Cost Summary									\$0.00	\$5,033,106.73	\$0.00
CONSTRUCTION		Org Key	PL	Project Name	Project Phase	Progress	Contractor	PM/Inspector	Contract Amount	Contract Amount	Contract Amount
C1	WATER	501910	501063	2023/24 CIP Water Pipeline & Highline Replacement	CONST	1%	MCC Pipeline, Inc.	Gerard/Daniel		\$12,058,362.99	
C2	WASTEWATER	521910	521032	2024 Sewer Pipeline and Manhole Rehabilitation	CONST	10%	All Cities Engineering, Inc.	Johana/Chris		\$1,367,517.00	
C3	PMP	211910	211011	2024 Alley Paving Improvements	CONST	100%	Tryco General Engineering	Elva/James		\$483,955.00	
C4	PMP	211910	211010	PMP 2024 Street Resurfacing Project	CONST	99%	Matich Corporation	Gerard/Daniel		\$4,567,377.00	
C5	WASTEWATER	521910	521035	WWTP Drive Path, Parking Lot, Driveways, Brine Cap	CONST	100%	Matich Corporation	Gerard/Daniel		\$110,000.00	
C6	ARPA	521910	F120002	WWTP Primary Clarifier Upgrade Project	CONST	1%	GSE Construction Company, Inc.	FM/GD/Daniel		\$940,720.00	
C7	TDA	241400	S241005	2021 Transit Stop Improvement	CONST	100%	CT&T Concrete Paving	Veronica/Daniel		\$111,046.65	
C8	WASTEWATER	521910	521030	2023 CIP Sewer Pipeline Replacement	CONST	70%	All Cities Engineering, Inc.	Johana/Chris	\$2,485,353.00		
C9	GENERAL/PMP	101/211	211009	2023 Alley Paving Improvements	CONST	100%	Tryco General Engineering	Elva/James	\$1,738,285.00		
C10	WATER	501910	C501064	Water Meter Replacement (Potable/Non-potable) Project	CONST	65%	Ferguson Enterprises, LLC	John/Aaron/Chris	\$6,747,257.96		
C11	WATER	501910	501006	Water System SCADA Design & Integration-Final Phase	CONST	70%	TESCO Controls, Inc.	Paul/Daniel	\$4,727,968.00		
C12	WATER	501910	501006	Automated Metering Infrastructure Project	CONST	95%	Ferguson Enterprises, LLC	Paul/Aaron/Chris	\$792,876.00		
Construction Projects - Cost Summary									\$16,491,739.96	\$19,638,978.64	\$0.00
Project Total Dollars									\$21,577,223.96	\$34,923,060.37	\$70,390,000.00



MUNICIPAL UTILITIES & PUBLIC WORKS COMMISSION

WATER RESOURCE

John R. Harris

Municipal Utilities & Engineering Director

FEBRUARY 3, 2025



POTABLE WATER PRODUCTION/DISTRIBUTION SUMMARY

- **18,000 SFR Potable Water System Connections**
- **1,000 MFR Potable Water System Connections**
- **Total Annual SRF Use = 10,000-12,000 AFY**
- **Total Annual MFR Use = 2,000 - 3,000 AFY**
- **Sources -**

Santa Ana River (SAR)	Mill Creek (MC)
State Water Project (SWP)	Groundwater

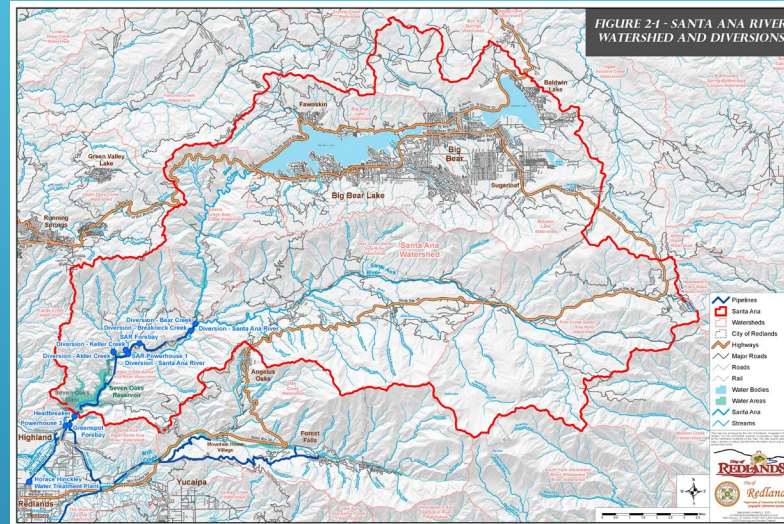


SURFACE WATER TREATMENT PLANTS





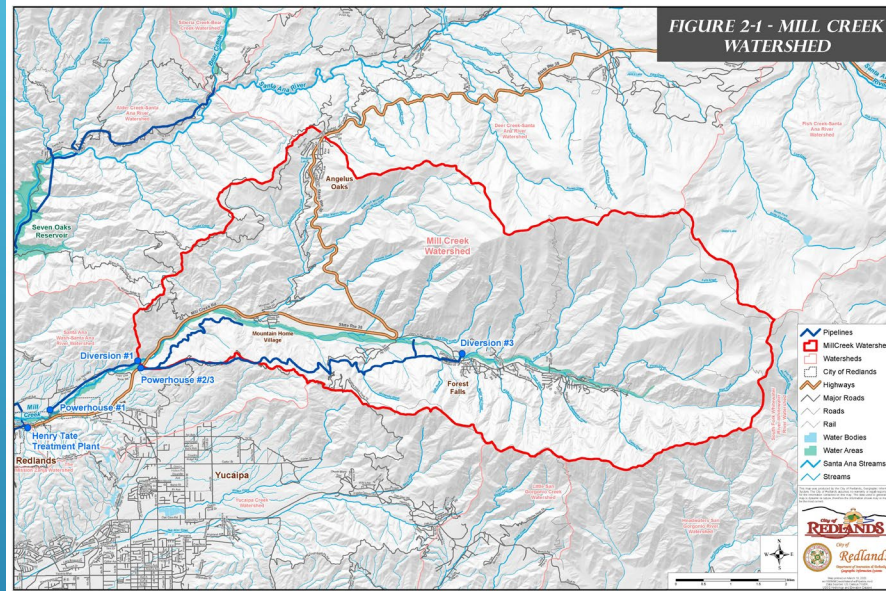
MUTUAL WATER COMPANY INVESTMENTS - SAR



Lugonia Water Company	837.5/3700	(23%)
Redlands Water Company	1249.8/1488	(84%)
West Redlands Water Company	464.5/805	(58%)
Lugonia Park Water Company	48.5/196	(25%)
Bear Valley Mutual Water Company	90967/250341	(36%)



MUTUAL WATER COMPANY INVESTMENTS - MC



Crafton Water Company

408.75/3716.75 (11%)**

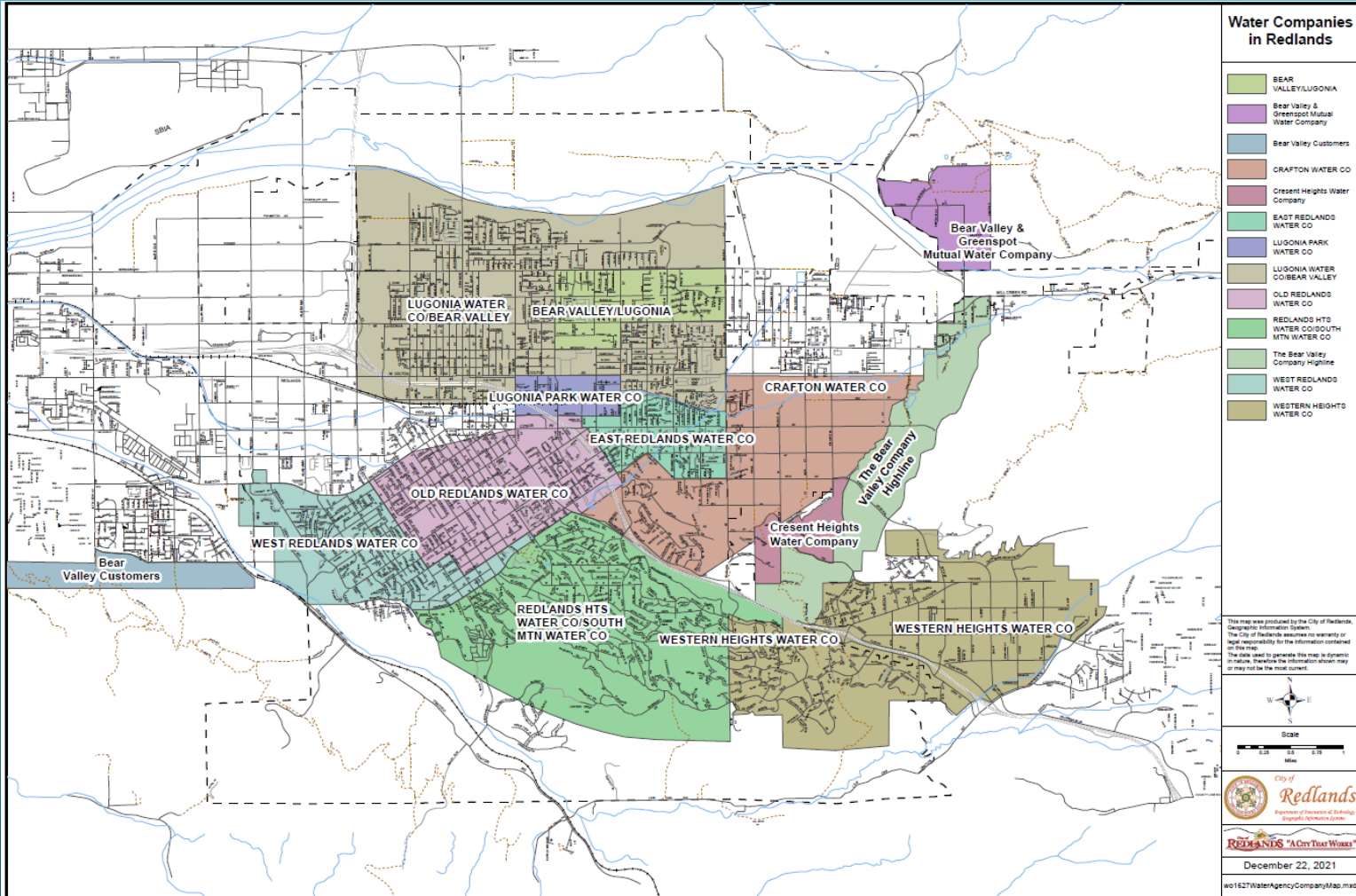
Redlands Heights Water Company

982.5/1289 (76%)

**** NOTE: 1953 CWC Board of Directors Policy Limits Tate WTP Deliveries To 156 Shares (38% of share entitlement)**



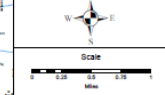
MUTUAL WATER COMPANY SERVICE AREA MAP



Water Companies in Redlands

- BEAR VALLEY/LUGONIA
- Bear Valley & Greenspot Mutual Water Company
- Bear Valley Customers
- CRAFTON WATER CO
- Crescent Heights Water Company
- EAST REDLANDS WATER CO
- LUGONIA PARK WATER CO
- LUGONIA WATER CO/BEAR VALLEY
- OLD REDLANDS WATER CO
- REDLANDS HTS WATER CO/SOUTH MTN WATER CO
- The Bear Valley Company Highline
- WEST REDLANDS WATER CO
- WESTERN HEIGHTS WATER CO

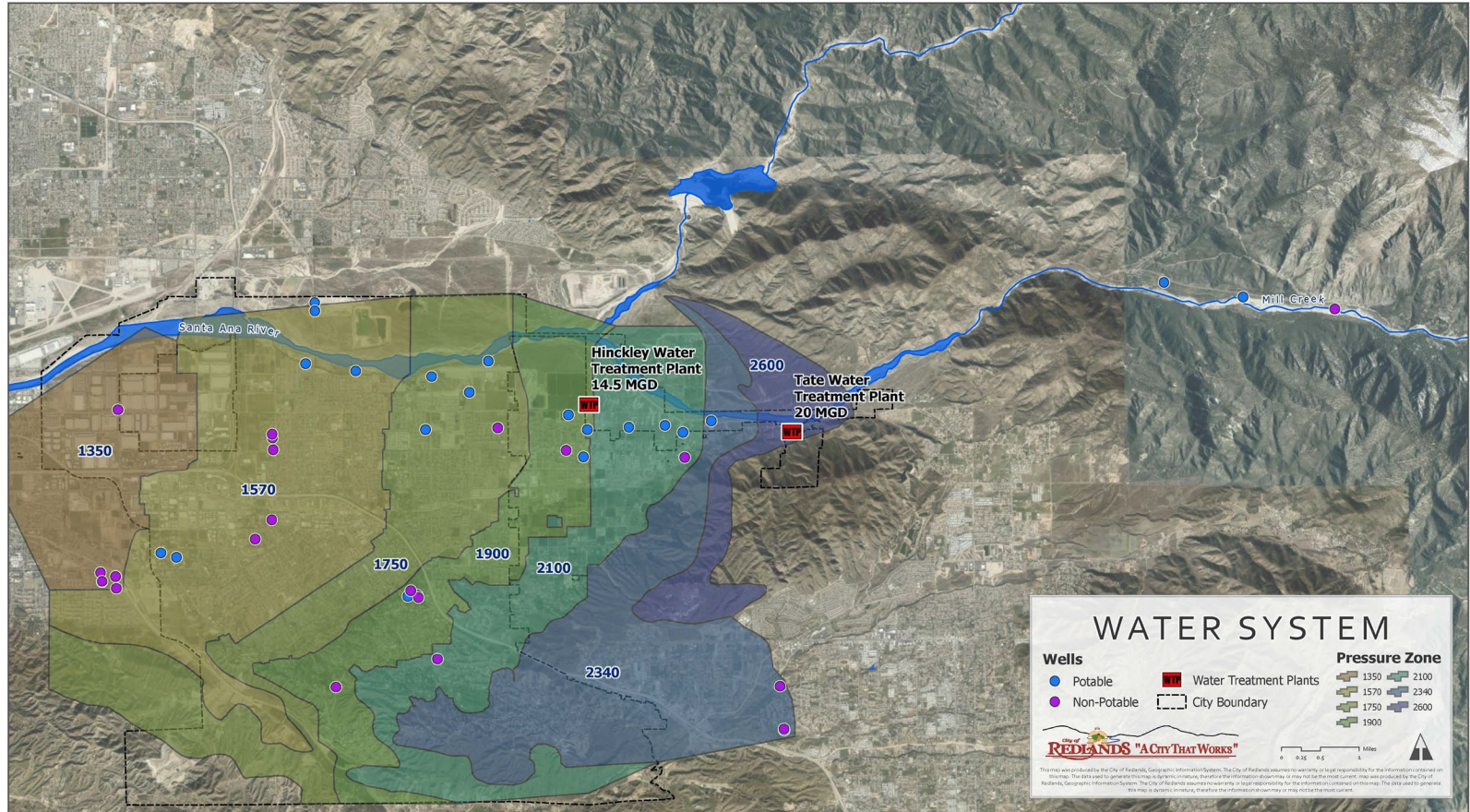
This map was produced by the City of Redlands, Geographic Information System. The City of Redlands assumes no warranty or legal responsibility for the information contained on this map. The data used to generate this map is dynamic in nature, therefore the information shown may or may not be the most current.



City of **Redlands**
 Division of Information Systems
REDLANDS "A City That Works"
 December 22, 2021
 w1627WaterAgencyCompanyMap.mxd



GROUNDWATER WELLS





TYPICAL ANNUAL WATER SUPPLY COSTS

SAR Entitlements - \$11/AF - \$1,400/AF

MC Entitlements - \$45/AF

**SWP - \$115/AF (Recharge)
\$125/AF (Direct Delivery)**

Groundwater - \$250/AF



WATER EXCHANGE AGREEMENTS - AUTHORIZATION

RESOLUTION NO. 7047

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS AUTHORIZING APPROVAL AND EXECUTION OF AGREEMENTS TO EXCHANGE ENTITLEMENT WATER WITHOUT PRIOR COUNCIL APPROVAL.

WHEREAS, the City derives the majority of its water supply from three primary sources: the Santa Ana River, Mill Creek, and groundwater wells, and the right to use surface water sources has been acquired by the City through both direct ownership of water rights and through the ownership of mutual water company stock; and

WHEREAS, the City has entered into agreements with local water companies to allow the City to receive water from local mutual water companies on behalf of their shareholders, and as part of these agreements the shareholders are required to pay all assessments and delivery charges; and

WHEREAS, the aforementioned arrangement allows the City to minimize its expenses by not having to pay increased assessments on water company stock owned by the City to make costly repairs to its aging systems, and in addition, all unused shareholder entitlement water is delivered to the City at a significantly reduced cost; and

WHEREAS, because of this arrangement, the City receives significantly more water than it delivers to the water company shareholders;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Redlands as follows:

Section 1. The City Council of the City of Redlands hereby authorizes the Mayor, or any Councilmember, to execute agreements to exchange entitlement water substantially in the form hereto as Exhibit "A."

ADOPTED, SIGNED AND APPROVED THIS 3rd DAY OF SEPTEMBER, 2013.


Pete Aguilar, Mayor

ATTEST:


Sam Irwin, City Clerk

AGENDA ITEM NO. **K-28**
COUNCIL MEETING OF 9/3/13

REQUEST FOR COUNCIL ACTION

SUBJECT: RESOLUTION NO. 7047 - AUTHORIZATION TO APPROVE AND EXECUTE AGREEMENTS TO EXCHANGE ENTITLEMENT WATER WITHOUT PRIOR COUNCIL APPROVAL

MOTION:

I move to approve Resolution No. 7047.

RECOMMENDATION:

Staff recommends the City Council adopt Resolution No. 7047 authorizing the Mayor or any member of the City Council to approve and execute agreements for water exchange entitlements for water received from the Santa Ana River and Mill Creek without prior Council approval.

DISCUSSION:

The City derives the majority of its water supply from three primary sources: the Santa Ana River, Mill Creek, and groundwater wells. The right to use surface water sources has been acquired by the City through both direct ownership of water rights and through the ownership of mutual water company stock.

In the 1960s and 1990s the City entered into agreements with four local mutual water companies to allow the City to receive water from these companies on behalf of its shareholders. The water received is delivered to the City's Hincley surface water treatment plant, and then delivered to each share holder. As part of the agreement the shareholders are required to pay all assessments and delivery charges. To complete the transaction, each share holder must sign a companion agreement with the City which allows them to operate under the master agreement between the City and each of the four mutual water companies.

This arrangement allows the City to minimize its expenses by not having to pay increased assessments on water company stock owned by the City to make costly repairs to their aging systems. In addition, all unused shareholder entitlement water is delivered to the City at a significantly reduced cost. Because of this, the City receives significantly more water than it delivers to the water company shareholders.

Currently the City has agreements with approximately 150 water company shareholders to receive this water. Each year staff receives approximately six customer requests to transfer ownership from one customer to another, or add shares to their account. Recently, City staff has been contacted by two water company shareholders requesting to add shares to their agreements and execute new ones. Because these agreements provide benefit to

City Council Meeting of 9/3/13
Agreement To Exchange Entitlement Water
Page 2 of 3

the City, and are the mechanism to implement the Council approved agreements, staff is requesting the Mayor, or any other Councilmember, have the authority to sign the agreements without prior Council approval for each agreement. Finally, staff will include, in the quarterly agreement tracking report from Finance and the City Clerk's office, the number of entitlement agreements that are signed.

The City Attorney has reviewed the forms of the Agreement to Exchange Entitlement Water.

FISCAL IMPACT:

In general, water entitlement agreements provide an annual financial benefit to the City of approximately \$118,000. This estimated value is derived by the value of the excess water transferred to the City for its use. Additionally, because the construction of private water company pipeline replacements are not necessary, and the City would be required to pay for a portion of these facilities as the City owns portions of each of the companies, the City realizes reduced costs by lower private water company assessments.

ATTACHMENT:

Resolution No. 7047



WATER EXCHANGE AGREEMENTS - JUSTIFICATION

shareholders are required to pay all assessments and delivery charges. To complete the transaction, each share holder must sign a companion agreement with the City which allows them to operate under the master agreement between the City and each of the four mutual water companies.

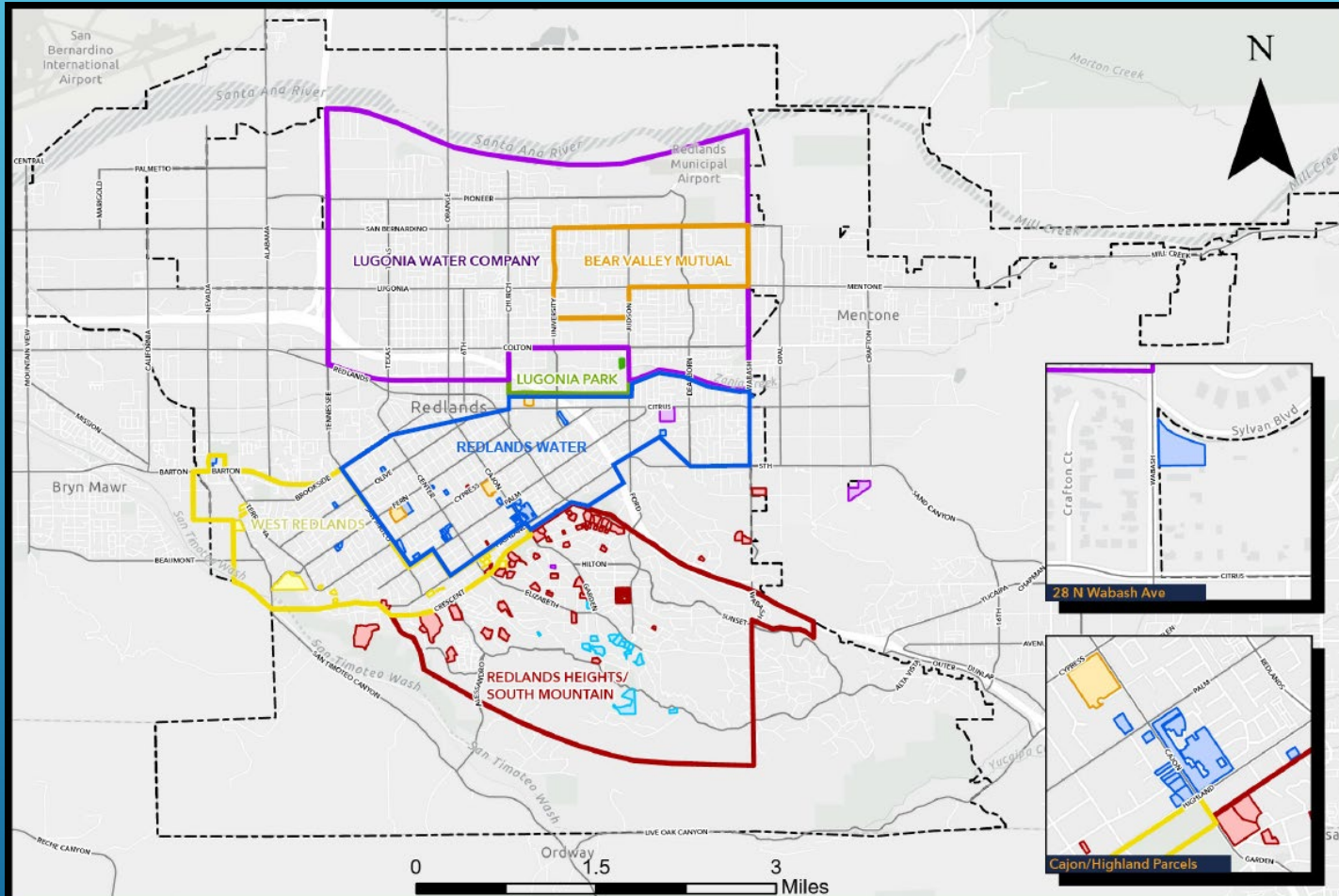
This arrangement allows the City to minimize its expenses by not having to pay increased assessments on water company stock owned by the City to make costly repairs to their aging systems. In addition, all unused shareholder entitlement water is delivered to the City at a significantly reduced cost. Because of this, the City receives significantly more water than it delivers to the water company shareholders.

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In general, water entitlement agreements provide an annual financial benefit to the City of approximately \$118,000. This estimated value is derived by the value of the excess water transferred to the City for its use. Additionally, because the construction of private water company pipeline replacements are not necessary, and the City would be required to pay for a portion of these facilities as the City owns portions of each of the companies, the City realizes reduced costs by lower private water company assessments.



WATER EXCHANGE AGREEMENTS - LOCATIONS



Legend	
South Mountain	Bear Valley Mutual
Lugonia Park	West Redlands
Lugonia Water	Redlands Water
Redlands Heights	City Boundary

Water Purveyors
City of Redlands

City of Redlands
Municipal Utilities & Engineering Department
Author: Redlands GIS, Jan 2025



WATER EXCHANGE AGREEMENTS - QUANTITY

SANTA ANA RIVER WATER RESOURCES		
WATER COMPANY NAME	REDLANDS SHARE ENTITLEMENT (AF/YEAR)	WATER EXCHANGE AGREEMENT ENTITLEMENT (AF/YEAR)
REDLANDS WATER COMPANY	4114.64	538.19
WEST REDLANDS WATER COMPANY	1437.26	256.82
BEAR VALLEY MUTUAL WATER COMPANY	11689.96	160.15
LUGONIA WATER COMPANY	1235.90	96.66
LUGONIA PARK WATER COMPANY	6.23	12.38
TOTALS =	18484.00	1064.19
		19548.19
HINCKLEY WTP INFLUENT		
23-YEAR AVERAGE (AF) =		6632
PERCENT OF ENTITLEMENT (%) =		34%
MOST RECENT 5-YEAR AVERAGE (AF) =		3985
PERCENT OF ENTITLEMENT (%) =		20%
YEAR OF HIGHEST INFLUENT =		2001
HIGHEST INFLUENT YEAR FLOW (AF) =		12102
PERCENT OF ENTITLEMENT (%) =		62%
TOTAL CYCLE 1 ACCOUNTS =	131	
TOTAL REMAINING SFR ACCOUNTS =	17519	
CYCLE 1 ACCOUNTS VS. REMAINING SFR ACCOUNTS =	0.748%	
TOTAL WEA USAGE VS. TOTAL SFR USAGE =	10%	

HINCKLEY WTP TOTAL ANNUAL INFLUENT (AF):	
2001 =	12102
2002 =	9752
2003 =	10133
2004 =	8589
2005 =	5891
2006 =	8183
2007 =	9339
2008 =	9495
2009 =	8552
2010 =	6667
2011 =	5890
2012 =	5005
2013 =	4241
2014 =	3046
2015 =	7656
2016 =	7077
2017 =	4634
2018 =	6367
2019 =	5073
2020 =	6331
2021 =	2163
2022 =	2957
2023 =	3401
AVERAGE =	6632

19,548.16 AFY = 17.45 MGD
 Hinckley WTP Rating = 14.5 MGD
 (Expandable to 20 MGD)



WATER EXCHANGE AGREEMENTS - QUANTITY

HHWTP Deliveries for Exchange Agreement Shareholders of the South Mountain Water Company 2023 Calendar Year

South Mountain Water Company		Mar-23		Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		Oct-23		Nov-23		Dec-23		Total due March-December 2023 to Bear Valley Mutual Water Company	
Share Holder	Shares in Exchange Agreement	Delivery MID	Charge \$	Delivery MID	Charge \$	Delivery MID	Charge \$	Delivery MID	Charge \$	Delivery MID	Charge \$	Delivery MID	Charge \$	Delivery MID	Charge \$	Delivery MID	Charge \$	Delivery MID	Charge \$	Delivery MID	Charge \$		
	1	2,506	\$2.51	4,654	\$4.65	5,191	\$5.19	5,37	\$5.37	5,549	\$5.55	3,401	\$3.40	0	\$0.00	0	\$0.00	1,611	\$1.61	2,971	\$2.97		
	5	12.53	\$12.53	23.27	\$23.27	25.955	\$25.96	26.85	\$26.85	27.745	\$27.75	17.005	\$17.01	0	\$0.00	0	\$0.00	8.055	\$8.06	14.896	\$14.86		
	4	10.024	\$10.02	18.616	\$18.62	20.764	\$20.76	21.48	\$21.48	22.196	\$22.20	13.604	\$13.60	0	\$0.00	0	\$0.00	6.444	\$6.44	11.887	\$11.89		
	3	7.518	\$7.52	13.962	\$13.96	15.573	\$15.57	16.11	\$16.11	16.447	\$16.65	10.203	\$10.20	0	\$0.00	0	\$0.00	4.833	\$4.83	8.915	\$8.92		
	2	5.012	\$5.01	9.308	\$9.31	10.382	\$10.38	10.74	\$10.74	11.098	\$11.10	6.802	\$6.80	0	\$0.00	0	\$0.00	3.222	\$3.22	5.943	\$5.94		
	2	5.012	\$5.01	9.308	\$9.31	10.382	\$10.38	10.74	\$10.74	11.098	\$11.10	6.802	\$6.80	0	\$0.00	0	\$0.00	3.222	\$3.22	5.943	\$5.94		
	11	27.566	\$27.57	51.194	\$51.19	57.101	\$57.10	59.07	\$59.07	61.039	\$61.04	37.411	\$37.41	0	\$0.00	0	\$0.00	17.721	\$17.72	32.691	\$32.69		
	3	7.518	\$7.52	13.962	\$13.96	15.573	\$15.57	16.11	\$16.11	16.447	\$16.65	10.203	\$10.20	0	\$0.00	0	\$0.00	4.833	\$4.83	8.915	\$8.92		
	4	10.024	\$10.02	18.616	\$18.62	20.764	\$20.76	21.48	\$21.48	22.196	\$22.20	13.604	\$13.60	0	\$0.00	0	\$0.00	6.444	\$6.44	11.887	\$11.89		
	5	12.53	\$12.53	23.27	\$23.27	25.955	\$25.96	26.85	\$26.85	27.745	\$27.75	17.005	\$17.01	0	\$0.00	0	\$0.00	8.055	\$8.06	14.896	\$14.86		
	5	12.53	\$12.53	23.27	\$23.27	25.955	\$25.96	26.85	\$26.85	27.745	\$27.75	17.005	\$17.01	0	\$0.00	0	\$0.00	8.055	\$8.06	14.896	\$14.86		
	5	12.53	\$12.53	23.27	\$23.27	25.955	\$25.96	26.85	\$26.85	27.745	\$27.75	17.005	\$17.01	0	\$0.00	0	\$0.00	8.055	\$8.06	14.896	\$14.86		
	2	5.012	\$5.01	9.308	\$9.31	10.382	\$10.38	10.74	\$10.74	11.098	\$11.10	6.802	\$6.80	0	\$0.00	0	\$0.00	3.222	\$3.22	5.943	\$5.94		
	3	7.518	\$7.52	13.962	\$13.96	15.573	\$15.57	16.11	\$16.11	16.447	\$16.65	10.203	\$10.20	0	\$0.00	0	\$0.00	4.833	\$4.83	8.915	\$8.92		
	Total	36	140.336	\$140.34	260.624	\$260.62	290.696	\$290.70	300.72	\$300.72	310.744	\$310.74	190.456	\$190.46	0	\$0.00	0	\$0.00	90.216	\$90.22	166.427	\$166.43	\$1,493.58

1. 56 Shares x 5.37 MI/Share = 300.72 MI/month
2. x 10 months = 3,007.2 MI
3. Total Deliveries = 1,750,219 MI (58%)
4. 1,257,071 MI Shortfall = 62 AF
5. 62 AF = 120 SFR Annual Usage



WATER EXCHANGE AGREEMENTS – QUALITY

4. Company shall deliver, or have delivered, to City all water entitlement due to any shareholder that is connected to City's system pursuant to the terms of this Agreement. All water delivered by Company shall be in potable condition, or delivered to the City's Hinckley Water Treatment Plant in a condition capable of being made potable by conventional water treatment methods. All assessments and service charges for stock entitlement to such water shall be paid by the individual shareholders to the Company.



WATER EXCHANGE AGREEMENTS - DELIVERY PRIORITY

David B. Knight
President

Larry Jacinto
Vice President



George Hanson
General Manager

Kristy Hoover
Secretary and Treasurer

Bear Valley Mutual Water Company
101 East Olive Avenue
Redlands, CA. 92373
(909) 793-4901

City of Redlands-John Harris
P.O. Box 3005
Redlands, Ca. 92373

Billing date:	09/29/2022
Account ID:	HHWTP
Previous balance:	\$ 0.00

Invoice:	Details:	Amount:
Inv #69	Water Entitlement: 90572 shares BVMWCo @ .27 MI = 24454.44 MI Pipeline Entitlement: N/A	
August	Total inches delivered: 7,876.26 Water Entitlement: 7876.26" @ \$1.00 Water Excess: 0" @ \$7.00	7,876.26 0.00
Please pay this amount:		\$7,876.26

Terms: 30 days
1.5% interest accrued on delinquent amount.



WATER EXCHANGE AGREEMENTS – DELIVERY PRIORITY

JUNE 2023

Preliminary Draft #888888

BEAR VALLEY MUTUAL WATER COMPANY
 Analysis of the City of Redlands Horace P Hinckley Water Treatment Plant
 and determination of the charges for delivery of the water

BEAR VALLEY MUTUAL WATER COMPANY
 Analysis of the City of Redlands Horace P Hinckley Water Treatment Plant
 and determination of the charges for delivery of the water

Effluent from Hinckley Water Treatment 2023 Plant			State Water Project water			Remainder Inflow to Hinckley Treatment		Exchange Contracts	Water Deliv for shares		Lugonia Water Company water delivered to Hinckley		Redlands Water Company water delivered to Hinckley		Lugonia Park Water Company water delivered to Hinckley		West Redlands Water Compan water delivered to Hinckley		Remainder of water Delivered pursuant to City of Redlands ownership of Bear Valley Mutual Water Company Shares		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Day	MGD	cfs - days	Acres Feet	Acres Feet	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	cfs - days	Available	Delivery
1	6.1	9.37139	0	0	0	9.37139	9.37139	1.683567	7.687823	7.687823	1.830333	5.8574904	5.762568	0.0949224	0.0949224	0	0	0	0	0	0
2	5.7	8.887117	0	0	0	8.887117	8.887117	1.683567	7.20355	7.20355	1.830333	5.3732168	5.3732168	0	0	0	0	0	0	0	0
3	6.0	9.301766	0	0	0	9.301766	9.301766	1.683567	7.618199	7.618199	1.830333	5.7878664	5.762568	0.0252984	0.0252984	0	0	0	0	0	0
4	6.0	9.323427	0	0	0	9.323427	9.323427	1.683567	7.63986	7.63986	1.830333	5.8095272	5.762568	0.0469592	0.0469592	0	0	0	0	0	0
5	6.1	9.36056	0	0	0	9.36056	9.36056	1.683567	7.676993	7.676993	1.830333	5.84666	5.762568	0.084092	0.084092	0	0	0	0	0	0
6	6.1	9.394598	0	0	0	9.394598	9.394598	1.683567	7.711031	7.711031	1.830333	5.8806984	5.762568	0.1181304	0.1181304	0	0	0	0	0	0
7	6.1	9.411618	0	0	0	9.411618	9.411618	1.683567	7.728051	7.728051	1.830333	5.8977176	5.762568	0.1351496	0.1351496	0	0	0	0	0	0
8	6.1	9.380674	0	0	0	9.380674	9.380674	1.683567	7.697107	7.697107	1.830333	5.8667736	5.762568	0.1042056	0.1042056	0	0	0	0	0	0
9	6.0	9.269275	0	0	0	9.269275	9.269275	1.683567	7.585708	7.585708	1.830333	5.7553752	5.7553752	0	0	0	0	0	0	0	0
10	6.0	9.20584	0	0	0	9.20584	9.20584	1.683567	7.522273	7.522273	1.830333	5.69194	5.69194	0	0	0	0	0	0	0	0
11	5.5	8.543638	0	0	0	8.543638	8.543638	1.683567	6.860071	6.860071	1.830333	5.0297384	5.0297384	0	0	0	0	0	0	0	0
12	5.8	8.978402	0	0	0	8.978402	8.978402	1.683567	7.294835	7.294835	1.830333	5.4645016	5.4645016	0	0	0	0	0	0	0	0
13	5.9	9.162518	0	0	0	9.162518	9.162518	1.683567	7.478951	7.478951	1.830333	5.6486184	5.6486184	0	0	0	0	0	0	0	0
14	5.8	8.996968	0	0	0	8.996968	8.996968	1.683567	7.313401	7.313401	1.830333	5.483068	5.483068	0	0	0	0	0	0	0	0
15	5.9	9.133122	0	0	0	9.133122	9.133122	1.683567	7.449555	7.449555	1.830333	5.6192216	5.6192216	0	0	0	0	0	0	0	0
16	6.9	10.64319	0	0	0	10.64319	10.64319	1.683567	8.959622	8.959622	1.830333	7.1292888	5.762568	1.3667208	0.20952	1.1572008	1.1572008	0	0	0	0
17	6.8	10.59677	0	0	0	10.59677	10.59677	1.683567	8.913206	8.913206	1.830333	7.0828728	5.762568	1.3203048	0.20952	1.1107848	1.1107848	0	0	0	0
18	7.5	11.54985	0	0	0	11.54985	11.54985	1.683567	9.866281	9.866281	1.830333	8.035948	5.762568	2.27338	0.20952	2.06386	2.012833	0.051027	0.051027	0	0
19	7.5	11.55604	0	0	0	11.55604	11.55604	1.683567	9.87247	9.87247	1.830333	8.0421368	5.762568	2.2795688	0.20952	2.0700488	2.012833	0.0572158	0.0572158	0	0
20	7.4	11.41679	0	0	0	11.41679	11.41679	1.683567	9.733222	9.733222	1.830333	7.9028888	5.762568	2.1403208	0.20952	1.9308008	1.9308008	0	0	0	0
21	7.8	12.03722	0	0	0	12.03722	12.03722	1.683567	10.35365	10.35365	1.830333	8.523316	5.762568	2.760748	0.20952	2.551228	2.012833	0.538895	0.538895	0	0
22	7.7	11.97069	0	0	0	11.97069	11.97069	1.683567	10.28712	10.28712	1.830333	8.4957864	5.762568	2.6942184	0.20952	2.4846984	2.012833	0.4718654	0.4718654	0	0
23	7.7	11.91808	0	0	0	11.91808	11.91808	1.683567	10.23451	10.23451	1.830333	8.4041816	5.762568	2.6416136	0.20952	2.4320936	2.012833	0.4192606	0.4192606	0	0
24	7.7	11.84227	0	0	0	11.84227	11.84227	1.683567	10.1587	10.1587	1.830333	8.3283688	5.762568	2.5658008	0.20952	2.3562808	2.012833	0.3434478	0.3434478	0	0
25	7.6	11.79431	0	0	0	11.79431	11.79431	1.683567	10.11074	10.11074	1.830333	8.2804056	5.762568	2.5178376	0.20952	2.3083176	2.012833	0.2954846	0.2954846	0	0
26	7.6	11.75563	0	0	0	11.75563	11.75563	1.683567	10.07206	10.07206	1.830333	8.2417256	5.762568	2.4791576	0.20952	2.2696376	2.012833	0.2568046	0.2568046	0	0
27	7.7	11.89487	0	0	0	11.89487	11.89487	1.683567	10.21131	10.21131	1.830333	8.3809736	5.762568	2.6184056	0.20952	2.5184056	2.012833	0.3960526	0.3960526	0	0
28	7.7	11.9057	0	0	0	11.9057	11.9057	1.683567	10.22214	10.22214	1.830333	8.391804	5.762568	2.629236	0.20952	2.419716	2.012833	0.406883	0.406883	0	0
29	7.8	12.13469	0	0	0	12.13469	12.13469	1.683567	10.45112	10.45112	1.830333	8.6207896	5.762568	2.8582216	0.20952	2.6487016	2.012833	0.6336886	0.6336886	0	0
30	7.9	12.28786	0	0	0	12.28786	12.28786	1.683567	10.6043	10.6043	1.830333	8.7739624	5.762568	3.0113944	0.20952	2.8018744	2.012833	0.7890414	0.7890414	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total cfs-c			202.3	313.0249	0	313.0249	313.0249	50.50701	262.5179	262.5179	54.90999	207.607862	170.842176	36.7656864	3.7515576	33.0141288	28.3527824	4.6613464	4.6613464	0	0
Acres Feet			620.869	620.8754	0	620.8754	620.8754	100.1791	520.6963	520.6963	108.9123	411.783967	338.860331	72.923636	7.44110195	65.4825341	56.2369833	9.24564074	9.24564074	0	0

WEAs

City Shares



WATER EXCHANGE AGREEMENTS – WEA WATER DELIVERY

WATER COMPANY	WATER EXCHANGE AGREEMENTS DELIVERY OBLIGATION (MI)	ACTUAL WEA DELIVERIES (MI)	WEA DELIVERY SHORTFALL (MI)
LUGONIA WATER COMPANY	2436.60	15494.76	11732.54
REDLANDS WATER COMPANY	13566.84		
WEST REDLANDS WATER COMPANY	6474.00		
LUGONIA PARK WATER COMPANY	312.00		
BEAR VALLEY MUTUAL WATER COMPANY	4037.04		
SOUTH MOUNTAIN WATER COMPANY	400.82		
	TOTAL (MI) =	15494.76	11732.54
	TOTAL (AF) =	614.66	465.42
		WEA SHORTFALL VALUE @ \$125/AF =	\$ 58,177.27



WATER EXCHANGE AGREEMENTS – CITY SHARES WATER DELIVERY

WATER COMPANY	HINCKLEY WTP ACCOUNT			DIVERSIFIED GROVES ACCOUNT ¹			CITY GROVES ACCOUNT ²			SPORTS PARK ACCOUNT		
	CITY SHARES ENTITLEMENT (MI)	ACTUAL DELIVERIES (MI)	CITY SHARES ENTITLEMENT SHORTFALL (MI)	CITY SHARES ENTITLEMENT (MI)	ACTUAL DELIVERIES (MI)	CITY SHARES ENTITLEMENT SHORTFALL (MI)	CITY SHARES ENTITLEMENT (MI)	ACTUAL DELIVERIES (MI)	CITY SHARES ENTITLEMENT SHORTFALL (MI)	CITY SHARES ENTITLEMENT (MI)	ACTUAL DELIVERIES (MI)	CITY SHARES ENTITLEMENT SHORTFALL (MI)
LUGONIA WATER COMPANY	26877.00	15064.41	11812.59				4278	948.68	3329.32			
REDLANDS WATER COMPANY	103723.20	43823.64	59899.56									
WEST REDLANDS WATER COMPANY	36231.00	7699.97	28531.03									
LUGONIA PARK WATER COMPANY	3783.00	956.41	2826.59									
BEAR VALLEY MUTUAL WATER COMPANY	293453.28	2370.36	291082.92	1231.20	1579.44	-348.24	4762.80	1069.79	3693.01	14256.00	6192.28	8063.72
SOUTH MOUNTAIN WATER COMPANY												
TOTAL (MI) =	464067.48	69914.79	394152.69			-348.24			7022.33			8063.72
TOTAL (AF) =	18409.09	2773.45	15635.64			-13.81			278.57			319.88
DELIVERY CHARGES (\$/MI)												
LUGONIA WATER COMPANY	\$	-										
REDLANDS WATER COMPANY	\$	59,899.56										
WEST REDLANDS WATER COMPANY	\$	28,531.03										
LUGONIA PARK WATER COMPANY	\$	2,826.59										
BEAR VALLEY MUTUAL WATER COMPANY	\$	291,082.92										
SOUTH MOUNTAIN WATER COMPANY	\$	-										
TOTAL =	\$	382,340.10										
CITY SHARE SHORTFALL VALUE @ \$125/AF = \$ 1,572,115.28												

NOTES:
 1 - PIONEER/JUDSON EAST GROVE, PIONEER/JUDSON WEST GROVE, SESSUM GROVE
 2 - LUGONIA GROVE, JUDSON GROVE, MULLIN GROVE, GRANITE GROVE



WATER EXCHANGE AGREEMENTS -POTENTIAL RENEGOTIATIONS

- **Daily vs. Monthly vs. Annual Water Delivery Accounting**
- **One-Time Annual Payment/Credit Transfer**
- **San Bernardino Municipal Well – “In-Lieu” Supplement**



QUESTIONS?

John R. Harris

Municipal Utilities & Engineering Director

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