CITY OF REDLANDS

MUNICIPAL UTILITIES/PUBLIC WORKS COMMISSION MEETING AGENDA

MONDAY, JUNE 3, 2024

STEVE STOCKTON
Chairperson

CHANDRASEKAR 'CV' VENKATRAMAN
Vice Chairperson

ROBERT MEALS
Commissioner

PAUL NORWOOD
Commissioner

THOMAS BREITKREUZ
Commissioner

DAVID GARCIA
Commissioner

ADEKUNLE OJO
Commissioner

4:00 PM Open Public Meeting
City Council Chambers
Civic Center
35 Cajon Street
Redlands, California

JOHN R. HARRIS
Municipal Utilities & Engineering Director

GOUTAM K. DOBEY
City Engineer

FERNANDO MATA
Wastewater Utility Manager

PAUL MARISCAL
Water Utility Manager

JUNG PARK
Laboratory Manager

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.

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.

CITY OF REDLANDS

MUNICIPAL UTILITIES/PUBLIC WORKS COMMISSION MEETING AGENDA

MONDAY, JUNE 3, 2024

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. April 15 MUPWC Meeting**

D. COMMUNICATIONS

- **a. Director's Report**

E. NEW BUSINESS

- **a. Recycled Water System Update**
- **b. Non-Potable Water System Update**

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

G. ADJOURNMENT – Next Meeting is August 5, 2024 @ 4:00 pm

ATTACHMENTS:

1. **Draft Minutes of April 15, 2024 Regular Meeting**
2. **Director's Report**

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DRAFT
(for MUPWC review on 6/3)

MINUTES

The special meeting of the City of Redlands Municipal Utilities/Public Works Commission on April 15, 2024 at 4:00 PM in the Council Chambers at the Civic Center, 35 Cajon Street. The meeting was an in-person meeting.

A. ATTENDANCE & CALL TO ORDER

Present:	Steve Stockton, Chairperson Chandrasekar 'CV' Venkatraman, Vice Chairperson Adekunle Ojo, Commissioner (joined at 4:02 PM) David Garcia, Commissioner Thomas Breitkreuz, Commissioner Robert Meals, Commissioner Paul Norwood, Commissioner
City Council Liaison:	Mario Saucedo, City Council Member
Staff:	John Harris, Municipal Utilities & Engineering Director; Goutam Dobey, City Engineer; Gerard Nepomuceno, Associate Civil Engineer; Paul Mariscal, Water Utility Manager; Jungjoon Park, Joint Utilities Laboratory Manager Chris Boatman, Assistant City Manager; Tabitha Crocker, Facilities and Community Services Director

Chairperson Stockton called the meeting to order at 4:00 PM.

B. PUBLIC COMMENT

None.

C. APPROVAL OF MINUTES

The minutes of the special meeting of March 18, 2024 were unanimously approved.

Vote: 7– 0 Passed

D. COMMUNICATIONS

a. Director's Report

To expedite proceedings, Mr. Harris skipped presenting the staff report and instead invited questions from the commission. There were no questions raised.

b. Proposed Water and Wastewater Rate Increases

Mr. Harris provided an overview of the process for setting Water and Wastewater rates, highlighting Raftelis as the consultant and the Utilities Advisory Committee's role in reviewing the rates. He mentioned that 23 versions of the rate model were analyzed before arriving at the current proposed rates: a 2% increase in water rates

over 2 years and a 10% increase in wastewater rates over the same period. He indicated his intention to present the proposal to the council on May 7th, initiating a 45-day Proposition 218 noticing period to inform ratepayers about the proposed adjustments. The process will conclude with a Public Hearing at a City Council meeting for the adoption of the rates.

E. NEW BUSINESS

a. Solid Waste Rates Presentation & Possible Recommendation to City Council

Mr. Boatman noted that the Solid Rate model has been updated based on the commission's feedback since the last meeting. If a motion is made today, the process would involve issuing Prop 218 notice in June, holding a hearing in September, and implementing the changes in January. He then introduced Garth Schultz from R3 Consulting Group, Inc., the firm tasked with conducting the study.

Mr. Schultz provided an overview of the assessment and the four rate increase scenarios discussed in the previous meeting. Since then, staff identified reductions in personnel allocations and fleet expenses totaling $1.5 million, which altered the projected forecast and reduced the overall revenue need for the model. Mr. Schultz presented a lower rate increase, keeping it under 10% as requested by the commission for a specific focus on maintaining proposed rate increases below that threshold.

The revised rate model proposes lower rate increases than previously projected. Unlike the initial plan, which included hikes exceeding 10% in FY 2024-25 and FY 2025-26, the revised model suggests increases below 10% annually. It also adjusts the timing of increases to avoid two hikes within a 12-month period. Additionally, it maintains a minimum fund balance of 10% of operating expenses, recommended for unforeseen circumstances. The recommended rate increases under the Revised Model are 9% annually from 2025 to 2027, and 4% in 2028. It's advised to reassess expenses for future rates starting from FY 2027-28. These changes were enabled by adjustments to operating and capital expenses, including staffing allocations and fleet maintenance, estimated to save $750,000 annually each from FY 2024-25. Also, the replacement schedule for 5 out of 17 vehicles was slightly deferred without impacting operations.

Motion made by Commissioner Breitkreuz, seconded by Vice Chair CV to recommend that the City Council direct staff to prepare and distribute the Proposition 218 Notice of Solid Waste Rate Increase that includes 9% for fiscal year 2024-25, 9% for fiscal year 2025-26, 9% for fiscal year 2026-27, and 4% for fiscal year 2027-28, and set a public hearing date for City Council Consideration of rate adjustments. The motion passed unanimously. Vote: 7-0

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

Items requested for the next regular Commission meeting agenda were as follows:

Cybersecurity for Water and Wastewater Treatment Plants: Discussing cybersecurity measures concerning the city's water and wastewater treatment plants.

Forever Chemicals (PFAS & PFOA) - Water Contaminants Impact: Exploring the impacts of PFAS and PFOA contaminants in water and the city's response.

Update on Lead and Copper Rule Compliance: Providing an update on the city's compliance with the Lead and Copper Rule.

Water Consumption Patterns: Examining the reasons behind higher water consumption in single-family dwellings in Redlands compared to surrounding communities and exploring the possibility of adjusting water conservation projects to incentivize conservation efforts.

Recycled and Non-Potable Water Systems Overview: Presentation on the holistic perspective of recycled and non-potable water systems to update the commission.

G. ADJOURNMENT – Next regular meeting is June 3, 2024 at 4:00 PM

There being no further business the meeting adjourned at 4:54 PM. The next regular meeting of the City of Redlands Municipal Utilities/Public Works Commission is scheduled for March 4, 2024.

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: May 28, 2024

SUBJECT: June 3, 2024 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

- DIF Ordinance First Reading (June 4)
- Yucaipa Sustainable Groundwater Management Agency Withdrawal (June 4)
- NPDES Support Agreement (June 4)
- CIP Sewer Pipeline Replacement Project Award (June 18)
- SB-1 Project List Adoption (June 18)
- Landfill Gas Engineering Agreement (June 18)
- Laboratory Facility Expansion Final Engineering Award (June 18)
- WWTP Storage Container Award (June 18)
- FY 24/25 MUED Annual Purchase Orders (June 18)
- RRFB Sign Purchase (June 18)
- SRF Loan Reimbursement Resolution (June 18)
- DIF Ordinance Adoption (June 18)
- Crafton Hills Community College MOU Termination (July 2)
- Laboratory Support Services Agreement (July 2)
- SBCTA Grade Crossing License Agreement (July 2)

- FY 24/25 – FY 28/29 Measure I CIP (July 2)
- California Street Recycled Water Pipeline Extension Award (July 2)
- Water/Wastewater Utility Rate Increase Ordinance Adoption (July 2)
- On-Call General Engineering Support Agreements (July 16)

Water/Wastewater Facilities Security

Physical – Access to MUED facilities is restricted to employees and escorted guests. Employees are assigned access codes and/or remote gate openers. In FY 24/25, MUED will install security fencing around the following facilities:

- Hinckley WTP
- Tate WTP
- Highland Avenue Water Complex (HAWC)
- Airport 1 Well
- Airport 2 Well
- Wastewater Treatment Plant

Cyber – All City IT devices, including those used by MUED employees to operate facilities, are password protected and networks are firewall protected. Additionally, utility facilities are monitored and operated remotely through secure SCADA systems. MUED's SCADA provider, Tesco Controls, provides City staff with all system passwords, encryption codes, network configurations, and As-Builts to review and audit field equipment and software applications. This information is used to update internal records, application backups, and best practices.

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. We learned that the timeline for development of a Financing Agreement, which includes additional technical, environmental, and legal reviews, 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. On June 18, 2024, City Council will consider adopting a resolution establishing a maximum SRF loan amount of $45M. This is the final step necessary prior to the SWRCB legal review and financing agreement development.

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 many have already been delivered. These water meter replacements will begin soon. A project location map is provided as Attachment "B".

PMP Update

Matich Corporation submitted the lowest responsive and responsible bid for the FY 23/24 project. City Council awarded Matich a Construction Contract for approximately $4.4M on February 6, 2024. The project is underway and is currently on-schedule and below-budget. A project location map is provided as Attachment "C".

PFAS Update

Surface and groundwater sources are routinely monitored as conditions of our regulatory agency permits issued by the SWRCB. Perchlorate, which is related to industrial and agriculture activity, and PFOA/PFAS compounds, which is a set of emerging constituents closely related to landfill operations, military installations, and widely used industrial applications, are notable contaminants and are monitored regularly. If a known contaminant exceeds a MCL DLR, it is reported annually in each community water systems CCR. For more information on the City's water quality reporting, please visit the link below.

https://www.cityofredlands.org/post/water-quality

In 2022, trace amounts of perchlorate were detected in two (2) of the City's groundwater wells (Well #38 and Well #39). Although the perchlorate concentrations remained well below the anticipated future SWRCB MCL, MUED proactively began evaluating engineering mitigation strategies. Dudek is nearing completion of construction plans and specifications for a granular activated carbon (GAC) system that will reduce perchlorate concentrations prior to introduction into the potable water distribution system. During the engineering phase of the project, trace concentrations of PFAS were detected within samples drawn from these wells and the project was paused temporarily to determine if the scope of work should be expanded to also reduce

PFOA/PFAS concentrations. Dudek determined that the original scope of work and mitigation strategies will mitigate perchlorate and PFOA/PFAS, and the project was continued.

Redlands is a party to nationwide PFOA/PFAS contamination class action lawsuits against the Dupont and 3M corporations and is being represented by outside counsel with decades of experience prosecuting PFOA/PFAS contamination cases. In March 2024, Dupont agreed to settle the case and in April 2024, a judge certified the settlement amount. Soon after, 3M agreed to settle its case and a judge certified the settlement amount. Redlands' counsel is currently calculating the value of our claim. The PFOA/PFAS groundwater supply contamination detections prioritize the Redlands claim (Phase 1 Claimant), and the ongoing mitigation costs will be included in a Phase 2 claimant action. It is likely that most, or all, of the original project construction cost will be offset by the settlement.

In anticipation of questions from our utility customers, MUED recently collaborated with the City Manager's Office to develop a "FAQ" webpage with general information about PFOA/PFAS. This webpage may be accessed through the following link:

Redlands PFAS FAQ (arcgis.com)

An EPA PFAS Fact Sheet is provided as Attachment "D"

Lead & Copper Rule Update

On January 15, 2021, US EPA issued Lead and Copper Rule Revisions (LCRR). Major revisions include Lead Service Line Inventories (LSL) and lead sampling of schools and childcare facilities.

MUED is compiling and organizing data to field verify service line materials for reporting before the October 16, 2024 deadline. The LCRR also mandates that water systems sample twenty percent (20%) of schools and childcare facilities for lead each year for five (5) consecutive years. These new sampling procedures will begin in 2024 and MUED has identified all schools and childcare facilities within the Redlands service area.

Currently, ninety-five percent (95%) of the LSL inventory is complete and no lead materials have been identified. Submittal of the LSL inventory and sampling of school and childcare facilities is on-schedule and will be submitted before the October 16, 2024 deadline.

Consumption vs. Conservation

On March 28, 2022, Governor Newsom issued an Executive Order (EO) in response to the historic statewide drought and asked urban water suppliers to increase water conservation. The EO also included a request for the SWRCB to create emergency regulation text requiring urban water suppliers to implement Level 2 of their water shortage contingency plans (WSCP) and establish a ban on the irrigation of non-functional turf by entities in the commercial, industrial, and institutional (CII) sectors. On May 24, 2022, the SWRCB adopted an Emergency Resolution to Reduce Water Demand and Improve Water Conservation.

The City is already operating at Level 2 per City's WSCP. Among other restrictions, Level 2 restricts outdoor landscape irrigation to three (3) days per week. Staff continues to enforce the City's water waste and water conservation ordinance and provides public outreach to inform and educate customers of the ongoing drought and water conservation incentives offered by the City, which include rebates for water-efficient appliances, drought tolerant landscape conversion and the irrigation-less groundcover conversion, list of acceptable drought-tolerant plants, and indoor and outdoor water use audits.

The following table shows water conservation data for last three (3) fiscal years:

Fiscal Year	Rebate Customers	Rebate Amount	Saving/Year (Gallon)	Actual Reduction
21/22	100	$20,792	3,129,675	15%
22/23	161	$74,962	5,406,673	14%
23/24	138	$60,511	5,167,114	15%

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.

SR-38 is currently open to traffic in both directions.

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 – Five (5) potable water wells and two (2) non-potable water wells are being rehabilitated in FY 23/24. This work is prioritized to occur during our typical low water demand season. The rehabilitation of three (3) of these seven (7) wells is complete and four (4) wells are currently being rehabilitated. All wells will be returned to service before the end of 2024. Following is a short list of specific groundwater wells scheduled for rehabilitation with this project:

    1. Church Street Well (potable)

2. Mentone #2 Well (potable)
3. Airport #2 Well (potable)
4. Mill Creek 2A Well (potable)
5. Rees Well (potable)
6. Mill Creek #4 Well (non-potable)
7. Redlands Heights Well (non-potable)

2. Tate WTP Raw Water Influent Pipeline Engineering – This project is underway and Carollo Engineers recently submitted the 90% design plans for review. MUED staff reviewed these plans and submitted comments back to Carollo.
3. Hinckley WTP Sludge Press Engineering – This project is underway and Dudek recently submitted the 60% design plans for review. MUED staff reviewed these plans and submitted comments back to Dudek.
4. Well Perchlorate Treatment Evaluation – This project is underway and Dudek is developing 30% design plans and recently submitted a Preliminary Design Report for review. A recent detection of PFAS will not require design revisions.
5. Automated Metering Infrastructure (AMI) – Ferguson Enterprises was awarded a contract to install twenty-six (26) gateway collector stations throughout the City to remotely read water meters. To date, twelve (12) gateways have been installed and are now operational.
6. Phase II & III Water Distribution SCADA Upgrade - Materials have been ordered. Installations began recently and will continue into 2024.
7. Sewerline Replacement Project – The FY 22/23 project was completed in March 2024.

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 23/24 PMP Location Map
D – EPA PFAS Fact Sheet
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
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
CCR	Consumer Confidence Report
CIP	Capital Improvement Program
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
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
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
MCL	Maximum Contaminate Level
MDD	Maximum Day Demand
MG	Million Gallons
MGD	Million Gallons per Day
mg/L	Milligrams per Liter
MUED	Municipal Utilities and Engineering Department
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
PW	Potable Water
RW	Recycled Water
SAR	Santa Ana River
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
SGMA	Sustainable Groundwater Management Act
SOC	Synthetic Organic Compounds
SOP	Standard Operating Procedure
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

Total = 4899

0 0.25 0.5 Miles

City of REDLANDS

June 14, 2022

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Route 25
Route 24
Route 47
Route 26
Route 28
Route 27
Route 45
Route 48
Route 31
Route 32
Route 34
Route 33
Route 51
Route 52
Route 53
Route 54

CENTRAL AVE
PALMETTO AVE
MARIGOLD AVE
SAN BERNARDINO AVE
LUGONIA AVE
NEVADA ST
ALABAMA ST
MOUNTAIN VIEW AVE
REDLANDS BLVD
CALIFORNIA ST
MISSION RD
TENNESSEE ST
BARTON RD
BEAUMONT AVE
BROOKSIDE AVE
OLIVE AVE
CENTER ST
CAJON ST
CYPRESS AVE
FERN AVE
PALM AVE
SAN MATEO ST
HIGHLAND AVE
CRESCENT AVE
TERRACINA BLVD
ELIZABETH ST
GARDEN ST
SAN TIMOTEO CANYON RD
ALESSANDRO RD
PIONEER AVE
TEXAS ST
CHURCH ST
ORANGE ST
UNIVERSITY ST
6TH ST
JUDSON ST
COLTON AVE
CITRUS AVE
DEARBORN ST
WABASH AVE
OPAL AVE
CRAFTON AVE
MENTONE BLVD
5TH AVE
FORD ST
SAND CANYON RD
YUCAIPA BLVD
OUTER HWY
ALTA VISTA DR
SUNSET DR

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

Total = 4980

0 0.25 0.5 Miles

City of REDLANDS

June 14, 2022

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PALMETTO AVE
MARIGOLD AVE
PIONEER AVE
SAN BERNARDINO AVE
LUGONIA AVE
TEXAS ST
ORANGE ST
CHURCH ST
UNIVERSITY ST
JUDSON ST
MENTONE BLVD
NEVADA ST
ALABAMA ST
CALIFORNIA ST
6TH ST
COLTON AVE
REDLANDS BLVD
TENNESSEE ST
BROOKSIDE AVE
OLIVE AVE
CAJON ST
FORD ST
DEARBORN ST
WABASH AVE
OPAL AVE
CRAFTON AVE
CITRUS AVE
5TH AVE
SAND CANYON RD
MISSION RD
BARTON RD
BEAUMONT AVE
SAN MATEO ST
SAN FERNANDO AVE
CYPRESS AVE
PALM AVE
CENTER ST
HIGHLAND AVE
GARDEN ST
TERRACINA BLVD
CRESCENT AVE
SAN TIMOTEO CANYON RD
ALESSANDRO RD
YUCAIPA BLVD
AVENUE E
OUTER HWY
ALTA VISTA DR
SUNSET DR

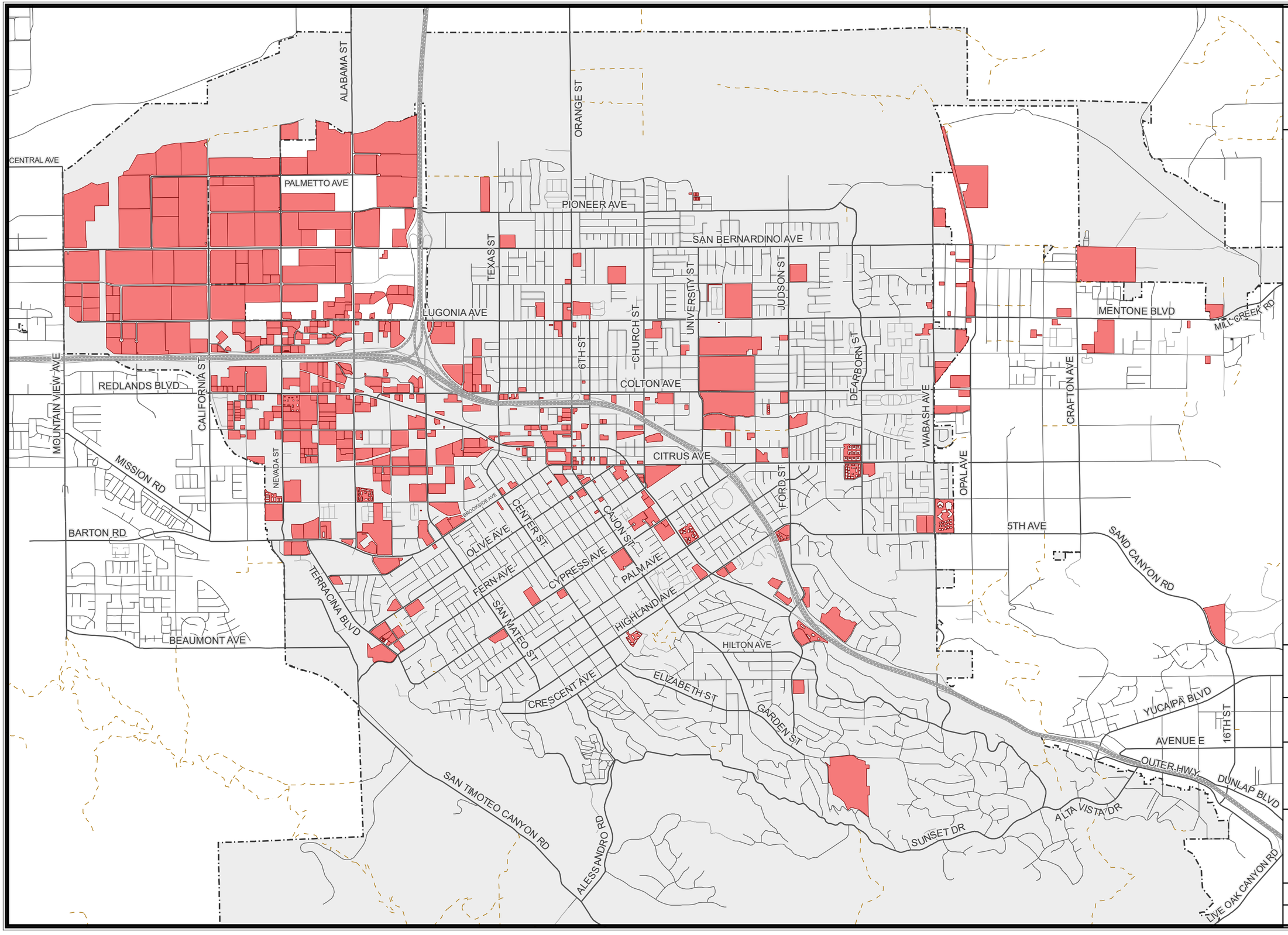
Route 62
Route 61
Route 63
Route 64
Route 37
Route 41
Route 35
Route 38
Route 42
Route 36
Route 43
Route 56
Route 57
Route 55
Route 58

FY25/26
Fire Protection

Potable Water Meter
Change-Out CIP

Fire Protection

City of Redlands



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City of REDLANDS

May 24, 2021

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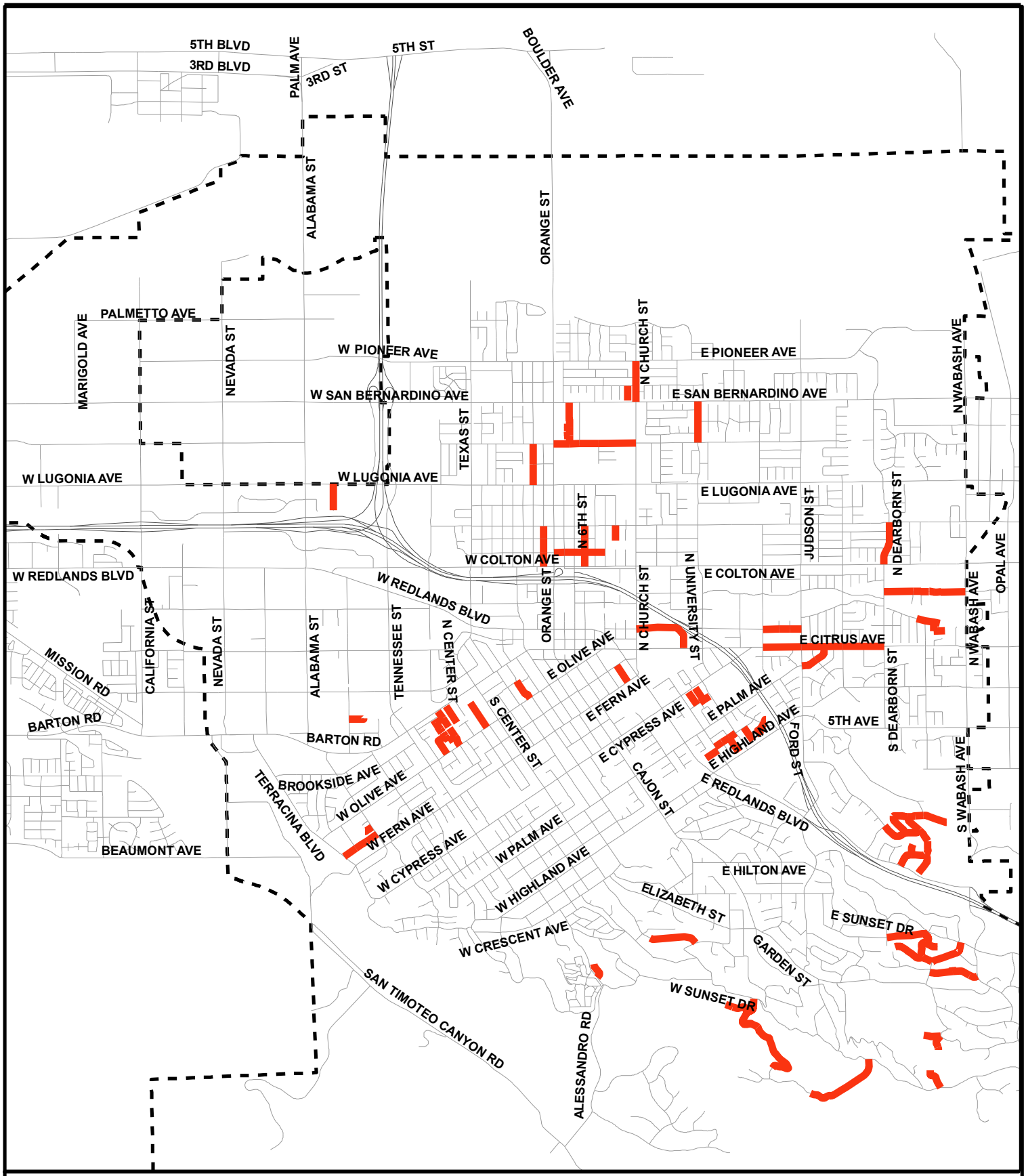


PMP 2023 STREET RESURFACING PROJECT LOCATION MAP

City of REDLANDS "A City That Works"

EPA's Final Regulations: What Do You Need To Know?

On April 10th, 2024, EPA announced the final National Drinking Water Standards for six PFAS (PFOS, PFOA, PFNA, PFBS, PFHxS, and GenX).

Numerical levels for compliance

PFAS	MCL (ng/L or ppt*)	Significant Figure Requirement	Rounding for Reporting Example
PFOA	4.0	2	Running annual average value (RAA) of 4.04 ng/L = round to 4.0 ng/L = **Compliance** RAA of 4.05 ng/L = round to 4.1 ng/L = **Exceedance**
PFOS	4.0		
PFNA	10	1	RAA of 14.9 ng/L = round to 10 ng/L = **Compliance** RAA of 15.0 ng/L = round to 20 ng/L = **Exceedance**
PFHxS	10		
GenX	10		
PFNA, PFHxS, GenX, and PFBS (Mixture)	HI Value of 1 (Unitless)	1	RAA of 1.49 = round to 1 = **Compliance** RAA of 1.50 = round to 2 = **Exceedance**

**Maximum Contaminant Level (nanograms per liter or parts per trillion)*

HI denominators are called Health-Based Water Concentrations (HBWC)

$$\frac{\text{GenX}}{10} + \frac{\text{PFBS}}{2000} + \frac{\text{PFNA}}{10} + \frac{\text{PFHxS}}{10} = \text{Hazard Index (HI)}$$

(all concentrations in ppt or ng/L)

HI MCL only applies for any mixture containing two or more of the four PFAS. *See next page for HI examples.*

Why did EPA develop these regulations?

- PFOA and PFOS: kidney and liver cancer risks - (MCL Goal or MCLG = 0 ng/L)
  - *4 ng/L is the practical quantitation level (PQL) where the lowest PFOA/PFOS can be reliably measured.*
- PFNA (decreased body weight gain and developmental effects, MCLG = 10 ng/L), PFHxS (thyroid effects), PFBS (thyroid effects) & GenX (liver effects, MCLG = 10 ng/L) - (MCLG for a mixture of 4 compounds = 1, unitless)
- PFBS is included in the HI MCL without finalization of its individual regulatory determination because of 1) dose-additive adverse effects when present in a mixture, 2) substantial likelihood of its co-occurrence, and 3) meaningful opportunity for health risk reduction by regulating mixture combinations.

Treatment

- Best Available Technology (BAT):
  - *Granular activated carbon (GAC), anion exchange (AIX),* nanofiltration (NF), and reverse osmosis (RO)
- Point of use (POU) or point of entry (POE) systems not listed as compliance options because the MCLs are below the currently available NSF/ANSI certification standards for these treatment systems

Compliance Deadline Extended

April 2024	April 2027	April 2029
Final PFAS rule published	Initial monitoring deadline	Compliance deadline

Monitoring

Initial Monitoring:

- Entry point to the distribution system samples by EPA Method 533 or 537.1 Version 2.0
- Large groundwater systems serving >10,000 people and surface water systems to complete quarterly monitoring over 12-months (2-4 months apart).
- Small groundwater systems serving <10,000 people to complete monitoring twice over 12-months (5-7 months apart).
- Must be completed within 3 years of the final rule
- Previous monitoring results may be used
  - *UCMR 5 or other data collected using EPA Methods 533 or 537.1 Version 2.0 after 1/1/2023*
  - *Data collected between 1/1/2019-12/31/2022 can be used if they are below the MCLs*

Compliance Monitoring:

- Quarterly monitoring, unless approved for reduced monitoring
- Compliance based on a **running annual average (RAA)**.
- Results <PQL will be summed as zero
  - *Example 1: PFOA results of* **2.0**, **1.5**, **5.0** *and* **1.5** *ng/L (***results below PQL***)*
    - RAA = (**0.0** + **0.0** + 5.0 + **0.0**) / 4 = **1.3 ng/L** for **2** significant figures
  - *Example 2: GenX (HFPO-DA) of* **3.2**, *6.1, 5.5 and* **2.7** *ng/L*
    - RAA = (**0.0** + **6.1**+ 5.5 + **0.0**) / 4 = 2.9 but **3 ng/L** for **1** significant figure
- If more than one sample taken per quarter, all samples are used in the RAA.

Contaminant	PQL
PFOA	4.0 ng/L
PFOS	4.0 ng/L
PFNA	4.0 ng/L
PFHxS	3.0 ng/L
GenX	5.0 ng/L
PFBS	3.0 ng/L

Reduced Monitoring:

Triennial Sampling:

- If all samples **during initial monitoring** are below trigger levels, 1 sample per 3-year compliance period
- To be collected during the quarter with the highest prior concentration identified in the most recent year
- A single sample exceeding the trigger levels requires quarterly sampling and is required to be used for 1st quarter result of RAA calculation

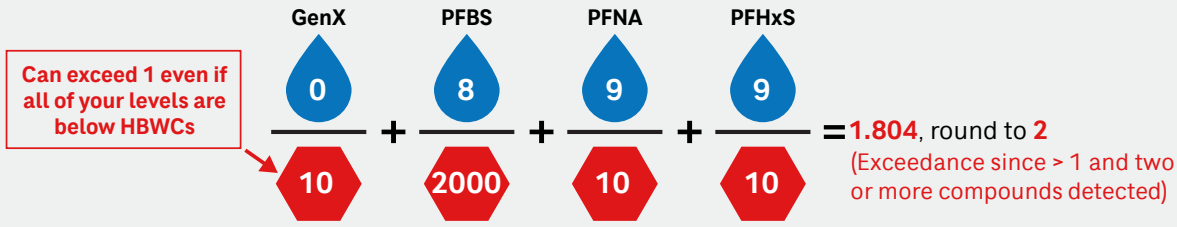
Contaminant	Trigger Level
PFOA	2.0 ng/L
PFOS	2.0 ng/L
PFNA	5 ng/L
PFHxS	5 ng/L
GenX	5 ng/L
Hazard Index	0.5 (unitless)

Annual Sampling:

- Determining the system is below the trigger level and reliably and consistently below the MCL requires 4 consecutive quarterly samples **during compliance monitoring**
- To be collected during the quarter with the highest prior concentration identified in the most recent year
- After 3 years with results below the trigger levels, the state may allow triennial monitoring
- A single sample exceeding the MCL requires quarterly sampling and is required to be used for 1st quarter result of RAA calculation

HI Calculation Example

- HI MCL is violated if RAA HI exceeds the MCL AND two or more HI analytes are detected above the PQLs
  - *Example: 9 ng/L of PFHxS, 8 ng/L of PFBS and 9 ng/L for PFNA and ND for GenX*



MUNICIPAL UTILITIES AND ENGINEERING DEPARTMENT

CIP PROJECTS LIST

PLANNING		Org Key	PL	Project Name	Project Phase	Progress	Consultant/Contractor	PM/Engineer	FY 2022-23	FY 2023-24
				Planning Projects - Cost Summary					$0.00	$0.00
DESIGN		**Org Key**	**PL**	**Project Name**	**Project Phase**	**Progress**	**Consultant/Contractor**	**PM/Engineer**	**Current Budget**	**Current Budget**
D1	WATER	501910	501063	2023 CIP Water Pipeline & Highline Replacement	DESIGN	60%	TKE Engineering	Goutam		$9,000,000.00
D2	WATER	501910	501028	Fixed Generators - Agate, 5th, Texas & Country Club	DESIGN	100%	Brady & Associates	Paul/Veronica	$507,549.00	
D3	HSIP C10	200400	S400021	Wabash & Highland Ave Enhanced Crosswalk	DESIGN	30%		Veronica	$250,000.00	
D4	WATER	501910	501040	Tate Transmission Line Replacement	DESIGN	90%	Carollo Engineers, Inc.	Paul/John	$835,549.00	$1,900,000.00
D5	NON-POTABLE	531910		WWTP Recycled Water Reservoirs Design	DESIGN	100%	Carollo Engineers, Inc.	John	$734,839.00	
D6	WATER	501910		Hinckley WTP Sludge Press	DESIGN	60%	Dudek	Paul/John	$700,000.00	
D7	ARTERIAL	252400		California Street Widening at Redlands Blvd	DESIGN	65%	CASC Engineering and Consulting	Gerard	$231,930.00	
D8	CRP	240400	C400005	Highland/Redlands Regional Connector - South	DESIGN	99%	KOA Consultants	Veronica	$752,600.00	
				Design Projects - Cost Summary					$4,012,467.00	$10,900,000.00
BID & AWARD		**Org Key**	**PL**	**Project Name**	**Project Phase**	**Progress**	**Consultant/Contractor**	**PM/Engineer**	**Current Budget**	**Current Budget**
B1	TDA	241400	S241005	2021 Transit Stop Improvement	BID & AWARD	20%		Veronica	$46,340.00	
B2	WASTEWATER	521910	S531021	Recycled Water for California St Orange Groves Project	BID & AWARD	50%		Goutam		$400,000.00
B3	WASTEWATER	521910	521030	2023 CIP Sewer Pipeline Replacement	BID & AWARD	80%		Johana		$3,000,000.00
				Bid & Award Project - Cost Summary					$0.00	$3,400,000.00
CONSTRUCTION		**Org Key**	**PL**	**Project Name**	**Project Phase**	**Progress**	**Contractor**	**PM/Inspector**	**Contract Amount**	**Contract Amount**
C1	GENERAL	101400	400025	2023 Citywide Sidewalk & ADA Ramp Replacement	CONST	70%	Tryco General Engineering	Elva/James		$1,000,000.00
C2	PMP	211910	211008	PMP 2023 Street Resurfacing Project	CONST	80%	Matich Corporation	Gerard/Daniel		$4,381,606.00
C3	GENERAL/PMP	101/211	211009	2023 Alley Paving Improvements	CONST	60%	Tryco General Engineering	Elva/James		$1,738,285.00
C4	WATER	501910	C501064	Water Meter Replacement (Potable/Non-potable) Project	CONST	50%	Ferguson Enterprises, LLC	John/Aaron/Chris		$6,747,257.96
C5	STORM DRAIN	405400	405003	Mission Zanja Channel Improvements Project	CONST	100%	Harbor Coating & Restoration	Gerard/Chris		$381,799.00
C6	HSIP C9	200400	F400003	Pedestrian In-Roadway Lights - Alabama/Tennessee	CONST	100%	California Professional Engineering	Veronica/Chris		$259,245.00
C7	WASTEWATER	521910	521029	2022 CIP Sewer Pipeline Replacement	CONST	100%	CEM Construction Corp	Johana/Daniel	$3,314,268.00	
C8	GENERAL/PMP/MT	101/211	211007	2022 Alley Paving Improvements	CONST	100%	Onyx Paving Company, Inc.	Elva/James	$2,082,000.00	
C9	PMP	211910	211006	PMP 2022 Street Resurfacing Project	CONST	100%	Matich Corporation	Gerard/Frannie	$4,970,068.00	
C10	WATER	501910	501062	2022 CIP Water Pipeline Replacement	CONST	100%	Tryco General Engineering	Gerard/Daniel	$4,744,111.00	
C11	WATER	501910	501006	Water System SCADA Design & Integration - Phase 2 & 3	CONST	60%	TESCO Controls, Inc.	Paul/Daniel	$5,579,420.00	
C12	WATER	501910	501006	Automated Metering Infrastructure Project	CONST	75%	Ferguson Enterprises, LLC	Paul/Aaron/Chris	$783,356.96	
				Construction Projects - Cost Summary					$21,473,223.96	$14,508,192.96
				Project Total Dollars					**$25,485,690.96**	**$28,808,192.96**