

**CITY OF REDLANDS**  
**MUNICIPAL UTILITIES/PUBLIC WORKS COMMISSION**  
**MEETING AGENDA**  
**MONDAY, AUGUST 5, 2024**

**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

**JUNG PARK**  
Laboratory  
Manager

4:00 PM Open Public Meeting  
City of Redlands  
Wastewater Treatment Plant  
1950 Nevada 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, AUGUST 5, 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. June 3 MUPWC Meeting

**D. COMMUNICATIONS**

- a. Director's Report

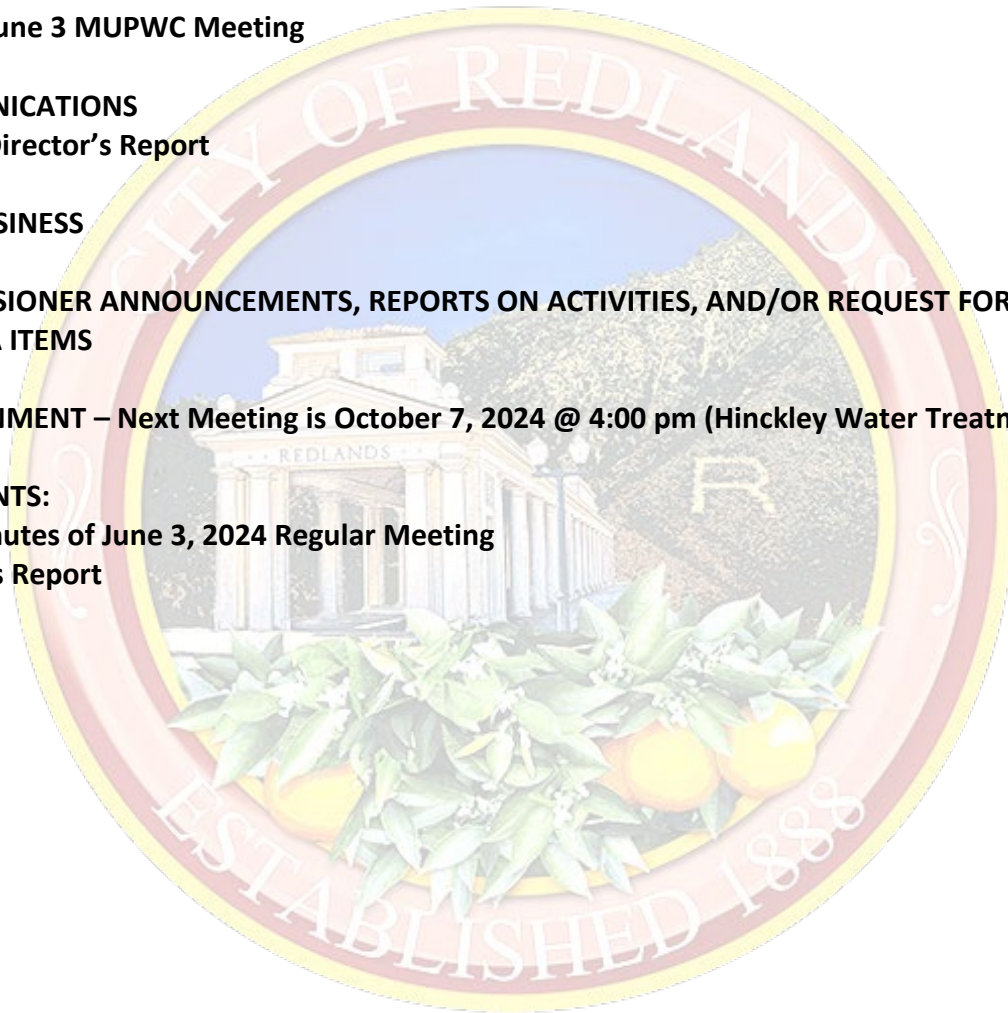
**E. NEW BUSINESS**

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

**G. ADJOURNMENT – Next Meeting is October 7, 2024 @ 4:00 pm (Hinckley Water Treatment Plant)**

**ATTACHMENTS:**

1. Draft Minutes of June 3, 2024 Regular Meeting
2. Director's Report



**DRAFT**  
**(for MUPWC review on 08/05)**  
**MINUTES**

Regular meeting of the City of Redlands Municipal Utilities/Public Works Commission on June 3, 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: Adekunle Ojo, Chairperson  
Steve Stockton, Vice Chairperson  
David Garcia, Commissioner  
Robert Meals, Commissioner  
Paul Norwood, Commissioner

Absent: Thomas Breitzkreuz, Commissioner  
Chandrasekar 'CV' Venkatraman, Commissioner

City Council  
Liaison: Mario Saucedo, City Council Member

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

Guest  
Speakers: Paul Mariscal, Water Utility Manager, Fernando Mata, Wastewater Utility Manager

Commissioner Steve Stockton, called the meeting to order at 4:02 PM.

**B. PUBLIC COMMENT**

None.

**C. APPROVAL OF MINUTES**

The minutes of the meeting of April 15, 2024, were unanimously approved.

**D. COMMUNICATIONS**

Before proceeding with Item D., Vice Chair Stockton asked if Item B. was missed. Chairman Ojo asked for a Public Comment. No comments were made.

**DRAFT**  
**(for MUPWC review on 08/05)**

**MINUTES**

**a. Director's Report**

Director Harris stated he would move through the report as there are a few presentations requested by the commission at the last meeting.

David Garcia ask a question regarding the Crafton Hills Community College MOU termination. Director Harris replies that the termination has to do with the sale of the city's shares of the South Mountain. The Crafton Hills Community College connection to Yucaipa water is physically there but they are waiting on state approval to turn the valve so to speak. Once completed the MOU will serve no purpose to CHCC.

**Bids for Security Fencing Project for Water Sites:**

Mr. Harris stated that the bid for the project to build security fencing at multiple water sites came in high over budget exceeding the 5000-600k estimate range by about \$1M. Due to that fact, the city did not award the bid or move forward with the project. Funds have been budgeted for the next FY to fund the fencing project.

**P2 Project Update:**

Phase Project: A resolution establishing the amount of \$45M for the State Revolving Fund (SRF) loan will be on City Council's June 18th agenda. This is the last step in Water Board process before drafting the agreement so getting closer on this item.

Question from David Garcia: Are we monitoring for more than just the PFAS. John Harris asked present staff for assistance with correct number of contaminants that are monitored other than PFAS.

Fernado Mata and Jung Park respond with: There are over 100 additional contaminants that are monitored at water sites. This meets or exceeds the current required by state regulations.

Question from David Garcia: Do we have any problems other than the location of that one well?

Director Harris replied: There was one other location where there was detect on the Orange St well. A detect but does not exceed the MCL. Also mentions the class action lawsuit with 3M. There are two phases of the class action lawsuit currently. We are Phase 1 so some of the first dollars will be made available to this Phase 1 group. The city is also a member of Phase 2 class which means that there will be a set-aside amount (unknown) to resolve any future found contaminate related issues.

**Water Consumption Versus Water Conservation:**

David Garcia comments: Thanks staff for preparing and stating it as it was very educational. David Garcia makes a statement regarding the turf conservation incentive provided by the city and the limitation of the incentive considering the amount provided to incentives are too low as the incentive amount is close to 10%. Mr. Garcia believes that participation in the program could be higher if incentives were higher. Garcia proposes that there be an increase in these incentives to influence participation in the program.

**DRAFT**  
**(for MUPWC review on 08/05)**

**MINUTES**

Director Harris stated that staff are looking into increasing incentives and continue to monitor the program. He believes that new construction standards could play a role in the limited participation as new construction often meets standards as a requirement. Such as household fixture items sold in stores.

Director Harris states that there have been changes to the program in the past such as that the turf conversion to artificial turf is no longer in play due to the fact that the CC was no longer supportive as the artificial turf and some of the other environmental hazard concerns artificial turf poses. Director Harris stated that Mr. Garcia's comments will be considered and discussed among staff.

Mr. Ojo comments on the use of gallons saved in terms of reported water savings. He feels like it is exaggerates savings on a utility scale and believes that acre feet should be used as water-saving measurements. Mr. Ojo states that the water savings reported from yard conversions using the rebate program are minimal based on the fact that the city water usage.

Director Harris replies and states that based on his conversations with residents he believes that gallons are typically used because the average resident understands gallons better than acre-feet when it comes to measuring water. Director Harris asks Goutam Dobey to confirm that the reduction of water usage is 14%-15% per participating customer.

Mr. Ojo states that regarding the rebate program when you divide the amount of water saved and the amount spent is this a good use of resources if it is taking money from customers to pay other customers to do something ineffective. He also states that turf removal can be a large expensive project and the rebates available are so low in dollar amount that a higher rebate would be a much greater incentive to program participants

Director Harris responds: The FY 21/22 rebate amount was a little less than 21k and with that limited amount he feels like the water savings that are gained from the rebate program are in a good place. He stated that the water saved is roughly 43 acre feet of water, to put in perspective that is about the same amount of water the city uses to irrigate the California Groves and personally feels like it is a step in the right direction versus attempting to package a project \$20,60,75k at a time it would take many years to develop enough escrow money to build anything meaningful.

Mr. Ojo agrees with Mr. Harris's statement in support of the current program.

Director Harris reminds the commission that this information is not specific messaging that was put out to the public but that it is information that was requested from the commission regarding the water savings from the incentive program.

Mr. Garcia states his reason for concern and request for information was due to the fact that the consumers in Redlands residents use 85% more than the national average.

Director Harris stated that it is a good point that the percentages can be misleading and that this subject could be an agenda topic on its own. He added that the water exchange agreement holders are the highest usage accounts an average of 2000-8000 units of water bi-monthly versus the average residential consumer bi-monthly



**DRAFT**  
**(for MUPWC review on 08/05)**

**MINUTES**

average using 200 units. So, when talking about conserving water those accounts are opportunities to do better and he is working on that.

Mr. Stockton makes the statement that it does show good faith and keeps conservation on the table.

No further comments:

Chairman Ojo brings forth an upcoming CC agenda item, item B. Development Impact Fee Study.

Director Harris states that the item will be continued at the July 2<sup>nd</sup> meeting. They need to pause due to questions from a contractor's group.

Director Harris speaking Yucaipa Sustainable Groundwater Management Agency Withdrawal. It doesn't make sense for the city to be part of this anymore sense they don't own any more shares. He stated that the city can represent the community if necessary, with a seat at the table. He adds that the ground water sustainable management plan was the initial reason to join that group.

Mr. Garcia voices a question about the NPDES Permit. Understands the reason for it but what is the support agreement?

Mr. Harris states that when they split the department there were two NPDES positions. One went to DSD and the remaining inspector still with MUED resigned. Which took about 18 months to backfill the position. It was then converted to a Regulatory Compliance Position that is filled now. This is likely a limited-term agreement to get the city caught up on inspections that were not completed during that 18-month window of the vacant position. This position is for business inspections not for the WWTP.

Mr. Stockton, No further questions.

**E. NEW BUSINESS**

**a. Recycled Water System Update**

Wastewater Manager, Fernando Mata provides a presentation on Recycled Waster System Update.

Mr. Stockton asks for clarification on the source of the water in the ZeeWeed MBR treatment process.

Mr. Mata provides clarification on the source of the water and the process.

Mr. Mata extends an invitation to visit the plant if desired.

Mr. Mata continues with the close of the presentation. Opens the floor for questions.

**DRAFT**  
**(for MUPWC review on 08/05)**  
**MINUTES**

Commissioner Stockton asks from a reporting standpoint do you differentiate between non-potable water and recycled water or are they commingled?

Mr. Mata replies that there is a commingling area in the 1350 zone and they are transitioning a good amount of the non-potable users to recycled water. To get ahead they are enforcing a purple pipe for when they do transition to strictly recycled water.

Mr. Stockton asks, How does that fit with the obligation for water for Mountain View in terms of total values?

Mr. Mata responds that after the upgrade there will be plenty of water to supply Mountain View and all other users.

Director Harris adds thoughts that Mata and himself are currently renegotiating the agreement with SCE which was a 20 year agreement that expired a year and a half ago but we are currently in an extension year. They currently have 3k acre-feet per year and would like to reduce the taker pay volume to more like a 1.5-acre fee a year. If reduced it will open availability for local use. Mr. Harris also states that we do have an option to expand service to recycled water to customers if desired.

Mr. Gracia asked if SCE didn't use our treated wastewater would we still meet our discharge permits?

Mr. Mata explained that we would still meet them.

Mr. Garcia asks an additional question regarding the new requirement for food waste bins for residential customers. Mr. Garcia voices concerns regarding the possible influx of food waste in the water system as more customers may dump food waste into the sinks versus bins.

Mr. Mata replies that they are fully aware of the possibility of the influx of food waste but that it is not a concern at this time. It is anticipated and staff will continue to monitor.

Mr. Mata continues the presentation.

Mr. Ojo asks for confirmation that when recycled water exceeds demands the overage is placed in ponds to percolate.

Mr. Mata confirms that this is accurate.

Mr. Ojo comments on the non-potable water treatments and asks if the wells were deliberately drilled to take advantage of aerators with lower ground water quality. Mata referred to Mr. Mariscal for response.

Mr. Mariscal comments that water quality is the main driver for turning a well into a non-potable well. So wells found to have low-quality water would be used as non-potable water wells. Most of those non-potable wells were found to be high in nitrate so they were repurposed as non-potable.

**DRAFT**  
**(for MUPWC review on 08/05)**  
**MINUTES**

**b. Non-Potable Water System**

Water Utility Manager, Paul Marcial provides a presentation on Non- Potable Water for the Commission.

Mr. Garcia asked a question in regards to the Bear Valley Mutual Water and if it is a water exchange for water from the river.

Mr. Marcial states: They are direct connections so we can sell them water if needed.

Mr. Harris states: We could sell water to BVMW if needed but it's not commonly done.

Mr. Ojo asks: Does the city receive water from BVWM?

Mr. Harris states: We can take BVW from the city shares but water is delivered by priority but do use some water at Hinkley. Discussion continues with Mr. Ojo regarding the use of water from Bear Valley Mutual Water.

Mr. Marcial continues his presentation on non-potable water.

Mr. Garcia asks questions regarding materials used for the pipelines.

Mr. Fernando Mata assisted with answers to the questions regarding the color coding and tagging of the new versus previously existing pipelines.

Mr. Ojo asks a question regarding the recent master plan for water.

Mr. Harris responds with clarification of the water system master plan for portable versus non-portable.

Mr. Garcia asks how many monitoring inspectors are there?

Paul Marcial replies there are two compliance officers.

Commissioner Stockton, No further questions from the Commission.

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

Mr. Stockton asks the commission if they have anything for this item.

Mr. Ojo speaks about a water project tour he participated in and the water quality choices of the voters in this area in the 1960's who preferred the Feather River which is a high quality.



**DRAFT**  
**(for MUPWC review on 08/05)**

**MINUTES**

Mr. Stockton speaks on the Delta Conveyance Project regarding the tour of the project that he participated in along with Mr. Ojo and what he took away from that.

Mr. Garcia request a tour of the WWTP.

Mr. Harris suggests rotating the meeting locations to the WWTP and other sites in the future so a tour can be provide to attendees who are interested. He will discuss with staff and schedule based on the availability of site.

Mr. Ojo makes suggestion for an agenda item related to water conservation that he believes would be good for a presentation in the future, in terms of the water budget objectives for the city. He states savings and projected budgets can be information for the community.

Mr. Harris states that the item requested can be completed.

**G. ADJOURNMENT – Next regular meeting is August 5, 2024 at 4:00 PM**

There being no further business the meeting was adjourned at 5:06 PM. The next meeting of the City of Redlands Municipal Utilities/Public Works Commission is scheduled for August 5, 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: July 29, 2024

SUBJECT: August 5, 2024 Director's Report

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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**

- Caterpillar Emergency Generator Purchase (September 3)
- SB County Paving Cooperative Agreement (September 3)
- On-Call Engineering Agreement – Hicks & Hartwick/ERSC (September 3)
- TDA 2021 Transit Stop Access Improvement Project Agreement (September 3)
- Caterpillar Backhoe Purchase (September 3)
- WWTP Primary Clarifier Upgrade Project Agreement (September 3)
- Citywide Speed Limit Study Agreement (September 3)
- Hinckley WTP Sludge Press Equipment Purchase (September 3)
- Water Distribution Office Furniture Purchase (September 3)
- Exempt Surplus Land Designation (September 3)
- 5-Year Capital Project Needs Assessment (September 17)
- PARIS Annual Report (September 17)
- 2024 Pavement Rehabilitation Project Agreement (September 17)
- 2024 Alley Paving Project Agreement (September 17)
- Supplemental Laboratory Testing Services Agreement Amendment (October 15)

## **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. On June 18, 2024, City Council adopted a resolution establishing a maximum SRF loan amount of \$45M. This is the final step necessary prior to the SWRCB legal review, financing agreement development, and City Council consideration.

## **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 and is anticipated to complete the project in early-2025. A project location map is provided as Attachment “B”.

## **PMP Update**

The FY 23/24 Pavement Rehabilitation Project is complete, and the FY 24/25 Project is currently out for bid. The construction bid submittal deadline is August 6 and City Council will consider awarding a contract on September 17. 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 SB County’s jurisdiction are proposed for rehabilitation. MUED staff is negotiating the details of a cooperative agreement to ensure the entire pavement width of these

streets is rehabilitated, in lieu of each agency paving their jurisdictional portions separately. A project location map is provided as Attachment “C”.

### **Water Conservation Objectives**

Conserving water is a permanent way of life in Redlands and vital to sustaining our city during droughts and a changing climate. The City offers several rebates to the residents to help make water-saving options more affordable. City’s water waste and water conservation ordinance 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. Water conservation staff conduct site visits to discuss any needs or questions residents may have on reducing water consumption. The annual budget for the rebates program is \$80,000, and anticipated annual water saving is approximately 20 acre-feet.

Additionally, MUED is working with the FCS Department to reduce the use of potable water for City grove irrigation. In 2023, the Daniels and Ramirez groves (on each side of the City landfill) were converted to recycled water irrigation. The anticipated potable water savings associated with this project is 40 AFY. MUED is also refining construction plans to extend a twelve inch (12”) recycled water pipeline south of I-10 on California Street to convert the California Grove and West Gateway Grove to recycled water irrigation. This will be the first recycled water pipeline south of I-10.

MUED is also refining the City’s historic use of shareholder water entitlements through several Mutual Water Companies within which the City owns shares. A recent sale of South Mountain Water Company shares will end a long-standing practice of providing significant potable water service credits (approximately 100 AFY) without financial or “wet” water compensation. Upon completion of the California Street recycled water pipeline extension project, MUED will develop a project to convert Prospect Park from potable water irrigation to non-potable water irrigation using Mutual Water Company shareholder entitlements. Finally, the City will take a much more active role in the leadership and management of Mutual Water Companies within which the City is a majority shareholder with the goal of further reducing the burden on Redlands’ potable water production, treatment, and distribution systems.

### **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.

#### 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. I-10 Truck Climbing Lane – Extend the eastbound truck climbing lane from the existing eastbound off-ramp at Live Oak Canyon Road to just east of the existing County Line Road eastbound off-ramp. The extension is approximately three (3) miles. Construction began in March 2024. No anticipated completion date is posted.

### **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. Additional potholing within Mill Creek is necessary to finalize the design. The Chambers Group is providing environmental permitting support and is attempting to schedule a meeting with CDFW to discuss the potholing work, as well as environmental mitigation requirements for the entire project.
3. Hinckley WTP Sludge Press Engineering – This project is underway and Dudek recently submitted the 90% design plans for review. MUED staff reviewed these plans and submitted comments back to Dudek. City Council will consider a Sole Source Procurement Waiver to purchase the equipment directly from PacPress (Anaheim). The project construction/equipment installation phase will be bid in early-2025 after the filter press and associated equipment is delivered.
4. Well Perchlorate Treatment Evaluation – This project is underway. Dudek is developing 60% 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. This project is substantially complete and thousands of AMI capable water meters are being read remotely. Newly installed AMI capable water meters will immediately be read remotely through this system as they are installed.
6. Sunset Reservoir Replacement Project – In July 2024, City Council adopted the environmental document and mitigation plan for this 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. MUED is developing a scope of work for the next project phase, which will likely be a design/build delivery that will include engineering for both reservoirs and construction of one (1) reservoir.
7. Phase II & III Water Distribution SCADA Upgrade - Materials have been ordered. Installations began recently and will continue into 2024.
8. Sewerline Replacement Project – The FY 24/25 project began recently.

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

John R. Harris

[jharris@cityofredlands.org](mailto: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 - 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        |
| CCR     | Consumer Confidence Report                                   |
| 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, Oil, and Grease                          |
| 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 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 |
| 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                         |
| 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  |
| SSMP      | 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

**Total = 4899**



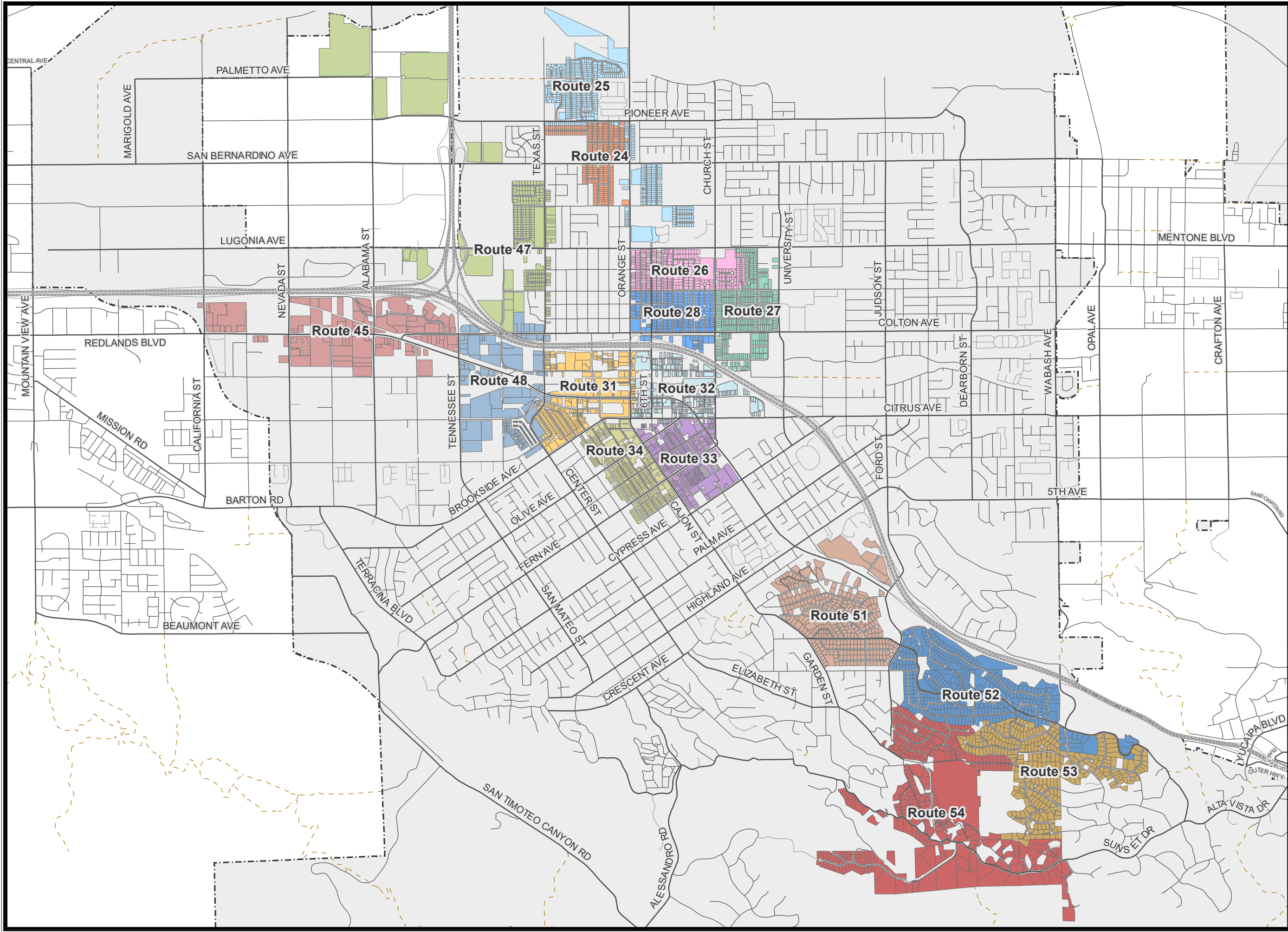
0 0.25 0.5  
Miles



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.

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

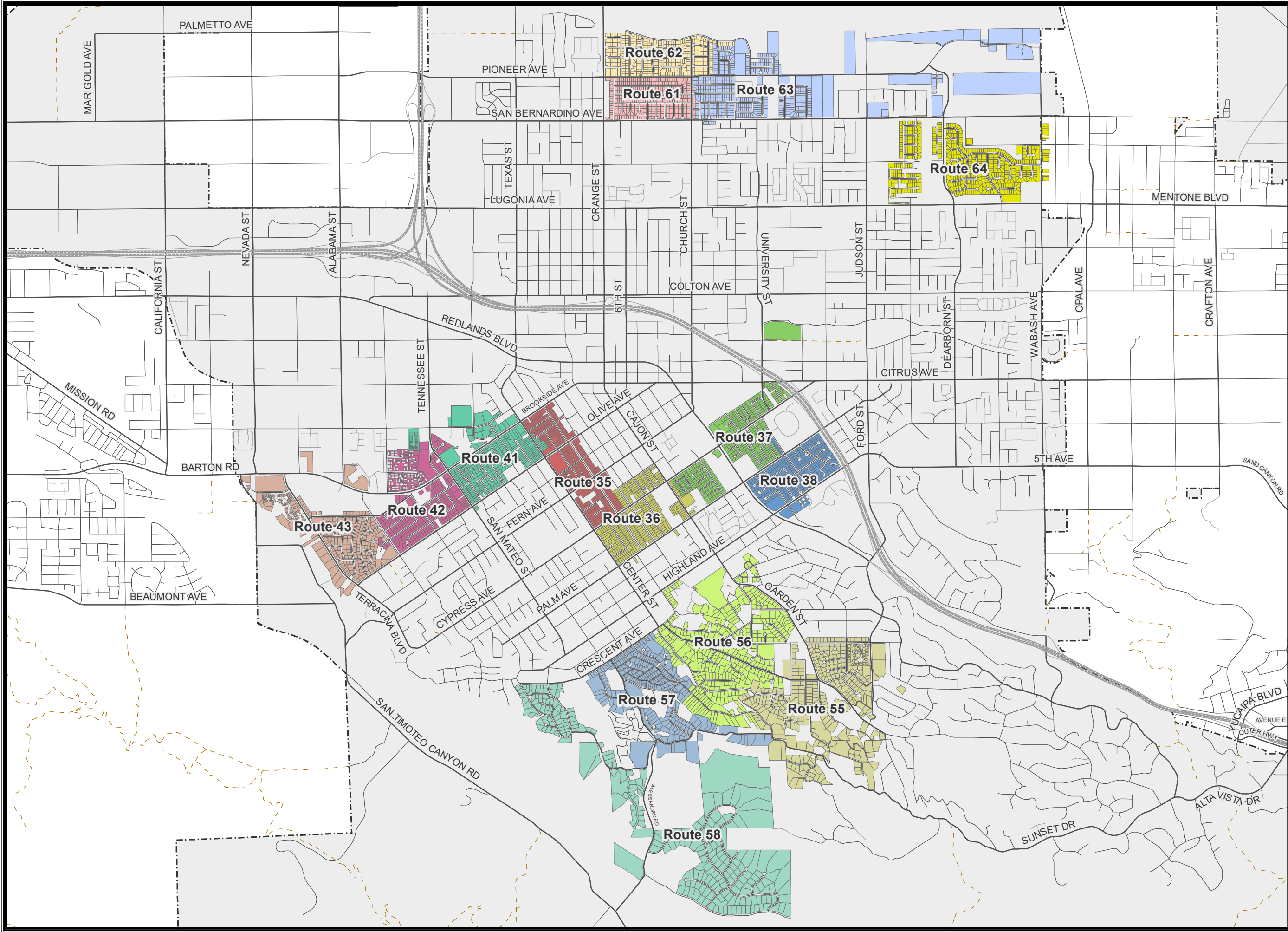
**Total = 4980**



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June 14, 2022



FY24\_25Potable.mxd

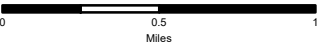
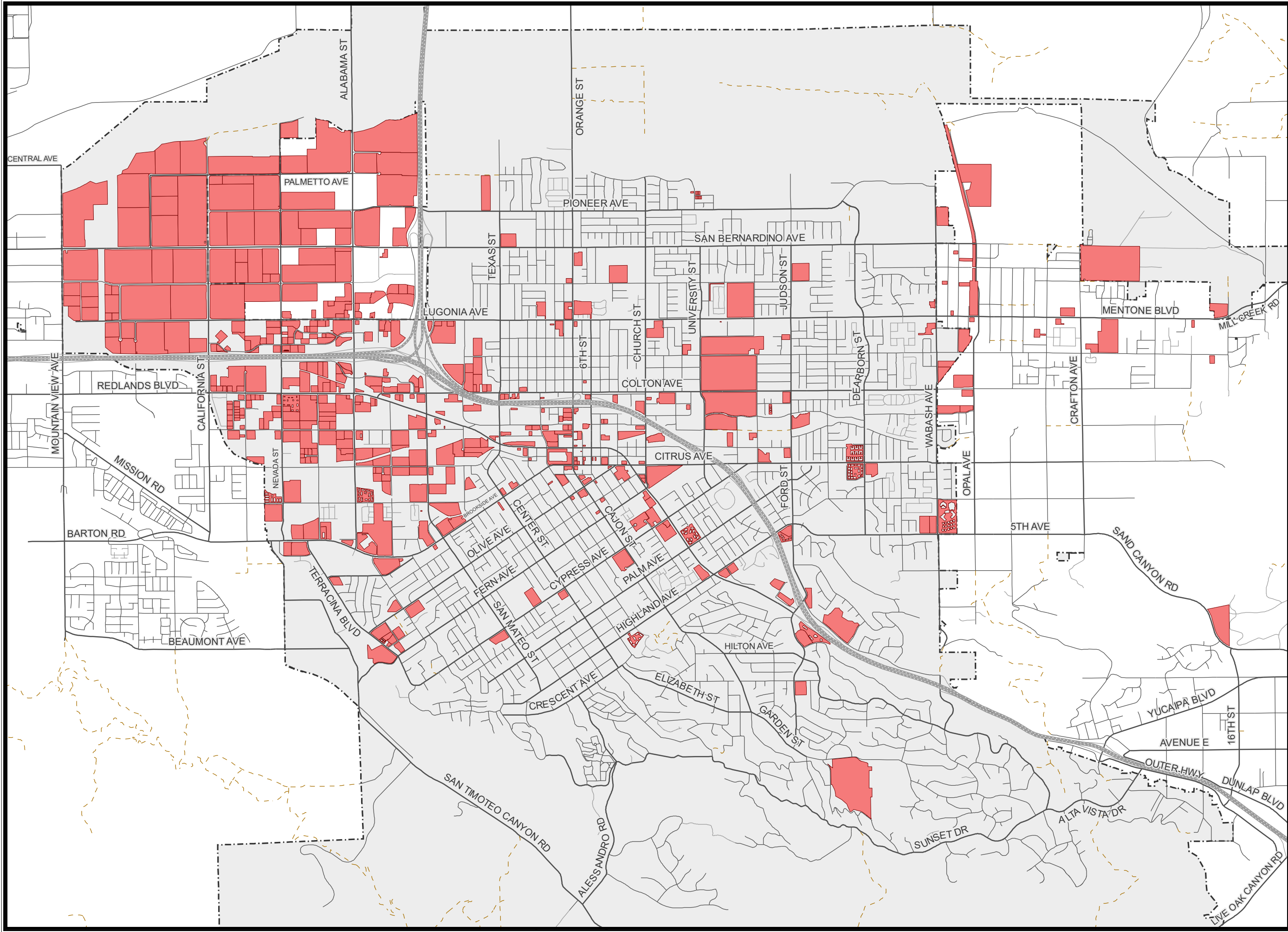




# FY25/26 Fire Protection

Potable Water Meter  
Change-Out CIP

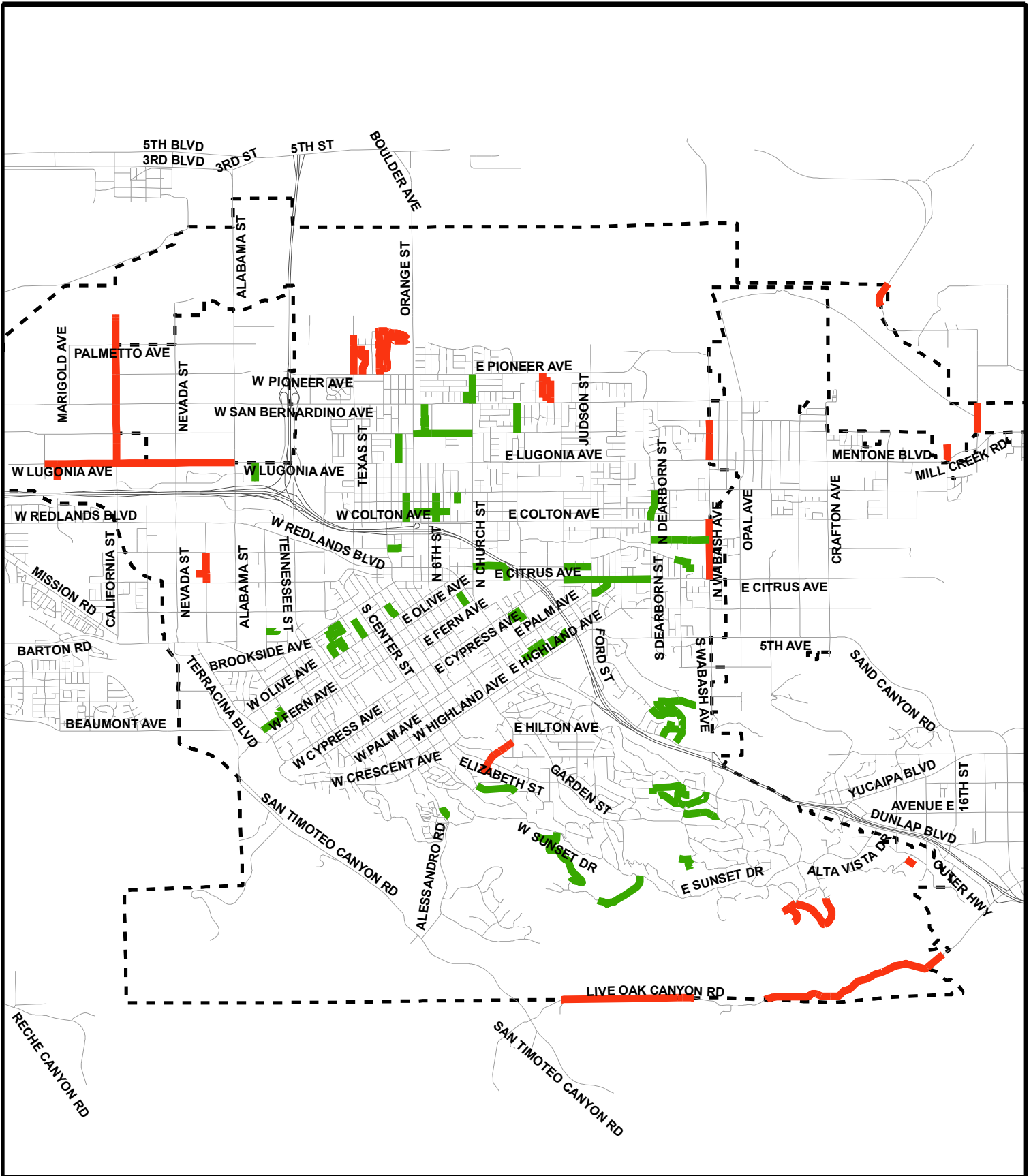
-  Fire Protection
-  City of Redlands



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.

May 24, 2021

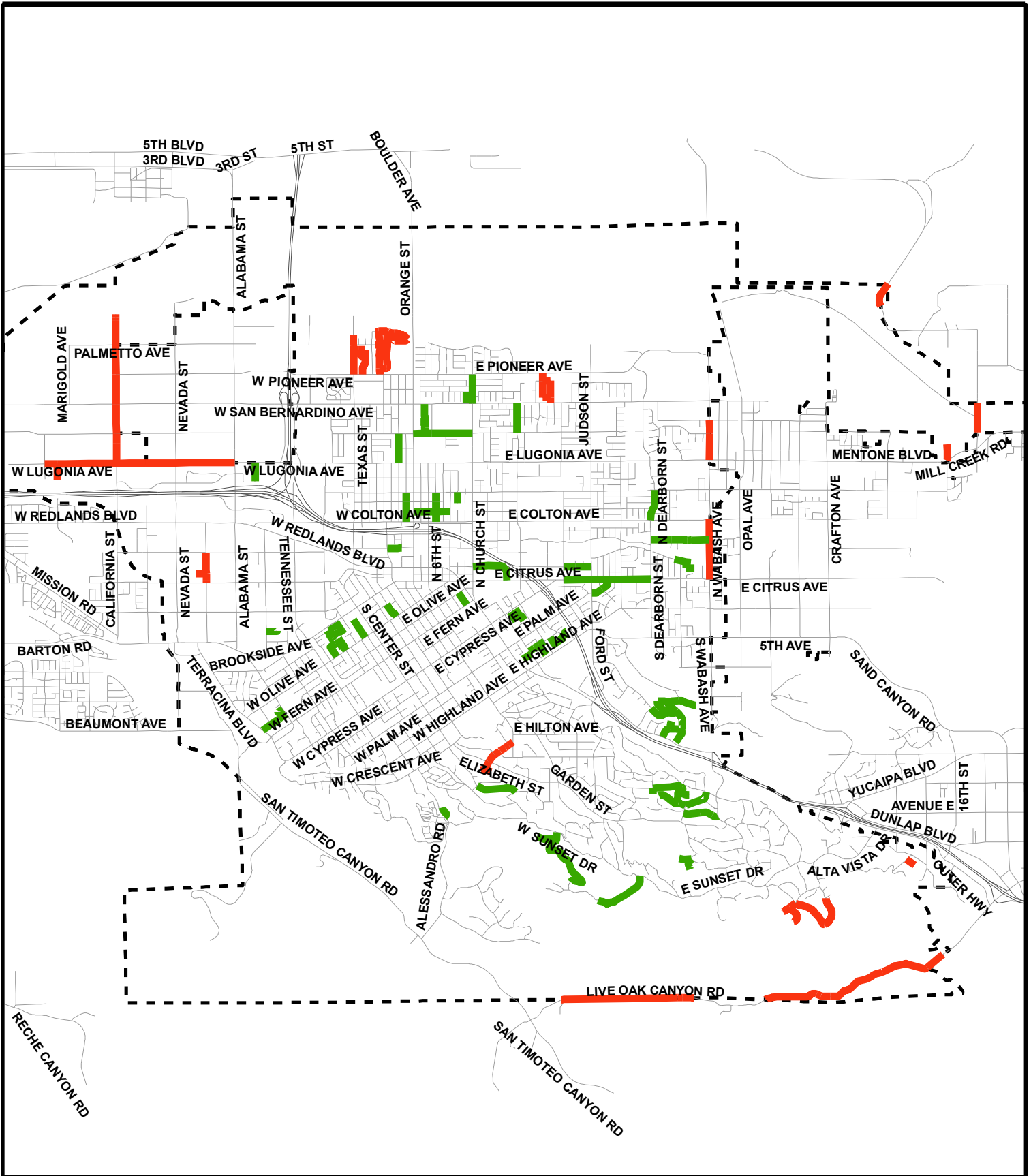
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- █ PMP 2023 STREETS COMPLETED
- █ PMP 2024 PROJECT STREETS (BIDDING)

## PMP FY 23/24 STREET RESURFACING PROJECT LOCATION MAP





- PMP 2023 STREETS COMPLETED
- PMP 2024 PROJECT STREETS (BIDDING)

## PMP FY 23/24 STREET RESURFACING PROJECT LOCATION MAP



**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      | 0%       |                                 | Johana/Elva      |                        |                        | \$500,000.00           |
| P2                                   | WATER       | 501910        |         | 2025 CIP Water Pipeline Replacement                    | PLANNING      | 0%       |                                 | Elva/Gerard      |                        |                        | \$4,500,000.00         |
| P3                                   | GENERAL     | 101400        |         | 2025 Citywide Sidewalk & ADA Ramp Replacement          | PLANNING      | 0%       |                                 | Gerard/Elva      |                        |                        | \$500,000.00           |
| P4                                   | WASTEWATER  | 521910        |         | 2025 Sewer Pipeline and Manhoole Rehabilitation        | PLANNING      | 0%       |                                 | Gerard/Johana    |                        |                        | \$1,500,000.00         |
| P5                                   | WASTEWATER  | 521910        |         | AC Drive Path  | PLANNING      | 0%       |                                 | Fernando/Goutam  |                        |                        | \$35,000.00            |
| P6                                   | WATER       | 501910        |         | AWIA Security Fencing                                  | PLANNING      | 0%       |                                 | Paul/Goutam      |                        | \$3,000,000.00         |                        |
| P7                                   | ARTERIAL    | 252400        |         | California Street Widening at Lugonia Ave              | PLANNING      | 0%       |                                 | Goutam           |                        |                        | \$1,150,000.00         |
| P8                                   | WASTEWATER  | 521910        |         | Concrete Step  | PLANNING      | 0%       |                                 | Fernando/Goutam  |                        | \$50,000.00            |                        |
| P9                                   | WASTEWATER  | 521910        |         | Hillside Stabilization Project                         | PLANNING      | 0%       |                                 | Fernando/Goutam  |                        | \$300,000.00           |                        |
| P10                                  | WATER       | 501910        |         | Hinckley WTP Parking Lot Improvements                  | PLANNING      | 0%       |                                 | Veronica/Gerard  |                        |                        | \$225,000.00           |
| P11                                  | PMP         | 211910        |         | PMP 2025 Street Resurfacing Project                    | PLANNING      | 0%       |                                 | Veronica/Gerard  |                        |                        | \$4,000,000.00         |
| P12                                  | WASTEWATER  | 521910        |         | RTC Replacement  | PLANNING      | 0%       |                                 | Fernando/Goutam  |                        | \$300,000.00           |                        |
| P13                                  | HSIP C11    | 200400        |         | Traffic Signal Improvement San Bernardino/Church       | PLANNING      | 5%       |                                 | Veronica         |                        | \$653,600.00           |                        |
| P14                                  | HSIP C11    | 200400        |         | Traffic Signal Hardware Improvements (16 TS)           | PLANNING      | 5%       |                                 | Veronica         |                        | \$245,000.00           |                        |
| P15                                  | HSIP C11    | 200400        |         | Traffic Signal Timing & Phasing Improvements (16 TS)   | PLANNING      | 5%       |                                 | Veronica         |                        | \$718,100.00           |                        |
| Planning Projects - Cost Summary     |             |               |         |  |               |          |                                 |                  | \$0.00                 | \$5,266,700.00         | \$12,410,000.00        |
| DESIGN                               |             | Org Key       | PL      | Project Name   | Project Phase | Progress | Consultant/Contractor           | PM/Engineer      | Current Budget         | Current Budget         | Current Budget         |
| D1                                   | TRAFFIC     | 253400        |         | Traffic Signal Improvement Cypress/Cajon               | DESIGN        | 100%     |                                 | Elva             |                        |                        |                        |
| D2                                   | WATER       | 501910        | 501063  | 2023/24 CIP Water Pipeline & Highline Replacement      | DESIGN        | 95%      | TKE Engineering                 | Goutam           |                        | \$9,000,000.00         |                        |
| D3                                   | GENERAL     | 101400        |         | 2024 Citywide Sidewalk & ADA Ramp Replacement          | DESIGN        | 90%      |                                 | Elva             |                        | \$500,000.00           |                        |
| D4                                   | WASTEWATER  | 521910        |         | 2024 Sewer Pipeline and Manhoole Rehabilitation        | DESIGN        | 80%      |                                 | Johana           |                        | \$1,500,000.00         |                        |
| D5                                   | ARTERIAL    | 252400        |         | California Street Widening at Redlands Blvd            | DESIGN        | 99%      | CASC Engineering and Consulting | Gerard           | \$394,345.00           | \$4,300,000.00         |                        |
| D6                                   | ARTERIAL    | 252400        | 252001  | Citrus Avenue Widening Project                         | DESIGN        | 95%      |                                 | Elva             |                        |                        | \$1,200,000.00         |
| D7                                   | TDA         | 241400        |         | East Valley Corridor Project Alabama Street            | DESIGN        | 100%     |                                 | Veronica         |                        |                        |                        |
| D8                                   | WATER       | 501910        |         | Hinckley WTP Sludge Press                              | DESIGN        | 60%      | Dudek                           | Paul/John        | \$833,655.00           | \$750,000.00           | \$3,500,000.00         |
| D9                                   | 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         |
| D10                                  | HSIP C10    | 200400        | S400021 | Enhanced Crosswalk- Dearborn/Judson/Colton/Wabash      | DESIGN        | 95%      |                                 | Veronica         | \$250,000.00           |                        |                        |
| D11                                  | WATER/SEWER | 501900/521900 |         | Joint Utilities Laboratory Expansion                   | DESIGN        | 5%       | CDM Smith, Inc.                 | JP/Goutam        |                        | \$745,375.00           | \$4,000,000.00         |
| D12                                  | TDA         | 241400        | S241006 | Orange Blossom Trail Phase 4                           | DESIGN        | 99%      |                                 | Gerard           |                        | \$1,232,000.00         |                        |
| D13                                  | WASTEWATER  | 521910        | S531021 | Recycled Water for California St Orange Groves Project | DESIGN        | 99%      |                                 | Goutam           |                        | \$400,000.00           |                        |
| D14                                  | CRP         | 200400        | F400032 | Redlands Regional Connector (South) Project            | DESIGN        | 100%     | KOA Consultants                 | Veronica         | \$846,000.00           |                        |                        |
| D15                                  | WATER       | 501910        | 501040  | Tate Transmission Line Replacement                     | DESIGN        | 90%      | Carollo Engineers, Inc.         | Paul/John        | \$2,075,096.00         |                        |                        |
| D16                                  | WATER       | 501910        |         | Well Drilling  | DESIGN        | 5%       | Richard C. Slade & Associates   | Paul/Veronica    | \$290,000.00           |                        |                        |
| D17                                  | NON-POTABLE | 531910        |         | WWTP Recycled Water Reservoirs Design                  | DESIGN        | 100%     | Carollo Engineers, Inc.         | John             | \$734,839.00           |                        |                        |
| D18                                  | WASTEWATER  | 521910        |         | WWTP Rehabilitation Phase 2                            | DESIGN        | 100%     | Parsons                         | Fernando/Goutam  |                        | \$250,000.00           | \$45,500,000.00        |
| Design Projects - Cost Summary       |             |               |         |  |               |          |                                 |                  | \$5,931,484.00         | \$20,402,375.00        | \$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                                   | PMP         | 211910        |         | PMP 2024 Street Resurfacing Project                    | BID & AWARD   | 10%      |                                 | Gerard           |                        | \$4,000,000.00         |                        |
| B2                                   | PMP         | 211910        |         | 2024 Alley Paving Improvements                         | BID & AWARD   | 30%      |                                 | Elva             |                        | \$500,000.00           |                        |
| B3                                   | TDA         | 241400        | S241005 | 2021 Transit Stop Improvement                          | BID & AWARD   | 30%      |                                 | Veronica         | \$46,340.00            |                        |                        |
| B4                                   | ARPA        | 521910        | F120002 | WWTP Primary Clarifier Upgrade Project                 | BID & AWARD   | 50%      |                                 | Fernando/Goutam  |                        | \$1,000,000.00         |                        |
| Bid & Award Project - Cost Summary   |             |               |         |  |               |          |                                 |                  | \$46,340.00            | \$5,500,000.00         | \$0.00                 |
| CONSTRUCTION                         |             | Org Key       | PL      | Project Name   | Project Phase | Progress | Contractor                      | PM/Inspector     | Contract Amount        | Contract Amount        | Contract Amount        |
| C1                                   | WASTEWATER  | 521910        | 521030  | 2023 CIP Sewer Pipeline Replacement                    | CONST         | 5%       | All Cities Engineering, Inc.    | Johana/Chris     | \$2,485,353.00         |                        |                        |
| C2                                   | GENERAL     | 101400        | 400025  | 2023 Citywide Sidewalk & ADA Ramp Replacement          | CONST         | 100%     | Tryco General Engineering       | Elva/James       | \$1,000,000.00         |                        |                        |
| C3                                   | PMP         | 211910        | 211008  | PMP 2023 Street Resurfacing Project                    | CONST         | 100%     | Matich Corporation              | Gerard/Daniel    | \$4,381,606.00         |                        |                        |
| C4                                   | GENERAL/PMP | 101/211       | 211009  | 2023 Alley Paving Improvements                         | CONST         | 65%      | Tryco General Engineering       | Elva/James       | \$1,738,285.00         |                        |                        |
| C5                                   | WATER       | 501910        | C501064 | Water Meter Replacement (Potable/Non-potable) Project  | CONST         | 50%      | Ferguson Enterprises, LLC       | John/Aaron/Chris | \$6,747,257.96         |                        |                        |
| C6                                   | WATER       | 501910        | 501006  | Water System SCADA Design & Integration-Final Phase    | CONST         | 60%      | TESCO Controls, Inc.            | Paul/Daniel      | \$4,727,968.00         |                        |                        |
| C7                                   | WATER       | 501910        | 501006  | Automated Metering Infrastructure Project              | CONST         | 75%      | Ferguson Enterprises, LLC       | Paul/Aaron/Chris | \$792,876.00           |                        |                        |
| Construction Projects - Cost Summary |             |               |         |  |               |          |                                 |                  | \$21,873,345.96        | \$0.00                 | \$0.00                 |
| <b>Project Total Dollars</b>         |             |               |         |  |               |          |                                 |                  | <b>\$27,851,169.96</b> | <b>\$31,169,075.00</b> | <b>\$70,425,000.00</b> |