

CITY OF REDLANDS
MUNICIPAL UTILITIES/PUBLIC WORKS COMMISSION
MEETING AGENDA
MONDAY, JUNE 6, 2022

ADEKUNLE OJO
Chairperson

STEVE STOCKTON
Vice Chairperson

R. BRAD THOMS
Commissioner

ZACHARY TRAVIS
Commissioner

THOMAS BREITKREUZ
Commissioner

DAVID GARCIA
Commissioner

CHANDRASEKAR 'CV'
VENKATRAMAN
Commissioner

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

Although the meeting is open to the public, seating has been reduced to allow for social distancing.

To join via Zoom on a computer, laptop, or smart device:
Please visit www.zoom.us, click on *Join a Meeting*
Enter the **Meeting ID 898 9918 5397**, then run the Zoom launcher

To join via Zoom with audio only (cell phone or landline):
Dial **1-877-853-5247**; Enter the **Meeting ID 898 9918 5397**

JOHN R. HARRIS
Municipal Utilities
& Engineering
Director

GOUTAM DOBEY
Engineering
Manager

KEVIN WATSON
Utilities Operations
Manager

Should the City lose connectivity on Zoom, we will halt the meeting until it can be restored. In the event the City cannot reestablish Zoom connectivity in a reasonable amount of time, the meeting will be adjourned to a future date.

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

- To provide comment in person, simply raise your hand to speak*
- To provide comment through Zoom (on a computer, laptop, or smart device), click the "Raise Hand" button and the moderator will unmute you when it is your turn to speak*
- To provide comment via audio only (cell phone or landline), dial *9 to "Raise Hand" and the moderator will identify you by your area code and last 3 numbers of your telephone number when it is your turn 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, JUNE 6, 2022

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 4, 2022 Regular Meeting Minutes**

D. COMMUNICATIONS

- a. **Director's Report**

E. NEW BUSINESS

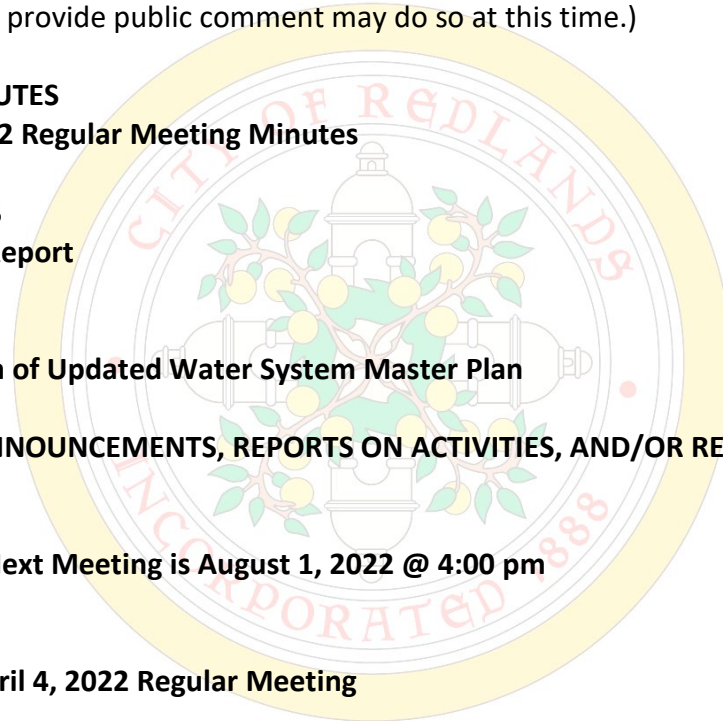
- a. **Distribution of Updated Water System Master Plan**

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

G. ADJOURNMENT – Next Meeting is August 1, 2022 @ 4:00 pm

ATTACHMENTS:

- 1. Draft Minutes of April 4, 2022 Regular Meeting**
- 2. Director's Report**



DRAFT
(for MUPWC review on 6/6)
MINUTES

Regular meeting of the City of Redlands Municipal Utilities/Public Works Commission on April 4, 2022 at 4:00 PM in the Council Chambers at the Civic Center, 35 Cajon Street. The meeting was an in-person meeting with teleconferencing available via Zoom. Votes were conducted in person and by roll call.

A. ATTENDANCE & CALL TO ORDER

Present: Adekunle Ojo, Chairperson
Steve Stockton, Vice Chairperson
Chandrasekar 'CV' Venkatraman, Commissioner
David Garcia, Commissioner
Thomas Breitkreuz, Commissioner
R. Brad Thoms, Commissioner
Eddie Tejada, Council Liaison/Mayor Pro Tempore

Absent: Chandrasekar 'CV' Venkatraman, Commissioner

Staff: John Harris, Municipal Utilities & Engineering Director; Goutam Dobey, Engineering Manager; Kevin Watson, Utilities Operations Manager; Veronica Medina, Assistant Engineer; Kyle Wagner, Construction Manager; Johana Silva, Commission Liaison/Assistant Engineer; Fernando Mata, Wastewater Operations Superintendent (joined remotely)

Guest

Consultants: Richard Brady, P.E. and Karl Kuebitz, P.E. with Richard Brady & Associates, Inc.

Chairperson Ojo called the meeting to order at 4:04 PM, thanked and welcomed everyone for attending, and offered any public present and joining virtually the opportunity to provide comment on any item on the agenda.

B. PUBLIC COMMENT

None forthcoming.

C. APPROVAL OF MINUTES

The minutes of the regular meeting of February 4, 2022, were unanimously approved.

Vote: 6 – 0 Passed

D. COMMUNICATIONS

a. Director's Report

DRAFT
(for MUPWC review on 6/6)
MINUTES

Director Harris welcomed everyone to the meeting and provided highlights to his Director's Report.

Updates were provided on the following:

Annual Report – The draft PowerPoint presentation for the annual report to City Council was provided in the agenda package. Commissioner Ojo stated he would like to move the presentation date from June 2nd to May 17th.

Organizational Structure – The three (3) full-time administration personnel has been assigned to one (1) of the three (3) MUED funds: General, Water and Wastewater. Water Conservation was assigned to the Engineering division. One (1) wastewater line maintenance position was added to create two (2) full work crews. In the next year's fiscal budget, the entire One-Stop Center including the land use engineers, currently under MUED, will be moved to Development Services Department. The street maintenance division will be moved to MUED and combined with the Construction Inspection team to create the Streets & Inspections Division. An additional three wastewater line maintenance positions will be added to create three full work crews.

Wastewater Treatment Plant Project Phase 2 (WWTP P2) – The project is on-schedule and on-budget. Staff is expecting the fifty percent (50%) design submittal next week.

Sunset Reservoir Replacement Project, Land Lease Agreement – The land appraisal for the property will be discussed with City Council in Close Session on April 19, 2022.

Water Meter Replacement Project – The project is on-schedule and on-budget. The water audit, performed by MUED staff, identified large diameter water meters that were not in the billing system.

Pavement Management Program (PMP) – The current PMP project, contracted to Matich Corporation, is on schedule and on budget.

Well and Booster Pump Rehabilitation Project – The schedule of the project has been reorganized to accelerate the rehabilitation of the Muni Well due to the cost-share agreement with San Bernardino Valley Municipal Water District and supply chain delays.

Tate WTP Raw Water Influent Pipeline Engineering – City Council will consider approval of the Professional Services Agreement to Carollo Engineers on April 19, 2022.

Hinckley WTP Raw Sludge Press Engineering – City Council will consider approval of the Professional Services Agreement to Dudek on April 19, 2022.

Commission inquiries ensued regarding current groundwater levels. Mr. Watson stated that the groundwater levels are on a downward trend. Pumps have been lowered in some wells by 100 feet to be proactive.

- b. Commission Liaison Updates**
 - i. MUPWC's Annual Report to the City Council**

Mr. Harris stated the annual report will be presented at the May 17, 2022 City Council meeting. Any comments the commissioners have regarding the presentation can be communicated through email.

E. PRESENTATION

- a. Presentation from Richard Brady & Associates, Inc. on the Water Infrastructure Condition, Seismic and Structural Assessment**

DRAFT
(for MUPWC review on 6/6)
MINUTES

Mr. Harris introduced Richard Brady and Karl Kuebitz with Richard Brady & Associates, Inc. (Brady), the consultant hired to perform a condition, seismic and structural assessment on the City's water infrastructure.

Mr. Brady and Mr. Kuebitz presented a description of California's fault zones, noting that Redlands sits precariously in between two (2) major faults, a brief synopsis of the City's historical build out of water treatment facilities, storage, delivery, pumping stations, pressure zones, typography, and overarching issues. Mr. Brady gave an overview of each site assessed which has received a letter grade and site recommendations for rehabilitation, replacement, capacity needs, and consolidation of water storage facilities.

The Brady team explained that the operating volume was lowered at twelve (12) steel tanks to meet seismic codes which created a water loss of six (6) million gallons. Mr. Brady described the next steps of projects include finding a solution for the six (6) million gallons of storage loss, understanding the impacts to fire readiness, and locating the Reservoir Canyon Fault at the Fifth Avenue Reservoir site. Mr. Brady presented an overview of the future hydraulic profile.

A discussion ensued regarding the cost of the recommended projects, distributing the stored water throughout the system, storage deficiencies, and concerns with the location of the Tate influent line.

F. NEW BUSINESS

a. Discussion of the Proposed Updated Wastewater System Master Plan and Possible Recommendation to City Council for Adoption

Mr. Harris informed the commission of the project recommendations in the proposed Citywide Master Plan for the Wastewater System. In a seventy (70) year span, the plan recommends upsizing a few miles of pipe. Dudek is estimating the City should spend approximately six (6) million dollars on near-term gravity sewer projects in the span of 10 years. One of the projects is a five (5) million dollar project for the Alabama Street pipeline upsizing which is currently being negotiated for a cost-share agreement with a developer. City Council will consider a reimbursement agreement with the developer at the April 19th council meeting.

Discussion ensued regarding the peak wet weather, peak dry weather flow, how to reduce the peak flows, the use of aeration basins for membrane bioreactor, the capacity of the City of San Bernardino to handle the overflow from the lift station at Mountain View, and future solid waste handling capacity.

A motion was made by Commissioner Garcia and seconded by Commissioner Breitkreuz to recommend to City Council the adoption of the Citywide Wastewater System Master Plan. By roll call vote of 6-0, the motion carried unanimously.

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

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

DRAFT
(for MUPWC review on 6/6)

MINUTES

Water Master Plan, Potable and Non-Potable – Discussion of the proposed first draft of the citywide Water Systems Master Plan, potable and non-potable, for the commission’s review during the June commission meeting.

Overview of City’s Water Resources – Comprehensive discussion on the City’s water resources, water entitlements, and water exchange agreements.

Economics of the Water Conservation Program – Discussion of the rebate types, water saving estimate, cost of the program, and a general holistic overview of the program. The City is currently evaluating the estimated savings versus the actual savings over time of the rebates in the program. This item will be brought to a future commission meeting when the evaluation is complete.

Commissioner Steve Stockton commented that the Pavement Management Plan should address drainage issues. Chairperson Ojo commended the City on joining the San Bernardino Basin Groundwater Council and informed the commission that the council has stored 60,000 acre-feet of water in the San Bernardino basin during wet years.

H. ADJOURNMENT – Next regular meeting is June 6, 2022 at 4:00 PM

There being no further business the meeting adjourned at 5:30 PM. The next regular meeting of the City of Redlands Municipal Utilities/Public Works Commission is scheduled for June 6, 2022.



City of
REDLANDS
Incorporated 1888
Municipal Utilities & Engineering Department

JOHN R. HARRIS
Director

MEMORANDUM

TO: Adekunle Ojo, Municipal Utilities/Public Works Commission Chair

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

DATE: June 6, 2022

SUBJECT: June 2022 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."

Local Water Supply Picture

The Metropolitan Water District (MWD) recently implemented significant restrictions on outdoor landscape irrigation, which created confusion for some City of Redlands water customers. The MWD decision was based on the continued lack of water supplies through the State Water Project (SWP) system, and the lack of large water storage facilities. MWD is heavily dependent on the SWP system, and is not able to store water above ground in large surface reservoirs, or below ground in groundwater basins. Redlands is not directly impacted by the MWD restrictions. We are also not directly impacted by a curtailment on the Colorado River.

The water supply picture within our jurisdiction is quite good. The Bunker Hill Basin is currently eighty-four percent (84%) full after more than three (3) decades of extractions and replenishment activities. In fact, representatives from all agencies that pump from the basin are meeting to determine the target basin fill level, and have generally determined that a range of 90% - 95% is appropriate. For reference, a completely full basin (100%) maintains a groundwater elevation approximately fifty feet (50') below the ground surface. This keeps the basin almost completely full, and maintains storage capacity for at least one (1) "wet" year to prevent excessive surface

flooding and the effects of liquefaction. Filling the basin to 95% storage requires the addition of approximately 650,000 AF of water to the current storage of 4,751,118 AF. Some groundwater wells would need to be deepened if basin storage decreased to 3,236,000 AF (approximately 57%). Historically, the basin has been able to recover approximately 1,000,000 AF during a twenty (20) year period. This group of agency representatives is also discussing ways to determine a “target” bottom basin storage level, which is much more difficult to determine. It is likely that several basin storage trigger elevations and associated management actions will be identified.

Management of the Bunker Hill Basin is working just as it should. Replenishment is a priority in wet years so water is available for extraction during drought periods. However, the basin’s health is largely dependent on responsible water conservation practices. The first quarter of 2022 was the driest on record within the state, and it is predicted that precipitation will continue to be low for quite some time. Redlands will remain in Stage 2 water conservation restrictions as it has since 2015, and is not currently considering additional water use restrictions. However, that may change if Bear Valley Mutual Water Company and/or Crafton Water Company reduce delivery rates, or if the Governor mandates additional restrictions through the State Water Resources Control Board.

Water System Master Plans

In September 2020, Michael Baker International, Inc. (MBI) was hired to develop Water System Master Plans (MP) for the potable, non-potable, and recycled water systems. The project scope of work required separate potable water system and non-potable/recycled water system MP documents. Although the project began well, the MBI Project Manager (PM) became non-responsive in early 2021. After repeated attempts to resolve this issue, MBI eventually disclosed that their PM was no longer with the company, and that MBI was assembling a new team to continue the project. Soon after, a new MBI PM was identified, and the project progress resumed.

In fall 2021, I became concerned with what I perceived to be the slow project pace, and overall value of the MBI PM appeared to bring to the project. I discussed my concern privately with two (2) MBI Vice Presidents, who assured me the role of their PM would become clear when development and assembly of the MP documents began. In January 2022, MUED received a first draft of the Potable Water System MP. It was very poorly written and included many grammar, punctuation, and technical errors. After spending several hours reviewing the fifteen (15) page Executive Summary, I redirected the MUED staff to focus on other projects, sent my review comments directly to the two (2) MBI Vice Presidents I spoke with earlier, and suggested that the MBI team should assign another employee to independently review the document. On February 8, 2022, MUED staff received a revised document that was written better, but still included many errors. On February 14, 2022, MUED staff received a first draft of the Non-Potable/Recycled Water System MP, which was as poorly written as the Potable Water System MP first draft. I did not bother asking MBI to revise and improve this document.

During the next couple weeks, the MUED staff essentially re-wrote both MP documents and merged the separate MP documents into a single Water System Master Plan (WSMP). This consolidated WSMP was refined during several internal review meetings to produce a well written, technically accurate document that meets reasonable quality standards. The WSMP is based on hydraulic modeling performed by MBI, which is excellent, and accurately represents existing system configurations and deficiencies, future system demands, and construction cost estimates. The MUED staff has received the hydraulic model electronic file, and will soon purchase Innovyze hydraulic modeling software. MUED employees will receive Innovyze training to support future system scenario modeling efforts.

A printed review copy of the WSMP is being provided to each Commissioner tonight, with the goal of developing a City Council recommendation during the next MUPWC meeting. This WSMP was still being finalized when the June 2022 MUPWC meeting packet was distributed, and is not attached to this report.

Update WWTP P2 Project Update

Parsons Engineering continues to develop and refine the WWTP Improvement Project Phase 2 design, and has made significant progress toward completion of the following design elements:

Task 1 – Conduct Facility Condition Assessment	P1 = 100%/P2 = 95%
Task 2 – Develop Multipurpose Project Report/Implementation Plan	100% Complete
Task 3 – Provide Engineering Design Services	P1 = 100%/P2 = 60%
Task 4 – PM, Communication, QC	P1 = 100%/P2 = 65%

This project is on-schedule and on-budget. MUED submitted a \$45M State Revolving Fund loan application for construction of these improvements prior to the December 31 submittal deadline, and received notification that the application rating exceeds the minimum scoring threshold for loan approval. Parsons recently provided a Preliminary Construction Cost Estimate for all project elements totaling approximately \$90M, which includes approximately \$56M in direct project costs. MUED staff asked Parsons to clarify many of these costs, and to provide relative examples from recently constructed projects in California. A refined Construction Cost Estimate will be provided for review and discussion during the September 2022 MUPWC meeting. MUED staff and Parsons are developing construction phase bidding strategies to control costs.

Sunset Reservoir Replacement – Land Lease Agreement

MUED recently negotiated a Lease Agreement with the land owners adjacent to the Sunset Reservoir site that will allow a temporary reservoir to be constructed on their property prior to demolishing and reconstructing a new permanent reservoir. MUED recently received the results of an independent land appraisal for this property, and discussed the results with City Council in

Closed Session on April 5, 2022. A follow-up discussion with the property owners is scheduled for June 2, 2022.

Water Meter Replacement Project

We have begun a five (5) 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) hardware for use in the future. Ferguson has begun replacing meters, and is eighty-two percent (82%) complete, with 1,883 meters replaced and/or retrofit and 421 remaining.

Phase I (FY 21/22) of the project, detailed below, includes replacing older meters, and retrofitting recently replaced meters with AMI hardware:

SIZE	REPLACEMENTS	RETROFITS
5/8"	24	7
3/4"	537	463
1.0"	500	215
1.5"	112	85
2.0"	174	95
3.0"	55	15
4.0"	31	12
6.0"	16	10
8.0"	10	3

Prior to ordering water meters, MUED staff physically audited each location to confirm the type and size of each water meter. The audit identified several large diameter water meters that are not listed in the billing system, are bypassed in some manner, or have not been read correctly in the past. Each of these issues will be resolved with this project, and the non-revenue water rate will significantly decrease in the future. This project is on-schedule (June 30, 2022 completion date) and on-budget. An updated Project Location Map is included as Attachment "A". A Notice To Proceed for the second year of this project will be issued in June 2022 with an approved construction start date of July 1, 2022.

PMP Update

We combined the FY 20/21 and FY 21/22 PMPs into a single project, added necessary sanitary sewer collection system improvement elements, and issued a new RFB in early-July. The total budget, which is a combination of the FY 20/21 PMP, FY 21/22 PMP, and Wastewater Collection System Improvement budgets, is \$9,362,966 (\$4,901,966, \$4,000,000, and \$461,000 respectively). On July 21, we received bids from three (3) paving contractors. Match Corporation submitted the lowest bid of \$9,235,780, which is approximately two percent (2%) below the approved project budget. City Council awarded a Construction Contract to Match on September 7, 2021. MUED hosted a project kick-off meeting on September 20, 2021, and the project will be completed in June 2022 (approximately 95% complete currently).



Painting of the bicycle lane along Brookside Avenue took longer than anticipated due to supply chain delays. A private company developing the parcel adjacent to the east side of Mountain View Avenue and adjacent to the north side of I-10 is obligated to reconstruct the east side of Mountain View Avenue to the centerline, so this work has been removed from the City's project. Matich will reconstruct the Alabama Street segment in the next couple weeks, and the project will be completed on-schedule and under-budget. An updated project location map is provided as Attachment "B".

2021 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 "C".

As you know, the FY 21/22 CIP delivery schedule is aggressive, and success requires thoughtful project coordination and planning. To meet this obligation, MUED issued several RFBs and developed Sole Source Waiver recommendations for City Council consideration on June 15, which was the first meeting after approval of the FY 21/22 Operating Budget. That strategy is working well, particularly considering the unanticipated supply chain related delays all projects are experiencing, and our CIP delivery is progressing well. Highlights of current project are provided below:

1. Multi-Year Well Rehabilitation & Booster Pump Replacements – Five (5) potable water wells, two (2) non-potable water wells, and two (2) booster pumps are being rehabilitated in FY 21/22 through a single task order. Additional task orders will be issued in each of the next two (2) fiscal years through contract extensions to rehabilitate thirteen (13) more wells, although MUED may recommend accelerating this schedule. Following is a detailed summary of tasks with their progress:
 - a. Task 1.1 (Airport Well) – Brushing and bailing are complete and pedestal improvements are underway. The well was inspected via CCTV in early May, and parts to rebuild the pump have been ordered. Estimated project completion is the week of 6/20/22;
 - b. Task 1.2 (Church Street Well) – This task has been moved to a future Project phase to accelerate rehabilitation of the Muni Well under the terms of a cost-share agreement with San Bernardino Valley Municipal Water District. The Muni Well pump and other components have been removed, and are being inspected. Estimated time for completion is 6-8 weeks (week of 6/20/22);
 - c. Task 1.3 (East Lugonia 3 Well) – Complete;
 - d. Task 1.4 (East Lugonia 6 Well) – Complete;
 - e. Task 1.5 (N Orange 1 Well) – Complete;
 - f. Task 1.6 (31A Well) – Complete;

- g. Task 1.7 (32 Well) – This task was recently authorized after completion of Task 1.6. Estimated completion date is August 8, 2022;
- h. Task 1.8 (2310 Booster) – Complete;
- i. Task 1.9 (2311Booster) – In progress. Pump and equipment are being installed. Estimated completion in mid-June 2022;

City Council will consider approval of the FY 22/23 Well and Booster Pump Rehabilitation Project on June 21, 2022.

- 2. Water Infrastructure Condition, Seismic, & Structural Assessment – This project is nearly complete, and Brady & Associates provided several water infrastructure improvement recommendations.
- 3. Recycled Water Reservoir Engineering – This project is underway, and Carollo Engineers has modeled the recycled water distribution system using information provided by MUED staff. Carollo recommends constructing a single 1.5 MG reservoir in the near-future, while reserving space to construct a second reservoir at a later date.
- 4. Citywide Sidewalk and ADA Ramp Replacements Phase 1 has been completed. Phase 2 of this project was recently awarded and construction began on May 23, 2022.
- 5. Tate WTP Raw Water Influent Pipeline Engineering – City Council approved a Professional Services Agreement with Carollo Engineers in April 2022, and the project is underway.
- 6. Hinckley WTP Sludge Press Engineering – City Council approved a Professional Services Agreement with Dudek in April 2022, and the project is underway.
- 7. Well Perchlorate Treatment Evaluation – MUED received no responses to this RFP.
- 8. University Street/Brockton Avenue Traffic Signal – City Council recently awarded this Construction Contract, and work will begin soon.

Additionally, the City Council will consider a contract with Ferguson Waterworks to implement an Automated Metering Infrastructure system on June 21, 2022. This project will automate meter reading throughout the Redlands water service area, and is the last significant obstacle to transition to a monthly City services billing system.

Wastewater Treatment Plant Project Update

As you know, Phase 1A of the WWTP Rehabilitation Project was successfully completed and accepted in November 2020. GSE Construction Company, Inc. was awarded a contract to construct Phase 1B of the Project in November 2020. The project includes supplying and/or installing the following equipment, which has been plagued by significant COVID-19 related delays:

- 1. Fine Screens and Associated Equipment: Removes objects to prevent damage to the newly installed MBR filters.
 - a. Status: Installation completed with the exception of a chain operated valve actuators on the large valves; Commissioning is on hold pending completion of the IPW system.



2. Ejector Priming System Upgrades: Removes air from the permeate vessel to prevent air locking of pumps.
 - a. Status: Installed and commissioned.
3. Scour Blowers and Associated Equipment: Creates air scouring, which provides premium efficiency and cost savings to the City. The blowers operate on a 24-hour basis, producing scour air that backwashes the filter media.
 - a. Status: Installed and commissioned. This portion of the project resulted in a total energy savings of more than 1.5 million kilowatt hours per year (\$155K energy savings/year), and earned the City a Southern California Edison incentive payment of \$290K.
4. Digester Boilers and Heat Exchangers: Maintains proper temperature for bacteria to decompose sewage sludge and produce digester gas.
 - a. Status: Startup of Boiler #3 was May 20, 2022 and Digester #3 is now maintaining a temperature of ninety-eight degrees (98°). Gas conditioning system is installed and initial startup is complete, however staff is working with the gas conditioning system manufacturer, Unison, to resolve some issues that causes it to shut down. Staff is submitting the source test protocol for Boiler #3 with expedited review fees to AQMD. The source test protocol involves testing the boiler using natural gas and then with conditioned digester gas. Once we have proven that the gas conditioning system is working properly, a spool between Digest #3 and the flare can be removed and replaced with piping that will enable conditioned gas to fuel the boiler. Demolition of the boilers for Digesters #1 and #2 is on hold pending completion of the source test protocol for Boiler #3, anticipated for late-June. We anticipate taking Digesters #1 and #2 offline in mid-August, followed by demolition in late-August, and startup in mid-November. Submittal of the source test protocol for Boilers #1 and #2 is anticipated in mid-December, followed by AQMD notification of source testing in mid-January 2023, and testing in late-January 2023. Assuming this schedule holds, we will submit source test results in late-March 2023, and a Final Compliance Report in late-April 2023.
5. Gas Conditioning System: Cleans and conditions the gas to burn cleaner in the boilers to meet air quality regulations.
 - a. Status: System has been constructed, although gas pressure reducing valves must be installed for proper operation. These are long lead time items (8-12 weeks), which will delay commissioning until late-June. Staff has been working with the manufacturer, Unison, and Parsons to find an alternative solution. A globe valve and piping modifications have been installed on the digester gas line prior to the flare to reduce pressure until delivery of the pressure reducing valves are delivered. This may allow the gas conditioning system to operate without shutting down due to faults caused by low inlet pressure. Demonstration compliance with Rule 431.1 for the gas conditioning system compliance verification is anticipated in late-June.
6. Impure Water Pump (IPW) System: Pumps, controls and associated piping to provide consistent and reliable water pressure to the fine screens.
 - a. Status: Piping has been installed; GSE is waiting for delivery of pumps.

Engineering of the WWTP P2 Project is progressing well. Approximately \$2.3M remains in the original Parsons Engineering contract. This project is on-budget and on-schedule.

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

John R. Harris

jharris@cityofredlands.org

(909) 725-1963

Attachments:

A – Updated Water Meter Replacement Project Location Maps

- Non-Potable Water Meters
- Potable Water Meters
- Large Diameter Potable Water Meters

B – Updated PMP Location Map

C – Updated CIP List

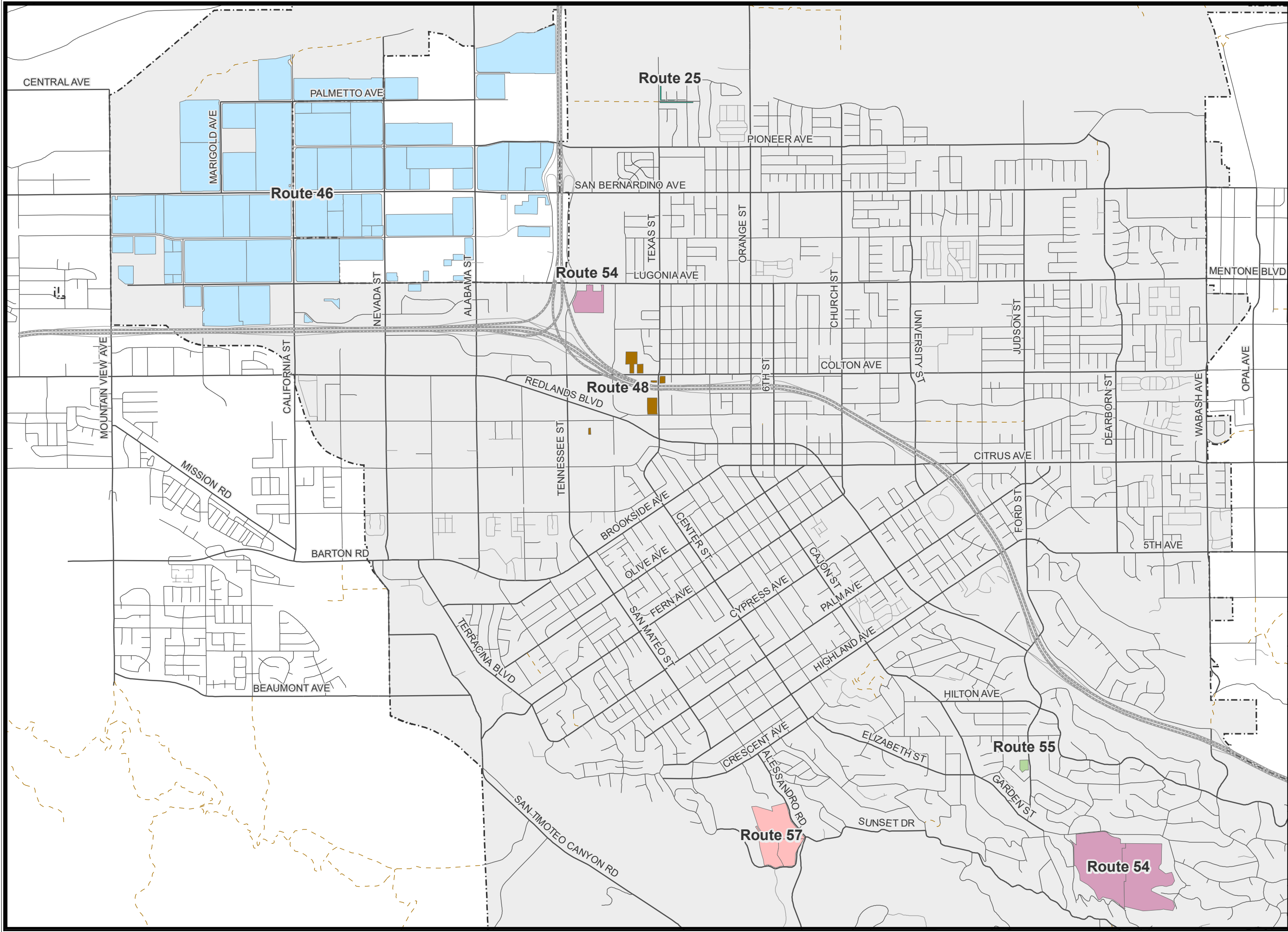
FY21/22 Meter Routes

Non-Potable Water Meter
Change-Out CIP

Meters Remaining

- Route 25 - 1 Meter
- Route 46 - 3 Meters
- Route 48 - 4 Meters
- Route 54 - 1 Meter
- Route 55 - 1 Meter
- Route 57 - 1 Meter
- City of Redlands

Total = 11



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May 25, 2022

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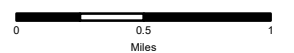
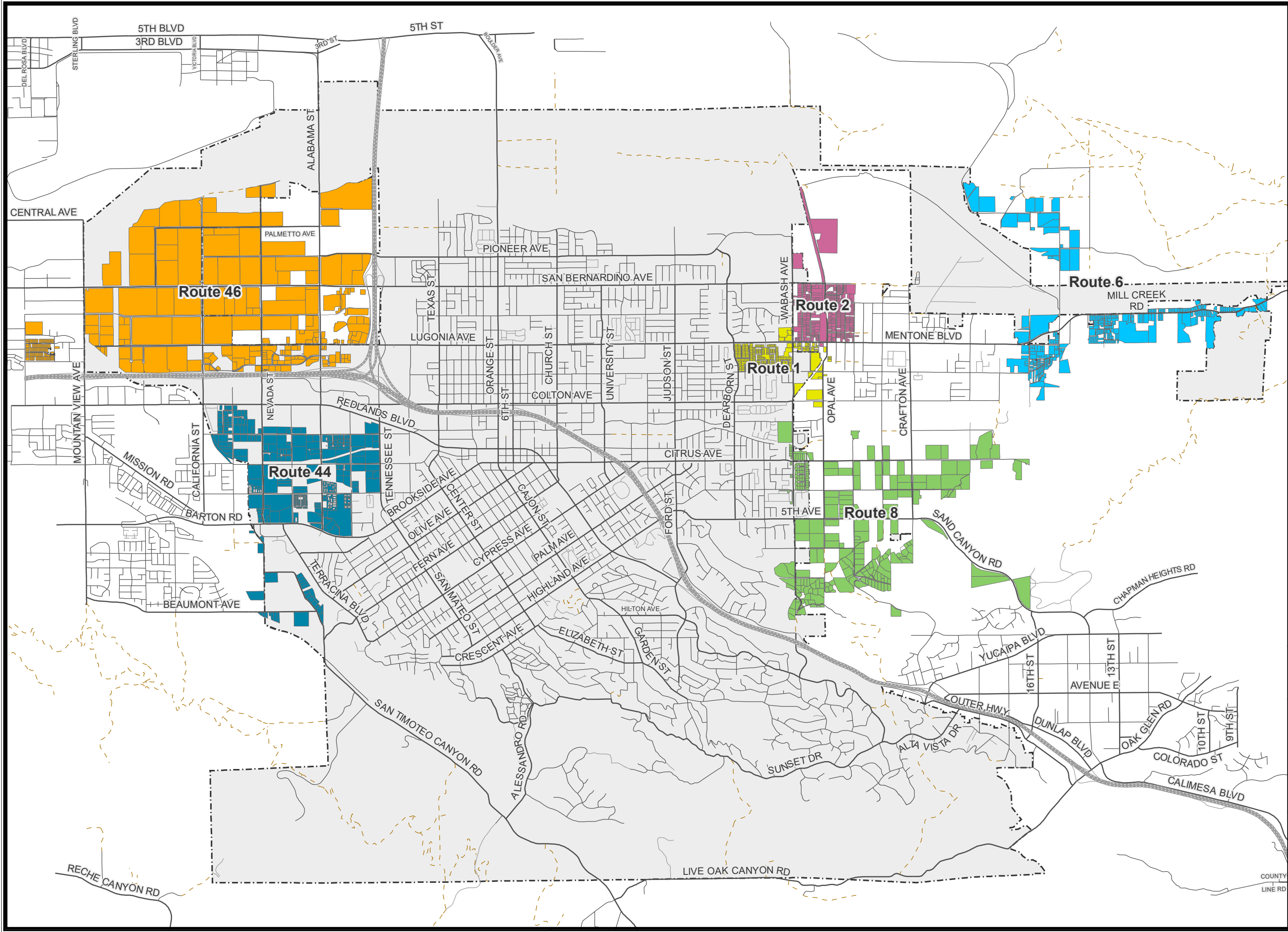
FY21/22 Meter Routes

Potable Water Meter
Change-Out CIP

Meters Remaining

- Route 1 - 1 Meter
- Route 2 - 20 Meters
- Route 6 - 25 Meters
- Route 8 - 97 Meters
- Route 44 - 185 Meters
- Route 46 - 21 Meters
- City of Redlands

Total = 349



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May 25, 2022


FY21_22Potable.mxd

FY21/22 Large Meters

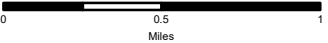
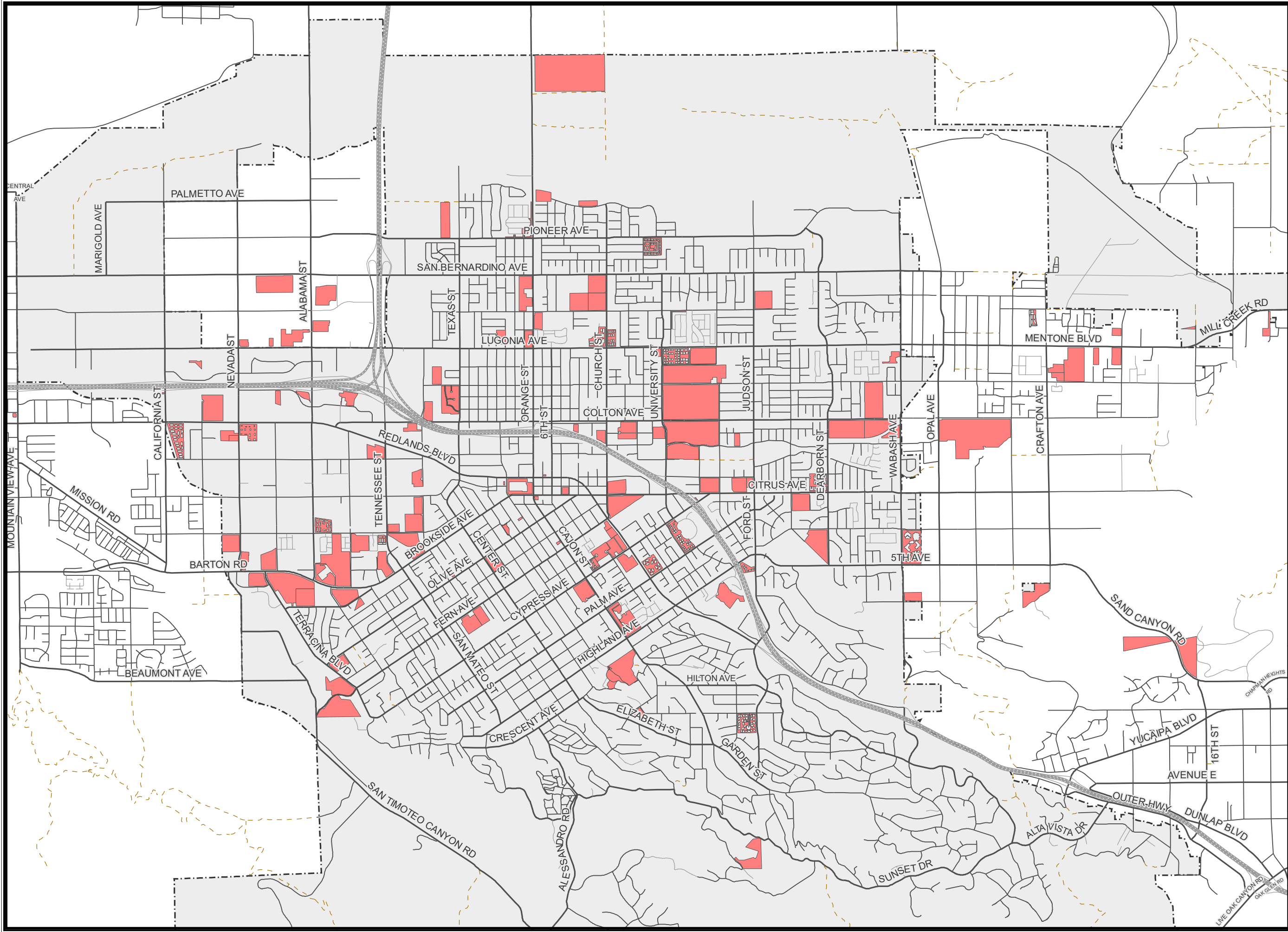
Potable Water Meter
Change-Out CIP

Meters Remaining

 Large - 61 Meters

 City of Redlands

Total = 61



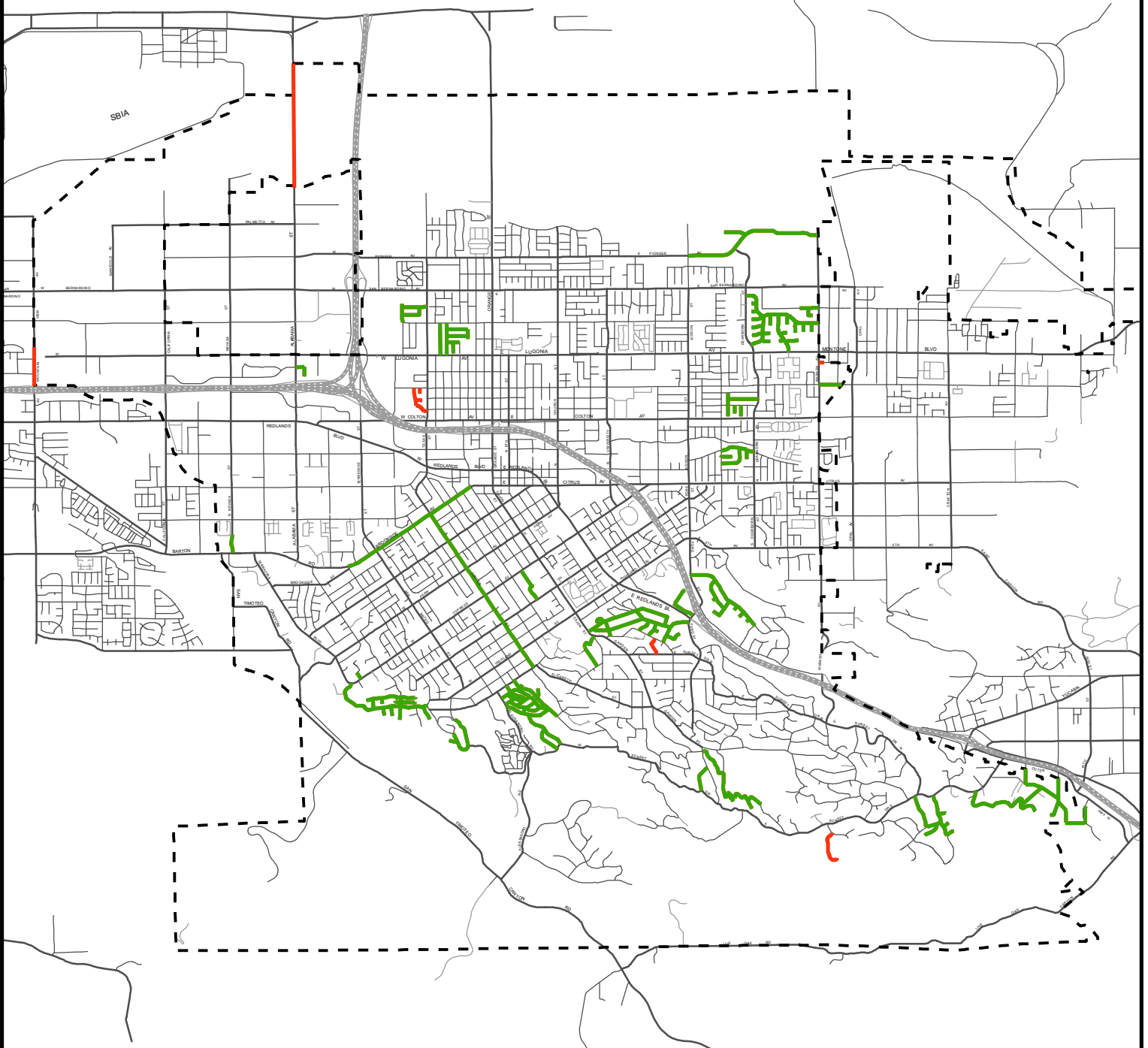
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May 25, 2022

FY21_22Potable_LargeMeters.mxd

PMP 2021 Street Resurfacing Project

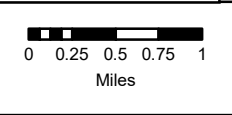
Location Map



	PMP 2021 Completed
	PMP 2021 Streets
	City of Redlands



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**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
P1	WATER	501910		1750 Blend Manifold Replacement	PLANNING	1%			\$120,000.00	
P2	WATER	501910		Agate #2 Well Liner	PLANNING	1%			\$175,000.00	
P3	WATER	501910		Booster Pump Station Rehabilitation	PLANNING	1%			\$300,000.00	\$300,000.00
P4	ARTERIAL	252400		California Street Widening at Lugonia Ave	PLANNING	1%				\$800,000.00
P5	WASTEWATER	521910		CIP Sewer Pipeline Replacement	PLANNING	1%			\$3,000,000.00	\$3,000,000.00
P6	WATER	501910		CIP Water Pipeline Replacement	PLANNING	1%			\$4,500,000.00	\$4,400,000.00
P7	GENERAL	101400		Citywide Sidewalk & ADA Ramp Replacement	PLANNING	1%			\$500,000.00	\$500,000.00
P8	WATER	501910		Fixed Generators	PLANNING	1%			\$100,000.00	\$300,000.00
P9	WATER	501910		HAWC Booster Pump Rehabilitation	PLANNING	1%				\$500,000.00
P10	WATER	501910		Hinckley Sludge Press	PLANNING	1%			\$700,000.00	
P11	WATER	501910		Hinckley WTP Paving	PLANNING	1%			\$350,000.00	
P12	PMP	211910		PMP 2022 Street Resurfacing Project	PLANNING	1%			\$4,000,000.00	\$4,000,000.00
P13	GENERAL/PMP	101/211		Public Parking Lot & Alley Improvements	PLANNING	1%			\$1,300,000.00	\$1,300,000.00
P14	WATER	501910		Seismic Assessment Improvements - Texas Grove Reservoir	PLANNING	1%				\$2,900,000.00
P15	WATER	501910		Sunset Reservoir	PLANNING	1%				\$6,000,000.00
P16	WATER	501910		Tank Mixers	PLANNING	1%			\$150,000.00	\$150.00
P17	WATER	501910		Tate Clarifier Coating & Covers	PLANNING	1%				\$2,560,000.00
P18	WATER	501910		Tate Transmission Line Replacement	PLANNING	1%				\$1,900,000.00
P19	WATER	501910		Temporary Sunset Reservoir	PLANNING	1%			\$2,500,000.00	
P20	TRAFFIC SIGNAL	243400		Traffic Signal Design at Cypress and Cajon	PLANNING	1%			\$600,000.00	
P21	TRAFFIC SIGNAL	243400		Traffic Signal Design at San Bernardino & Church	PLANNING	1%				\$650,000.00
P22	WATER	501910		Well Perchlorate Treatment	PLANNING	1%			\$325,000.00	\$575,000.00
P23	WATER	501910		Well Rehabilitation	PLANNING	1%			\$514,000.00	\$506,000.00
P24	WATER	501910		WTP Mechanical & Electrical Equipment Replacement	PLANNING	1%				\$180,000.00
Planning Projects - Cost Summary									\$19,134,000.00	\$30,371,150.00
DESIGN		Org Key	GL	Project Name	Project Phase	Progress	Consultant/Contractor	PM/Engineer	Current Budget	
D1	WATER	501910	501910	Hinckley WTP Sludge Press	DESIGN	1%	Dudek	Paul/John	\$354,820.00	
D2	WATER	501910	501009	Tate WTP Influent Line Engineering	DESIGN	1%	Carollo Engineers, Inc.	Paul/John	\$835,549.00	
D3	WATER	501910	501004	Hinckley WTP Backup Generator Replacement	DESIGN	25%		Paul	\$140,000.00	
D4	ATP Cycle 2	240400	C400005	ATP Highland/Redlands Regional Connector - Orange St	DESIGN	65%	KOA Consultants	Veronica	\$1,532,843.00	
D5	ARTERIAL	252400	252001	Citrus Avenue Widening Project	DESIGN	65%		Elva	\$900,000.00	
D6	HSIP C9	240400	F400003	HSIP Cycle 9 – Pedestrian In-Roadway Lights	DESIGN	65%		Veronica	\$250,000.00	
D7	ATP Cycle 3	240400	C400007	ATP East Valley Corridor Bike Rte Interconnect - Alabama	DESIGN	75%	KOA Consultants	Veronica	\$2,112,000.00	
D8	PMP	211910	211004	SBCounty/Mentone/Redlands Paving Project	DESIGN	90%	SB County	Goutam	\$78,750.00	
Design Projects - Cost Summary									\$6,203,962.00	\$0.00
BID & AWARD		Org Key	GL	Project Name	Project Phase	Progress	Consultant/Contractor	PM/Engineer	Current Budget	
B1	PMP/GF	101/211	211005	Alley Paving Improvements	BID & AWARD	60%	Tryco General Engineering	Elva	\$1,238,000.00	
B2	WATER CONSV	501910	501002	Brookside Median Landscape Improvements	BID & AWARD	50%	Urban Habitat	Veronica	\$193,855.50	
B3	HSIP C8	240400	F400003	HSIP Cycle 8 - Pedestrian Heads Project	BID & AWARD	50%	Econolite Systems, Inc.	Veronica	\$541,682.53	
B4	HSIP C8	240400	F400001	HSIP Cycle 8 - Signal Preemption Project	BID & AWARD	50%	AGA Engineers, Inc./Baker Electric	Veronica	\$937,418.00	
B5	TDA	240400	S241001	Orange Blossom Trail - Phase 3	BID & AWARD	75%	Deark E&C, Inc.	Gerard	\$782,396.00	
Bid & Award Project - Cost Summary									\$3,693,352.03	\$0.00
CONSTRUCTION		Org Key	GL	Project Name	Project Phase	Progress	Contractor	PM/Inspector	Contract Amount	
C1	TRAFFIC SIGNAL	253400	253007	Traffic Signal Improvements (Brockton/University)	CONST	1%	Eleanor Belco Electric, Inc.	Elva	\$507,745.00	

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

C2	GENERAL FUND	101400	400015	Citywide Sidewalk and ADA Ramp Replacement Phase 2	CONST	1%	Universal Construction & Engineering	Elva/Daniel	\$981,152.05	
C3	WATER	501910	501006	Water System SCADA Design & Integration - Phase 2	CONST	5%	TESCO Controls, Inc.	Paul/Daniel	\$3,679,720.00	
C4	SBCTA	254400	254002	I-10/Alabama Street Improvement (\$15,150,600)	CONST	25%	Ortiz Enterprises, Inc.	Kyle/Darren	\$2,506,921.00	
C5	WATER	501910	501037	Citywide Potable Water Meter Replacements	CONST	40%	Ferguson Enterprises, LLC	Paul	\$1,815,000.00	
C6	NON-POTABLE	531910	531006	Citywide Non-Potable Water Meter Replacement	CONST	40%	Ferguson Enterprises, LLC	Paul	\$93,000.00	
C7	WATER	501910	501039	2021 CIP Water Pipeline Replacement	CONST	45%	Borden Excavation, Inc.	Gerard	\$3,555,000.00	
C8	WATER	501910	501005	Wells and Booster Pump Maintenance	CONST	45%	General Pump Company, Inc.	Paul	\$1,034,181.10	
C9	SBCTA	254400	254001	I-10/University Interchange Project (\$5,812,935)	CONST	80%	SBCTA/ADVANTEC/SEMA	Kyle/Darren	\$1,234,260.00	
C10	WASTEWATER	521910	521006	MBR & Digester Improvements Project- Phase 1B	CONST	85%	GSE Construction Co. Inc.	Goutam/Darren	\$7,311,740.00	
C11	PMP	211910	211003	PMP 2021 Street Resurfacing Project	CONST	95%	Matich Corp	Gerard/Frannie	\$9,235,780.00	
C12	WATER	501910	71060	2020 Citywide Pavement Repair for Water Projects	CONST	95%	Tryco General Engineering	Goutam/Daniel	\$429,020.00	
C13	SBCTA	-	400010	Redlands Passenger Rail Project - SBCTA	CONST	99%	Flat Iron	Kyle/Ross/Darren	\$0.00	
C14	WASTEWATER	521910	521021	2021 CIP Sewer Pipeline Replacement	CONST	100%	Southwest Pipeline & Trenchless Corp.	Johana/Daniel	\$309,852.00	
				Construction Projects - Cost Summary					\$32,693,371.15	\$0.00
				Project Total Dollars					\$61,724,685.18	\$30,371,150.00