

TO MAYOR/COUNCIL FYI
Date 6/22/20 By J. Teixeira



BUDGET & MANAGEMENT STUDIES

DATE: June 19, 2020

TO: MAYOR LEE BRAND
COUNCIL PRESIDENT MIGUEL ARIAS
CITY COUNCIL MEMBERS

THROUGH: WILMA QUAN, City Manager

FROM: HENRY FIERRO, Budget Manager

SUBJECT: RESPONSE TO COUNCIL DIRECTION No. 23 – UPDATE ON PURPLE PIPE OR RECYCLING WATER PROGRAM

During the Budget Hearing on June 11, 2020, Council President Miguel Arias requested information the purple pipe or recycling water program. The following memo submitted by the Department of Public Utilities provides the requested information.

- C: Jane Sumpter, Assistant City Manager
- Jim Schaad, Assistant City Manager
- Tim Orman, Chief of Staff
- Michael Carbajal, Director of Public Utilities
- Brock Buche, Assistant Director of Public Utilities
- Alma Torres, Senior Budget Analyst



DEPARTMENT OF PUBLIC UTILITIES

MEMORANDUM

DATE: June 19, 2020

TO: HENRY FIERRO, Budget Manager
Budget & Management Studies Division, City Manager's Office

THROUGH: MICHAEL CARBAJAL, Director 
Department of Public Utilities

FROM: BROCK D BUCHE, PE, PLS, Assistant Director - UP&E
Department of Public Utilities – Utilities Planning & Engineering

SUBJECT: RESPONSE TO COUNCIL DIRECTION NO. 23
REQUEST FOR AN UPDATE ON WHERE WE ARE WITH THE PURPLE
PIPE OR RECYCLING WATER PROGRAM

During the Budget Hearing on June 11, 2020, Council President Miguel Arias requested an update on where we are with the purple pipe or recycling water program be provided before the end of budget hearings.

Background

The Department of Public Utilities, Water Division provides water service to a vast majority of the residents and businesses within the City and encompassed county islands. The Water Division maintains a long-range water demand and supply plan which reviews projected water demands and identifies needs for water resource projects and programs. In the current Metropolitan Water Resources Management Plan (Metro Plan), adopted by City Council in 2014, it was identified that approximately 25,000 acre-feet of recycled water would be required to attain the Plan's goal of balanced groundwater use by the Year 2025. While the Metro Plan was under development, efforts were kicked-off on a parallel track to develop a recycled water master plan, which was completed in late 2010.

The Recycled Water Master Plan, developed by the Wastewater Management Division, considered two alternative approaches for developing recycled water treatment facilities and delivery pipelines. "Alternative 1" was to construct a tertiary treatment facility at the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) with pipelines being extended from the facility out into the southwest region and downtown area, and

eventually being extended into the Northwest Quadrant and Southeast Quadrant of the city. "Alternative 2" was to construct satellite treatment facilities in each quadrant of the city with separate delivery pipelines for each quadrant. Comparing capital, and operations and maintenance costs for each alternative, Alternative 1 was the most cost-effective.

Program phasing was outlined in the Recycled Water Master Plan for three time periods: Short Term (0–3 years); Intermediate Term (4–10 years); and Long Term (10–30 years). The Short Term period included design and construction of the initial tertiary treatment facility at the RWRF and an aggressive 17-miles of pipeline in the southwest quadrant, including the downtown area. For the Intermediate Term, the Plan calls for expansion of the RWRF tertiary facilities as necessary, expansion of SW quadrant as needed, construction of Northwest Quadrant distribution system, upgrading the North Fresno WRF and expanding the associated distribution system, and expanding the distribution system to the Southeast quadrant. The Long Term included construction of a SEGA Satellite Recycled Water Facility (SRWF) and distribution system, and Granite Park SRWF.

Status of Program Progress

To date, a 5 million gallon per day (MGD) tertiary treatment disinfection facility has been designed and constructed (completed 2018), and 20-miles of conveyance and delivery pipeline designed and constructed in the Southwest Quadrant. Approximate expenditures to date, financed through low interest loans, is \$105 million for the treatment facility and pipelines. Provided is an exhibit that shows the pipeline segments constructed or soon to be constructed (e.g. West Creek Village).

Recycled water is currently being delivered to Quist Farms, Fresno Memorial Gardens Cemetery, and Roeding Park.

Current efforts are focused on establishing a water pricing policy for existing and new connections, and securing new customers to fully utilize existing treatment capacity.

Future Efforts

The future of recycled water expansion will unfold with the renewal of the Metro Plan and several water quality studies underway at the RWRF. The culmination of these efforts will structure future recycled water treatment production objectives and consideration for further extending the recycled water transmission system to northwest and southeast areas of town.

c: Alma Torres, Senior Budget Analyst



CITY OF FRESNO SOUTHWEST RECYCLING SYSTEM WATER DISTRIBUTION SYSTEM

LEGEND

- SW-1 - COMPLETED IN 2007 AND IN SERVICE
- SW-2 - COMPLETED IN 2008 AND IN SERVICE
- SW-3 - COMPLETED IN 2008 AND IN SERVICE
- SW-4 - COMPLETED IN 2009
- SW-5 - UNDER CONSTRUCTION
- SW-6 - CONSTRUCTION CLOSE TO BE COMPLETED
- SW-7 - PROPOSED RECYCLED WATER PIPELINE - COMPLETED IN 2009
- SW-8 - PROPOSED RECYCLED WATER PIPELINE - COMPLETED IN 2009
- SW-9 - PROPOSED RECYCLED WATER PIPELINE - COMPLETED IN 2009
- SW-10 - PROPOSED RECYCLED WATER PIPELINE - COMPLETED IN 2009

