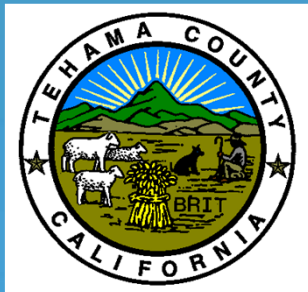


# TEHAMA COUNTY SANITATION DISTRICT NO. 1

## Mineral Wastewater Collection and Treatment Improvement Project Planning Grant Results

February 4, 2020



# Project Team

## ❖ Tehama County

- Tim McSorley – Director of Public Works
- Ted Janowitz – Mineral WWTP Chief Plant Operator

## ❖ PACE Engineering, Inc.

- Tom Warnock, P.E., Principal Engineer – Project Manager
- Laurie McCollum, P.E., Senior Engineer – Project Engineer

# Planning Grant Major Tasks Completed

- Closed-circuit television (CCTV) inspection of all wastewater collection system mains 6" and larger (~20,000')
- CCTV inspection of 89 private laterals (45% of the system)
- Replacement of wastewater treatment plant (WWTP) influent flow meter and chart recorder
- Gathered more water quality data for future planning if/when discharge occurs more frequently
- Installation of USGS staff gauge for determining flow in South Fork Battle Creek
- Completed California Regional Water Quality Control Board reports
  - Title 27 Exemption Analysis Update
  - Best Practicable Treatment and Control Update

# Planning Grant Major Tasks Completed Cont.

- Fiscal Sustainability Plan, aka Wastewater Master Plan (WWMP)
- Project Report
- Wastewater Rate Study
- Environmental Documentation and Draft Permits
- Clean Water State Revolving Fund (CWSRF) Construction Funding Application
- Purchase of District flow meter for future infiltration and inflow (I&I) monitoring
- WWTP Standard Operating Procedures
- Draft Sewer Lateral Inspection Program (SLIP)

# Major Findings of Planning Grant Work

## ❖ Collection System

- System I&I is currently the biggest issue facing Mineral
  - Peaking factor of 15
  - Future verification of historical flows required
    - Influent flow meter replacement
    - Park Service system improvements
- Most wastewater collection system mains are in good shape
  - About 1,100' of mains (5%) and 4 manholes recommended for replacement to improve I&I based on CCTV results

# Major Findings of Planning Grant Work Cont.

## ❖ Collection System Cont.

- 71% of the private laterals inspected have some sort of deficiency
  - Recommend sending out letters to property owners requiring inspection and repairs as needed
    - Example draft letter included in Board package
      - Recommend sending out when groundwater subsides

# Major Findings of Planning Grant Work Cont.

## ❖ WWTP

- Recommended improvements needed primarily to:
  - Replace aging infrastructure with useful lives of less than 20 years
  - Provide improved remote monitoring capabilities
  - Increase Operator safety

# Recommendations

## ❖ 2019 WWMP

- ~\$1.8M of collection and treatment improvements recommended over the next 20 years
- Implement recommended capacity charge

## ❖ Project Report (for construction funding)

- ~\$1M of collection and treatment improvements
  - Most of the recommended immediate (0-5 years) and near-term (5-10 years) collection and treatment improvements
  - Additional improvements identified as needed since completion of the WWMP



# Recommendations Cont.

## ❖ Wastewater Rate Study

- Focused on next five years
- Fund ~\$1M of collection and treatment improvements via United States Department of Agriculture (USDA) Rural Development low-interest loan
  - CWSRF grant construction funding eligibility is yet to be determined by CWSRF due to number of seasonal residents
  - Grant funding determination also based on median household income (MHI) and wastewater rates
- Fund \$50,000 per year for replacement long-term, part-time Grade 3 Chief Plant Operator

# Recommendations Cont.

## ❖ Wastewater Rate Study Cont.

- Maintain a minimum Operating Reserve Account of at least 20% for emergency repairs and other unforeseeable events
- Fund 50% of depreciation in a Year-End Depreciation/Extraordinary Operations and Maintenance (O&M) Reserve Account
  - Goal to eventually fund 100% to avoid future large capital improvement projects and loan funding
- Increase rates annually to adjust for inflation and construction increases

# Recommendations Cont.

## ❖ Wastewater Rate Study Cont.

- Existing rate = \$43.00/month
  - Since 2009
  - 1% of current MHI
- Proposed rate = \$82.56/month
  - 2% of current MHI
  - One 92% increase over the next five years
    - More gradual multi-year increases would result in higher rates and less reserves at the end of five years

# General Recommendations

- Continue to closely monitor WWTP flows and I&I, and adjust report findings as needed
  - Park Service project completion
  - WWTP flow meter replacement
- Diligently follow progress regarding private lateral repair work
- Finalize Draft SLIP
- Implement recommended rate increase to fund current O&M needs
- Update Rate Study every 5 years

# General Recommendations Cont.

- Complete construction project improvements recommended in Project Report
- Consider revisions to existing Ordinance No. 15 to allow for:
  - Regular inspection of private laterals
  - Fines for problems not adequately addressed in a timely manner
  - Implementation of SLIP



# Questions?

Laurie McCollum, P.E.  
Senior Engineer  
PACE Engineering, Inc.  
530-244-0202  
[lmccollum@paceengineering.us](mailto:lmccollum@paceengineering.us)