Upper Feather River Integrated Regional Water Management Plan
Proposition 50 Grant Agreement No. 4600007650

Project Performance & Monitoring Report

Project No./Name: Taylorsville Sewer Project

Project Proponent: Indian Valley Community Services District

Progress Report No.: 2

Reporting Period: 2019

Date of Post-Performance Report: 4/30/2020

Project Specific Output Signatures				
	Yes	**No**		**Comments**
Has the project been operated and maintained in accordance with all state and federal permits?	☒	☐		
Was there an improvement noted in water quality sampling of private wells and Indian Creek?	☒	☐		
	☐	☐		
Project Specific Outcome Indicators				
	Yes	**No**		**Comments**
Has an annual laboratory analysis for water quality been set up for the project?	☐	☒		
Have new water quality parameters been compared with original water quality tests from the technical report?	☐	☒		
Has the new SCADA system provided reliable data and warnings?	☒	☐		
Has implementation of the project reduced overall operating costs?	☐	☒		
Did you meet the goal of your project? If yes, please provide a brief description stating how you achieved this goal. If no, please comment as to why the goal was not achieved.	☒	☐		See narrative below
	☐	☐		
Other Standard Reporting Requirements: Please indicate other monitoring/reporting requirements you may already be required to do independent from DWR contractual obligations. For example: CDPH Title 22 Ch. 15 "Domestic Water Quality AND Monitoring Regulations," NPDES, GAMA, CASGEM, or other internal reporting requirements that may yield valuable data.				
	Yes	**No**		**Comments**
	☐	☐		
	☐	☐		
	☐	☐		

What Upper Feather River IRWM Plan Objectives did your project address to support implementation of the Plan?				
	Yes	**No**		**Comments**
Restore natural hydrologic functions	☐	☒		
Reduce potential for catastrophic wildland fires in the Region	☐	☒		
Balance the needs of forest health, habitat preservation, fuels reduction, forest fire prevention, and economic activity in the Upper Feather River Region	☐	☒		
Build communications and collaboration among water resources stakeholders in the Region	☐	☒		
Work with Department of Water Resources to develop strategies and actions for the management, operation, and control of the State Water Project facilities in the Upper Feather River Watershed in order to increase water supply, recreational and environmental benefits to the Region	☐	☒		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality	☐	☒		
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region	☐	☒		
Address economic challenges of municipal service providers to serve customers	☒	☐		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the Central Valley Regional Water Control Board Basin Plan	☒	☐		
Address water resources and wastewater needs of Disadvantaged Communities (DACs) and Native Americans	☒	☐		
Coordinate management of recharge areas and protect groundwater resources	☒	☐		
Improve coordination of land use and water resources planning	☐	☒		
Maximize agricultural, environmental and municipal water use efficiency	☒	☐		
Effectively address climate change adaptation and/or mitigation in water resource management	☐	☒		

Improve efficiency and reliability of water supply and other water-related infrastructure	☒	☐		
Enhance public awareness and understanding of water management issues and needs	☐	☒		
Address economic challenges of agricultural producers	☐	☒		
Work with counties, communities, and groups to make sure staff capacity exists for actual administration and implementation of grant funding	☐	☒		

1. Summary of the operations of the project.

The Taylorsville Sewer Pipeline Project (Project) successfully replaced 5,000 linear feet of forced main and the pneumatic pump control system in the Taylorsville Wastewater System, significantly reducing the risk of failure and protecting Indian Creek and private domestic wells from contamination with raw sewage. The goal of the project was to upgrade the outdated Taylorsville Waste Water System to significantly reduce the risk of failure and contamination of Indian Creek and private, domestic wells with raw sewage. Specifically, the Project replaced 5,000 linear feet of 6-inch forced main with 4-inch fusion-welded SDR11-HDPE, and replaced the pneumatic pump control system with an electronic system that utilizes analog 4-20mA signal with a suitable flow meter and associated SCADA system. The flow meter and associated Supervisory Control and Data Acquisition (SCADA) system installed with this project provides prompt notification of pending failures, enabling operators to divert or mitigate repercussions of any wastewater spills; and improves data collection, allowing operators to better monitor pump performance and efficiency.

Prior to this project, there were multiple mainline failures within 100 feet of Indian Creek and/or within 30 feet of private domestic wells. The harmful pollutants in raw sewage often include disease-causing organisms, metals, and nutrients that threaten the local community's water quality and health.

Under the Clean Water Act's (CWA's) National Pollutant Discharge Elimination System (NPDES) program, the Environmental Protection Agency (EPA) regulates discharges of pollutants from municipal and industrial wastewater treatment plants, sewer collection systems, and stormwater discharges from industrial facilities and municipalities. This project specifically addressed the EPA's National Enforcement Initiative to reduce raw sewage overflows and stormwater discharges.

2. Discuss project benefits to water quality, water supply, and the environment.

Since project implementation, the project has been tested by one above-average precipitation year and by this 2018-2019 wet winter season. In the 2106-2017 storm season, high floodwaters would have destroyed the pre-project pipeline system, allowing discharges of raw sewage from broken pipes to enter Indian Creek. Instead, the 2016-2017 flood flows in Indian Creek caused no damages to the project and water quality and environmental benefits in Indian Creek were protected by the project.

Again, in 2018, high and ongoing wet winter flood flows in Indian Creek have been sustained by the project without any damages, maintaining water quality and environmental benefits.

In summary, the project functions as designed and implemented to protect water quality and environmental benefits in Indian Creek, to maintain water quality in domestic wells located in the vicinity of the project, and to enhance the reliability and performance of the Taylorsville wastewater system.

3. Comparison and explanation of any differences between expected versus actual project success in meeting IRWM priorities as stated in the original IRWM Implementation Grant application.

The project is a total success as anticipated. Therefore, there are no differences between the expected success and actual project success.

4. Summary of any additional costs and/or benefits deriving from the project.

By design, the 6-inch pipe was reduced to a 4-inch pipe to maintain uniform pressure upgradient to Taylorsville's wastewater treatment and disposal system. Uniform pressure is important for preventing backflow. However, pumping hours have also increased with the reduced pipeline volume. The Indian Valley Community Services District (IVCSD) has replaced the transfer switch to ensure immediate back-up power to the system in the event of a power outage. As funding becomes available, the IVCSD anticipates replacing the aging back-up power generator so that the back-up power system is completely reliable during prolonged power outages. This is a future cost that was already identified in the IVCSD's Capital Facilities Plan before the project. Therefore, replacing the back-up generator is not an additional cost deriving from the project.

5. Additional information relevant to or generated by the continued operation of the project.

Nothing. We are very happy with the results of the project. Still functioning properly!