

Memorandum

To: Project Advisory Committee (PAC) for the Tulare-Kern Funding Area
Disadvantaged Community Involvement Program;
Denise England, County of Tulare

From: T Jeffcoach, PE; Provost & Pritchard Consulting Group

Subject: TKFA DACIP Project Development – City of Lindsay, DBP Mitigation

Date: August 31, 2020

Description of Project:

The State Water Resources Control Board, Division of Drinking Water (DDW) issued a compliance order to the City of Lindsay (City) to rectify exceedances of disinfection byproducts (DBPs). This project was to evaluate the feasibility of relocating the chlorination station for the City's Surface Water Treatment Plant (SWTP) to reduce Disinfection Byproducts (DBPs) in the drinking water system. Two options of relocation were considered based on effectiveness, cost, physical location constraints, and operation. Improved coagulation and subsequent removal of Total Organic Carbons was also evaluated using an in-line static mixer.

Project Development Grant Amount: \$70,500

Stakeholder Summary:

The City is a Severely Disadvantaged census-designated place by the state of California. This project benefits all the residents served by the drinking water distribution system in Lindsay by moving the system closer to compliance with State and Federal maximum contaminant levels for DBPs.

Project Deliverables (List Here and Attach):

The first project deliverable was a technical memorandum that includes:

- Summary of existing information gathered (utilities, record drawings, planimetric survey)
- Schematic layout of proposed chlorination station enclosure
- Engineer's opinion of probable construction cost
- Project schedule

The second project deliverable is a grant application for the Integrated Regional Water Management (IRWM) Implementation Grant program.

Challenges Encountered:

The initial preferred alternative was to chlorinate directly after the clarifier and construct a dedicated transmission main to the City's water storage tank. Unfortunately, the planimetric survey and utility company-provided information showed this option to be unrealistic. The hydraulic model also indicated the pipeline alternative would yield marked losses in pressure at various points throughout the system. This led to a recommendation of chlorine injection before the clarifier.

Round 2 IRWM guidelines and the proposal solicitation has not yet been released; therefore, the grant application can only be completed in draft form based on Round 1 guidelines. The information may be updated or transferred to new application documents when available.

Agency Review:

The State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) has been involved in discussions regarding recommended solutions for moving forward. A copy of the Feasibility Study as well as Schematic Layout Designs has been reviewed by DDW for approval and feedback.

The City has been supplying information regarding the current operations of the SWTP and providing feedback throughout the study and schematic design process.

Next Steps:

Next steps include applying for design and construction funding to complete the recommended alternative. Before design, determine what permitting is necessary to build the project. Subsequently, move forward with full design of a chemical enclosure and feed system.

Certification:

The undersigned hereby certify that the project was completed with deliverables meeting the intent of the approved project development funding.



T Jeffcoach, PE
Project Manager
Provost & Pritchard Consulting Group

August 31, 2020
Date



Michael Camarena
City Services and Planning
City of Lindsay

08-31-2020
Date