Consolidated Management of Nitrate Treatment: Implementation, Demonstration, and Affordability Assessment

Project Status Update
2nd Workshop
October 17th 2018
Introductions & Meeting Agenda

- Project Status Update
- Policy Options, Legislative Update
- Treatment Costs and Affordability
- Working Lunch
- Overview of Funding Options
- Brainstorming & Discussion
Project Status Update

• Preliminary assessment of utilities and cost analysis

• Procurement Process

• Milestones and Next Steps
Background

Chronic non-compliance + Lack of affordable solutions

Need alternative approach for small water systems and economically disadvantaged communities

Consolidated management of nitrate treatment with Assessment of Affordability
Two Parts of the Project

**Consolidated Management**
- Treatment installation
- Shared O&M

**Economic Aspect**
- What is affordable?
- What are the policy options for making water affordable?
- Workshops and Bob Raucher’s work

Analysis of cost reduction under the consolidated management model
Consolidated Management - Objectives

• Install and operate nitrate treatment systems over a three-year period

• Minimize small water system O&M costs by sharing:
  • An operator
  • Waste disposal
  • Chemical delivery

• Reduce waste disposal costs through efficiencies in:
  • Collection
  • Administration
  • Purchasing agreements with disposal providers
Affordability Assessment - Objectives

- Estimating and comparing Triple Bottom Line lifecycle treatment costs with and without consolidated management
- Developing and applying a range of informative affordability metrics
- Evaluating a range of potential funding mechanisms for economically disadvantaged communities
- Formulating specific recommendations on addressing affordability on a statewide basis
Overview of 1st Report

• Preliminary assessment of participating utilities
  • Water quality, water production, site details, costs
  • Summary report

• Treatment cost analysis
  • Vendor provided budgetary cost estimates
  • Co-contaminants
  • Site improvements
  • Equipment costs versus installed costs
  • Capital and O&M costs
Water Quality

- Rio Bravo
  - Nitrate and 1,2,3-TCP
- LSID-Tonyville
  - Nitrate, perchlorate, and arsenic
  - Time series results
    - Arsenic ~10 µg/L, speciation work in progress
- Woodville
  - Nitrate
  - 1,2,3-TCP above MCL in recent years
    - Currently low-level
    - In cost recovery process
Findings of 1st Report

- Updated budgetary cost estimates exceed proposed budget
- Options to achieve project objectives within budget
  - Competitive bid process
    - Equipment
    - Delivery
  - Cost share from utilities
    - GAC for Rio Bravo
    - LSID-Tonyville contribution to installation
  - Additional grant funding
  - Remove a participating utility from the project
    - Woodville potential new source
- Develop procurement package
Procurement Specification Update

• Follow Construction Specification Institute MasterFormat (16 Divisions)
  • Division 00 Bid Documents
  • Division 01 General Requirements
  • Division 11 Equipment
  • Division 15 Mechanical

• Drawings
  • General Process Flow Diagram (PFD)
  • PFD Ion Exchange System
  • PFD Regeneration Process
Procurement Milestones

• 60% Review Workshop
  • Held on September 20\textsuperscript{th} 2018

• 90% Review Workshop
  • Anticipated December 2018

• Complete Bid Package
  • Send to Vendors Early 2019

• Award Contract
  • 60-90 days later
Affordability Assessment Milestones

• 1\textsuperscript{st} Workshop, Project Kickoff, April 13\textsuperscript{th} 2018
  • Project background and objectives
  • Policy, research, and affordability presentations and discussion

• 2\textsuperscript{nd} Workshop, October 17\textsuperscript{th} 2018
  • Treatment costs, affordability, funding/policy options
  • Legislative update, brainstorming, and discussion

• 3\textsuperscript{rd} Workshop, Spring 2019
  • Development of detailed recommendations
  • Report on top policy recommendations and potential pathways to effective implementation