The Project Receiving the Second Most Votes from Conference Participants: Water Resources Project

Title

Desalination technologies and trace contaminants

Needs the Project Meets

- Aquifers with high salinity can also hold trace contaminants (ppb vs. ppm)
- ClO_4, As, radioactivity, Cr, others
- Constituents could change over years of use
- Rural communities have limitations
- Impacted by recent MCLs
- Limited finances mean low technical experience
- Little funding for consultant studies
- Need assistance from Reclamation and other federal or state agencies

Benefits of Project and Expected Outcomes

- Rural communities
  - Education for health protection
  - Understand treatment needs and costs
  - Develop local water supplies
- Industrial technology developers
  - Market identification
- Reclamation
  - Strategies for future priorities and fund allocation
  - Help develop future water supplies

Research Objectives

- Identify potential community locations looking toward new brackish groundwater sources
- Assemble known water quality and water availability information about those sources
- Evaluate limitations of desalination technologies relative to trace contaminants
- Advise technology choices
- Outreach to potential users

Research Approach (numbered by task)

1. Collect available information

    1.1. Aquifer locations, depths, and extents

    1.2. Water quality analyses

2. Identify data gaps

    2.1. Spatial distribution of information

    2.2. Missing constituent analyses

    2.3. Analytical interferences

3. Produce report

    3.1. Technology recommendations for water chemistry combinations

Estimated Project Budget and Schedule

$326,000 + IDC; 24 months

Proposed Partners

[none provided]

Known Prior Research on This Topic

[none provided]