RECLAMATION

Managing Water in the West

Arkansas Valley Conduit

Water Infrastructure and Alternative Financing Forum

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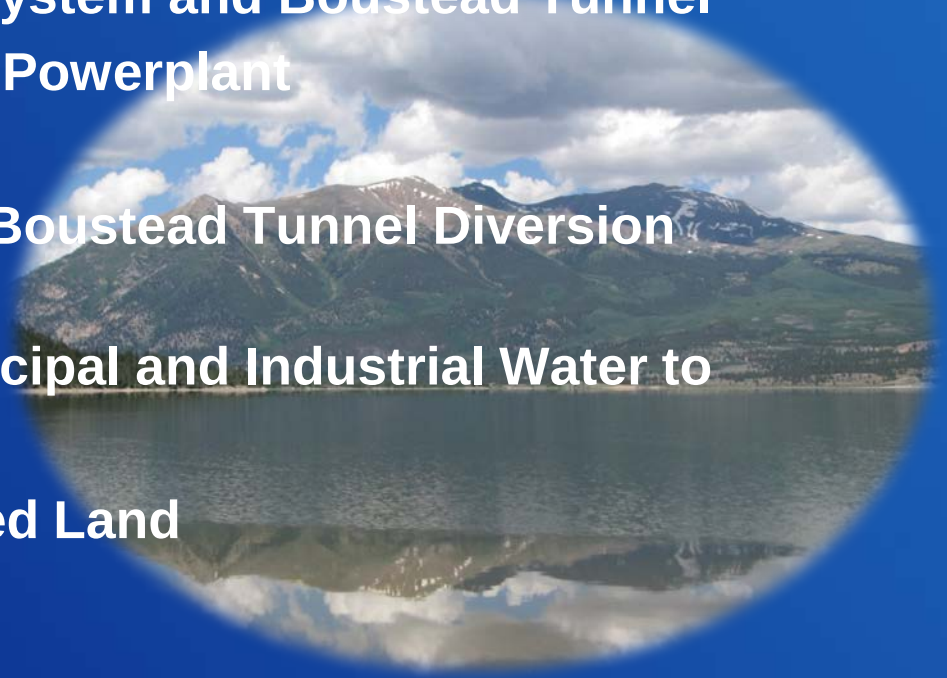
Eastern Colorado
Area Office

U.S. Department of the Interior
Bureau of Reclamation

Fryingpan-Arkansas Project

- Trans-mountain Diversion, Storage and Delivery Project
- Signed into Law 1962; Constructed 1964-1982
- Major Features
  - Five Major Dams and Reservoirs
  - Western Slope Collection System and Boustead Tunnel
  - Mt. Elbert Pumped Storage Powerplant
- Operations
  - Historical Average Annual Boustead Tunnel Diversion 54,800 Acre-Feet/Year
  - Provides Agricultural, Municipal and Industrial Water to
    - 12 Counties
    - 200,000 Acres of Irrigated Land
    - 650,000 People



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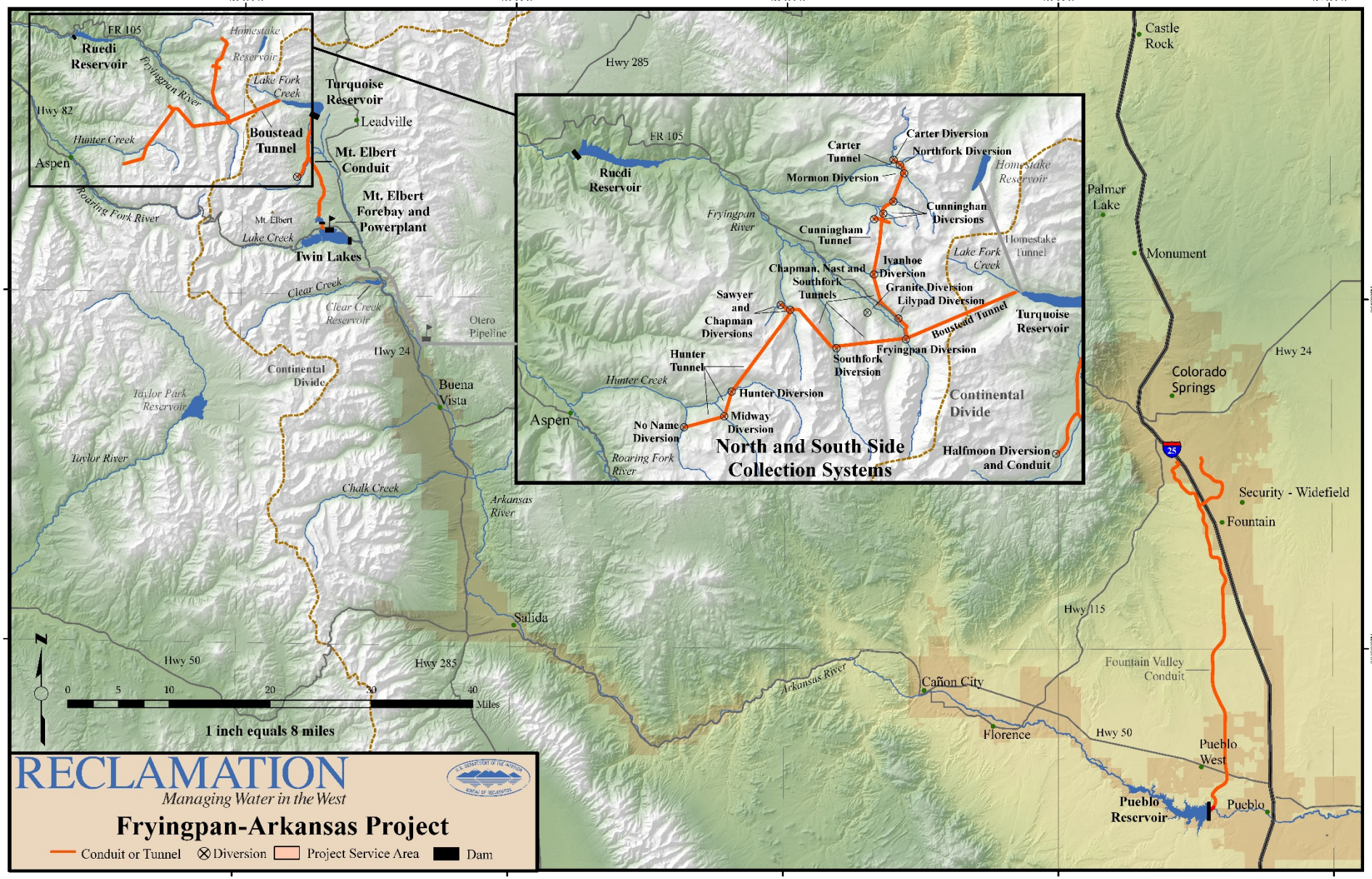

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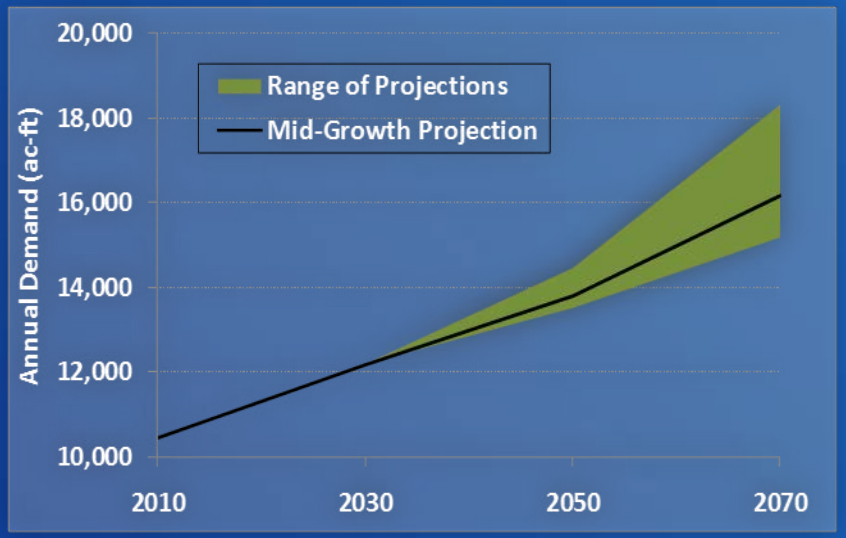
Arkansas Valley Conduit (AVC)
Purpose and Need

Purpose:

Deliver Municipal and Industrial Water to 40 Water Providers in Southeastern Colorado



Need:

Quality Water that Meets Primary and Secondary Drinking Water Regulations

Sufficient Quantity of Water to Meet Existing and Future Water Demands

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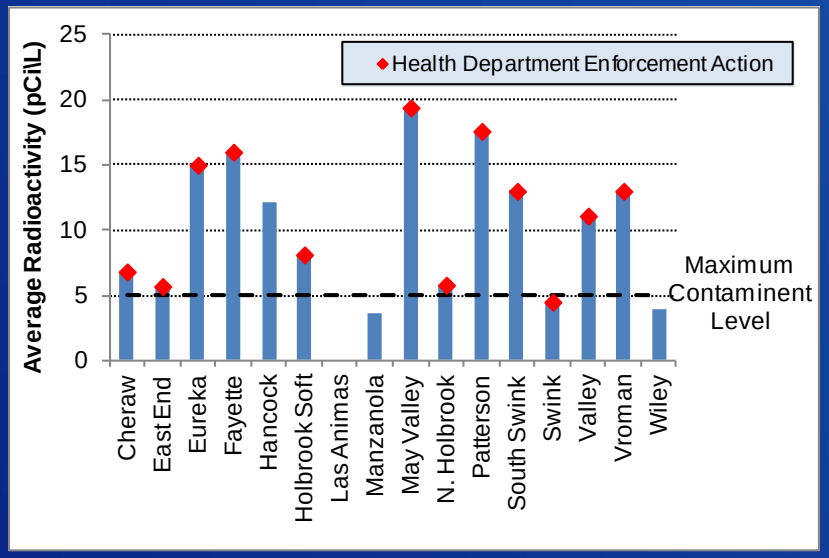
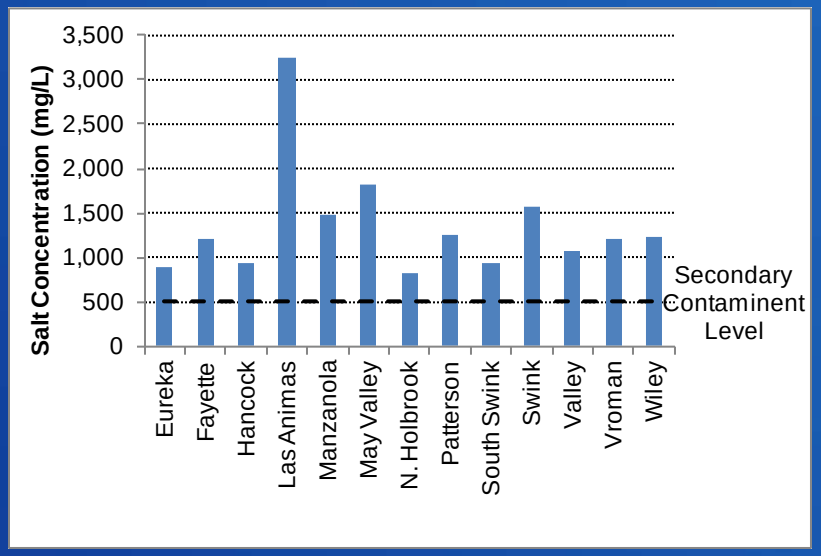
Surface and Ground Water Quality

High Concentrations of Radionuclides



<u>Primary</u> Drinking Water Standard

High Levels of Salts



<u>Secondary</u> Drinking Water Contaminant Level

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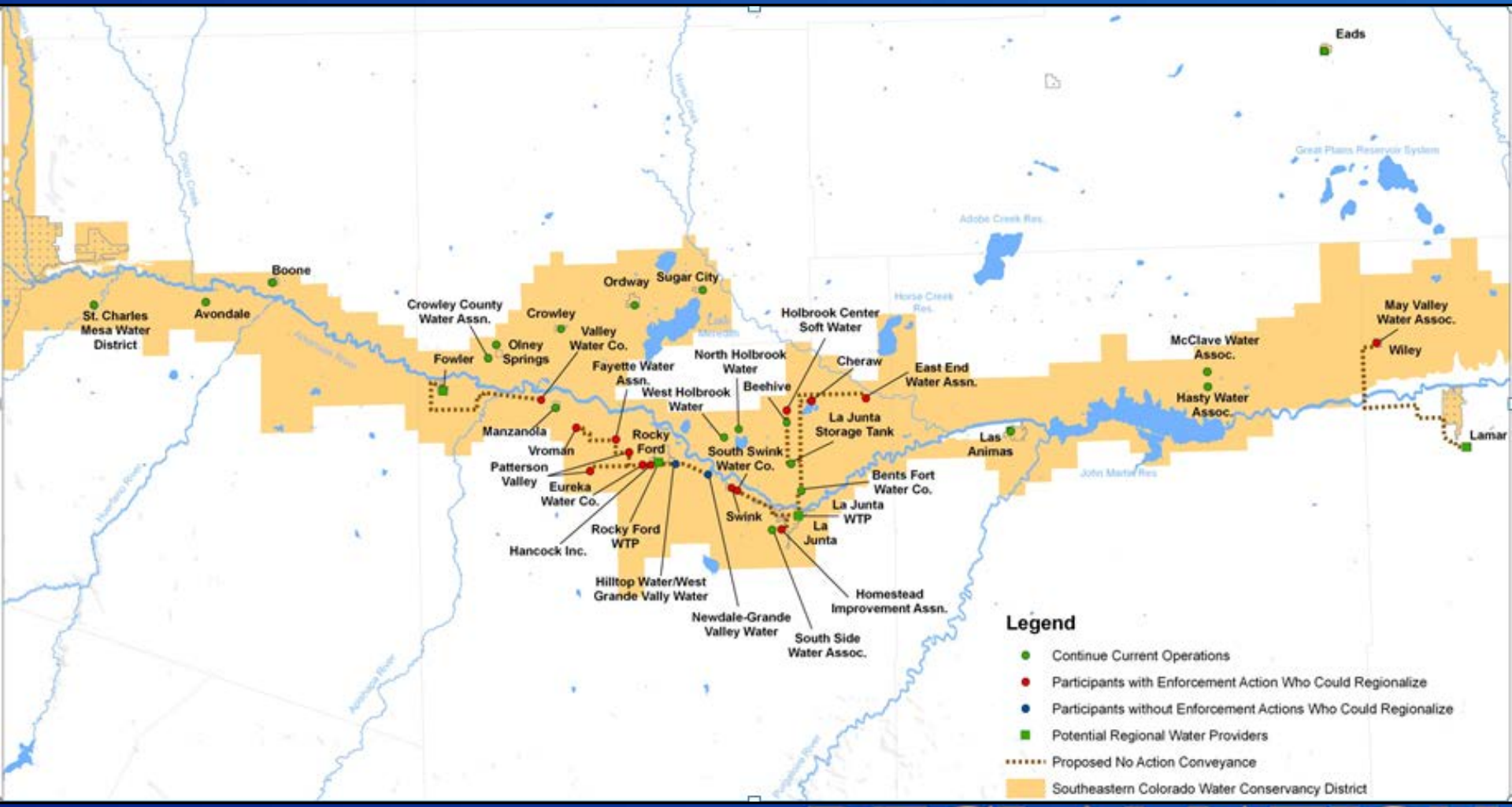
Water Quality Enforcement Actions and No Action



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AVC Alignment

Length: Pueblo to Lamar includes 227 miles of pipe
Cost: $400 - $600 million (pending Feasibility Estimate in 2016 dollars)
Participants: 40 Water Providers in Southeastern Colorado
Cost Share: 65% Federal, 35% Local
Repayment: 50 year contract

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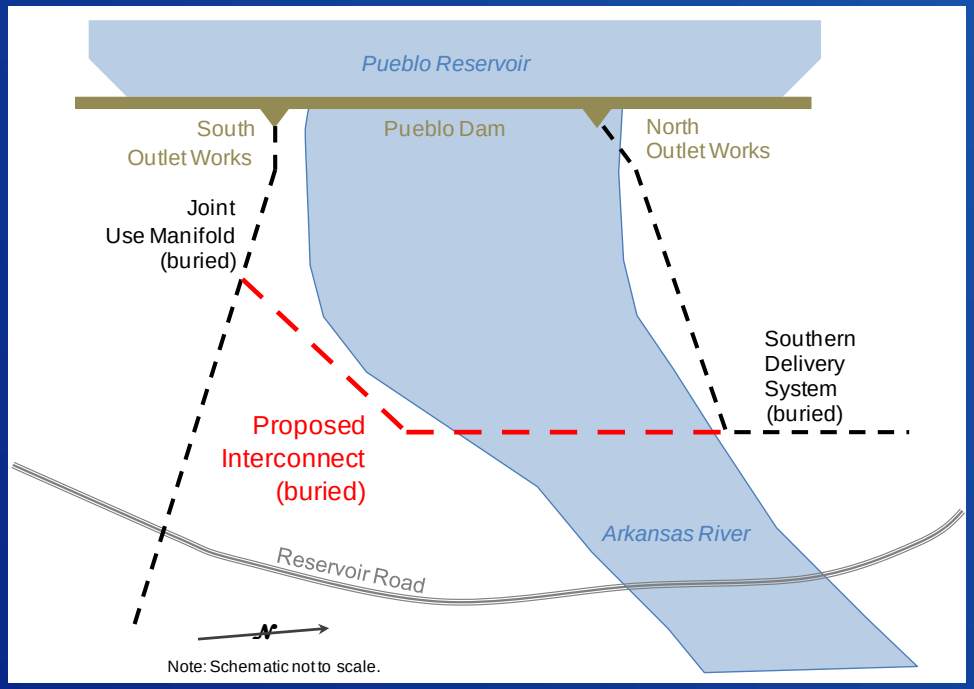
AVC Project Design Segments

Interconnect	• Tie between South and North Outlet Works • Less than 1 mile of pipe
Pueblo Dam to Regulating Tank #1	• 7 miles of pipe • Whitlock WTP Modifications • 1 Pumping Plant
Regulating Tank & Pipeline to Lamar and Eads	• 220 miles of pipe • Two surge tank sites • 1 Pumping Plant
Hookups Outside EIS Corridor	• 33 miles of pipe to 26 delivery points

AVC Design Segment
Interconnect



Participants

- Pueblo West
- Pueblo Fish Hatchery
- Fountain Valley Authority
- Arkansas Valley Conduit
- Southern Delivery System
- Pueblo Board of Water Works

Cost = TBD
Size = 90” diameter pipe
Length = 2,000 feet of pipe
Contract = 40-year Conveyance

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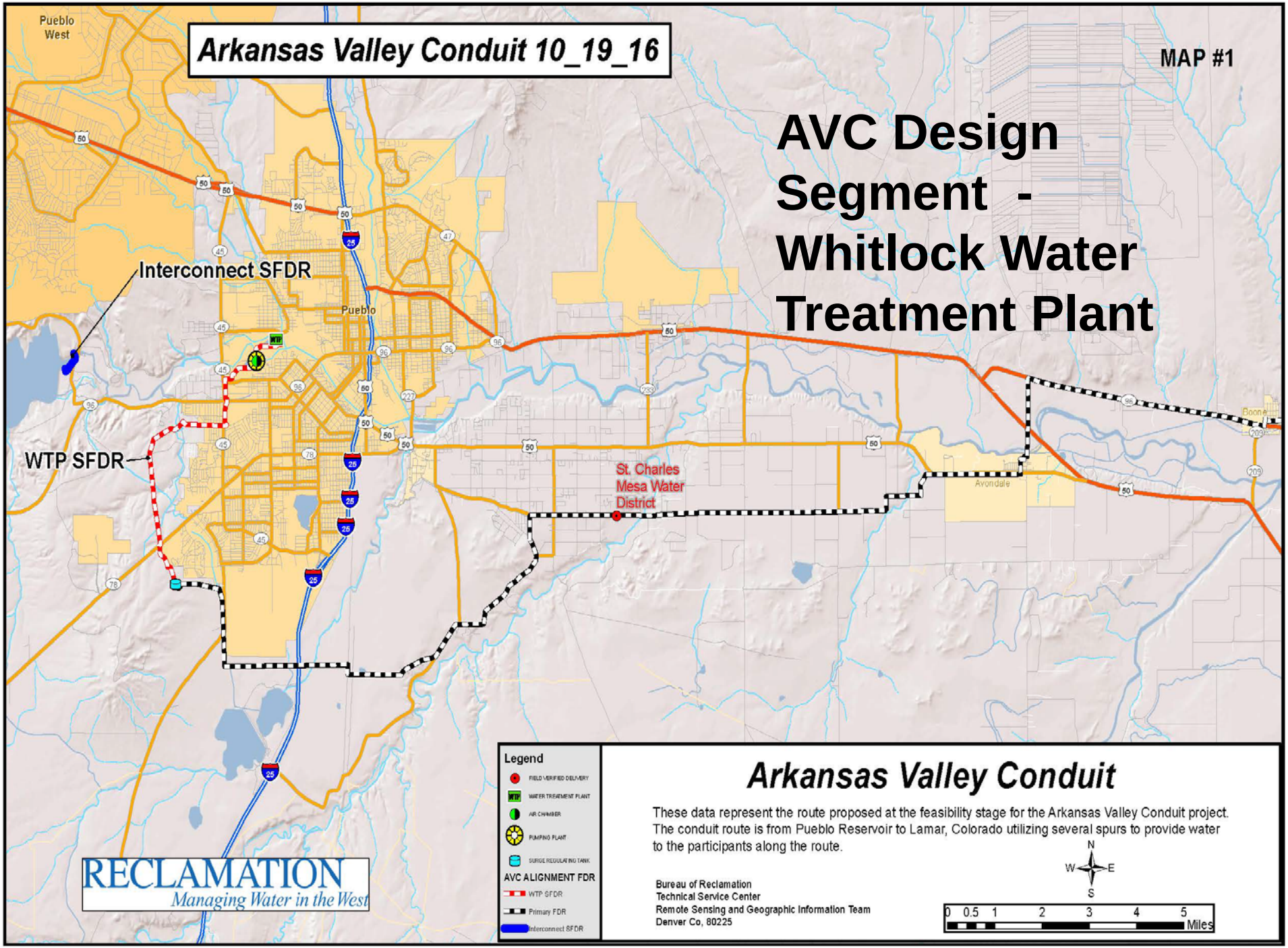
Arkansas Valley Conduit 10_19_16
MAP #1
AVC Design Segment - Whitlock Water Treatment Plant
Pueblo West
Interconnect SFDR
Pueblo
WTP SFDR
St. Charles Mesa Water District
Avondale
Boone
Legend
FIELD VERIFIED DELIVERY
WATER TREATMENT PLANT
AIR CHAMBER
PUMPING PLANT
SURGE REGULATING TANK
AVC ALIGNMENT FDR
WTP SFDR
Primary FDR
Interconnect SFDR
Arkansas Valley Conduit
These data represent the route proposed at the feasibility stage for the Arkansas Valley Conduit project. The conduit route is from Pueblo Reservoir to Lamar, Colorado utilizing several spurs to provide water to the participants along the route.
Bureau of Reclamation
Technical Service Center
Remote Sensing and Geographic Information Team
Denver Co, 80225
N
W
E
S
0 0.5 1 2 3 4 5 Miles
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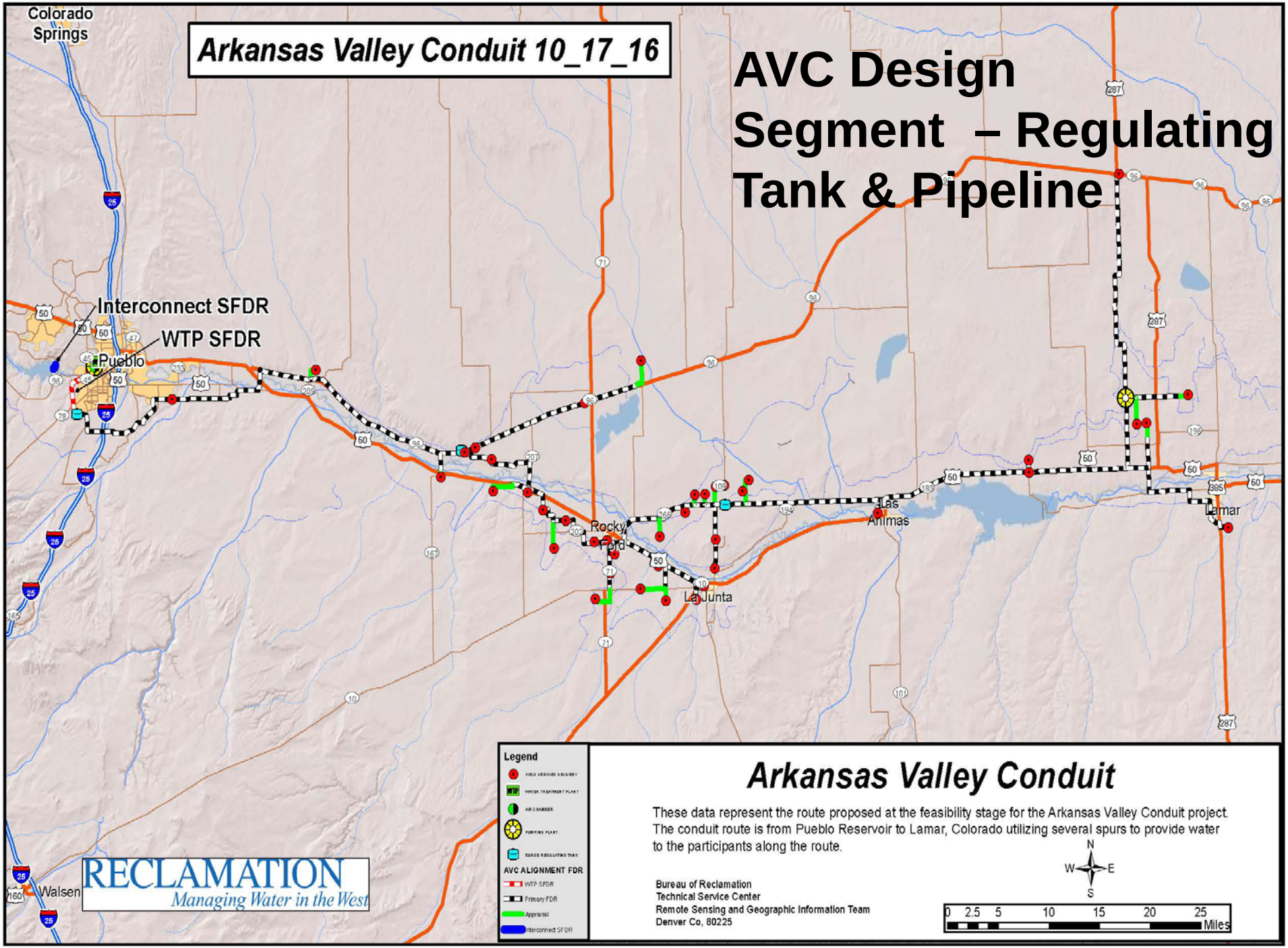
Managing Water in the West

AVC Design Segment – Regulating Tank & Pipeline



AVC Feasibility Design Schedule

Interconnect	• Feasibility Design Report by TSC August 2017
Pueblo Dam to Regulating Tank #1	• Feasibility Design Report by Contractor June 2017
Regulating Tank/Pipeline to Lamar and Eads	• Feasibility Design Report by TSC September 2016
Hookups Outside EIS Corridor	• Appraisal Design by TSC September 2016 • Included in Feasibility Design Report by TSC

AVC Next Steps

Complete Feasibility Designs in FY 2017

Prepare Project Cost Summary Report

Design, Engineering, and Construction (DEC) Review

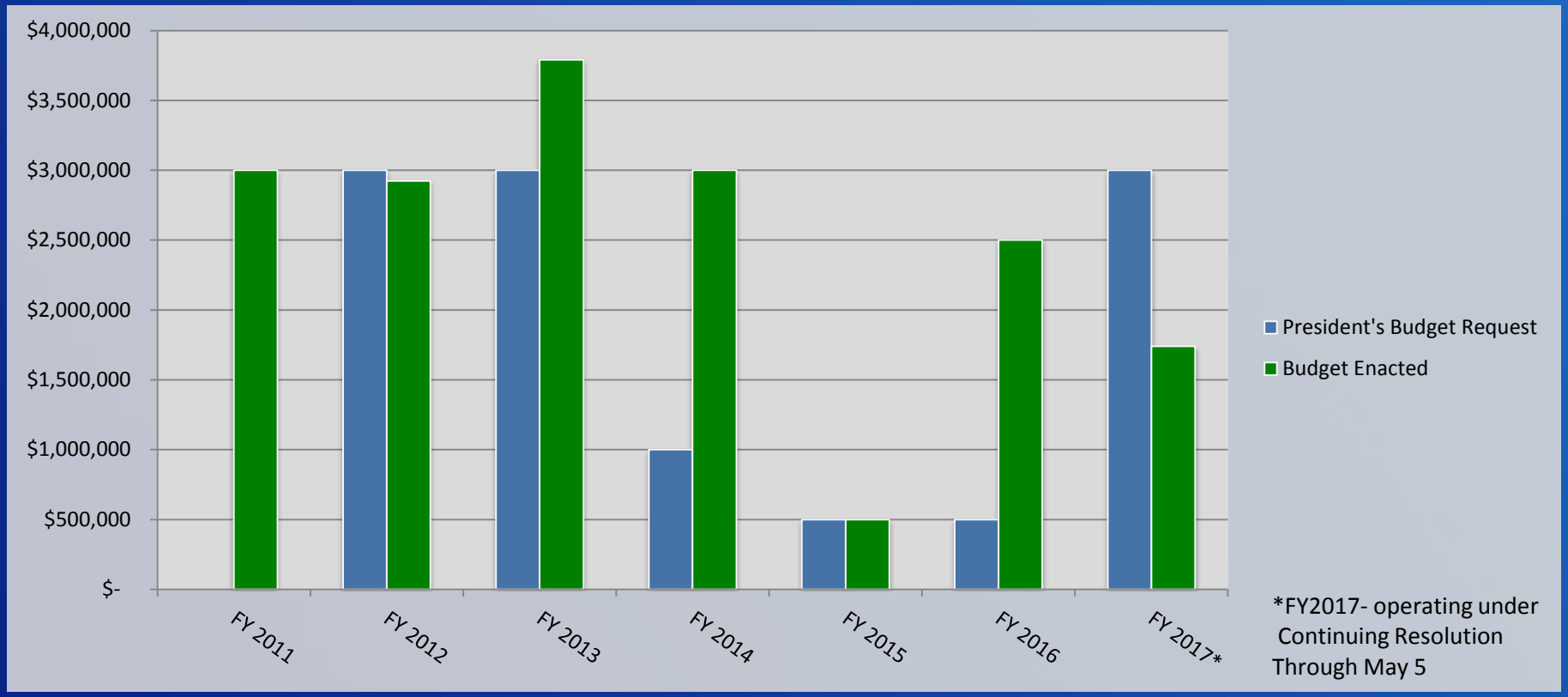
Final Design Phase

- Value Engineering Review on 30% Final Design Packages
- Number of Packages (contracts) Dependent on Available Funding

Proposed Memorandum of Understanding - PBOWW

AVC Project Funding

Funding Through FY16: $21 Million



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