

ALTERNATE WATER SUPPLY SYSTEM CONDITION ASSESSMENT

Client:

Navarro Research & Engineering

SERVICES PROVIDED

- Condition Assessment
- Computer Modeling
- Surveying
- Mapping
- Cost Estimates
- Soil/Water Sampling
- Hydraulic Analysis

Markets

- Government
- Infrastructure

THE PROJECT

The U.S. Department of Energy (DOE) manages the Riverton, Wyoming Uranium Mill Tailings Remedial Action Site on the Wind River Indian Reservation. Due to shallow groundwater contamination from the historical milling operations, DOE funded construction of the Alternate Water Supply System to provide safe water to residents within the institutional control boundary. WWC was contracted by the DOE's Legacy Management contractor, Navarro, to assess the condition of the water system and make recommendations for improvements, including:

- Service area and service connection evaluation
- Condition and capacity of three source wells, water storage tank, pipelines, fire hydrants, and valves
- WaterGEMS hydraulic model
- Unidirectional flushing analysis and recommendations to control radium buildup in water pipelines
- Fire flow analysis
- Transient analysis and valve operating recommendations
- Surveying and preparation of as-constructed drawings
- Cost estimates for recommended upgrades



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HIGHLIGHTS

- Restoration of flushing and fire flows after replacing broken isolation valve
- Extensive interviews to evaluate current service connections and locations and causes of historical leaks
- As-constructed drawings based on surveyed hydrants and valves along with original mapping, easement drawings, and interviews
- Soil corrosion analysis based on soil sampling and visual inspection of buried valves
- Facilitation of multiple draft report review meetings with DOE, Navarro, and the Northern Arapaho Water and Sewer Department and Natural Resource Office

