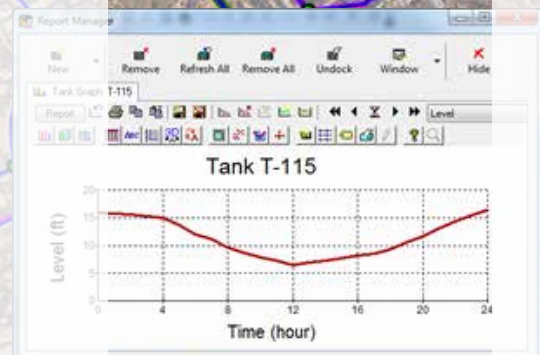


Network Analysis for Collection and Distribution Systems

Bohannon  Huston

- ▲ Modeling
- ▲ Master Planning
- ▲ Operational Investigations
- ▲ Water Loss Prevention
- ▲ Emergency Response Planning
- ▲ Water Quality
- ▲ Asset Management
- ▲ I/I Evaluations



Relevant Experience

Reservoir Connection (Operations Plan) | ABCWUA

BHI completed an Operations Plan for integration of the City of Albuquerque's San Juan Chama (SJC) Drinking Water Project surface water supply into the existing groundwater supply system. This changed the operating philosophy significantly, and was made more complicated by water quality concerns. BHI added the new surface water system (pumps and transmission piping) to the model in Inflow and produced a recommended operating scenario to maintain arsenic levels below regulatory levels.

Water Systems Planning and Operational Evaluations | City of Rio Rancho

BHI provides ongoing support to the City of Rio Rancho for water model maintenance and water system planning. Our work includes updating the water model from GIS data, loading the model from billing data, model calibration to SCADA data, and system analysis for fire flows, operating pressures, and most recently, investigation of potential savings on electrical costs by operating pumps during off peak hours.

Water Modeling | City of Scottsdale

BHI supports the City of Scottsdale in updating the existing model network piping, demands and logic control. The system is complex, including numerous VFD closed loop booster stations, and model efficiency is critical in reducing run times. BHI also created a model for the City's reclaimed irrigation distribution system. Currently BHI is a teaming partner on the Scottsdale Water Master Plan Update.

Water and Wastewater System Master Plans | IHS — Jicarilla Apache Nation

BHI prepared Water and Wastewater System Master Plans for the community of Dulce, New Mexico, located on the Jicarilla Apache Indian Reservation. The models were based on GIS databases and topographic information gathered and processed by BHI's Spatial Data department. Master plan system analysis and recommendations were based on models in WaterGEMS and H2O Map Sewer GIS. BHI continues to serve the Nation as their on-call engineer, providing services that include regular utility map book updates and web map hosting.

Clovis Effluent Reuse | City of Clovis

BHI modeled the proposed reuse system to establish the basis of the design (also by BHI). This included validating customer base and reuse water demands, as these dictate the final design criteria for system operations. The project, now under construction, includes filtration and disinfection to provide Class 1A quality wastewater effluent, a low lift pump station to convey treated water to a high lift station, retrofitting an existing high lift pump station, over 8 miles of 18-inch transmission, and a 1.0 million gallon elevated composite reservoir storage tank.

Master Plan and Operations-Based Experience

Master Plans: City of Albuquerque Existing Water System Evaluation | City of Albuquerque Genetic Algorithm Model Preparation | City of Albuquerque Integrated Infrastructure Plan | City of Albuquerque Long-Range Service Plan | Entramosa Water and Wastewater Association Water System Master Plan | Los Alamos National Laboratory Water System Model Creation | New Mexico Utilities' Water Master Plan Update | City of Rio Rancho Comprehensive Master Plan | Sandia Heights Ultimate Development Water Systems Master Plan Report | Santolina Master Plan | City of Scottsdale Water Master Plan | City of Scottsdale Water and Wastewater Model Update

Operations: Systems Optimization Plans | Operation Plans | Water Age Analyses | Finished Water Transmission System Evaluations | Arsenic Evaluations | Analyses of Backup Water Supplies

