

Water Resources Engineering and Analysis

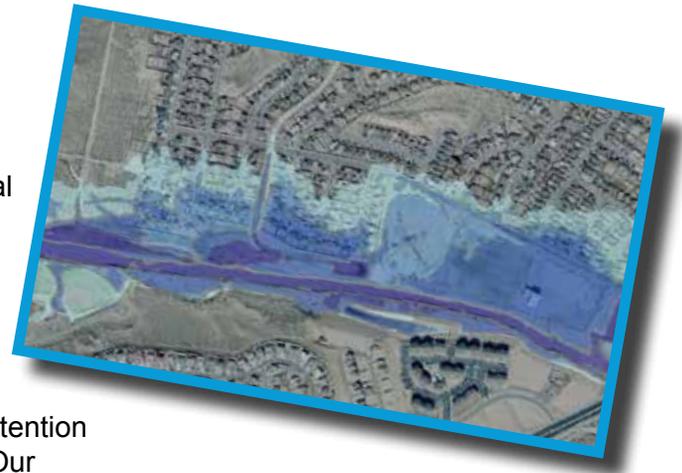
Bohannon  Huston

- ▲ Surface Water
- ▲ Water Systems
- ▲ Wastewater Systems



Effectively Managing a Precious Resource

The water resources engineers at Bohannon Huston, Inc. (BHI) understand the importance of water in both the natural environment, where preservation and management are essential, and the built environment, where advanced solutions are the key to efficient and reliable water infrastructure.



In the southwestern U.S., water is a highly valuable resource that demands careful, efficient usage and close attention to ownership considerations and regulatory requirements. Our experienced engineers can successfully manage all of these concerns while designing solutions that address economic considerations, water quality and quantity, land use, and environmental impact. In addition, BHI staff are formally trained in sustainable engineering concepts, including the LEED® standards of the U.S. Green Building Council, and work to incorporate sustainable solutions and resiliency in every project.

Conservation Water Quality



Unique Solutions

For decades, BHI has honed its water expertise through a wide variety of projects, from dams to pipelines to riparian restoration efforts. When projects require innovative solutions, BHI engineers create unique designs that address aesthetic, multi-use, and sustainable solutions that best serve our clients' needs.

Innovation

Consensus and Approvals

Familiarity with Regulatory Agencies

Our extensive experience has helped us to develop strong working relationships with many of the Southwest's regulatory authorities. As a result, we successfully obtain governmental and environmental approvals for even the most complex projects.

A Range of Expertise for Better Results

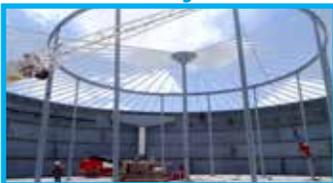
BHI's multi-disciplined expertise allows our water resources engineers to collaborate with our engineering, spatial data, and advanced technologies teams to create an efficient work flow for each project. We take your project from concept to completion effectively and efficiently.

Here's an example: You have a site that needs access and utilities but must cross a river or major arroyo. Our Water Resources engineers and our Spatial Data team obtain the necessary site data to hydraulically model the crossing. We use ArcGIS and HEC Geo-HMS to streamline the hydrologic modeling requirements, saving time and money as we accurately and efficiently delineate contributing drainage basins, land use, soils, and other key watershed data. We then establish the design flow rates in the river or arroyo to guide our crossing design. To help you visualize how the crossing will look, we collaborate with our Structures group and our Images PlusSM graphic artists to create realistic and accurate renderings. Drawing upon our broad design experience and knowledge of hydraulics, we optimize the crossing concepts to minimize costs and accommodate utilities such as water and sewer lines. As we complete the plans and specifications, our Construction Inspection staff performs a constructability review and provides bid assistance. Next, we work with you and the contractor to ensure that construction adheres to approved plans and specifications. By working in concert, BHI's teams produce an aesthetically pleasing, fully functional crossing in less time and at less cost, helping you realize your project objectives.

We use the latest technology for analysis and design:

- DAMBRK
- FLO-2D
- EPASWMM
- HEC-HMS
- HEC-RAS
- HEC-FDA
- Geo-RAS
- Geo-HMS
- ArcGIS
- ArcGIS 3D Analyst
- ArcGIS Spatial Analyst
- WinFLUME
- ArcView
- AutoCAD
- MicroStation
- Civil 3D
- InRoads
- InfoWater
- H20NET
- H20MAP Water
- EPANET
- WaterCAD

Recent Projects



WALH Water System Improvements: BHI led planning and design efforts for a vital water expansion on Albuquerque's west side. Design included over 30,000 LF of pipeline installation, a new pump station, and construction of water storage tanks. Using innovative solutions, the team was able to reduce the pump station building footprint and minimize visual and noise impacts while also returning capital cost.



Paseo del Norte / I-25 Interchange: BHI led all elements of drainage design, including pavement drainage for several miles of roadway improvements; addressing several locations accepting off-site flows; providing water quality designs; assisting with 404 permitting; and providing analysis and design for the South Domingo Baca Arroyo that flows directly through the Interchange. **2015 ACEC New Mexico Engineering Excellence Award, Grand Conceptor**



Calabacillas Arroyo Grade Control Structure 7a: The BHI team designed this award-winning project that protects life and property, controls erosion in a natural way, and preserves critical open space areas. Completed in less than 4-months, this drop structure design prevents flooding and safeguards adjacent properties near the arroyo. **2015 ACEC New Mexico Engineering Excellence Award, Small Projects Category**



Pueblo of Laguna Water and Wastewater System Replacement: To improve the Pueblo's aging water system, BHI prepared PERs with recommendations to help the Pueblo secure \$31 million in funding for the design and construction of a new system. BHI designed the replacement water system which included 60 miles of new distribution pipe, rehabilitated storage tanks and the installation of a new SCADA/AMR system throughout the Pueblo. BHI also designed the replacement of 12.5 miles of sanitary sewer lines and the rehabilitation and/or expansion of 5 wastewater lagoons on the Pueblo.

Who We Are...

For 55 years, Bohannon Huston, Inc. has provided exceptional water resource engineering services to public and private clients. Our water resources professionals have proven experience in the analysis, master planning, and design of stormwater systems. We also provide a full range of engineering services for the planning, design, construction, monitoring and evaluation of public, private, institutional commercial/industrial, and on-site water and wastewater systems.

As part of BHI's commitment to providing end-to-end engineering services for our clients, our engineering, spatial data, and advanced technologies teams work together, bringing their special expertise to bear on every project BHI undertakes, whether simple or complex. The result of this combined talent is quality solutions that are effective, functional, sustainable, resilient, and reliable to a degree that is beyond our clients' expectations.



Albuquerque



Denver



Las Cruces

Sustainability

We offer engineering expertise in:

Surface Water

- Drainage/Watershed Management Planning
- Flood Insurance Studies
- Dams and Levees
- River Restoration
- Storm Drains and Open Channels
- Water Quality
- Acequias and Irrigation Canals

Water Systems

- Master Planning
- Water System Modeling
- Transmission and Distribution Waterlines
- Pump Stations, Wells, and Storage Reservoirs
- Water Treatment
- Electrical and Mechanical Systems
- Controls

Wastewater Systems

- Sanitary Sewer Collection
- Wastewater Treatment Facilities
- Sanitary Sewer Lift Stations
- Electrical and Mechanical Systems
- Controls

We also offer services for governmental/environmental approval and compliance in all three service areas

In New Mexico:

Craig Hoover, PE
Senior Vice President
choover@bhinc.com

Rob Richardson, PE
Senior Vice President
rrichardson@bhinc.com

Matthew Thompson, PE
Senior Vice President
mthompson@bhinc.com

In Colorado:
Jared Lee, PE, LEED AP
Vice President
jlee@bhinc.com

7500 Jefferson Street, NE
Courttyard I
Albuquerque, NM 87109
505.823.1000
505.798.7988 fax

7500 Jefferson Street, NE
Courttyard I
Albuquerque, NM 87109
505.823.1000
505.798.7988 fax

425 S. Telshor Boulevard
Suite C-103
Las Cruces, NM 88011
575.532.8670
575.532.8680 fax

Meridian One
9785 Maroon Circle, Suite 140
Englewood, CO 80112
303.799.5103
303.799.5104 fax

Bohannon  Huston

www.bhinc.com

Albuquerque

Denver

Las Cruces