

WATER SYSTEM ENGINEERING

Epic Engineering has worked with culinary and secondary water systems from 16 to 16,000 connections to help maintain the balance between source/supply, storage, and distribution while accounting for future growth. We have designed numerous water storage tanks, drilled wells, constructed numerous diversion structures, rebuilt springs, rehabilitated tanks and wells, and designed transmission lines from 6 to 36 inches. Whether its building a new system or expanding an existing system, our experts can see your next water project through from start to finish.

DESIGN

Epic has licensed engineers with years of water expertise under their belts. We understand the importance of ensuring that each component in a system works with the remainder of the system while providing the capacity for current and growing populations. Our team of civil and structural engineers regularly perform the following:

- Waterline design
- Water tank design
- Storage pond design
- Well design
- Pump station design

Epic has designed large transmission lines and complex distribution networks. Our design personnel have a strong mechanical background coupled with an up-to-date understanding of pumping characteristics, system heads, reinforced concrete, piping materials, corrosion, and cathodic protection systems for wells and pipelines. We can evaluate and optimize system efficiency to reduce operational costs.

Here are just a few recent projects we've designed.

8000 W BOOSTER PUMP STATION

Epic Engineering designed this booster pump station for the Magna Water District to replace an old culinary water pump station. We provided civil design, structural, mechanical and electrical engineering for the project, as well as construction management. We engineered this residential station to blend in with the neighborhood and dampen sound emissions. Additionally, the station has been designed and fitted with piping for future secondary water booster pumps.



•4MG WATER TANKS

Epic designed, bid and oversaw the construction management of two new 4-million-gallon water reservoirs for Draper Irrigation Co.



RIVERTON GREEN WELL

Epic's Civil Engineering team designed a deep well pump and planned the drilling and construction of this 2,000 gallon per minute (gpm) drinking water well for Riverton City, Utah. The project included the design and planning of a concrete diversion structure on the Jordan River with a 4,000 gpm traveling water screen, automatic filtration, and all associated gates and valving.

WHO IS EPIC?

Epic Engineering, P.C., was founded in 1997 to provide civil engineering services to municipalities. Over the last 20 years we have expanded our offering to become a full-service architecture and engineering firm with more than 60 employees at multiple offices throughout the West. We provide our clients with a single contact who has access to teams of experts. From design to construction management to inspection, we help clients turn concepts to reality.



36″ HDPE REUSE PIPELINE ←

Epic Engineering designed a 36-inch O.D. HDPE reuse pipeline with a flow of 9,000 GPM for Draper Irrigation Company. The line is 13,400 linear feet from the Jordan Basin Water Reclamation Facility to Draper Irrigation's pressure irrigation system in Draper, UT. The line crosses the Jordan River, railways (UTA and Union Pacific), and the I-15 corridor. The project also included the transition to ductile iron pipe, direction bore, and casing installation.

WATER RESOURCES

Water has always been a contentious issue. The ever-growing demand for water, combined with the variability and uncertainty of water supplies, has stretched the available resources to the limits in many areas. Ensuring that communities will have sufficient quantity and quality of water in the future requires innovative solutions, creative designs, and an advanced understanding of hydrogeology. At Epic Engineering, we have experienced staff who can help make the most of the water you have as well as develop new water sources. Our staff is trained in water rights, source development, and source protection.



WATER RIGHTS

Acquiring new water rights and protecting existing water rights is becoming ever more important and challenging as water becomes increasingly scarce. Epic has professionals that have been working with securing, transferring, proofing, and protecting water rights for over 30 years. Our engineers are trained in water law and remain current on the latest changes. We often present water rights seminars to other engineers, city officials, and environmental planners throughout the West. We are experienced with assisting clients in the transfer, proof, and protection of water rights.



SOURCE DEVELOPMENT

Properly developing new water sources, particularly wells and springs, can be a complex and expensive process. Epic's staff is highly skilled in developing these sources. We combine time-tested, reliable methods with the newest technologies to procure sources, maximize water production, and ensure sustainability while minimizing development costs. We have also designed Aquifer Storage and Recovery Systems, giving communities an innovative, cost-effective means to maximize production of all sources.

SOURCE PROTECTION

Water is one of the most important assets of any community. Our staff is trained in the production of detailed drinking water source protection plans to ensure sufficient supply for current and future needs. We work closely with clients to identify existing and potential contamination sources and to outline creative and effective methods to minimize risks to a water source.



LET'S TALK ABOUT YOUR NEEDS.

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