



# Underground Water Storage in the Rocky Mountains

When supplying a water system for a housing development on the shores of a Rocky Mountain river, the developer was faced with a number of challenges – starting with the mountain location itself.

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**Location:**

- Rocky Mountains, Rural Colorado

**System Capacity:**

- 60,000 gallons (227,000 liters)

**Application:**

- Water storage

**Engineer:**

- Wright Water Engineers

**Products:**

- Two dual-purpose potable water and fire protection water tanks

As is often the case with rural sites, a Colorado developer needed a storage system that would store both potable water and fire-protection water. The project originally specified aboveground steel tanks.

However, when the project engineers learned the benefits of fiberglass underground tanks, they were convinced that Xerxes water tanks would be not only a stronger product but also a better long-term choice than steel tanks in the remote and mountainous area.

“Fiberglass is preferable to steel for a number of reasons,” said one of the team’s engineers. “There’s always a concern about freezing. With this kind of system there’s not a lot of turnover of water, so there’s a potential for the water freezing.”

**This is just one way an underground system has an advantage over an aboveground system.**

Another consideration for them was transporting and fabricating a system at the site. “The cost and difficulty of



fabricating or hauling steel tanks versus bringing in fiberglass tanks” weighed heavily in fiberglass’ favor.

The water requirements for this Rocky Mountain residential development were met by manifolding two 30,000-gallon tanks so they operate as one tank.

The tanks are fed by a groundwater well, which is typical of water systems in remote areas because of the high cost of running a main water line to the system. Water is pumped from the well and is chlorinated before reaching the storage tanks. Since it is a small site that doesn’t have the elevation needed for a gravity feed, pumps deliver the water on demand to the houses within the development.

When the local fire-protection authority needs water, it simply connects hoses to the hydrants in the development, because the same water storage tanks also provide fire-protection water.

The developer and engineers point to another advantage of going with Xerxes tanks – the visual issue. With a backyard as spectacular as the Rocky Mountains, keeping the sight free and clear of the water infrastructure was the way to go — and easy to do with Xerxes underground water tanks.

*In addition to housing developments such as this Rocky Mountain installation, other facilities to which Xerxes supplies tanks for water applications are national and state parks, resorts, schools, campgrounds, casinos and truck stops.*