

# Vine Brook Aquifer Water Treatment Facility

The Town of Burlington needed to identify an affordable water source to solve its chronic water shortage. By accessing the nearby Vine Brook Aquifer, the Town was able to construct a new water treatment facility that provides additional water capacity of approximately 0.95 million gallons per day.

## PROJECT RESULTS

*The innovative concept, bridge design, and construction technique enabled the Town to access its last remaining high-capacity groundwater source. Kleinfelder's solutions provided water for the Town, while preserving the pristine beauty of the wetlands and creating a new landmark recreational facility for the community.*



## PRESERVING WATER QUALITY, PROTECTING WETLANDS

The Vine Brook Aquifer provided a high-yielding source of water, but the proposed well site fell 220 feet beyond the designated wetland delineation boundary in a major wetlands complex, and reaching it would result in destruction of wetlands resources. The Town also experienced water quality problems with the aquifer groundwater supply, including high iron and manganese, turbidity, and color, along with low-level volatile organic contamination at other nearby wells.

## A BRIDGE TO SUCCESS

An environmentally sensitive bridge allowed well construction in less than two months and avoided damaging the wetlands. Kleinfelder designed a 4.5 MGD greensand filtration and air stripping facility to treat the Vine Brook groundwater to the Environmental Protection Agency's primary and secondary drinking water standards, while providing a long-term aquifer monitoring plan to track water quality changes on public and private property. Kleinfelder also successfully excavated and remediated petroleum-contaminated soil adjacent to the wetlands.

### Location:

Burlington, Massachusetts

### Owner:

Town of Burlington

