2019/2020 Local Technical Assistance and Community Planning Programs

Application Number: 43

Project Title: Burr Ridge Water Supply Resilience Plan

Applicant: Village of Burr Ridge

Project Description:

Like most communities in northeastern Illinois, the water infrastructure in Burr Ridge “its tanks, pumps and pipes that deliver drinking water continuously and dependably to our residents and businesses” is coming to the end of its useful life. Growth is increasing demand for water while climate change is increasing the likelihood of drought and demand. Deteriorating infrastructure and leaks inhibit water conservation and wastes our region’s potable water and money because this precious resource never reaches consumers. All of the aforementioned distresses, combined with concerns for acts of terrorism, strains our water system and could result in catastrophes such as water main breaks, collapsing infrastructure, and drinking water contamination. Like Burr Ridge, the local governments overseeing water distribution will need capital investment plans and financing streams in order to maintain this critical investment.

Burr Ridge is seeking LTAP assistance with policy development in partnership with its neighboring communities of Willowbrook and Hinsdale, as well as its current water suppliers West Suburban Water Commission and the Village of Bedford Park, that will support the security and resiliency of each agency. By interconnecting these neighboring water distribution systems, the resilience of each other’s source water, pipes and constructed conveyances, storage and distribution facilities, and the automated systems in which each one operates, will be fortified.

A calibrated water hydraulic model developed in conjunction with an inclusive water system needs assessment will provide information to efficiently and responsibly plan and invest limited capital. The model will show pinch-points and deficiencies under a variable or increased water demand on its pressurized system. However, the needs assessment focuses on critical areas which, in the short and long term, must be maintained, repaired, or replaced. The model results overlaid with the system assessment will result in a needs-based and goal-oriented plan for improvements that best align with the demands of the water system stakeholders.

Advancing the security and preparedness of critical water system infrastructure is required by America’s Water Infrastructure Act (AWIA), such that Burr Ridge, like every community water system, must assess risks and develop emergency response plans. This will include facilitating the expansion of mutual aid and assistance, and incorporate emerging guidelines from the American Water Works Association (AWWA) included in AWWA G430 “Security Practices for Operations and Management”, AWWA G440 “Emergency Preparedness”, and AWWA J100 “Risk and Resilience Management of Water Systems”. Meeting regulatory requirements of AWIA will make the Village’s water supply resilient, but with policies to be developed with LTAP assistance in partnership with our neighboring communities, a greater population can be protected.

The Village of Burr Ridge is committed to this scope and has budgeted funds without LTAP assistance to begin the hydraulic modeling. With LTAP assistance, the Village would expand its scope as described above, and contribute more than 50% of the total cost estimated at $110,000 to develop comprehensive plans and policies.

The plans and policies developed through this LTAP assistance in Burr Ridge will be transferrable to other communities as our region shares water sources.

Project Location: Corporate limits of the Village of Burr Ridge in Cook & DuPage Counties, Illinois