Wolcott Wastewater: Feasibility Study and Village Solutions

STONE ENVIRONMENTAL
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Services / Expertise
Water Resources Management
Community Wastewater Planning
Hydrogeologic Investigations
Water Quality Monitoring
Wastewater Feasibility Study

Markets
Local and Regional Government
Rural Community

Project Location
Wolcott, Vermont

Duration
2003–Present

Project Owner
Town of Wolcott and Lamoille County Planning Commission

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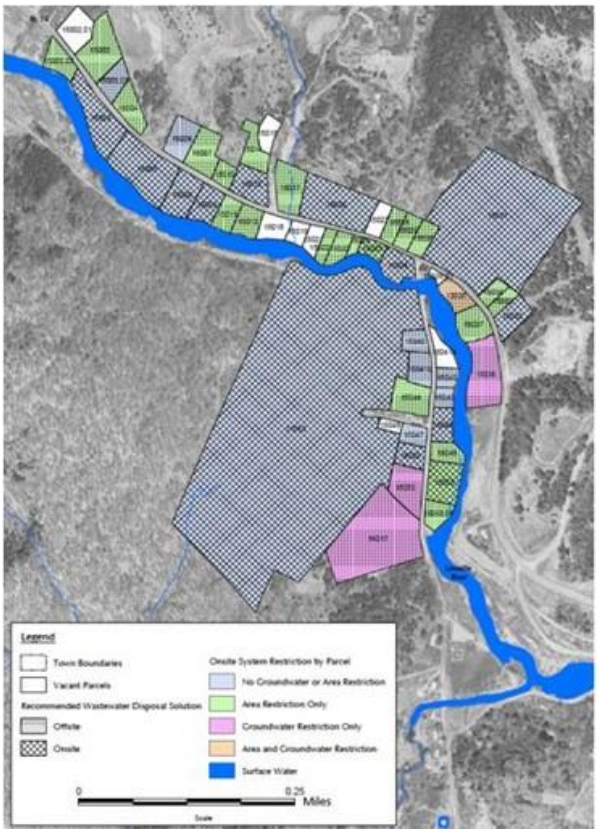

A map of onsite system constraints and recommended solutions developed for the Town of Wolcott as part of the wastewater feasibility study.

WASTEWATER treatment and disposal in the Town of Wolcott has occurred historically through private individual septic systems. Unfortunately, in densely populated areas, a combination of small lot sizes and difficult environmental conditions can create septic system problems that may result in the contamination of groundwater and surface waters, including the Wild Branch and the Lamoille River.

In 2003-2005, the Town of Wolcott hired Stone and an engineering partner to conduct a wastewater feasibility study for the Villages of Wolcott and North Wolcott. Stone performed a detailed evaluation of the existing onsite wastewater treatment systems to determine each system's present condition and ability to be replaced onsite, as well as identified properties that would potentially benefit from connection to an off-site system.

Based on the needs identified in the first task, the team researched and reviewed collection, treatment and disposal system alternatives that could potentially solve Wolcott's future wastewater needs and identified potential cluster system sites. Stone developed a total of 11 different off-site wastewater dispersal alternatives using various

types of collection systems, and the least expensive option for each village was evaluated further to determine total project costs and first-year operations and maintenance costs. However, the costs for designing, constructing, and operating the identified village-scale solutions were too high for the Town to consider proceeding. Additional funding options and potential costs per equivalent user were developed and recommendations were made for proceeding with and funding on-site solutions on individual lots or in small, shared wastewater treatment systems.

Wolcott's situation mirrors that of many unsewered Vermont villages—where a lack of wastewater treatment capacity hampers compact development, adaptive redevelopment, and economic vitality. In recognition of this issue, the state, led by the Vermont Department of Environmental Conservation (VT DEC), started a Village Wastewater Solutions Initiative. In 2018, they secured a Northern Border Regional Commission grant to help identify cost effective wastewater solutions for the villages of Wolcott, East Burke, and West Burke, providing models for other villages throughout Vermont. Stone is now supporting the Lamoille County Planning Commission (Coordinator) as expert advisors and technical support for Wolcott's Wastewater Coordinator team. Stone has investigated several properties surrounding the Wolcott to help identify locations for wastewater treatment. Currently, Stone is preparing a Preliminary Engineering Report (PER) presenting several options of varying scale to help tackle Wolcott's wastewater challenges. Additional hydrogeologic work is scheduled to begin at the Wolcott Elementary School, which based on preliminary assessments, appears to have potential for a wastewater system sized to serve the village and provide adaptive redevelopment of several existing properties with limited wastewater capacity (including the former Buck's Furniture).