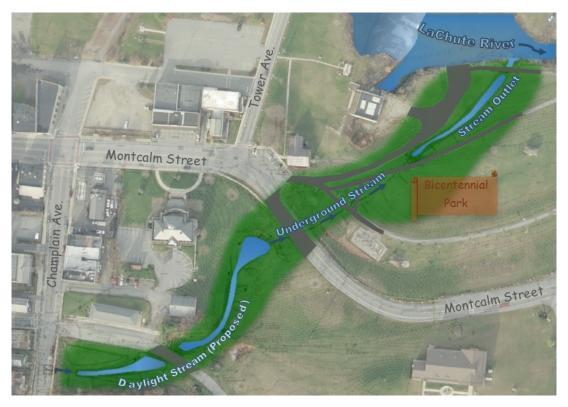
TOWN OF TICONDEROGA DAYLIGHT STREAM THROUGH BICENTENNIEL PARK

The Town of Ticonderoga has recently begun construction on its combined sanitary and stormwater sewer collection and treatment system. The majority of the \$13.4 million project will focus on improvements to the Waste Water Treatment Plant (WWTP), which has been in operation for nearly 40-years. These improvements include replacement of the final clarifiers, installation of UV disinfection to meet current regulations by NY State Department of Environmental Conservation (NYSDEC) and some much needed electrical upgrades to meet current codes. The remainder of the project involves installing a new drainage system along The Portage, and separating the existing sanitary and stormwater sewers installed many years ago. The separation of The Portage and Mount Defiance stormwater run-off from the sanitary sewer will then be diverted through a natural treatment process as a daylight stream as it flows toward the LaChute River meandering around the Community Building and through the western part of Bicentennial Park. This daylight stream is being predominantly funded by a \$500,000 grant award from the NYS Environmental Facilities Corporation's (EFC) Green Innovation Grant Program (GIGP), tied specifically to this location.



While it was once thought that combining stormwater with sanitary sewer flows was an effective means to handle a municipality's surface water and sanitary sewer needs, environmental pollution prevention regulations are requiring more stringent control of pollution discharge in natural waterways. "During large rain fall events, these combined sanitary and stormwater flows are not able to be processed at our WWTP and result in the direct discharge of untreated raw-sewer water into the LaChute River, known as a Combined Sewer Overflow (CSO)," said Water/Wastewater Superintendent Derrick Fleury. The

NYSDEC stringently monitors CSO events, ever-decreasing the number of permitted CSO events allowed by a municipality.



Figure. A combined sewer overflow event discharging excess sanitary and storm water. For scale, the circular vault cap is approximately 6-feet in diameter.

In 2013, under increasing pressure to reduce CSO events, the Town sought to explore innovative ways to separate out and treat its stormwater, leveraging grant funds to minimize costs to residents as well as minimize property impacts in built up residential areas. Prior to the construction of a paper mill in 1882, the area now known as "Bicentennial Park" was a natural drainage area for Mount Defiance stream water. When International Paper relocated the Ticonderoga Mill to the shores of Lake Champlain in 1971, the former village received the deed to the previous mill property and Bicentennial Park was born, becoming the keystone feature in Ticonderoga's downtown. As such, restoring a natural stream through a portion of Bicentennial Park seemed as natural a decision as the stream itself. "Careful consideration for the use of the park as well as prudent evaluation in the restoration development of the former paper mill site have been at the forefront of all discussions," said Town Supervisor Joseph Giordano adding "we have engaged with local organizations in revising our plan to address stormwater management needs through the park with a keen awareness to minimizing any restrictions this project may impose on the public's current use of the park. Moreover, the Town of Ticonderoga, is working with the NY State Department of Environmental Conservation and International Paper to address any concerns which may arise throughout the course of construction of this daylight stream project."

The overall project is being overseen by AES Northeast. The Mount Defiance Stream Restoration portion of the project has been awarded to Luck Brothers with completion slated for the Summer of 2018. Improvements to the WWTP and separation of stormwater and sanitary sewers along The Portage will complete in the Spring of 2019 with Gallo Construction and Gross Electric being the contract awardees. In all, the Town has received \$3 million in grant funding and qualified for a zero-interest loan on the remainder of the project. The Town also has submitted applications for, and is eagerly awaiting the results of, the latest round of NYS Water Infrastructure Grants Funding for both this sewer project as well as its water supply project.