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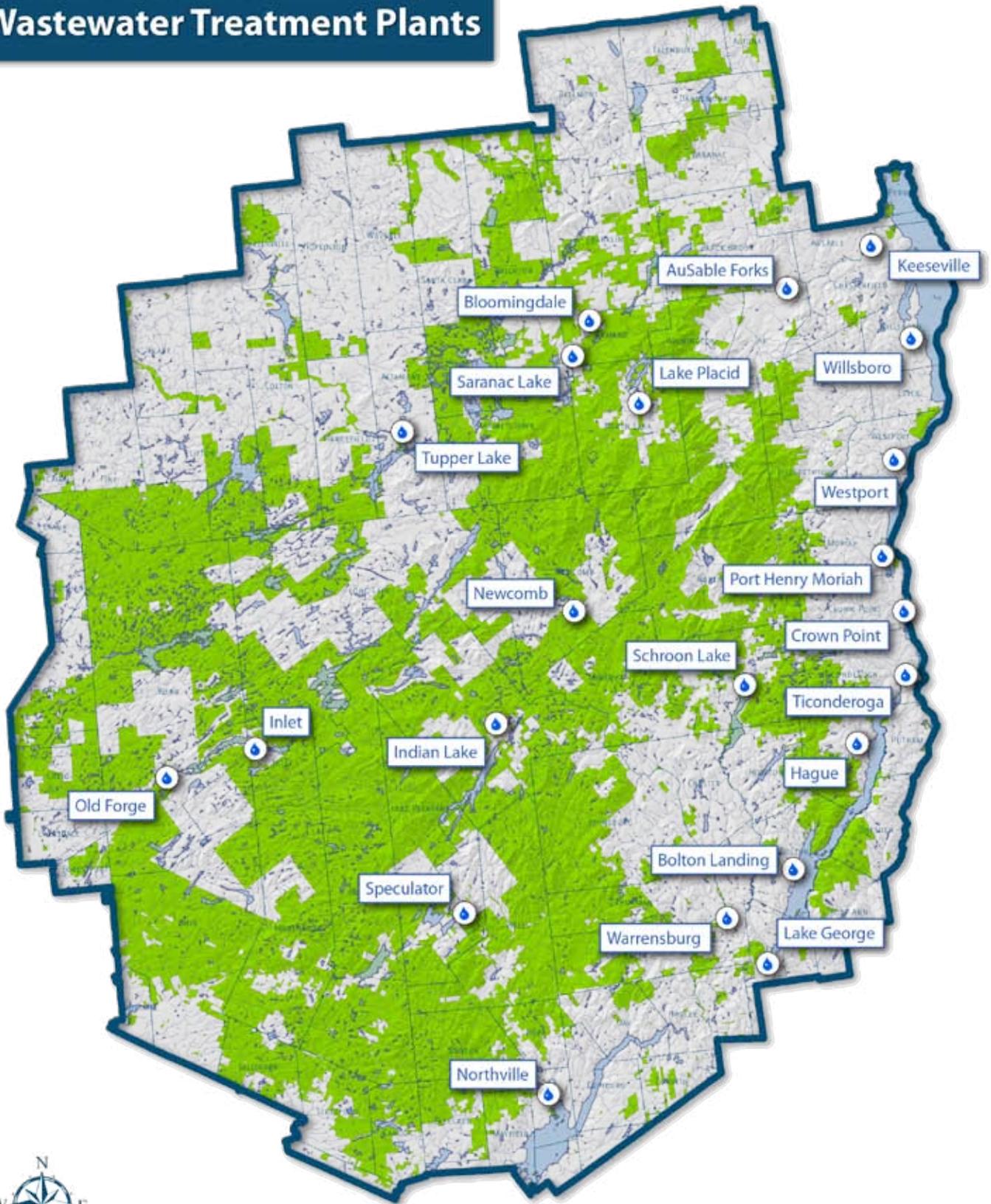
WASTEWATER TREATMENT PLANTS IN THE ADIRONDACKS: *Status of Compliance and Operational Needs*



Report by the Adirondack Council: Fall 2017



Adirondack Community Wastewater Treatment Plants



WASTEWATER TREATMENT PLANTS IN THE ADIRONDACKS: *Status of Compliance and Operational Needs*

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The mission of the Adirondack Council is to ensure the ecological integrity and wild character of the Adirondack Park for current and future generations. We envision an Adirondack Park with clean water and air and large wilderness areas, surrounded by working forests and farms and vibrant local communities.

Using science, we *educate* the public and policymakers; *advocate* for regulations, policies and funding to benefit the Park’s environment and communities; *monitor* proposals, legislation and policies impacting the Park; and, when necessary *take legal action* to uphold constitutional protections and agency policies established to protect the Adirondack Park.

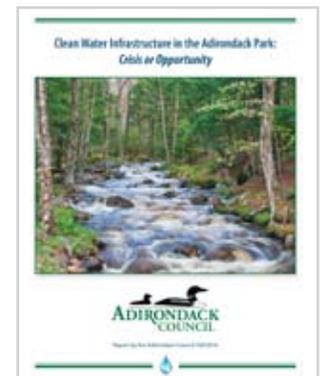
Cover: OK Slip Falls.



INTRODUCTION

Water quality in Adirondack lakes, rivers and streams are the life blood of its residents and visitors, and important to people across the state and around the country. This water provides for drinking water as well as the backbone of the tourism industry so vital to the local and State economy. Failure of sewage treatment plants and their collection systems impairs their ability to properly treat locally generated wastewater. The impacts can be far reaching - from closing beaches to impairing pristine trout streams to threatening drinking water resources. The challenges local Adirondack governments face to take on these needs are enormous from a technical and operational basis as well a fiscal one. It's sometimes impossible to raise the local revenues necessary with a limited tax base.

In November 2016, the Adirondack Council released a report entitled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*. The report highlighted the need for wastewater treatment plant upgrades, retrofits and/or repairs to continue to protect Adirondack waters. The Adirondack Council's report found that over \$100 million dollars of clean water infrastructure projects were needed at 22 facilities in the Park including wastewater treatment plants and the sewer lines connected to them. Statewide need in wastewater treatment and infrastructure upgrades and/or repairs is close to \$40 billion over the next twenty years.



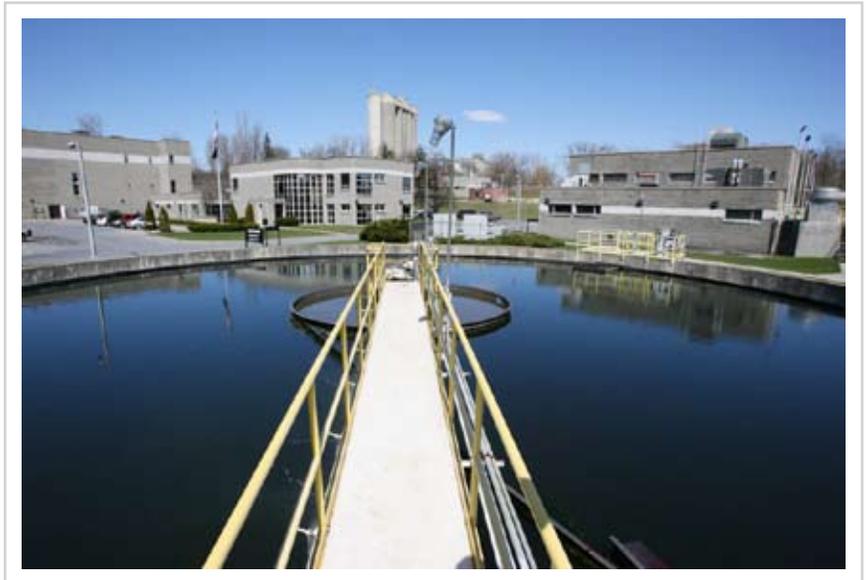
In response to this growing need and recognizing that these communities cannot do it on their own, the Governor and State Legislature in April 2017 authorized a \$2.5 billion Clean Water Program over the next five years in state grant funds to help finance wastewater and drinking water capital projects in New York State as well as other related clean water initiatives. Already, after three successful rounds of funding awards, New York State has invested over \$32 million in clean water infrastructure needs to communities in the Adirondack Park (Appendix D). Even with this welcomed investment, more needs remain as outlined in this report. Many rural communities in the Adirondacks are challenged to invest in engineering designs for their wastewater treatment plant systems and complete the application process in order to receive state grant funds to begin making the necessary repairs and/or build new treatment systems.

As a follow up to the Adirondack Council's 2016 report and to further document the community needs in the Adirondack Park, this new report celebrates the progress made and looks at compliance and operational issues communities face as well as further capital infrastructure funds that must be raised. The report categorizes each of the wastewater treatment plants in the communities within the Park based on their compliance with regulations of the Clean Water Act under the NYSDEC SPDES permit program, consent orders that are currently in place and emerging issues certain facilities are facing.



One finding is clear. Communities are working with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Environmental Facilities Corporation (NYSEFC) to solve these problems, but again the costs are far beyond local means.

In New York State, clean water regulations and facility permits are administered under the NYSDEC State Pollution Discharge Elimination System (SPDES). Under this permit system, specific requirements are put in place for wastewater treatment plants and sewer systems to remain in compliance and protect water bodies from their effluent discharge. This documentation can further aid in prioritizing clean water funding for Adirondack Park communities and help provide additional state and federal assistance to solve these problems. This report documents current clean water project capital needs for each of the community's wastewater treatment plants and sewer collection systems. Furthermore, it documents grants they have received under New York State's Clean Water programs as well as financing they have received under NYSEFC State Water Revolving Loan Fund.



Clarifying Pond at a waste water treatment plant. Photo: Post Star



Primary tanks at a waste water treatment plant. Photo: Post Star

WASTEWATER TREATMENT TECHNOLOGIES IN THE ADIRONDACK PARK

Most wastewater treatment plants in the Adirondack Park have primary and secondary treatment technologies. Of the twenty-two wastewater treatment plants in this report, nineteen are listed as surface water discharges into local water bodies such as streams, rivers or lakes and three plants have groundwater discharges into their local aquifer (Lake George, Hague and Bolton). These groundwater discharges are required under NYSDEC SPDES permit program due to the requirements that protect the waters of Lake George, a drinking water source for many.

Primary treatment consists of temporarily holding the sewage in a quiescent basin where heavy solids can settle to the bottom while oil, grease and lighter solids float to the surface for treatment. The settled and floating materials are removed and the remaining liquid may be discharged or subjected to secondary treatment. Some sewage treatment plants that are connected to a combined sewer system have a bypass arrangement after the primary treatment unit. This means that during very heavy rainfall events, the secondary and tertiary treatment systems can be bypassed to protect them from hydraulic overloading and the mixture of sewage and storm water only receives primary treatment.



Aerial view of the Village of Lake Placid Wastewater Treatment Plant. Photo: Adirondack Council Staff

Secondary treatment removes dissolved and suspended biological matter. This treatment is typically performed by indigenous water-borne micro-organisms in a managed system and/or habitat. Secondary treatment may require a separation process to remove the micro-organisms from the treated water prior to discharge or to tertiary treatment. Tertiary treatment is sometimes defined as anything more than primary and secondary treatment in order to allow ejection into a highly sensitive or fragile ecosystem. More than one tertiary treatment process may be used at any treatment plant including disinfection, microfiltration and/or nutrient or nitrogen removal.

Again, in communities in the Adirondack Park, wastewater treatment is mostly confined to primary and secondary treatment processes before the waters are discharged back into the environment. The following methodology describes how this report analyzed data regarding discharges and the effectiveness of current treatment systems as well as emerging issue that their sewer systems are facing.

DATA SOURCE AND METHODOLOGY

The Adirondack Council collected the information from the communities' Discharge Monthly Reports (DMR) which is required under the NYSDEC SPDES permit program and available through the U.S. EPA Enforcement and Compliance History Online (ECHO) system. From this website, SPDES permit effluent charts and SPDES permit effluent limit exceedance reports were downloaded and reviewed. The online system gives the overall compliance status for each wastewater treatment plant and a breakdown of the last three years into quarters and by water quality parameter and outfall. The breakdown of Water Quality Parameters is listed with a glossary in Appendix A.



Given this information in combination with the findings from the Adirondack Council's 2016 Clean Water report, the twenty-two wastewater treatment plants within the Adirondack Park were placed into one of four different categories which describe their level of compliance with permit requirements as well as indentifying potential emerging issues in the future.

- CATEGORY 1:** Wastewater treatment plants that are currently under consent order due to a violation(s) of a permit requirement (7 communities).
- CATEGORY 2:** Not currently under any consent orders, but ECHO data indicated that they had a historic incident of being out of compliance with their permit requirements (8 communities).
- CATEGORY 3:** Currently in compliance with their permits, but show some parameters with emerging issues that could make them noncompliant in the future (5 communities).
- CATEGORY 4:** In compliance with their permit requirements and have no emerging issues at this time (2 communities).

The Adirondack Council is committed to working with these communities and educating policy makers and stakeholders regarding the local and statewide benefits of financing clean water projects in the Adirondack Park.

DESCRIPTION OF TWENTY-TWO ADIRONDACK WASTEWATER TREATMENT PLANTS BY CATEGORY

CATEGORY 1: UNDER NYSDEC CONSENT ORDER

Town of Crown Point Sewer District #1 Wastewater Treatment Plant

- Crown Point's wastewater treatment plant (WWTP) discharges into Lake Champlain (a Class B water quality resource) under their NYSDEC SPDES permit and the plant is under consent order with NYSDEC. After receiving a Notice of Violation (NOV) for 23 exceedances from 2011 through 2014, the town began to take steps to address the problems. In the years 2015 through 2017, the facility continued to exceed SPDES effluent limitations for biochemical oxygen demand (BOD) and total suspended solids (TSS). Due to these violations, consent orders were put into place on April 20, 2016 and again in January 2017. Crown Point is undergoing engineering and application procedures to address these issues as well as receiving a NYSDEC WQIP engineering grant for inflow and infiltration problems in their sewer line system. Under the consent order, construction for upgrades to their sewage treatment plant to address these issues must be completed by 2021 and the town is currently pursuing design, funding applications and financing.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF-IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- Crown Point received a WQIP¹ grant of \$64,000 for engineering studies for inflow and infiltration concerns in their sewer line system in 2016. Cost estimates for upgrades to the sewer plant to address issues in their consent order are **\$2,461,187** as estimated in the 2016 Clean Water State Revolving Fund Intended Use Plan (CWSRF-IUP)³.

Town of AuSable Wastewater Treatment Plant (Previously Village of Keeseville)

- The Town of AuSable WWTP has discharges into the AuSable River (a Class C water quality resource) under their NYSDEC SPDES permit and the plant is under consent order by NYSDEC. In June 2016, the town failed to submit the required Discharge Monthly Reports (DMR) and in January 2017, a NOV was issued. The town had taken steps to address historical exceedances for total suspended solids, pH and phosphorous which further demonstrated the need for timely DMRs. In addition to the overdue DMRs, the town is out of compliance with the consent order because they failed to adopt the sewer ordinance by December 31, 2016 and sign a collection system management agreement with the Town of Chesterfield. The town is currently working to resolve these issues and working with the Town of Chesterfield to design remedies for their sanitary sewer collection system.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF-IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- The 2016 CWSRF IUP³ estimates costs of **\$7,263,000** for a sanitary sewer collection to address inflow and infiltration issues. **The town applied for EFC Clean Water grants in Round Three and received a grant of \$1,782,936 towards the cost of this project with low-interest financing pending.** In addition, AuSable's WWTP has identified future needs including a rebuild of the treatment plant with a focus on UV treatment.

Village of Lake George Wastewater Treatment Plant

- The Village of Lake George WWTP has a groundwater discharge (a Class GA water quality resource) under their NYSDEC SPDES permit and is under consent order by NYSDEC to construct a new wastewater treatment plant. The consent order noted past violations in a number of parameters including nitrogen and phosphorous. A consent order which was modified from the original 2015 order was signed on October 26, 2016. The consent order includes a schedule of submissions and milestones toward the construction of this new facility. The village is working towards these milestones and a schematic design for the facility was completed and a proof of financing is underway. The construction schedule is set to begin by December 17, 2019 and to be completed by August 16, 2021. Currently, all penalties remain suspended while this project is underway. The village is working hard to replace this 75-year old plant in order to maintain its ability to treat effluent in the long run. The village is also working to resolve beach closing issues at Million Dollar Beach on Lake George due to bacteria counts. While studies are still underway on the cause of the beach closing, preliminary information has identified a combination of potential sources including discharges from the operation of WWTP, their sanitary sewer collection system and nearby privately owned septic systems.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Village of Lake George: **\$17,200,000**
Description: Planning, Design and Construction to upgrade sewage treatment plant to maintain groundwater water quality. (Size Project Category A- Score: 56)
Total Estimated Cost: **\$17,200,000 (funded-see below)**

- The Village of Lake George over past several years has spent several million dollars on plant upgrades to address past violations. However, the age of the plant made these corrections temporary and the consent order called for a new facility to be built. **In October 2017, the Village of Lake George received an EFC Clean Water Infrastructure grant of \$4,273,923 towards construction of a new wastewater treatment plant with the remaining cost of project above to be financed.** The community is continuing to assess sanitary sewer collection and septic system needs.

Village of Lake Placid Water Pollution Control Plant

- The Lake Placid WWTP has discharges into Chubb River (a Class C water quality resource) under their NYSDEC SPDES permit. The village was issued a NOV on January 23, 2017 because while the village did complete an environmental impact statement for their recent Main Street Reconstruction Project, there is still not compliance with the consent order schedule. The reconstruction project is designed to address inflow and infiltration issues contributing to water quality impairments. The village has addressed these issues and plans to begin the sanitary sewer and storm water project in 2018 with its completion by 2020. The project will be in 3 phases and the village is seeking grant funding from a variety of sources to help finance this effort.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Village of Lake Placid: **\$5,100,000**
Description: Planning, Design and Construction of sanitary sewer replacement to maintain water quality in the Chubb River. (Size Project Category A- Score: 48)
Total Estimated Cost: **\$5,100,000**

- Lake Placid's Main Street sewer lines replacement is moving forward. Applications for additional support have been submitted and the project should be underway in 2018. The 2016 CWSRF IUP³ updated estimated project costs at **\$6,950,000**. Additional sewage treatment plant and operational needs are currently under review and evaluation.



Town of Ticonderoga Sewer District #5 Water Pollution Control Plant

- Ticonderoga's WWTP has discharges into La Chute River (a Class D water quality resource) under their NYSDEC SPDES permit and the plant is under consent order by NYSDEC. In February 2017, a NOV was issued due to failure to submit DMR reports and plans which were due in 2015 and 2016. In 2016 alone, there were six sanitary sewer overflow events. These are required to be followed up with incident reports within 5 days and Ticonderoga was not able to abide by this rule. Ticonderoga is working to address their DMR reporting and to address their sanitary sewer overflow issues as well as certain sewer plant operational and maintenance retrofits.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- The 2016 CWSRF IUP³ estimates Ticonderoga's current needs to cost **\$6,800,000**. The future needs include combined sewer overflow control, treatment and conveyance, sewer separation, and sewer treatment plant improvements/retrofits. **Ticonderoga received an EFC Clean Water grant in Round Three of the program in October 2017 for \$2,879,104 to address these needs with an updated estimated final cost of \$11,516,413.**

Town of Westport Sewer District No. 1 Wastewater Treatment Plant

- Westport's WWTP has discharges into Lake Champlain (a Class A water quality resource) under their NYSDEC SPDES permit. The town is under consent order as of March 2017 when the town was issued a NOV for failure to submit DMRs. In terms of water quality measurements, they have not had recent instances of non-compliance. However, with a history of compliance issues in regards to phosphorous and coliform as recently as 2014 and percent removal of suspended solids and percent removal of BOD in previous years, these DMRs are critical to monitor the effectiveness of their plant operations. Westport is working to resolve these reporting issues and applying for engineering studies to evaluate future needs at their WWTP.
- Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.
- **Westport recently spent about \$400,000 on UV system upgrades.** The town has applied for an engineering grant for future necessary sewer system upgrades.

Town of Hague Sewer District No. 1 Wastewater Treatment Plant

- The Town of Hague WWTP has a groundwater discharge (a Class GA water quality resource) under NYSDEC SPDES permit. The plant is under consent order, having received two different NOV's within the past several years. In July 2016, a NOV was submitted for failure to submit the 2015 annual report and in September 2016 for failure to submit DMR. In addition, the town has also shown several violations in its water quality measurements over the past several years. Nitrogen and phosphorous have both proven to be a consistent compliance issue and there have also been less persistent exceedances in total suspended solids. The town is working to address these reporting issues and seeking grants to upgrade their WWTP.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Town of Hague:	\$1,652,000
Description:	Planning, Design and Construction dredging of Lake George at mouth of Hague Brook to improve water quality. (Size Project Category A- Score: 87)
Total estimated Cost:	\$1,652,000
Town of Hague:	\$450,000
Description:	Upgrades and improvements to sewage treatment plant to maintain water quality in Lake George watershed. (Size Project Category A- Score: 56)
Total estimated Cost:	\$450,000

In October 2017, the estimated cost of the project above was lowered to \$394,250 and they received a NYS Clean Water grant of \$98,563 towards these upgrades.



CATEGORY 2: HISTORICAL COMPLIANCE INCIDENTS

Town of Bolton Wastewater Treatment Plant

- The Town of Bolton WWTP has a groundwater discharge (a Class GA water quality resource), as is required in the Lake George basin under NYSDEC SPDES permit. The original WWTP and collection system date back to 1960, and have seen several improvement projects during the 50+ years of operation. The existing unit processes are outdated, have outlasted their anticipated useful life cycles, and yet continue to typically provide standard secondary treatment. The WWTP does not, nor was it designed to, complete the final step in total nitrogen removal; that is, the WWTP does not denitrify to remove effluent nitrate concentrations. There have been compliance issues and exceedances in nitrogen in the past few years. In the past 3 years alone, there have been a total of 11 noncompliant measurements. There have also been issues with phosphorous exceedances and less frequent issues with pH and settleable solids. With the WWTP experiencing periodic excursions beyond the plant's treatment capabilities, both hydraulically and organically, steps have been taken. For effluent phosphorus, it is controlled by chemical sequestering. In addition, during the 2017 operating season, treatment enhancements were implemented at the WWTP, as triage-type remedies to an outdated facility without system redundancy. Future wastewater treatment plant upgrades and other mitigation steps are outlined below and the town is working towards addressing these issues and plans to apply for future NYS Clean Water grants. The town also plans to address nonpoint source pollution in the Finkle Brook with a dredging project.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Town of Bolton: **\$650,000**
Description: Planning, Design and Construction dredging of Lake George at mouth of Finkle Brook to improve water quality. (Size Project Category A- Score: 87)
Total Estimated Cost: **\$650,000**

In June 2017, these additional estimates were added to EFC CWSRF IUP report:

Town of Bolton: **\$13,256,000**
Description: To replace both the main pump station, through which all sanitary waste flows, and the 10" 2300 ft. force main from that pump station to the WWTP.
Total Estimated Costs: **\$13,256,000**

Indian Lake Sewer District #1 Wastewater Treatment Plant

- The Town of Indian Lake WWTP has surface discharge into Cedar River (a Class B (T) water quality) under their NYSDEC SPDES permit. While the plant is not under consent order, it has been showing noncompliance in some parameters during the past several years. There have been exceedances in BOD and percent removal of BOD as recently as 2015. The Town is evaluating their plant operations and seeing if further actions are needed to address these issues.
- Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.
- Currently, there is no information about recent work or future plans.



Town of Newcomb Winebrook Hills Sewer District Wastewater Treatment Plant

- The WWTP in Winebrook Hills Sewer District, which is operated by the Town of Newcomb, has discharges into the Wine Brook (a Class C (T) water quality resource) under NYSDEC SPDES permit. The town has invested in upgraded WWTP operations over the past several years. However, within the past 3 years, there have been noncompliant measurements in the percent removal of suspended solids, the percent removal of BOD, coliform, pH, and dissolved oxygen. These issues are being evaluated by the town in consultation with NYSDEC.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- The town has indicated that certain WWTP plant modifications are under review and development at Winebrook Hills Sewer District, and working towards engineering plans and cost estimates.

Town of Moriah Wastewater Treatment Plant

- The Town of Moriah WWTP has discharges into Lake Champlain (a Class A water quality resource) under NYSDEC SPDES permit. The Town of Moriah took over sole management responsibility of WWTP operations from Port Henry after the village was dissolved in March 2017. The town has made major investments to their WWTP to address historical compliance issues, but current issues revolve around their sanitary sewer system. In April 2014, storm-related flooding caused a manhole to overflow and as of June 2015, the pumps in the duplex station were failing, which is likely to have led to sanitary sewer overflows. The plant was placed under consent order because of these issues and was declared in compliance in February 2017, closing the case. The town is submitting an Inspection and Maintenance (I & M) Program along with a Comprehensive Performance Evaluation (CPE) Report. Moriah is continuing efforts to improve the wastewater treatment plant as well as address their inflow and infiltration issues in their sanitary sewer system. They plan to apply for NYS Clean Water grants in future rounds of the program to assist in this effort.
- Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Information from 2016 CWSRF EFC IUP report:

Town of Moriah:	\$7,130,000
Description: Design and Construction of sanitary sewer improvements to maintain water quality in Lake Champlain. (Size Project Category B- Score: 61)	
Total Estimated Cost:	\$7,130,000

Village of Tupper Lake Water Pollution Control Plant

- Tupper Lake's WWTP has discharges into Raquette Pond (a Class B water quality resource) under their NYSDEC SPDES permit. The plant has shown some historical non-compliance issues in the past several years relating to percent removal of BOD, pH, TSS percent removal, total residual chlorine, and coliform. Tupper Lake has plans to make improvements to and expansions for their sewage treatment plant, update their collector and the sanitary sewer, and rehabilitate the force main and pump station. The village has taken steps to apply for NYS Clean Water grants to help take the necessary steps towards making these improvements.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- The 2016 CWSRF IUP³ estimates that Tupper Lake has future costs of \$5,092,000 with \$2,901,000 for sewage treatment plant expansion, \$1,178,000 for collector and sanitary sewer updates, and \$1,013,000 for force main and pump rehabilitation. **In October 2017, the Village of Tupper Lake received an EFC Clean Water grant of \$1,605,395 towards an updated estimated total cost of \$6,421,578 for these projects.**



Town of Willsboro Sewer District #1 Wastewater Treatment Plant

- The Willsboro Sewer District #1 WWTP has discharges into the Boquet River (a Class C (T) water quality resource) under their NYSDEC SPDES permit. Historically, the plant was found to be in violation in BOD and TSS parameters after the failure of the rotating biological contractor in September 2013 and was placed under consent order to complete construction by 2019. The town was deemed in compliance with the consent order by NYSDEC on April 26, 2016 and the case was closed. These improvements were able to be made as a result of the Round One NYS EFC grant that Willsboro received for \$746,326 to upgrade their wastewater treatment plant in order to improve water quality of the Boquet River. Specifically, this grant was used for collection system tie-in design. Willsboro also has plans for over \$6 million worth of improvements for the sewage treatment plant and collector and sanitary sewer upgrades to address future needs. Willsboro is working to apply for additional grants in order to continue to make improvements to their wastewater treatment plant and sanitary sewer collection system.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Town of Willsboro: **\$2,985,304**
Description: Planning, Design and Construction of sewage treatment plant improvements for water quality in Boquet River and Lake Champlain watershed. (Size Project Category D- Score: 64)
Total Estimated Cost: **\$2,985,000**

- The Draft CWSRF IUP³ estimates Willsboro to have future costs of **\$6,850,304** including \$2,985,304 for sewage treatment plant improvements and \$3,865,000 for collector and sanitary sewer upgrades.

Town of St. Armand Sewer District Wastewater Treatment Plant

- The St. Armand Sewer District WWTP has discharges into Sumner Brook (a Class C (T) water quality resource) under their NYSDEC SPDES permit. Historically, the plant has been in noncompliance with their permit. The town received three NOVs in 2011, three NOVs in 2012, and three NOVs in 2013 for failure to submit a Sewer Use Ordinance request, failure to obtain flow rates, and DMR violations based on effluent flow rates in carbonaceous BOD (CBOD), total suspended solids (TSS), CBOD and TSS percent removals, and pH. They were placed under consent order to fix these issues and complete construction by March 2016. A year later in March 2017, the town was deemed in compliance in regards to this consent order. As recently as April 2017, there have been some issues with percent removal of BOD, pH, TSS, percent removal of TSS, settleable solids, and phosphorous. St Armand recognizes more needs to be done and is working towards improvements and applying for NYS Clean Water grants to assist in their efforts.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Town of St. Armand: **\$4,589,000**
Description: Planning, Design and Construction of rebuilding the sewage treatment plant to improve water quality of Summer Brook. (Size Project Category D- Score: 1044)
Total Estimated Cost: **\$4,589,000**

- The 2016 CWSRF IUP³ estimates **\$8,662,000** including \$4,033,000 for collector/ sanitary sewers rebuild and \$4,589,000 for sewage treatment plant rebuild.

Town of Au Sable Forks Community Wastewater Treatment Plant

- The Au Sable Forks Community WWTP has discharges into the AuSable River (a Class C water quality resource) under their NYSDEC SPDES permit. The plant is categorized as compliant, but there have been recent measurements which are in violation of their permit including exceedances, percent removal of BOD, pH, and percent removal of TSS. They have plans and efforts underway to update the water distribution and storage tank system as well as upgrades to their sewage treatment plant.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- The 2016 CWSRF IUP³ estimates a cost of **\$4,740,000** for Au Sable Forks for upgrades to their sewage treatment plant.

CATEGORY 3: POTENTIAL EMERGING ISSUES

Town of Inlet / Hamlet of Inlet Wastewater Treatment Plant

- Inlet's WWTP has discharges into Fifth Lake Outlet Channel (a Class A water quality resource) under their NYSDEC SPDES permit. The plant is and has been in compliance with their permit. However, there have been some measurements recently close to exceeding the limit in percent removal of BOD and overall levels of phosphorous and settleable solids. Inlet has future plans to update their collector and sanitary sewers as well as evaluating their sewage treatment plant capacity and needs moving forward.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Town of Inlet: **\$975,000**
Description: Planning, Design and Construction of sewer district no. 2 within the Town of Inlet to maintain water quality in Fifth Lake. (Size Project Category A- Score: 31)
Total Estimated Cost: **\$975,000**

Village of Saranac Lake Water Pollution Control Plant

- The Saranac Lake WWTP has discharges into the Saranac River (a Class C water quality resource), under their NYSDEC SPDES permit. They are currently operating within the acceptable limits, but they had some effluent exceedance in 2015 with settleable solids. The village recognizes they need modernization efforts at their plant as well as improvements to their sanitary sewer system. The village previously received an EFC clean water grant for \$1,751,250 in Round One of the program in order to plan, design, and construct improvements to their collection system to minimize inflow and infiltration. In addition to this ongoing project, Saranac Lake also plans to rehabilitate the sewer system and make further improvements to their sewage treatment plant to address future capacity and treatment needs. The village is preparing for these needs and the opportunity to apply for future NYS Clean Water grants.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Village of Saranac Lake: **\$3,000,000**
Description: Planning, Design and Construction of collection system improvements to minimize flow and infiltration and improve water quality in the Saranac River. (Size Project Category D- Score: 1063)
Total Estimated Cost: **\$3,000,000**

Village of Saranac Lake: **\$3,107,000**
Description: Planning, Design and Construction of sewage treatment plant upgrades to improve water quality in the Saranac River. (Size Project Category D- Score: 1048)
Total Estimated Cost: **\$3,107,000**



Additional longer term capital project needs are being evaluated and designed according to officials in Saranac Lake.

Additional Information from Adirondack Council 2016 Clean Water report:

- In 2015, Saranac Lake received a grant of **\$1,751,250** for Dorsey Street sanitary sewer improvements of a **\$7,005,000** program for inflow and infiltration correction. The estimated project cost for sewer rehabilitation is **\$2,014,956**, which is necessary in addition to improvements to sanitary sewer system to address inflow and infiltration issues. In 2017, the village indicated additional needs at the sewer treatment plant beyond the **\$6,107,000** in projects needs listed in the 2016 EFC CWSRF IUP are under consideration.

Town of Schroon Lake Wastewater Treatment Plant

- The Schroon Lake WWTP has discharges into Schroon Lake (a Class AA water quality resource) under their NYSDEC SPDES permit. While they have been in compliance with all permit parameters over the past year, both the percent removal of BOD and pH has been close to being out of compliance. Within the past 10 years, the Town of Schroon constructed a new wastewater treatment plant. The town spent close to \$5 million on these projects and is still under debt service for them. Monitoring and future evaluation of need are underway.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- There are currently no future plans for the Schroon Lake wastewater treatment plant. Re-evaluation is being considered to assess if any future maintenance or upgrades are necessary.

Village of Speculator Wastewater Treatment Plant

- Speculator’s WWTP has discharges into the Sacandaga River (a Class C water quality resource) under their NYSDEC SPDES permit. The plant’s permit parameters are currently within all acceptable limits. However, within the past several years, there have been indicators in percent removal of suspended solids and pH that have come close to non-compliance. To address this potential emerging need, the village applied for a Round Two NYS EFC Clean Water Grant of about \$500,000 to make updates to their wastewater treatment plant and to upgrade their collector and sanitary sewer. While Speculator did not receive this grant, they are continuing to pursue funding to make the necessary improvements before the water quality issues arise again.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- | | |
|---|--------------------|
| Village of Speculator: | \$1,500,000 |
| Description: Planning, Design and Construction of the Village of Speculator’s sewage treatment plant to protect water quality in the Sacandaga River. (Size Project Category A- Score: 34) | |
| Total Estimated Cost: | \$1,500,000 |
| Town of Speculator: | \$1,500,000 |
| Description: Design and Construction of collector sewers along Route 8 and 30 at the Caulkins Campground to improve to maintain water quality in the Sacandaga. (Size Project Category A- Score: 56) | |
| Total Estimated Cost: | \$1,500,000 |
- Updated information obtained that the estimated need of \$1,500,000 for Speculator’s sewage treatment plant refurbishment could be higher.

Town of Warrensburg Sewage Treatment Plant

- The Town of Warrensburg's WWTP has discharges into Schroon River (a Class C water quality resource) under their NYSDEC SPDES permit. The plant is not currently in violation of any permit requirements. However, settleable solids and pH have had values within the past year which were close to being noncompliant. In the future, the Town of Warrensburg has plans to upgrade the collector and sanitary sewer as well as certain retrofits to their sewage treatment plant.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

Town of Warrensburg: **\$1,100,000**
Description: Design and Construction of sewage treatment plant rehabilitation to maintain water quality in the Schroon River. (Size Project Category A- Score: 56)
Total Estimated Cost: **\$1,100,000**

Town of Warrensburg: **\$2,011,000**
Description: Planning, Design and Construction of a wastewater collection system to maintain groundwater water quality. (Size Project Category A- Score: 31)
Total Estimated Cost: **\$2,011,000**

CATEGORY 4: IN COMPLIANCE AND NO EMERGING ISSUES

Town of Northampton Wastewater Treatment Plant

- The Town of Northampton WWTP has discharges into the Sacandaga River (a Class B water quality resource) under their NYSDEC SPDES permit. All permit parameters in recent years have been in compliance. The town does plan to make repairs on both water and sewer systems in addition to make corrections for infiltration and inflow issues within their sanitary sewer system. Because of the small size of the system, Northampton has been struggling to get funding for these projects and will continue to seek assistance.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- The 2016 CWSRF IUP³ estimates a need for **\$5,927,000** for sewer system upgrades and repairs in the Town of Northampton.

Old Forge Sewer District Wastewater Treatment Plant

- Old Forge Sewer District WWTP has discharges into the middle branch of Moose River (a Class C water quality resource) under their NYSDEC SPDES permit. From the information available on the USEPA ECHO system, Old Forge does not have any emerging issues. However, Old Forge has indicated they have upgrades system needs in the future to maintain its operation and compliance.

Future Wastewater Treatment project needs based on 2016 EFC CWSRF IUP Plan² and information gathered in 2016 Adirondack Council report titled *Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity*.

- The 2016 CWSRF IUP³ estimates a need for **\$7,000,000** to make upgrades to the wastewater treatment plant and the dewatering system as well as the need for screw pump replacement.

WASTEWATER TREATMENT PLANTS BORDERING ADIRONDACK PARK WITH EFC CWSRF IUP NEEDS

In addition to the twenty two plants listed above, the following two border communities had clean water project upgrade needs at their facilities in the 2016 CWSRF EFC IUP report.

Town of Peru

Town of Peru: \$4,100,000
Description: Design and Construction of sanitary improvements to maintain water quality in the Little AuSable River. (Size Project Category A- Score: 23)
Total Estimated Cost: \$4,100,000

In October of 2017, the Town of Peru received an EFC clean water grant of \$1,006,481 towards this project with a final estimated cost at \$4,025,923.

Town of Champlain

Town of Champlain: \$7,128,000
Description: Planning, Design and Construction of collector sewers in West Service Road Sewer District to improve water quality in the Great Chazy River. (Size Project Category A- Score: 31)
Total Estimated Cost: \$7,128,000

¹ NYS DEC Water Quality Improvement Program under the Environmental Protection Fund

² NYS Environmental Facilities Corporation Final Intended Use Plan for Clean Water State Water Revolving Fund Federal Fiscal Year 2017

³ NYS Environmental Facilities Corporation (EFC) Draft 2017 Clean Water State Revolving Fund Intended Use Plans

CONCLUSION

Great strides have been made over the past three years to address water quality needs in the Adirondack Park with over \$32 million in New York State Clean Water grants awarded to local communities for Clean Water and Drinking Water infrastructure projects. These successes have been made possible by the historic state investments enacted by Governor Andrew Cuomo and the State Legislature as well as the many communities that have stepped forward to address these issues. Appendix D outlines clean water grants given to date to Adirondack Communities including Round Three of the EFC Grants that were announced in October 2017.

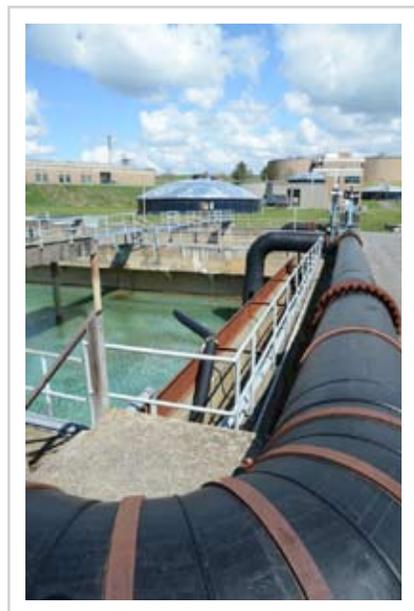
Even with these grants and their financing from the Federal State Revolving Loan Fund administered by NYSEFC, this report has identified over \$85 million (\$85,599,491) in further wastewater treatment and sanitary sewer system project costs for Adirondack communities. In addition, some communities are still in the process of identifying their estimated project costs for additional work needed at their facilities which will increase this total.

The information gathered in this report represents a definitive scope of the current state of affairs with wastewater treatment plants and sanitary sewer systems in the Adirondacks. The findings show that significant needs both in the short term and the long term for communities still remain. Facilities and sewer systems are stressed and with age they are breaking down. In order to secure continued success for clean water in the Adirondacks, more will need to be done.

It is clear that local Adirondack communities cannot take on this on-going challenge alone with their limited resources and tax base. All New Yorkers as well as visitors from across the nation will benefit from federal, state and local partnerships to address these needs. The information provided in this report shows a clear understanding of these concerns and the continued need for support; both technical and fiscal. The study also incorporates information from the Adirondack Council's 2016 report titled Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity as well as information from the 2016 EFC CWSRF IUP plan to correct the deficiencies and to address the current infrastructure improvement plans.

The Clean Water Infrastructure needs in the Adirondacks are clear and well documented. The rationale and the call to action for all the towns with wastewater treatment plants and sewer systems in the Park are sound. Now is the time for all communities to move forward, plan for their future needs and apply for future grants under New York State's Clean Water programs.

Already, many local governments are positioned to apply for the next round of grants in 2018 and will hopefully receive future funds to reduce their local burden. The Adirondack Council will continue its efforts to reach out to local communities to support their efforts so more clean water grants can come to the Adirondacks. Now is clearly the time for all of us to work in partnership to secure the necessary funds needed to properly protect the water resources of the Adirondack Park.



APPENDIX A: ACCEPTED LIMITS FOR EACH WATER QUALITY PARAMETER

Parameter	Limit Type	Limit Value	Limit Unit	Limit Type	Description
Flow Rate	30DAARME	0.059	MGD	BOD	Biochemical Oxygen Demand*
Flow Rate	MO AVG	0.074, 0.039	MGD	30DA GM	30 Day Geometric Mean
BOD, 5-day, 20 deg. C.	MO AVG	30	MG/L	30DA ARI	30 Day Arithmetic
BOD, 5-day, 20 deg. C.	MO AVG	2.26	KG/D	30DA AVG	30 Day Average
BOD, 5-day, 20 deg. C.	30DAARME	30	MG/L	30DA GEO	30 Day Geometric
BOD, 5-day, 20 deg. C.	7DA ARME	45	MG/L	30DAARME	30 Day Arithmetic Mean
BOD, 5-day, 20 deg. C.	30DAARME	6.802	KG/D	7 DA AVG	7 Day Average
BOD, 5-day, 20 deg. C.	7DA ARME	10.2	KG/D	7 DA GEO	7 Day Geometric
BOD, 5-day, 20 deg. C.	7 DA AVG	108, 42.5	KG/D	7DA ARME	7 Day Arithmetic Mean
BOD, 5-day, 20 deg. C.	30DA AVG	74.8, 28.3	KG/D	MO AVG	Monthly Average
BOD, 5-day, 20 deg. C.	7 DA AVG	22	MG/L	ROLL AVG	Rolling Average
BOD, 5-day, 20 deg. C.	30DA AVG	15	MG/L	INDROLAV	Individual 12 Mon Rolling Ave
pH	MINIMUM	6, 6.5	SU	DAILY MX	Daily Maximum
pH	MAXIMUM	9	SU	MAXIMUM	Maximum
Solids, total suspended	MO AVG	30	MG/L	MINIMUM	Minimum
Solids, total suspended	MO AVG	2.31, 15.8	KG/D	MN % RMV	Minimum Percent Removal
Solids, total suspended	30DAARME	30	MG/L	MO AV MN	Monthly Average Minimum
Solids, total suspended	7DA ARME	40	MG/L		
Solids, total suspended	30DAARME	6.802, 8.48	KG/D		
Solids, total suspended	7DA ARME	10.2, 12.7, 289	KG/D		
Solids, total suspended	7DA AVG	3.44	KG/D		
Solids, total suspended	7DA AVG	45	MG/L		
Solids, settleable	DAILY MX	0.00029, 0.000099	mL/L		
Phosphorous, total	ROLL AVG	2.027, 0.77, 0.907	KG/D		
Phosphorous, total	INDROLAV	0.907	KG/D		
Phosphorous, total	DAILY MX	1, 0.5	MG/L		
BOD, 5-day, percent removal	MO AV MN	85	%		
BOD, 5-day, percent removal	MINIMUM	65	%		
BOD, 5-day, percent removal	MN % RMV	85	%		
Solids, suspended, percent removal	MO AV MN	85, 70	%		
Flow, in conduit or thru treatment plant	30DAARME	0.4, 0.44, 0.14, 2.62	MGD		
Flow, in conduit or thru treatment plant	30DA ARI	0.44, 0.6, 0.35	MGD		
Flow, in conduit or thru treatment plant	30DA AVG	0.12, 0.13	MGD		
Flow, in conduit or thru treatment plant	MO AVG	0.18	MGD		
Nitrogen, nitrate total	DAILY MX	10, 20	MG/L		
Oxygen, dissolved	DAILY MX	6	MG/L		
Oxygen, dissolved	MINIMUM	5	MG/L		
Coliform, fecal general	7 DA GEO	400 #/100	mL		
Coliform, fecal general	30DA GEO	200 #/100	mL		
Coliform, fecal general	30DA GM	200 #/100	mL		
Coliform, total general	DAILY MX	50 #/100	mL		
BOD, carbonaceous [5-day, 20 C.]	30DAARME	4, 25	MG/L		
BOD, carbonaceous [5-day, 20 C.]	7 DA AVG	180	MG/L		
BOD, carbonaceous [5-day, 20 C.]	7DA ARME	25, 38	MG/L		
BOD, carbonaceous [5-day, 20 C.]	7DA AVG	5.66	KG/D		
BOD, carbonaceous [5-day, 20 C.]	7DA ARME	8.61	KG/D		
Chlorine, total residual	DAILY MX	2, 1	MG/L		
Chlorine, total residual	DAILY MX	5.079	KG/D		

Source: NYS DEC SPDES Permit System Data Base

*Amount of dissolved oxygen needed by aerobic biological organisms to break down organic material present in a water sample.

The Adirondack Council downloaded and reviewed the USEPA's Frequently Asked Questions (FAQ) for Discharge Monthly Reports (DMRs) to assist in writing this report.

APPENDIX B: WATER QUALITY CLASS DESIGNATIONS

Water Class	Description
Class GA	Fresh Groundwater
Class AA	Best Use- Drinking Water
Class A	Best Use- Drinking Water
Class B	Best Use- Public Swimming and Contact Recreation Activities
Class B(T)	Best Use- Public Swimming and Contact Recreation Activities, Protected Stream-Trout Population
Class C	Best Use- Fishing and Non-Contact Activities
Class C(T)	Best Use- Fishing and Non-Contact Activities, Protected Stream- Trout Population
Class D	Does Not Support Drinking, Public Swimming, Contact Recreation Activities, Fishing, or Non-Contact Activities

Source: NYS DEC SPDES Permit System Data Base

APPENDIX C: IUP SIZE PROJECT CATEGORY DESCRIPTIONS

Size Project Category	Description
Category A	Municipalities where population is identified as 3,500 or less
Category B	Municipalities where population is identified as being 3,501 through 2,000,000
Category C	Municipalities where population is identified as being more than 2,000,000
Category D	All municipal projects for which the municipality has received a written confirmation for a reduced interest rate direct financing because of financial hardship

Source: NYS Environmental Facilities Corporation (EFC) Clean Water State Revolving Fund Intended Use Plan (CWSRF IUP) Annual Report 2016/2017

APPENDIX D: NEW YORK STATE 2015-2017 CLEAN WATER INFRASTRUCTURE GRANTS IN ADIRONDACK PARK COMMUNITIES (NYSEFC AND NYSDEC)

NYS Water Infrastructure Improvement Program Grants under EFC

In December 2015 (Round One), New York State distributed \$75 million in its first Clean Water Infrastructure grants program state-wide. In the Adirondack Park, the following grant and loan awards were given to two Adirondack communities. They received \$2,497,576 in Round One grants and \$7,492,728 in EFC low interest financing. This made for a total investment of \$9,990,304 in clean water infrastructure projects.

Local Government	Grant	Financed Loan	Estimated Total Project Cost
Willsboro	\$746,326	\$2,238,978	\$2,985,304
Saranac Lake	\$1,751,250	\$5,253,750	\$7,005,000
Total Amounts	\$2,497,576	\$7,492,728	\$9,990,304

In Round Two of the program's funding cycle, more Adirondack communities put forward applications to get the needed dollars for their clean water projects. In August 2016, two more Adirondack communities received grants/financing for their wastewater treatment plants. They received \$2,426,250 in grants for projects with a total cost of \$9,705,000 listed below.

Local Government	Grant	Financed Loan	Estimated Total Project Cost
Elizabethtown	\$2,137,500	\$6,412,500	\$8,550,000
Lake Placid	\$288,750	\$866,250	\$1,155,000
Total Amounts	\$2,426,250	\$7,278,750	\$9,705,000

In Round Three of the program's funding cycle, more Adirondack communities were considered for grants and financing. In October 2017, six Adirondack communities received grants for their wastewater treatment plants and sewer systems. They received \$11,646,402 in Clean Water grants for six projects whose total cost were \$46,585,599. EFC is expected to provide low-interest loans to cover a large portion of the remaining costs for these communities.

WIIA/IMG Grant*	Awardee	County	Estimated Project Cost	Estimated Grant Award
CWIIA	Lake George, Village of	Warren	\$17,095,691	\$4,273,923
Clean Water	AuSable, Town of	Clinton	\$7,131,744	\$1,782,936
Clean Water	Peru, Town of	Clinton	\$4,025,923	\$1,006,481
Clean Water	Ticonderoga, Town of	Essex	\$11,516,413	\$2,879,104
Clean Water	Tupper Lake, Village of	Franklin	\$6,421,578	\$1,605,395
CWIIA	Hague, Town of	Warren	\$394,250	\$98,563
Total Clean Water Project Costs and Grants:			\$46,585,599	\$11,646,402

In summary, Adirondack communities received a total of **\$16,570,228** in clean water grant funding for wastewater treatment plants and sewer systems from the first three rounds of the Clean Water Infrastructure Improvement Act. These ten communities have committed to, when coupled with grants and local capital funds along with EFC financing available, a total of **\$66,260,903** in clean water project costs. While the grants were essential in moving these projects forward, it is important to note that clean water grants for wastewater treatment plants and sewer systems can only account for 25% of the total project costs.

In addition, Drinking Water Infrastructure grants were awarded in Rounds One, Two and Three of the program to six Adirondack communities. While not the focus of this report, these six communities received grants totaling **\$10,646,038** for their drinking water facility projects.

In total, Adirondack communities received **\$27,216,266** in clean water and drinking water grants from Rounds One through Three of EFC's program (2015-2017).

NYS DEC Water Quality Improvement Program Grants

Additional communities were provided funding in December 2016 through NYS DEC WQIP¹ under the Environmental Protection Fund for additional projects and in some cases to assist in the design of their priority project needs listed by EFC. These grants are smaller scale than the Clean Water Grant Fund under the Water Infrastructure Improvement Act and State Revolving Loan Financing administered by EFC. The WQIP¹ grant awards included:

- St. Armand's WQIP¹ grant of \$642,913 for a new wastewater treatment plant disinfection system and \$19,200 to study effectiveness.
- Westport's WQIP¹ grant of \$100,000 to do engineering studies for inflow and infiltration issues in their sanitary sewer system.
- Saranac Lake's WQIP¹ grant of \$30,000 to do engineering studies on disinfection system at wastewater treatment plant and also received a \$2,500,000 WQIP¹ grant to install new disinfection system at plant.
- Crown Point's WQIP¹ grant of \$64,000 to do engineering studies for inflow and infiltration issues in their sanitary sewer system.
- Moriah's WQIP¹ grant of \$600,000 to replace clay pipes and sewer main along Lamos Lane for sewer system.
- North Elba's WQIP¹ grant of \$420,000 to create culvert and restore natural habitat to receive/treat storm water run-off.
- Elizabethtown's WQIP¹ grant of \$500,000 in addition to their Round Two EFC grant and financing for their new wastewater treatment plant.

These smaller grants add to the total awards communities received by **\$4,856,913**. These investments bring the grand total of clean water and drinking water program grants over the past three years to the Adirondack region to **\$32,073,179**.

Additional grants through the NYS DEC Water Quality Improvement Program under the Environmental Protection Fund are scheduled to be announced in December 2017.

¹ NYS DEC Water Quality Improvement Program under the Environmental Protection Fund

² NYS Environmental Facilities Corporation Final Intended Use Plan for Clean Water State Water Revolving Fund Federal Fiscal Year 2017

³ NYS Environmental Facilities Corporation (EFC) Draft 2017 Clean Water State Revolving Fund Intended Use Plans



APPENDIX E: CONTACT INFORMATION FOR SUPERVISORS AND MAYORS WITH AUTHORITY OVER ADIRONDACK WWTPS

Town	Name	Title	Address	Phone #
AuSable Forks (Black Brook)	Jon Douglass	Supervisor	P.O. Box 715 AuSable Forks, NY 12912	518-647-5411
AuSable Forks (Jay)	Archie Depo	Supervisor	P.O. Box 730 Au Sable Forks, NY 12912	518-647-2204
Bolton	Ron Conover	Supervisor	P.O. Box 698 Bolton, NY 12814	518-644-2461
Crown Point	Charles Harrington	Supervisor	17 Monitor Bay Road / P.O. Box 443 Crown Point, NY 12928	518-597-3035
Hague	Edna Frasier	Supervisor	9793 Graphite Mountain Road Hague, NY 12836	518-543-6273
Indian Lake	Brian Wells	Supervisor	P.O. Box 730 Indian Lake, NY 12842	518-648-5885
Inlet	John Frey	Supervisor	P.O. Box 179 Inlet, NY 13360	315-357-2204
Keeseville (AuSable)	Sandra Senecal	Supervisor	111 AuSable Street Keeseville, NY 12944	518-834-9052
Keeseville (Chesterfield)	Gerald Morrow	Supervisor	1 Vine Street / P.O. Box 456 Keeseville, NY 12944	518-834-9042
Lake George	Dennis Dickinson	Supervisor	20 Old Post Road Lake George, NY 12845	518-668-5722
Lake George	Craig Randall	Mayor	20 Old Post Road Lake George, NY 12845	518-668-5771
Newcomb (Winebrook)	Westor Miga	Supervisor	P.O. Box 405 Newcomb, NY 12852	518-523-2584
Northville (Northampton)	John Spaeth James Groff	Mayor Supervisor	412 South Main Street Northville, NY 12134	518-863-4211
Old Forge (Webb)	Robert Moore	Supervisor	P.O. Box 157 Old Forge, NY 13420	315-369-3121
Moriah	Thomas Scozzafava	Supervisor	38 Park Place Port Henry, NY 12974	518-546-8631
Saranac Lake	Clyde Rabideau	Mayor	39 Main Street Suite 9 Saranac Lake, NY 12983	518-891-4150
Schroon Lake	Michael Marnell	Supervisor	P.O. Box 578 Schroon Lake, NY 12870	518-532-7737
Speculator	Letty Rudes	Mayor	2875 State Route 8 / P.O. Box 396 Speculator, NY 12164	518-548-7077
St. Armand	Charles Whitson, Jr	Supervisor	P.O. Box 338 / Main Street Bloomingdale, NY 12913	518-891-3189
Ticonderoga	Joseph Giordano	Supervisor	P.O. Box 471 Ticonderoga, NY 12883	518-585-6265
Tupper Lake	Patricia Littlefield	Supervisor	56 Littlefield Road Tupper Lake, NY 12986	518-359-3981
Tupper Lake	Paul Maroun	Mayor	59 Wawbeek Avenue Tupper Lake, NY 12986	518-359-3066
Warrensburg	Kevin Geraghty	Supervisor	3797 Main Street Warrensburg, NY 12885	518-623-4561
Westport	Michael Tyler	Supervisor	P.O. Box 465 Westport, NY 12993	518-962-4419
Willsboro	Shaun Gilliland	Supervisor	5 Farrell Road Willsboro, NY 12996	518-963-8668

APPENDIX F: COMMONLY USE ACRONYMS IN REPORT

NYSDEC:	New York State Department of Environmental Conservation
NYS EFC:	New York State Environmental Facilities Corporation
USEPA:	United States Environmental Protection Agency
ECHO:	Enforcement and Compliance History Online (USEPA)
SPDES:	State Pollution Discharge Elimination System
DMR:	Discharge Monthly Report
NOV:	Notice of Violation
CS:	Consent Order
BOD:	Biochemical Oxygen Demand
CBOD:	Carbonaceous Biochemical Oxygen Demand
TSS:	Total Suspended Solids
WWTP:	Wastewater Treatment Plant
CWSRFIUP:	Clean Water State Revolving Fund Intended Use Plan (EFC)
WQIP:	Water Quality Improvement Program (NYSDEC)

ACKNOWLEDGEMENT OF SOURCES

The information in this report was gathered through government reports, public media releases, web based information and outreach to communities as well as other sources.

We acknowledge these sources below:

NYS DEC SPDES Permit System Data Base
NYS Environmental Facilities Corporation (EFC) Clean Water State Revolving Fund Intended Use Plan (CWSRF IUP) Annual Report 2015/2016
NYS Environmental Facilities Corporation (EFC) Clean Water State Revolving Fund Intended Use Plan (CWSRF IUP) Annual Report 2016/2017
NYS Environmental Facilities Corporation (EFC) Draft 2017 Clean Water State Revolving Fund Intended Use Plan (CWSRF IUP)
Adirondack Council News Releases & Clean Water Report
New York State News Releases
Local Government Web-Sites for Adirondack Communities
Discharge Monthly Reports (DMR), CWA Effluent Charts, and CWA Effluent Limit Exceedance Reports from the U.S. EPA Enforcement and Compliance History Online (ECHO).

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Final Review: William C. Janeway, Adirondack Council Executive Director



WASTEWATER TREATMENT PLANTS IN THE ADIRONDACKS: *Status of Compliance and Operational Needs*

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