

ADIRONDACK CLEAN WATER



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Successes Made/Wastewater Treatment Needs Ahead



Adirondack Council Special Report | October 2020



**ADIRONDACK
COUNCIL** PRESERVING WATER,
AIR AND WILDLANDS



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Cover: Lower Saranac Lake | Photo © Carl Heilman II/Wild Visions, Inc.

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INTRODUCTION

Adirondack lakes, rivers and streams are lifeblood for residents and visitors, and important to people across the state and around the country. People depend on clean water for drinking and as a backbone of the tourism industry that is so vital to the local and state economy. Public clean water infrastructure cleans the water we use and protects the people that depend on it. Failures of sewage treatment plants or their collection systems impair their ability to properly treat locally generated wastewater. Communities must keep untreated human sewage out of pristine Adirondack surface waters and local drinking water supplies from Lake George to Lake Placid. If not, 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 can be impossible to raise the local revenues necessary to invest in treatment systems needed with such a limited tax base.

Documentation of these issues and needs is critical. In November 2016, the Adirondack Council released a report entitled ***Clean Water Infrastructure in the Adirondack Park: Crisis or Opportunity***. In November of 2017, the Adirondack Council released a follow-up report entitled ***An Adirondack Council Study of Wastewater Treatment Plants in the Adirondacks: Status of Compliance and Operational Needs***. These reports highlighted the ongoing needs for wastewater treatment plant and sewer system upgrades, retrofits and/or repairs to continue to protect Adirondack waters. In the reports, the Adirondack

Council found that well over \$150 million dollars of clean water infrastructure projects were needed at over 22 facilities in the Park including wastewater treatment plants and the sewer lines connected to them. In comparison, it was noted that statewide needs in wastewater treatment and infrastructure upgrades and/or repairs is close to \$40 billion over the next twenty years. As of 2020, these needs continued to grow with new facilities being built and more upgrades and repairs identified.

In response to this growing need, and recognizing that these communities cannot do it on their own, the Governor and State Legislature have authorized over \$3.5 billion for Clean Water over a five year period 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 five successful rounds of awarding these clean water grant funds, much needed projects have been implemented and constructed such as in Saranac Lake and Bolton Landing to name a few. However, the true need continues to expand and grow, even with some small-scale less expensive options being considered for select locations. More backlogged projects are now listed on the New York





State Environmental Facilities Corporation's Intended Use Plan and more engineering studies for new projects are underway. This report outlines over a hundred million dollars in future projects and outlines the scope of not only the work needed ahead, but also the financial challenges Adirondack communities face.

It is important to note that the Adirondack Park is six million acres (larger than the state of Connecticut) with over a hundred communities and over 25 sewage treatment plants. The local needs continue to be great. More and expanded state funding support will be needed to ensure these communities can upgrade their clean water facilities and remain fiscally solvent. Beyond continued annual state budget support for clean water funding state agencies should consider providing supplemental grants within those funding programs for communities who face the greatest hardship and fiscal need. And, while due to the State's fiscal crisis under Covid-19 the Environmental Restore Mother Nature Bond Act will not be on the November ballot, it should be revisited in 2021 and can be a future vital part of supporting communities for their clean water projects.



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Lake Placid Wastewater Treatment Plant adjacent the Chubb River

SUCCESSES TO DATE



Since the inception of New York State's Clean Water Infrastructure Act (CWIA) in 2015 and the historic \$3.5 billion investment made to date by the Governor and Legislature, Adirondack communities have benefited with over \$58 million in grants for their wastewater and drinking water facilities as well as other related clean water programs. This includes grant funding from the Environmental Facilities Corporation (EFC) and grants from NYSDEC Water Quality Improvement Program (WQIP). Other related smaller clean water grants were from the Road Salt Storage program and NYSDEC assistance funds for engineering studies. Adirondack Communities have responded to this opportunity and been applying for funds

every year. The regional staff at EFC and NYSDEC have done outstanding work in helping local leaders navigate the process and in turn apply for these funds. These grants have made many of the most critical projects for the protection of Adirondack waters possible.

Below is a listing of Adirondack Clean Water Grants and Engineering Study funds awarded from 2015 thru 2019. These grants have gone to some of the most critical projects identified in prior Adirondack Council reports. In addition, grants for Drinking Water and Road Salt Storage projects are tallied in aggregate in the summary section.

Wastewater Treatment Plant and Sewer System Projects:

Local Government	Grant Amount	Total Project Cost	Program/Date
Town of Willsboro (CW)	\$746,326	\$2,985,304	CWIIA/December 2015
Village of Saranac Lake (CW)	\$1,751,250	\$7,005,000	CWIIA/December 2015
Elizabethtown (CW)	\$2,137,500	\$8,550,000 - #1	CWIIA/August 2016
Village of Lake Placid (CW)	\$288,750	\$1,155,000	CWIIA/August 2016
Town of St. Armand (CW)	\$662,113(WWTP)	NL	WQIP/December 2016
Village of Saranac Lake (CW)	\$2,500,000 (WWTP)	NL	WQIP/December 2016
Town of Crown Point (CW)	\$661,414 (ES & SL)	NL	WQIP/December 2016
Town of Moriah (CW)	\$600,000 (SL)	NL	WQIP/December 2016
Village of North Elba (CW)	\$420,000 (SS)	NL	WQIP/December 2016
Elizabethtown (CW)	\$500,000	(Project above-#1)	WQIP/December 2016
Village of Ticonderoga (CW)	\$2,879,104	\$11,516,413	CWIIA/October 2017
Town of Ausable (CW)	\$1,782,936	\$7,131,744	CWIIA/October 2017



Local Government	Grant Amount	Total Project Cost	Program/Date
Town of Peru (CW)	\$1,006,481	\$4,025,923	CWIIA/October 2017
Village of Tupper Lake (CW)	\$1,605,395	\$6,421,578	CWIIA/October 2017
Town of Hague (CW)	\$98,563	\$394,250	CWIIA/October 2017
Village of Lake Placid (CW)	\$2,700,000	\$4,500,000	CWIIA/October 2017
Village of Lake George (CW)	\$4,273,293	\$17,095,691-2	CWIIA/October 2017
Village of Lake George (CW)	\$2,500,000	(Project above-2)	WQIP/December 2017
Town of Lake George (CW)	\$435,000 (ES, SL)	NL	WQIP/December 2017
Warren County (CW)	\$114,398 (SS)	NL	WQIP/December 2017
Essex County (CW)	\$296,650 (SS)	NL	WQIP/December 2017
Town of Crown Point (CW)	\$1,264,909	\$5,059,637	CWIIA/November 2018
Village of Saranac Lake (CW)	\$1,206,226	\$4,824,905	CWIIA/November 2018
Village of Speculator (CW)	\$450,000	\$1,800,000	CWIIA/November 2018
Town of Moriah (CW)	\$750,000 (SL)	NL	WQIP/December 2018
Town of Moriah (CW)	\$2,500,000 (SS)	NL	WQIP/December 2018
Town of Westport (CW)	\$808,793 (WWTP)	NL	WQIP/December 2018
Town of Bolton (CW)	\$600,000 (SS)	NL	LWRP/December 2018
Town of Bolton (CW)	\$1,000,000 (WWTP)	NL	WQIP/December 2018
Town of Hague (CW)	\$230,625 (WWTP)	NL	WQIP/December 2018
Town of Lake George (CW)	\$657,028 (WWTP)	NL	WQIP/December 2018
Village of Broadalbin (CW)	\$408,750 (WWTP)	NL	WQIP/December 2019

Total ADK Clean Water WWTP and Sewer System Grants: \$37,835,504

CHART KEY: (CW) Clean Water Grant | (ES) Engineering Studies | (WWTP) Wastewater Treatment Plant | (SL) Sewer Lines | (SS) Storm Sewers | (NYSEFC) NYS Environmental Facilities Corporation | (NYSDEC) NYS Department of Environmental Conservation | (CWIA) Clean Water Infrastructure Act (WQIP) | Water Quality Improvement Program.



Engineering Study Grants:

Local Government	Grant Amount	Total Project Cost	Program/Date
Town of Westport (CW)	\$100,000 (ES)	NL	WQIP/December 2016
Village of Saranac Lake (CW)	\$30,000 (ES)	NL	WQIP/December 2016
Town of Peru (CW)	\$30,000 (ES)	NL	WQIP/December 2017
Village of Saranac Lake (CW)	\$100,000 (ES)	NL	WQIP/December 2017
Village of Tupper Lake (CW)	\$100,000 (ES)	NL	WQIP/December 2017
Town of Willsboro (CW)	\$30,000 (ES)	NL	WQIP/December 2017
Town of Peru (CW)	\$30,000 (ES)	NL	WQIP/December 2018
Town of Jay/Ausable (CW)	\$30,000 (ES)	NL	WQIP/December 2018
Town of St. Armand (CW)	\$100,000 (ES)	NL	WQIP/December 2018
Town of Ticonderoga (CW)	\$30,000 (ES)	NL	WQIP/December 2018
Town of Willsboro (CW)	\$30,000 (ES)	NL	WQIP/December 2018
Village of Saranac Lake (CW)	\$30,000 (ES)	NL	WQIP/December 2018
Town of Warrensburg (CW)	\$30,000 (ES)	NL	WQIP/December 2018
Village of Lake George (CW)	\$100,000 (ES)	NL	WQIP/December 2018
Town of Webb (CW)	\$30,000 (ES)	NL	WQIP/December 2018
Town of Crown Point (CW)	\$50,000 (ES)	NL	WQIP/December 2019
Town of Hague (CW)	\$30,000 (ES)	NL	WQIP/December 2019
Town of Westport (CW)	\$30,000 (ES)	NL	WQIP/December 2019
Town of Lake George (CW)	\$50,000 (ES)	NL	WQIP/December 2019

Total ADK Clean Water Engineering Study Grants: \$960,000

Total Clean Water WWTP/Sewer System and Engineering Study Grants: \$38,795,504

Total Drinking Water & Road Salt Storage Project Grants (list available): \$19,272,787

Total Clean Water and Drinking Water Grants to Date for ADK Region: \$58,068,291

After an analysis of these project grants, it was found that many of the clean water projects that were listed in the Adirondack Council's 2017 report on Adirondack wastewater treatment plants have been funded. Communities such as Lake Placid and Saranac Lake had multiple grants to implement several stages of their wastewater and sewer line projects. In Lake Placid, the major project has been replacement of sewer lines under the iconic main street which has also allowed the Village to implement green infrastructure improvements. For Saranac Lake which has had a capital project backlog of more than twenty million dollars, several projects have been completed while others are in the design phase to address their aging sewer lines and treatment facility.

Other critical projects listed in the report included upgrades to Ticonderoga's sewer line system to address combined sewer overflows during heavy rains keeping polluted waters from entering LaChute River, which leads to Lake Champlain. This eight-million-dollar project known as "The Portage" received several million dollars in grants in 2019 and work was scheduled to begin in the late spring of 2020. In 2018, the Town of Bolton received more than a million dollars in state funding to upgrade its sewage treatment plant, while the Town of Willsboro received a grant of more than three quarters of a million dollars to conduct upgrades to their sewage treatment plant. More work is being designed to address further replacement and extension needs of Willsboro's sewer line system. There are more examples of grants listed from Moriah to Tupper Lake to Elizabethtown, but even with these successes there remains much work to be done.

Furthermore, the past funds received by Lake George from New York State and the additional funds pledged to build their new sewage treatment plant will prove to be a transformational step forward for the Adirondack region. The community could not afford to close the funding gap they faced on its own and the additional support of \$9 million in the 2020/2021 NYS budget made the project financially feasible. This approach, when warranted to help communities in need, should be expanded in the future.

Funding was also provided to build a first-ever sewage treatment plant in Elizabethtown, NY. Town officials are scheduled to go out to bid in fall of 2020 or in winter of 2021 to select a contractor and begin construction. The Town, like Lake George, had significant project delays and cost increases of more than a million dollars. They are still seeking additional grant funds to close this funding gap as they move forward with their project plans. The Town of Moriah has had two rounds of funding to repair their sewer line systems totaling over \$3 million in grants and currently has plans to advance an additional \$10 million in sewer system and sewer line extension project work which officials will be submitting clean water grant applications for when the next round of grants is available.



The Town of Crown Point received funding to move forward with their plans to upgrade their sewage treatment plant with an overall cost in excess of six million dollars. However, last year new phosphorus removal standards were issued by NYSDEC and that has put a delay on the project construction until a revised engineering study is completed to include this treatment technology. This engineering study has been funded by the state and should be completed later this year so the project can get back on track. However, additional funding may be needed.

In St. Armands, clean water grant funds were awarded in 2016 to upgrade their sewage treatment plant. However, the bulk of this project work was put on hold when it was determined that phosphorus removal technology would need to be added to the project and that additional sewer lines would need to be repaired and replaced. A new engineering study is underway to incorporate these new needs and engineers will look to find efficiencies that allow them to take on the entire project at one time. These cost savings are essential since St. Armands has little more than 300 users as their rate-base providing the local funds to pay for their cost share.

These examples are just some of the projects that are completed or underway following the release of past clean water grants awarded by New York State and past reports published on the needs of Adirondack communities.

In Summary:

- **Close to \$39 million has been invested for Clean Water Wastewater Treatment Plant and Sewer System Projects and Studies (21 communities for 29 projects).**
- **Close to a million dollars granted for engineering studies in 14 communities.**
- **In addition, total grant investments to date for Drinking Water Facility and Road Salt Storage projects are listed as \$19,272,787.**
- **In total, 72 Clean Water and Drinking Water Grants have gone to 36 Adirondack communities, totaling \$58,068,291.**
- **Through five rounds of NYS's clean water program, more than \$58 million in grants have been coupled with approximately \$94 million in State Revolving Loan Fund low-interest financing to cover the balance of the project costs. Ultimately, the state's water grants have leveraged these low-interest loans, allowing communities to move forward with a total of \$152 million in clean water and drinking water infrastructure improvement projects in the Adirondack region since 2015.**

STUDIES UNDERWAY & FUTURE NEEDS



While these clean water grants for projects and studies demonstrate the many successes to date that would not have been possible without this historic NYS clean water grant program, the growing list of applications underscore the many additional needs that still have not been addressed. From sewer line replacements and extensions, to upgrades to sewage treatment plants, critical capital clean water projects are still needed across the Adirondack region. With these needs and cost estimates growing, it is becoming clear that these communities cannot afford to finance all the projects ahead of them even with the current grant program formulas. A supplemental grant category is needed as these projects move forward in order to make them affordable. Most Adirondack communities fall within New York State's hardship community category when applying for zero interest loans from the Environmental Facilities Corporation's State Revolving Loan Funds, but this realization also indicates the limitations and the ceilings of how much these same communities can afford to borrow and finance.

It is worth noting again that when a community like St. Armands has only 300 or so sewer system users and is embarking on an engineering study to spend over twelve million dollars on their sewage treatment plant upgrades

and sewer line system replacement, the numbers just do not add up under existing grant allocation formulas. The town's 300 local residents cannot possibly afford 5-10 percent increases or more in sewer system bills especially when their median incomes fall well below state averages. Other communities like the towns of Jay, Willsboro or t Moriah fall into the same category and face the same dilemma. In fact, most Adirondacks communities, large and small, still have clean water infrastructure needs. And in some cases, new "small technology" options might be possible, but there are limitations to where the state can support and approve such systems.

...THESE COMMUNITIES CANNOT AFFORD TO FINANCE ALL THE PROJECTS AHEAD OF THEM EVEN WITH THE CURRENT GRANT PROGRAM FORMULAS. A SUPPLEMENTAL GRANT CATEGORY IS NEEDED...

In order to put these future needs in context, it is critical to review the current efforts of local communities on their way to getting their clean water capital projects shovel ready. Towards this goal, there are twelve Adirondack communities currently undergoing new engineering studies with funds

from NYSDEC engineering grant fund program for their clean water infrastructure projects. These studies, where estimates are available, identify over \$70 million in project costs. Also, there is a backlog of many projects listed on the EFC's Intended Use Plan which are outlined further on in this report taking total cost estimates above the \$100 million level.



All of the communities listed are designing and/or finalizing repairs to their sewer lines and/or upgrades to their sewage treatment plants with either state assistance or on their own. Some communities face inflow and infiltration issues impacting their sewer lines where breaks and leaks allow for inflows and infiltration of water from groundwater and rainstorms. Others faced major upgrades to their wastewater treatment plants from treatment processes in the plant, to pump stations, to additional treatment capacity they need. While each of these communities have extensive needs and plans underway, there are still some additional communities that have yet to get to the design phase that also need clean water infrastructure work done. What follows is an updated listing of community efforts underway and their status.



Ticonderoga Wastewater Treatment Plant along the La Chute River

Adirondack Communities Undergoing Engineering Studies for Wastewater Treatment Plants (2020)

1. Town of Peru: Supervisor Brandy McDonald

In December of 2018, a \$30,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to address future needs at the Valcour Wastewater Treatment Plant. Specifically, the study and design will provide recommendations for upgrades and replacement of an aged pump station, sand beds, and septic tanks. The project includes replacement of chlorine disinfection with Ultra-violet treatment to help reduce chemical load to Lake Champlain. In addition, the Town has been working on additional upgrades needed at the plant and construction of new sanitary sewer system improvements to address inflow and infiltration issues. These project costs will be listed in the 2020 Environmental Facilities Corporation Intended Use Plan (EFC IUP).



Cost Estimates for Engineering Study recommendations:	\$1,500,000
EFC IUP Cost estimates for backlogged upgrades to Valcour WWTP:	\$8,110,100
EFC IUP Cost estimates for sanitary sewer system improvements are:	\$3,611,937



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2. Town of Jay: Supervisor Archie Depo

In December of 2018, a \$30,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to address upgrades to the disinfection system at the plant. The study is known as the AuSable Forks Wastewater Treatment Plant Disinfection Study. Specifically, the study and design will allow for upgrades to the sewage treatment plant to ensure proper disinfection. In addition, the Town is looking at replacement of sections of its sanitary sewer lines to address inflow and infiltration issues impacting the water quality of the Ausable River.

Cost estimates for disinfection needs at Wastewater Treatment Plant are: \$ _____

(Engineering Study underway but cost estimates not available at this time)

EFC IUP Cost estimates for sanitary sewer system improvements are: **\$5,348,808**

3. Town of St. Armand: Supervisor Davina Winemiller

In December of 2018, a \$100,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to address St. Armand's inflow and infiltration issues with their sewer lines. They have also been directed by NYSDEC to design and incorporate phosphorus removal at their plant. These actions are to be taken in conjunction with other sewage treatment plant upgrades already designed and approved with NYS Clean Water grant funding in 2016 for their facility and replacement of sewer lines.



Specifically, the study and design will utilize flow monitoring and internal camera studies to identify the critical areas of the collection system that need to be repaired/replaced in order to address inflow and infiltration in the collection system that is impacting the wastewater plant operations. The existing pump stations will be evaluated. In addition, several streets within the hamlet of Bloomingdale have homes that are not connected to the municipal sewer and have failing septic systems. The report will identify the proposed sewer mains that would be installed to connect these homes to the system.

Preliminary Cost estimates for the completion of Wastewater Treatment Plant upgrades and sewer line replacement: **\$10-13,000,000**

(Exact Engineering cost estimates not available at this time)



4. Town of Ticonderoga:

Supervisor Joseph M. Girodano

In December of 2018, a \$30,000 engineering study from NYSDEC was awarded. This study is in addition to the current sewer line work being done at the Portage section of the Town which received state grant funds in 2017 and is underway. The purpose of this 2018 study is to address needed upgrades to the Ticonderoga Wastewater Treatment Plant.

Specifically, the study and design will review the heating and ventilation of the WWTP. Poor ventilation at the plant leads to long term damage to equipment. The report will propose upgrades to the HVAC systems. These upgrades will be tied to additional phases of work on the treatment system.

Cost Estimates for Engineering

Study recommendations: **\$2,000,000**

2020 EFC IUP Additional Cost estimates

for upgrades to Town's WWTP: **\$8,473,634**

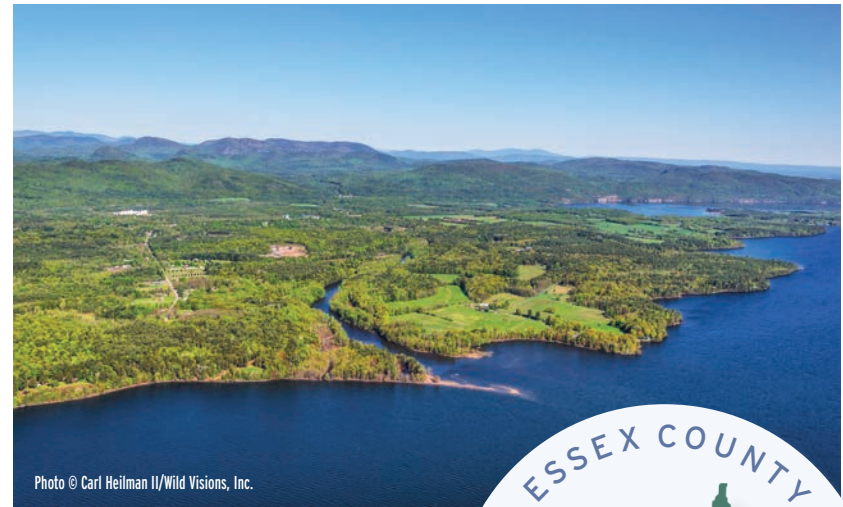


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5. Town of Willsboro:

Supervisor Shaun Gilliland

In December of 2018, a \$30,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to address the need to expand household connections to the Willsboro Bay Lane Decentralized Wastewater Treatment Plant. The study has found that additional residents need to be connected to the plant and the sewer lines extended to protect Lake Champlain.

Cost estimates for new/replacement of sewer line system are: \$_____

(Engineering Study underway but cost estimates not available at this time)





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6. Village of Saranac Lake:
Mayor Clyde Rabideau

In December of 2018, a \$30,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to design upgrades to the Saranac Lake Wastewater Treatment Plant Study for, but not limited to, phosphorus removal. Specifically, the study and design will provide an evaluation of the preliminary, primary, secondary and sludge treatment processes. With the exception of the secondary clarifier, the treatment plant has not been upgraded since 1992 and many components are reaching end of life. The report will provide the Village with a capital improvement plan to identify the most critical components requiring upgrades. The work will take multiple phases of work.

Total Cost estimates for all phases of work needed at Wastewater Treatment Plant and for sanitary sewer system improvements: \$10-20, 000,000

7. Town of Warrensburg:
Supervisor Kevin B. Geraghty

In December of 2018, a \$30,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to assess and design an extension of the sewer lines needed at the Warrensburg Library Avenue Sewer District. In addition, the Town has listed improvements needed in the NYS EFC Intended Use Plan for their Wastewater Treatment Plant.



Cost estimates for Library Ave Sewer Line Project are: \$2,201,000

Cost estimates for upgrades at Wastewater Treatment Plant are: \$1,165,000

In addition, the Town of Warrensburg has an immediate need for a drinking water project to replace a main water line from their water tank to their water distribution system. While they were turned down for WIIA funds in 2019 for this project, they are reapplying for these grant funds in 2020.

Cost estimates for the Main Water Line Replacement Project are: \$1,241,750

8. Town of Lake George:
Town Planning Dept. Director
Dan Barusch

In December of 2018, a \$100,000 engineering study from NYSDEC was awarded. The purpose of this study was to address inflow and infiltration issues in the Town of Lake George's sewer line system. The Town's sewer lines are interconnected within the Village's sewage treatment plant operations. As the new sewer plant is being built, it is equally important to invest in replacing the Town's leaking sewer lines which are separate from the cost of the new sewage treatment plant being built by the Village. In addition, the Town is planning to repair and consolidate its sewer line pump stations in the future.

Cost estimates for sewer pump station consolidations/replacement: \$1,500,000

Cost estimates for the repairs/replacement of the Town's sewer lines are: \$ _____

(Engineering Study underway but cost estimates not available at this time)



9. Town of Webb:
Supervisor David Berkstresser

In December of 2018, a \$30,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to assess inflow and infiltration issues with existing sewer lines. The study has found that sections of the old sewer lines need to be replaced to maintain water quality.

Cost estimates for repairs/replacement of the Town's sewer system are: \$ _____

(Engineering Study underway but cost estimates not available at this time)





10. Town of Crown Point:
Supervisor Charles W. Harrington

In December of 2019, a \$30,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to design reductions in nutrient pollution to Lake Champlain and implement a Crown Point Nutrient Reduction program at the sewage treatment plant. Specifically, the study and design will provide recommendations for a new wastewater treatment plant to allow the Town to meet the current and future regulations. The project will explore various types of treatment alternatives so that the Town can make an informed decision, balancing construction costs and operation and maintenance costs.

In December of 2019, a \$50,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to design reductions in nutrient pollution to Lake Champlain and implement a Crown Point Nutrient Reduction program at the sewage treatment plant. In addition, the Town plans to address disinfection issues at the sewage treatment plants and inflow and infiltration issues in their sewer lines.

Cost estimates for upgrades to the Town of Crown Point's Wastewater Treatment Plant to reduce nutrient loadings are: **\$10,000,000**

Cost estimates to address disinfection issues at the sewage treatment plants and inflow and infiltration issues in their sewer lines: **\$2,944,895**



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11. Town of Hague:
Supervisor Edna Frazer

In December of 2019, a \$30,000 engineering study from NYSDEC was awarded to Town of Hague. The purpose of this 2018 study is to address inflow and infiltration issues with the Hague sewer lines and assess repairs/replacement needs. (Hague Infiltration and Inflow Study)

Cost estimates for repairs of the Town of Hague's sewer line system are: \$_____

(Engineering Study underway but cost estimates not available at this time)





12. Town of Westport:
Supervisor Michael (Ike) Tyler

In December of 2019, a \$30,000 engineering study from NYSDEC was awarded. The purpose of this 2018 study is to address phosphorus removal and reduction at the Wadhams Wastewater Treatment Plant. Specifically, the study and design will allow for phosphorus removal at the plant and other upgrades identified. Also, the Town has identified improvements needed for a sanitary sewer system, which are listed below.



Cost estimates for upgrades to the Town of Westport's Wastewater Treatment Plant to reduce phosphorus loadings are: \$_____

(Engineering Study underway but cost estimates not available at this time)

Cost estimates for sanitary sewer system improvements are: **\$3,614,275**

The total projected cost estimates from work from these twelve engineering studies and related work where cost estimates were available is in the range of: \$71 million to over \$84 million¹.

Additional Adirondack Community Clean Water Projects for Wastewater Treatment Plants and Sanitary Sewer System Needs on the 2020 Environmental Facilities Corporation Intended Use Plan (EFC IUP)

In addition to the above twelve NYSDEC funded engineering studies and related projects, additional design work is being done by other communities in preparation for more clean water grant applications and capital project work. The additional design work underway ranges from treatment plant upgrades to addressing inflow and infiltration issues as well as extending sewer lines in communities. All of these projects are listed in the 2020 Environmental Facilities Corporation Intend Use Plan (EFC IUP).

1. Town of Moriah:
Supervisor Thomas Scozzafava

The Town of Moriah has been engaged in on-going design work to replace and repair sewer line system as well as consider extensions to the line itself. Currently, the Town is designing and planning the construction of sanitary sewer improvements to maintain water quality in Lake Champlain.



Cost estimates for repairs/extension of the Town's sewer line system are: **\$10,409,000**



2. Town of Bolton

Supervisor Ron Conover

The Town of Bolton has plans for design and construction of future wastewater treatment plant improvements and sanitary sewer improvements to maintain water quality of Lake George. These projects are listed on EFC's Intended Use Plan.



EFC IUP Cost estimates for future Wastewater Treatment Plant and sewer line repairs/extension needs for the Town are: **\$13,169,000**

3. Village of Lake Placid

Mayor Craig Randall/Ivan Zdrahal Associate Engineer

The Village of Lake Placid is moving forward with planning, design, and construction of a sanitary sewer replacement project to maintain water quality in the Chubb River. In the Environmental Facilities Corporation's Intended Use Plan, this project was divided into two phases under separate listings.



Cost estimates for Lake Placid's Sanitary Sewer Phase #1 replacement are: **\$2,981,340**

Cost estimates for Lake Placid's Sanitary Sewer Phase #2 replacement are: **\$1,465,550**

4. Village of Tupper Lake

Mayor Paul A. Maroun

The Village of Tupper Lake is moving forward with design and construction of wastewater treatment plant improvements and sanitary sewer rehabilitation to maintain Raquette Pond water quality.

Cost estimates for Tupper Lake's wastewater treatment plant improvements and sanitary sewer rehabilitation projects are: **\$4,816,183**

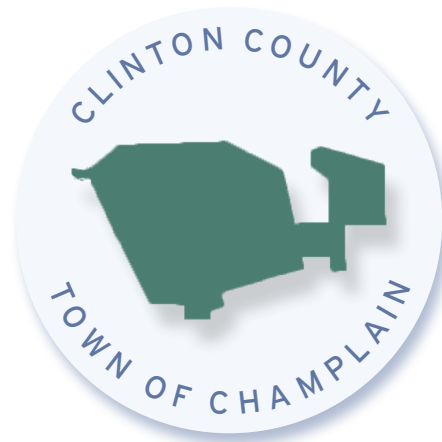




5. Town of Champlain Supervisor Larry Barcomb

The Town of Champlain is moving forward with the planning, design, and construction of collector sewers in the West Service Road Sewer District to improve water quality in the Great Chazy River.

Cost estimates for Champlain's sanitary collector sewer project are: **\$5,383,000**



Elizabethtown project was noted earlier, for the total needs assessment numbers the town still has a \$2 million gap in its current funding due to cost increases after state agency review and modification of its design plans. The estimated total costs for the future projects estimated above is at least \$15 million.

In Summary:

- The total projected cost estimates collected from these additional listings in EFC IUP and from outreach to communities is in the range of **\$28 million to over \$32 million**².
- The total projected cost from engineering studies listed in the previous section is in the range of **\$71 million to over \$84 million**¹.
- The total listing of clean water projects identified in this report exceeds 100 million dollars on the low end and 117 million dollars on the high end. Thus, the total cost estimate to date for clean water projects, with still more studies being completed, is **over \$117 million**³.

Other Potential Projects beyond Current Engineering Studies/IUP Listing:

Information has been received on a number of additional projects currently being planned. The Town of Northampton has completed a study for a multi-million-dollar upgrade strategy for its sewage treatment plant which is currently on hold and not listed. Indian Lake has identified past needs for their drinking water and sewer system totaling several million dollars. Dannemora Lyon Mountain WWTP has identified \$3 million in basic plant system upgrades it needs. Other communities have begun to identify sewer system and treatment plant replacement needs but have not yet progressed to the design phase. These and other projects further identify areas where additional cost estimates and engineering studies are needed. Finally, while the Town of

CHALLENGES AHEAD & A CALL TO ACTION



As previously stated, while New York State's Clean Water grants program has been a huge success in the Adirondacks with over \$58 million in clean water and drinking water project grants awarded since 2015, there is still much more work to be done. It is important to note that these investments by the state and local communities have been critical while at the same time compounding the ability of local communities to invest further. The future ability for these local rural communities to invest further in clean water infrastructure is related to not only continued state support through grants such as the Clean Water Fund but also other mechanisms to meet the true fiscal hardships they currently face.

These communities now have more debt along with a limited tax and sewer user base, creating a growing and enormous fiscal challenge in the years ahead. There are future overall clean water capital project needs in the region that have not yet been identified and are still under review by several other local communities. Finally, five years from now new needs will be identified due to aging systems and new issues found.

Therefore, it is important to note that every year more engineering studies are being conducted showing new wastewater and/or sewer line system needs as well as infrastructure needs at drinking water facilities not listed in this report. These additional studies and future cost estimates will put the overall clean water infrastructure costs for the region in the hundreds of million dollars over the next decade. These challenges are daunting

and any barriers currently in place must be addressed moving forward to tackle these new and on-going clean water project needs. The goal should be to truly make the clean water grant program fiscally feasible for Adirondack hardship communities while ensuring they do indeed pay their local fair share.



Boquet River in Elizabethtown, Essex County



The 2015 Water Infrastructure Improvement Act (WIIA) allows for the Environmental Facilities Corporation (EFC) to provide grants of up to 60% of project costs with a \$5 million cap. However, the program's administrative rules have set a cap of 25% of total project costs after deductions of any other grant funds received. Thus, most grants fall well below the \$5 million cap allowed by the state law in these small rural towns. The current administrative cap has created an affordability gap for many communities in the Adirondack Park due to their limited user base that is available to finance the remaining balance of their projects. There are only a handful of Adirondack communities whose population of sewer users exceeds 1000 residents. In most cases, the rate base is much lower, and the local needs are greater than the cost share that is available to them.

In addition to these wastewater treatment and collection system needs, there are similar capital needs for these same small Adirondack towns to face for their drinking water infrastructure systems which impact local financial capacity. Those system improvements and investments over the past five years has also put a strain on the local taxpayers/users. More studies are underway on drinking water systems such as pump stations and piping systems which will add to the local debt burden. Overtime, all of these costs will only grow greater.

There is a responsible solution for New York State to consider in order to address these shortfalls in hardship communities, which is to design supplemental grant funding to help close the fiscal gap to those communities in need. In fact, this type of solution was passed in the 2020-2021 NYS budget for Lake

George and could be a model moving forward. The Village of Lake George, located on the "Queen of American Lakes," had embarked on building a new sewage treatment plant as outlined. This project will replace a 70-year-old wastewater treatment plant and it has been required by NYDEC to meet local water quality standards.



Sign warns beachgoers of elevated E. coli bacteria in Lake George

It was first estimated to cost \$17.1 million but quickly increased to over \$24 million. Lake George received an EFC WIIA grant and a NYDEC WQIP grant in 2017 providing a total of \$5.5 million in state funds. However even with zero interest loans to cover the balance of over \$19 million, the

burden on less than 1,000 residents in the sewer district was too much to bear. The Mayor has stated that this project could bankrupt the community, even if they break the project into phases. The solution has come with Governor Cuomo announcing a supplemental grant to the community of an additional \$9.4 million in his 2020 state of the state message. With approval in the 2020/2021 NYS Budget, the community will be able to finance the remaining \$10 million balance in a responsible way. This precedent and this recognition of need by Governor Andrew Cuomo and the State Legislature should be expanded in the future to address other hardship communities in the Adirondacks, which there are many.

Elizabethtown, the Essex County seat, is constructing a new sewage treatment plant. The community has received an EFC WIIA grant of \$2,137,500 and approximately \$2 million in additional grants from additional sources to finance the project. The total project cost at the time of the grant was approximately \$8.5 million. The Town was prepared to finance the remaining \$4.5 million through an EFC State Revolving Fund zero interest loan. However, after final modifications and specifications were reviewed and approved, an additional \$2 million in project costs were realized. The community faces a \$2 million gap and has affordability issues to meet these additional costs, even with a phased approach to complete the project. Thus, they need additional grant funds as Lake George did as they go out to bid over the next year to implement this important project.

Currently twelve Adirondack communities are undergoing engineering studies to design further retrofits and

infrastructure investments for their wastewater systems. Whether the need is to upgrade their wastewater treatment plant for phosphorus removal, install disinfection or other treatment technology or address inflow and infiltration issues in aging sewer lines that are leaking, more critical work is needed. In addition, several towns face a need to extend an existing sewer line system to clustered developments with failing septic systems along a local waterway. The end result is that these local communities still need more financial help beyond the current clean water grant program administrative parameters. Many of these towns such as St. Armands and Willsboro do not have the rate base to meet projected costs even with existing grant opportunities and zero-interest loans.

Most Adirondack communities that have extremely low tax and rate bases also have user incomes well below the state's hardship threshold. Compounding the problem, if a community has already used their bonding ability in earlier projects, they face additional challenges and a lack of local resources. Many sewer line repair and extension projects are in stages and on-going as are certain upgrades that are needed at sewage treatment plants, creating more costs





overtime. Some communities have found other sources of funds to help close these gaps, but only on a limited basis. However, in those cases, EFC has used the net project cost to calculate the 25% state grant share which has deducted the grant amount available. The EFC's approach to the allocation of the WIIA program should be modified.

The Adirondack Common Ground Alliance has recognized this issue and in its Blueprint for the Blue Line has asked for the State to continue existing grants and loans and establish a supplemental grant program for the needs of hardship communities requiring funding that exceeds the current 25% administrative cost share cap when addressing wastewater treatment plant or sewer system investment needs. In contrast, the NYSDEC WQIP program provides grants up to 80% of project cost, but that funding mechanism is much lower state-wide and cannot cover by itself the needs of Adirondack communities.

A possible approach to consider for the Environmental Facilities Corporation within their clean water grant program application process for wastewater and sewer system projects in the Adirondacks could be to design a supplemental grant category in the future. The WIIA law provides NYSEFC with the flexibility to cover up to 60% of a local clean water project costs as long it is under the five million dollars cap. NYSEFC has the ability to design a process where a supplemental grant could be provided to a hardship Adirondack community in future grant rounds above the 25% project cost level. This approach with the expertise and dedicated staff at NYSEFC, working



Moody Falls in Colton

with Adirondack municipalities, could analyze metrics of financial burdens on local Adirondack communities with data on the local user base of these systems, projected user rates, median household incomes, current and future debt, operations and maintenance costs, borrowing capacity and other fiscal factors. In turn, this approach could help make the local bonding share affordable to local governments and its residents. It is suggested that this could be done administratively in conjunction with the current grant application review process by adding these hardship criteria to the established review under the current grant and SRF loan processes.

As an example, when a community like St. Armands with around 300 sewer line users is faced with \$5-10 million of capital investment needs over next several years or a town like Moriah which simply cannot afford all the sewer line replacement and extension needs to protect Lake Champlain, this suggested process could be in place to address these needs. Communities will also need to document these affordability gaps for this process for it to work effectively when applying for projects including rate paying analysis. This can be a reasonable solution for local Adirondack communities where supplemental funds are deemed justified. In turn, this approach would have a minimal fiscal impact on the overall allocation of the state-wide clean water grant program. In the NYS 2020-2021 budget, Lake George did receive such a supplemental grant as outlined above and this action sets a precedent for the need for this process in the future.

This report charts a path for the state to build on the successes to date, make continued investments and tweak the program as suggested to meet special needs in rural Adirondack communities. In light of COVID-19 crisis, the resources of New York State are under great stress and unless a federal stimulus package is enacted by Congress, many programs approved by the enactment of the NYS FY 2020-2021 budget may be cut due to lack of state revenues. In light of this situation, it is recommended when these federal resources become available or state revenues return to projected levels in the approved budget, these vital clean water programs be continued and be enhanced.

Specially, New York State should:

- 1. Continue annual investments of a billion dollars a year state-wide for New York State's Clean Water Fund which includes over \$400 million for EFC's WIIA grant program and close to \$100 million NYSDEC's WQIP grant program as well as other important initiatives outlined in the law.**
- 2. Assist local communities to apply for other sources of state and federal dollars where appropriate to further make these important capital clean water investments viable locally. Additional grant programs available include NYS Office of Community Renewal's Community Development Block Grant Program, USDA Rural Development Department's Water & Waste Disposal Loan, Grant and Planning Assistance Programs, and local infrastructure assistance grants from the Northern Border Regional Commission.**
- 3. Establish at EFC a supplemental grant application process in the WIIA program where grants could be extended from 25% up to 60% of project costs within the five-million-dollar cap in the law.**
- 4. In reference to the proposed Environmental Bond Act taken off the November ballot due to the Covid-19 related fiscal crisis, New York State should revisit the issue in the future and consider it for the November 2021 ballot.**



The Adirondacks are a unique region and require a unique solution. With the many successes from the clean water grant program to date in the region and the dedicated state agency's staff work to help communities, significant progress has been made. Adirondack towns and villages must continue their efforts to plan and seek funding for future clean water project needs and set aside what they can afford to complete this partnership. Even with these strides, more needs to be done. The scale of these costs to local communities are just too high, whereas for the vast majority of the New York State towns and small cities, they are entirely feasible.

With the economic importance of Adirondack clean waters to the local and statewide tourism dollars as well as benefits provided by a clean and healthy ecosystem, the Adirondack region needs greater attention and investment by New York State. Additional support should be based on where these hardships exist and on the ability of local governments to finance these projects. In the end, the statewide magnitude of this added grant and program investment to the Adirondacks is small, while the local water quality and economic benefits are enormous.

This report's conclusion is that continued and expanded state investments for clean water projects in these communities is warranted and critical to the future of the Adirondack Park.



Saranac Lake Wastewater Treatment Plant

FOOTNOTES



¹The total projected cost from engineering studies listed in the previous section is in the range of \$71-84,711,399.

²The total projected cost estimates collected from these additional listings in EFC IUP and from outreach to communities is in the range of \$28-32,406,073.

³The total listing of clean water projects identified in this report exceeds 100 million dollars on the low end and 117 million dollars on the high end. Thus, the total cost estimate to date for clean water projects, with still more studies being completed, is: \$117,117,472.



ADIRONDACK
COUNCIL PRESERVING WATER,
AIR AND WILDLANDS

ADIRONDACK CLEAN WATER 2020

Successes Made/Wastewater Treatment Needs Ahead

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