Winter 2023

Expanding Efforts in the Watershed

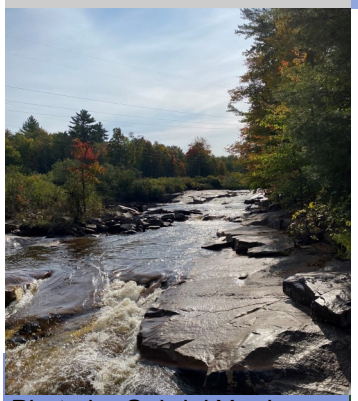


Photo by Gabriel Yerdon.

Black River Initiative

The Black River Watershed saw expanding efforts by individuals and groups across the region to improve water quality, enhance wildlife habitat, educate and engage with youth and the broader public, and conduct research over the course of 2023. The funding landscape is very positive for current and future work in the watershed thanks to new funding sources, including the Environmental Bond Act and the Inflation Reduction Act, as well as enduring funding sources like the Environmental Protection Fund.

While work continues to be done in the Black River Watershed to mitigate perennial water quality issues, climate change has ushered in a renewed sense of urgency to confront emerging environmental issues and create a landscape that is resilient to the diverse set of challenges that we are already seeing. With equity at the forefront, a diverse set of stakeholders are working diligently to ensure that communities across the watershed have access to safe and clean water resources and a healthy environment.

Inside this issue:

Independence River. Photo by Gabriel Yerdon

Black River Watershed Conference

Almost 100 people filled the banquet room at Zero Dock Street in Carthage for the 2023 Black River Watershed Conference. Attendees learned about stakeholders' efforts to enhance and protect water quality and to inspire others, including the next generation, to do the same. Speakers presented on a wide variety of projects including eDNA for invasive species detection, PFAS as an emerging contaminant, Federal Energy Regulatory Commission hydro relicensing, many Soil and Water Conservation District updates, and the Adirondack Salt Reduction Task Force. Presentations from the conference are available at: tughill.org/black-river-watershed-conference-2/

Watershed Conference at Zero Dock Street.

Photo by Tug Hill Commission

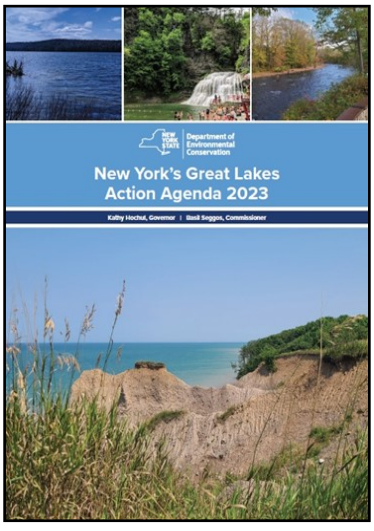
Save the Date! Black River Watershed Conference
June 2024, date TBD. Hope to see you there!

NY's Great Lakes Action Agenda 2023

In 2023, NYS Department of Environmental Conservation (DEC), in collaboration with partners, released New York's Great Lakes Action Agenda 2023 (GLAA), a strategic, ecosystem-based action plan to guide restoration and conservation, and foster sustainable, resilient communities in New York's Great Lakes region, including the Black River Watershed.

DEC's Great Lakes Program staff will be engaging with stakeholders and communities to facilitate implementation of the plan at the sub basin scale. Work groups were held for the Northeast Lake Ontario - St. Lawrence River Sub-Basin, which included engagement with Black River watershed stakeholders to identify and support watershed partnerships and priorities. To get involved with a work group, email greatlakes@dec.ny.gov.

The release of the GLAA coincided with engagement for the fourth Great Lakes Restoration Initiative (GLRI) Action Plan that will guide federal investments in Great Lakes protection and restoration through 2029. More information on the GLRI is available at: www.glri.us/



For more information on the GLAA and how you can get involved, visit: www.dec.ny.gov/lands/91881.html

Continued Momentum For Trout Unlimited

In a continued mission to reconnect cold water habitat for the native Eastern Brook Trout, Trout Unlimited (TU) staff have recently completed over 300 culvert assessments within the Black River Watershed. By using the North Atlantic Aquatic Connectivity Collaborative Protocols (NAACC), numerous culverts and stream crossings have been cataloged and now prioritized for improvement. Of the total crossings assessed by TU's field staff, nearly 30% were found to pose a moderate or significant barrier to aquatic passage. Several crossings within Herkimer and Hamilton counties will be reviewed for potential culvert replacements in 2024. These efforts and more have been made possible by funding from the National Fish and Wildlife Foundation's Sustain Our Great Lakes Program.

Trout Unlimited aims to improve the resiliency of local watershed communities, which face potential flood and property damage caused by eroded streambanks and undersized culverts. TU's staff works with NYS Department of Environmental Conservation, US Fish & Wildlife, local contractors, and municipalities to create climate-conscious solutions that help restore natural stream features and repurpose local down trees for improved wild trout habitat.

To learn more about Trout Unlimited's staff-supported conservation and local community volunteer initiatives across the Northeast, follow Trout Unlimited Northeast on Facebook and Instagram @TU_Northeast.

Black River Adaptive Modeling and Management Updates

In 2023, the NYS DEC Great Lakes Program contracted with Ramboll to support Phase I of the Black River Adaptive Modeling project. The Black River Adaptive Modeling (BRAM) project aims to improve watershed management by updating the previous watershed model that was completed in 2010 to meet new quality assurance requirements for 9 Element (9E) Watershed Plans that are supported by DEC, and to evaluate trends of past management efforts. Phase I of the project, which will be completed in 2024, engaged with water quality stakeholders, compiled existing water quality data, conducted a gap analysis, and identified an approach to fill water quality data gaps to update the watershed model. Ramboll subcontracted with Upstate Freshwater Institute to further analyze existing water quality data, identify monitoring needs, and work with the watershed's Soil and Water Conservation Districts to develop a Quality Assurance Project Plan (QAPP) and provide staff with training on water quality monitoring. The training will enable district staff to support water quality monitoring under a state approved QAPP and support the calibration of the watershed model. The watershed model will be developed during Phase II of the project, as funding becomes available. We anticipate an updated 9E Watershed Plan for nutrients, sediment, and phosphorus to be available in 2026/2027. Updates on the project were shared as part of the Black River Watershed conference and can be accessed at: tughill.org/black-river-watershed-conference-2/.

Left: Partners of the BRAM project met at the lower Black River in Dexter, NY for a watershed tour.

The tour ended at the headwaters of the Black River on the Fulton Chain of Lakes (pictured).

Photo by NYSDEC.

Left: Partners learn about water quality monitoring at Independence River at Pine Grove Rd, Mill Creek at East State St, the Black River at Moose River Rd, and the Black River at Cannan Rd.

Photo by NYSDEC.

Lake Monitoring in Hamilton County

Since 1993, Hamilton County Soil and Water Conservation District staff have collected baseline water quality data on 20 lakes for the effective analysis of long-term trends.

The data is used to document the current limnological condition of each lake and determine if any significant changes in water quality are occurring over time. Additionally, water quality data will allow limnologists, county agencies, and partners to manage lakes more efficiently and alleviate pollution problems.

Above: Hamilton County Soil and Water Conservation District Technician Katie Whitkovits filters a chlorophyll -a water sample on a brisk October morning.

An Environmental Laboratory Accreditation Program (ELAP) certified lab completes water quality analysis for parameters that include lab conductivity; color – true; chlorophyll-a; alkalinity; nitrate; total nitrogen; ammonia; chloride; total phosphorus; dissolved organic carbon; and calcium – total. District staff collect profile data for pH; temperature; depth; dissolved oxygen; conductivity; and chlorophyll using a YSI ProDSS Multiparameter Meter. Meteorological data is also recorded.

In 2023, staff monitored lakes from June through October, and data is currently being processed. The Hamilton County Lake Monitoring Program data will be incorporated into the Black River Adaptive Modeling (BRAM) Project.

Contact the District at 518-548-3991 for the master data spreadsheet or program information. This program is funded by the Finger Lakes – Lake Ontario Watershed Protection Alliance (FLLOWPA). www.fllowpa.org.

Beyond the Classroom: The Thrills of the 2023 Oneida County Envirothon

This past April, the Oneida County Soil and Water Conservation District (SWCD) hosted the 25th Oneida County Envirothon. The annual event has been a cornerstone of environmental education in Oneida county, fostering a deeper understanding of the natural world.

Students formed teams to tackle a presentation and a series of tests on soil science, aquatics, forestry, wildlife studies, and current environmental events. Experts with the United States Department of Agriculture's Natural Resources Conservation Service (USDA NRCS) and the Utica Zoo helped elevate the value of this event by assisting with the creation of the tests. The exercise is a wonderful learning opportunity for the participating students.

Over 100 students from across the county were able to participate!

Oneida County SWCD staff were able to extend their support to the winning team with pointers and feedback on the teams project presentation which discussed solar power and public transportation. This remarkable team went on to earn 11th place out of 58 teams in the NYS Envirothon! The SWCD was also able to offer the third round of Ted Wilson scholarships to support further post-secondary education. The scholarships were awarded to not only the overall winning team but also the second and third place teams.

Soil and Water mascot, Ronnie Raindrop, making an appearance to take photos with students and teachers.

Hemlock Wooly Adelgid Virtual Hike Challenge

The St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management (SLELO PRISM) in collaboration with partners, will hold their annual Virtual Hike Challenge (VHC) from November 2023, through March 2024. This challenge encourages community members to get outdoors and provides simple instructions to help you keep an eye out for hemlock woolly adelgid (HWA). HWA is an invasive forest pest that kills hemlock trees, which play an important role in water quality In the Black River Watershed and provide many ecosystem services for nature and people. HWA is confirmed to be present in Oswego County and is spreading along the Eastern Lake Ontario shoreline.

Participating in the VHC is easy. All you have to do is sign-up, visit your favorite hiking trail in the Black River Watershed (or visit one of our suggested survey sites), look for HWA, report your observations to iMapInvasives, and share your experience on social media! Not only will you have an excuse to get outside this winter, but you'll be protecting your forests and will win a prize for your efforts!

If you're interested in a more "hands-on" experience, SLELO PRISM and the Tug Hill Tomorrow Land Trust are hosting guided walk and talks to train volunteers to survey for HWA. Participants will learn to identify hemlock trees, recognize the signs of HWA, and report observations using a free community science mobile app called iMapInvasives. Below is a list of upcoming hikes occurring November through March (registration is required).

2023 - 2024 Walk & Talk Schedule (held from 10 AM - 12 PM)

Click here to learn more and register.

1/10/24 Trenton Greenbelt, Holland Patent

2/14/24 Forest Park, Camden

3/13/24 Great Bear Recreation Area, Fulton

Watertown Water Treatment Plant Improvements

The City of Watertown (city) owns and operates a regional water treatment plant (WTP) in Jefferson County. Rated for a maximum capacity of 15 million gallons per day (MGD), on average the WTP treats 6 MGD from the Black River to provide drinking water to a service population of about 45,000. Along with the city, it provides water to Fort Drum, the Development Authority of the North Country (DANC), and the towns of Pamelia, LeRay, and Champion.

On July 5, 2018 the City of Watertown public water system was placed under an administrative order for failure to comply with the requirements of the US Environmental Protection Agency's (EPA) Stage II Disinfectants and Disinfection Byproducts Rule (DBPR) in 2017 by exceeding the maximum contaminant level (MCL) for total trihalomethanes (TTHM) and the sum of five regulated haloacetic acids (HAA5), two known disinfection by-products (DBPs). The DBPR regulates DBP levels in drinking water to protect public health. DBPs are formed when disinfectants like chlorine interact with natural organic matter (NOM).

In response to elevated DBP levels, the city has attempted multiple modifications and optimizations to the system to reduce DBP levels to within regulatory limits, however, since the first violation in 2017, the city has continued to exceed the MCL for TTHMs and HAA5.

City of Watertown Water Treatment Plant.

Project Description

For the city to meet regulatory requirements and provide their customers with safe drinking water, improvements are needed to the city's WTP. The improvement project includes the construction of a conventional enclosed flocculation and sedimentation basin and associated chemical feed facility, the installation of an ozone generation and treatment system, the conversion of the existing contact basin to ozone contact tanks, the rebuild and conversion of the existing filters to biologically active filters (BAF), and appurtenant work.

Funding Sources

The Watertown City Council passed a bond resolution to borrow up to $50 million for design and construction of the WTP improvements project. In efforts to reduce the cost impact of the project to the city's water customers the city has applied for water project grants and loans through

Watertown WTP Improvements (continued)

various sources. The city acknowledges that any costs not covered by federal or state grants/loans will be their obligation.

Project Budget

The total project cost estimate is $50 million and includes project administration, inspection, construction, utilities, contingency costs, and soft planning costs.

The Watertown WTP was originally constructed in 1905 and was upgraded to allow for increased capacity in 1986 and 1990. The source water for the WTP is the Black River which has naturally high concentrations of organic matter. With the planned improvements, the city's WTP will be able to continue providing safe and reliable drinking water to its 45,000 customers.

For more information, visit: www.watertown-ny.gov/departments/WaterDepartment/WaterTreatmentPlant

Black River Watershed Signage Project

The Lewis County Soil and Water Conservation District and the Lewis County Department of Recreation, Forestry and Parks have been working on a signage project to make the Black River more user friendly for recreationalists.

Piggy backing on the work from the NYS Tug Hill Commission's Black River Blueway Trail Plan, locations have been identified in Lewis County to provide bridge and kiosk signage, thus making wayfaring easier for those that wish to utilize the Black River. This is a two pronged plan that will include bridge signage on the navigational portions of the Black and Beaver River as well as the construction of interpretive kiosks at 10 boat launches. The signage plan has gained the support of the NYS DOT and the Lewis County Highway who will fabricate supports for 26 bridge signs between the two highway organizations. Also, in cooperation with the NYS DEC Region 6 Fisheries and NYSDEC Albany, the group is working to create 10- 4 panel kiosk signs that will include NYSDEC fishing regulation and other relevant information, the second will be dedicated to permanent navigational barriers found in the river, the third will include common fish found in that particular section of the river and the final panel will include specific historical information about each boat launch that will include a QR leading to additional historical information about the area.

A portion of phase one is complete. The bridge signs have been delivered and highway staff will be working on fabricating supports for the signage for each unique bridge. Signs will be erected in 2024. Phase two, boat launch kiosks, will begin design review in 2024 and hopefully installed in 2024-25.

Lewis County Healthy Soils Project

AGNPS Round 29 Awarded

The Lewis County Soil and Water Conservation District (SWCD) was awarded our “Lewis County Healthy Soils Project” grant through Round 29 of the Agricultural Non-Point Source (AGNPS) Pollution Abatement and Control Program. This grant ranked 4th out of 96 applications in New York State with the total amount awarded being $457,227. This application was written on behalf of three farms within the county, to plant cover crops over a three year period. A total of 2,087.7 acres were funded per year, leading to a total acreage of 6,263.1 for the entirety of the grant.

2023 AGNPS Projects

In 2023, multiple best management practice (BMP) systems were implemented throughout the county. These projects were funded by AGNPS grants written and awarded to the SWCD, or through special area funding. This past year, we had two waste storage and transfer systems installed and completed, a silage leachate collection and treatment system constructed along with a new petroleum and oil products storage system installed on a farm. AGNPS implementation grants provide these cost-shared funds to construct and apply BMP’s on our farms. These projects prevent or reduce the flow of pollutants into both surface and groundwater sources.

Pictured right: A waste storage and transfer system installed through Round 26 of the AGNPS grant program. This is a 16’ x 158’ circular concrete manure storage that collects all wastewater from the farm to include manure, milkhouse waste, and silage leachate.

Pictured left: A petroleum and oil products storage system implemented on a farm through a special project fund. These are double-wall tanks, meaning that secondary containment is taken care of right with-in the tank. This picture shows 2-1,000 gallon diesel fuel tanks and a 300 gallon gasoline tank.

Pictured right: A waste storage and transfer system implemented through a CAFO special project fund. This is an earthen concrete lined storage that will accommodate up to 1.36 million gallons.

Lewis County Achieves NYS Climate Smart Communities Bronze Certification

Lewis County has achieved a significant milestone by securing the New York State Climate Smart Communities (CSC) Bronze Certification. This accomplishment not only demonstrates Lewis County's commitment to environmental stewardship but also positions Lewis County as a pioneer in the North Country region, being the sole county to attain this certification.

The CSC program, instituted by New York State, is designated to empower local governments to proactively address the challenges posed by climate change while simultaneously reducing greenhouse gas emissions. Lewis County enthusiastically embraced the CSC pledge in 2020, and dedicated efforts over the recent years have culminated in this exceptional achievement.

To earn this certification, communities must complete a series of actions and compile comprehensive documentation, amassing a minimum of 120 points in the process. This includes the successful completion of three priority actions, two mandatory actions, and four pledge elements. Lewis County's commitment to CSC was reflected in the application, which garnered 168 points. The application featured not only the required three priority actions, and two mandatory actions but also nine pledge elements.

Some actions that contributed significantly to the certification points are:

- Establishing a CSC Task Force (20 Points)
- Appointing a CSC Coordinator (10 Points)
- Government Operations GHG Inventory (16 Points)
- Solar Energy Installation (20 Points)
- Access to Public Transit (8 Points)

This certification marks a significant milestone in our ongoing efforts to address and mitigate the changing climate, as well as promote sustainability in our community. This certification is not just a recognition of our achievements; it is a pledge for a brighter, cleaner, and more resilient future for Lewis County and the North Country.

To read Lewis County's CSC submission report visit climatesmart.ny.gov/actions-certification/participating-communities/

To learn more about the Climate Smart Communities program visit climatesmart.ny.gov

Green infrastructure project completed by Lewis County and the Lewis County SWCD at the Lewis County fairgrounds.

Strengthening Communities: Lewis County Assists with Municipal Water Districts

For decades, Lewis County has assisted its municipalities with water district planning to ensure its residents have access to clean, reliable water because it is essential for the health, well-being, and sustainability of its communities. In recent years, Lewis County has initiated and completed two large assessments of regional water districts: the Southern Lewis County Regional Water Study and the Central Lewis County Regional Water Study. While these studies helped to tabulate existing conditions and provide implementation recommendations to mitigate identified issues, these plans need to be put into action.

Enter the Lewis County Department of Planning and Community Development (LCPCD). With a variety of critical connections to grant funding opportunities, technical assistance, municipal contacts, and invaluable knowledge from supporting agencies like the Tug Hill Commission and Lewis County Soil and Water, LCPCD began implementing these valuable infrastructure plans. It became clear that the first course of action, the professional engineering report (PER), was a critical next step for many of the identified projects. In 2023, the Lewis County Legislature approved a budget that would allow for LCPCD to fund up to two PERs, which kickstarted three municipal water district projects: the establishment of the town of Turin's water district, the expansion and maintenance of the village of Turin's water infrastructure, and the interconnection of the village of Copenhagen's water district to an established water supply provided by the village of West Carthage. As of October 2023, the town and village of Turin completed their PER, added their project to the NYS Drinking Water Intended Use Plan (IUP), and was able to work with the PER engineers at Barton & Loguidice to submit a NYS Water Infrastructure Improvement (WIIA) program application to fund their expansion and maintenance project. Additionally, the village of Copenhagen is nearing completion of its PER and plans to use its findings to apply for 2024 CFA grants to fund the interconnection. These simple efforts have the capacity to bring big economic and community development improvements to these areas. So much so that LCPCD has requested that these same funds be budgeted in 2024 to complete two more PERs.

The Black River running through Carthage and West Carthage. Photo by the Downtown Economic Resiliency Strategy: West Carthage, Carthage, Wilna & Champion

These infrastructure investments will contribute to stronger and more resilient communities and help to lay the groundwork for long-term health and sustainability in Lewis County. The networks that are created through the vast number of partnerships are critical to the success of even the most rural system. For more information, visit: lewiscountyny.gov/departments/planning-and-community-development/

Jefferson County Rain Barrel Workshop

The Jefferson County Soil and Water Conservation District held an educational workshop in the local MS4 community of West Carthage on October 20, 2023.

Attendees learned about the numerous benefits of rain gardens and rain barrels. Controlling residential runoff is one way to improve water quality in the Black River and its tributaries. Rain gardens and rain barrels are identified as applicable green infrastructure practices within the Black River 9E watershed management plan.

Rain gardens and barrels provide numerous benefits:

- Intercept and slow stormwater runoff
- Reduce erosion
- Reduce flooding and pooling
- Reduce storm sewer backups
- Save money on water bills

Green infrastructure project completed by Jefferson County SWCD in the village of Black River.

Each attendee that registered prior to the event received a complete rain barrel kit for use at their own home. Jefferson County Soil and Water Conservation District plans on holding another rain barrel and rain garden workshop in the spring of 2024. Visit their website at: jeffersoncountyswcd.org/programs-services/, and follow their Facebook page to learn about that and many other opportunities available through the district's work!

Watertown Celebrates Arbor Day with Tree Planting

Tree Watertown, along with the city of Watertown and Noon Rotary Club, celebrated Arbor Day 2023 by holding a volunteer tree planting event on April 29 and planting 40 trees in the Black River watershed, along Massey and Arsenal Streets. Over 50 volunteers including youth from local schools helped out at the day's event. The tree planting replaced ash trees that were removed to prevent impacts from the invasive emerald ash borer, while also providing important stormwater runoff control, air quality, and habitat benefits to the Watertown community. To learn more about Tree Watertown and get involved in the next tree planting, follow us on Facebook!

Above: Volunteers participating in the Arbor Day Tree Planting event by Emily Fell.

To learn more and get involved:
www.facebook.com/TreeWatertownDowntownArboretum

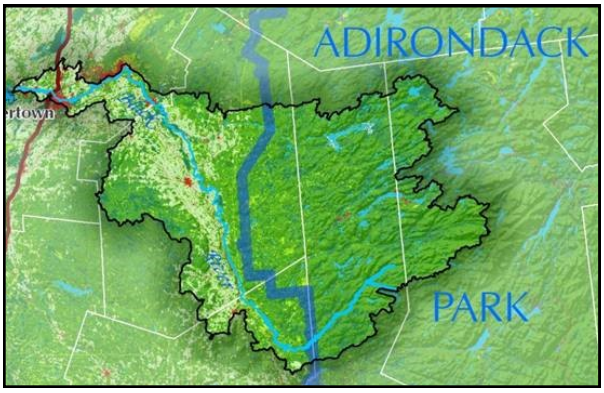
Black River Trash Bash

The annual Black River Trash Bash drew collaboration from the water quality coordinating committees of Jefferson and Lewis counties, and the Adirondack Community Advisory League. Together the volunteers collected over 600 pieces of trash totaling nearly 200 pounds! This event aims to bring community awareness to litter pollution and how it can affect water quality and other environmental and aesthetic characteristics of wild spaces within the watershed.

Volunteers participating in a Black River Trash Bash event at Otter Creek in Lewis County.

Black River Initiative

The Black River Initiative is a multi-pronged approach to protect and improve the water quality, recreational opportunities and communities along the Black River. The Black River Watershed Management Plan (2010), Black River 9 Element Plan (2016) Black River Blueway Trail Plan (2007) and Black River Trail Scenic Byway Corridor Management Plan (2012) provide the foundation to advance existing efforts and new projects that enhance and improve all aspects of the Black River. This annual newsletter highlights recent developments in the Black River Initiative, connects with stakeholders, and promotes collaborative, ecosystem based management efforts to achieve goals. For more information, visit: www.tughill.org/projects/black-river-projects/



Black River Watershed boundary.
Graphic courtesy of Bergmann and Associates.

Thank you to all of the organizations that contributed to this newsletter!

For more Information contact:

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Moose River Public Access, by Gabriel Yerdon.

Kayaking on the Black River, by Mickey Dietrich.

Information on recreation in the Black River is available at www.blackriverny.com