



St. Lawrence County Environmental Management Council

48 Court Street

Phone: 315-379-2292

Canton, NY 13617-1169 Email: Planning@stlawco.gov

www.Stlawco.gov/Departments/Planning/AdvisoryBoards/EnvironmentalManagementCouncil

Meeting Minutes Wednesday, March 19, 2025 6:00 p.m.

Classroom A, One Stop Career Center, Human Services Center

80 State Highway 310, Canton, NY 13617

I. Call to Order: Chair called the meeting to order 6:08 p.m.

A. Land Acknowledgment S. Rau read a land acknowledgement provided by Tony David, Director of the Saint Regis Mohawk Tribe Environment Division, and used with his permission: “As we meet today, let us first give thanks and acknowledge that the land upon which we are gathered is part of the traditional indigenous territories, including the Rotinonshionni (Low-dee-no-SHOO-nee), the People of the Longhouse, also known as the Iroquois Confederacy; and the Kanienkehaka (Ga-nyun-geh-HA-gah), the People of the Land of Flint, also known as the Mohawk Nation.”

B. Roll Call and Introductions 8 of the 12 members present. **Quorum was obtained**

1. Members Present: L. Bage; R. Graham (joined 6:13); L. Hanss; A. Pearson; S. Rau, *Chair*; N. Terminelli, *BOL Liason*; B. Washburn, *Vice-Chair*; N. Woodworth, *Secretary*.
2. Members Absent: L. Rudiger; S. Hurlbut; M. Iversen; M. Weaver.
3. St. Lawrence County: S. Joseph, *Planner II*; E. Streiff, *Public Health Director*;
4. DEC: A. Ortlieb, *DEC Pesticide Program*
5. Guests: Andrea Malik, *Director Bti Program, Town of Colton*; Rob Sneider, *SUNY Potsdam Biology Department*; Brian Ledette, *SUNY ESF*

C. Acceptance of Order of Business (Pearson / Woodworth) (passed unanimously)

D. Approval of Minutes (February 19, 2025) (Woodworth / Hanss) (passed unanimously)

E. Council Logistics

1. Elections Executive Board: Slate put forth as Chair: B. Washburn; Vice Chair: N. Woodworth; and Secretary: L. Bage. No Candidates from the floor. Motion to vote on whole slate (Hanss/Pearson) (passed unanimously)
2. Combined Meeting with Planning Board April 10. Discussion on new wetland regulations.

F. Public Comments: None

G. Presentation: Director Bti Program for the Town of Colton reviewed the Black Fly control and Mosquito control programs.

1. Andrea Malik explained implementation, results, and costs of both programs. Bti is a naturally occurring bacteria that targets the Diptera family (fly family including black flies and mosquitoes), and it is administered into water to kill the larva. Bti is considered environmentally friendly and cost effective. The highest contributor to cost is labor. They physically hike out to backcountry streams, calculate flow rate, and add the exact amount of Bti to the water based on their permit from DEC Aquatic Pesticide Application. Colton’s control for black flies is a great success, but is less effective for mosquitoes. Getting Bti into all the possible mosquito breeding areas is near impossible.

H. Presentation:SLC Mosquito Monitoring for detecting EEE and West Nile

1. SLC Public Health Director, Erin Streiff, gave an overview of the mosquito monitoring program that will be implemented this year as part of their efforts to control Eastern Equine Encephalitis (EEE) which killed five horses last year and is a potential threat to humans. The County is partnering with university professors from SUNY Potsdam, Clarkson, and SUNY ESF. The monitoring program will trap mosquitoes at the Upper and Lower Lakes Management Area, identify the species, and test them for diseases including EEE and West Nile. The professors explained EEE moves into the area by migrating birds. An early season mosquito that favors birds can increase the amount of EEE in the local populations of birds and mammals. Other species that bite humans and mammals, spread the disease to humans in late summer. Early detection

Fisheries Enhancement Mitigation Research Fund (FEMRF)

Fisheries Advisory Committee (FAC)

2025 Meeting

March 11-12, 2025

Brian Washburn, SLC EMC representative

Introduction

FEMRF was established by NYPA as part of the relicensing of the Robert Moses hydroelectric facility with an initial fund balance of 24 million dollars. The fund is administered by USFWS with the investment of the fund handled externally to USFWS. Annually funding projects either from USFWS directly, from universities both American and Canadian, NYSDEC supported research programs, federal natural resource agencies, and environmental non-profits are reviewed by the FAC with recommendations made to USFWS. The FAC annually receives updates for prior funded projects as well as fund finances. The composition of the FAC was defined at the inception of FEMRF and includes representation from USFWS, NYSDEC, NYPA, Ontario Power Generation (OPG), Hydro-Quebec, Ontario Ministry of Natural Resources, Natural Resources Canada, the IJC, Saint Regis Mohawk Tribe, and the St. Lawrence County Environmental Management Council. A description of the FEMRF as well as the historical record of funding is available at the FEMRF website. The current fund balance is approximately 9 million dollars with approximately 2.7 million incombered (prior funding awards for more than one year yet to receive funding). The annual proposal funding varies, however for most years the total is between 500 and 700 thousand dollars. Fund investments compensate for annual funding however, the investment income is not compensating for annual allocations from the fund. There has not been a significant number of funding proposals denied, however the issue of the diminishing fund balance may force FAC in the future to be selective in recommending funding proposals. FEMRF has funded significant research projects in spawning area purchases/improvements/ protection, telemetry systems to monitor fish movements, abiotic factor monitoring, muskellunge recovery, fish genetics, and invasive species monitoring.

2025 Funding Proposals

Support for the Muskellunge Recovery Program (\$179,189) (3 yr. term)

John Farrell PhD SUNY-ESF Director of Thousand Island Biological Station

The population of muskellunge (*Esox masquinongy*) particularly in the upstream region of the St. Lawrence River was decimated by Viral Hemorrhagic Septicemia (VHS) beginning in 2005. The decline in adult population continues. The Muskellunge Recovery Program began in 2017 continuing to the present day with support by NYSDEC and USFWS. Problems have arisen with the stocking stock both fry and fingerlings from the NYSDEC Hatchery on Onieda Lake. Mortality of stock due to temperature, disease, nutrition, and transportation has been reported. The funding proposal returns the complete restocking of muskellunge with reduced stocking densities to the Thousand Islands Biological Station (TIBS). TIBS is responsible for collecting, fertilizing, and culturing muskellunge eggs to the advanced-fry stage of development. The advanced-fry is divided into two cohorts; one for direct release into the spawning areas and one for the development of fall release fingerlings. The proposal is to eliminate the current mortality issues associated with nutrition by dry feed. The developing muskellunge will be fed brine shrimp until fry reach the advanced-fry stage. The advanced-fry retained for fingerling development will be switched to a golden shiner fry diet. Golden shiner fry will be stored at an impoundment on Thousand

Island Land Trust property with end of season removal of golden shiner from the impoundment. Proposal was strongly supported by both USFWS and NYSDEC and recommended for funding by the FAC.

Juvenile Lake Sturgeon Movements and Habitat Use in the Upper St. Lawrence River (\$176,970) (2 yr. term)

John Farrell PhD SUNY-ESF Director of Thousand Island Biological Station

This proposal is to fund the research for a M.Sc. SUNY-ESF student directed by Dr. John Farrell SUNY-ESF Professor and Director of the Thousand Island Biological Station. The proposal has four objectives:

- Monitor juvenile lake sturgeon movements with hydroacoustic tagging and positional detection in the GLATOS (Great Lakes Acoustic Telemetry Observation System) receiver array (an array of 97 acoustic receivers placed from Cape Vincent to Moses-Saunders).
- Monitor fine-scale juvenile lake sturgeon movements with directional hydrophone. The area to be studied is a large sand bar downstream from Ogdensburg.
- Relate benthic habitat characteristics and forage to juvenile lake sturgeon distribution. This will be done by Ponar (grab sampler) benthic sampling.
- Measure food quality composition as basal sources from habitat that support juvenile lake sturgeon populations. This will be done by examining digestive system contents of juvenile lake sturgeon.

The information potentially obtained by the research was supported by the fishery professionals of FAC. The only negative discussion related to the amount of work required to obtain the proposal's objectives. Several fishery professionals thought the proposal was too ambitious for a M.Sc. bordering on a PhD. FAC encountered a similar situation with a 2024 proposal for a Clarkson University M.Sc. student. Proposal approved.

Preliminary Proposal for NATEL FishSafe Turbine Runner Design for Moses-Saunders Hydroelectric Facility Turbine Replacement/Upgrade (\$200,000) (1 yr. term)

Abe Schneider, CTO of NATEL Engineering

Sterling Watson, Principal Engineer of NATEL Engineering

Moses-Saunders contains 32 turbines divided equally between NYPA and OPG. NYPA has begun upgrading its turbines while OPG is beginning the development of a turbine replacement/upgrade schedule. A major concern in the relicensing of Robert Moses was the significant turbine mortality of outbound American eel. It has been estimated American eel mortality at Robert Moses is 25% and comparable at Hydro Québec's Beauharnois facility downstream. This estimate indicates that a major portion of the migrating American eel population is lost. American eel spawn and develop in the St. Lawrence River and migrate to the Atlantic Ocean returning in the spring of the following year. Moses-Saunders has American eel passages to allow upstream migration of eels.

FEMRF has supported and continues to support the USFWS and LaValle University investigation of the feasibility of using light arrays to direct migrating eels through specific openings in the Iroquois Control Dam. If successful, eels may be guided away from the turbines and bypass the dam by a different route.

NATEL has developed a proto type new turbine runner (the blade that turns the turbine shaft) design that in its test facility has shown virtually 0% mortality for American eel and other fish species passage with minimal, if any, loss in hydroelectric production efficiency. Fish turbine mortality results from fish

strikes on the runner, fish maceration at the runner wall gap, and barotrauma resulting from the pressure gradient created with the turbine. NATEL does not manufacture turbines, however works in conjunction with major turbine manufacturers. NATEL's design does not require any significant modification of the turbine chamber. NATEL presented their turbine design prototype including footage of typical eel mortality in a traditional Kaplan turbine model as well as a Kaplan turbine model with a NATEL FishSafe runner. NATEL suggested the use of light array direction and only replacing a few of the turbine runners at Robert Moses might have a positive outcome on eel mortality. All fishery professionals supported the proposal and FAC supported the proposal. A significant roadblock is the willingness of NYPA to support the design change and turbine upgrade. Another roadblock is the need for NATEL to obtain the engineering drawings of a Robert Moses turbine. Apparently, there is the need of a security agreement between NATEL and NYPA before the drawings will be provided.

Lake Sturgeon Hatchery Support (\$90,000) (3 yr. term)

Continues support for the NWF Genoa sturgeon hatchery. Approved.

American Eel Acoustic Tagging (\$19,800) (1 yr. term)

Purchase for Quebec partners of 50 acoustic transmitters to be used near the Beauharnois Generating station. All implantation and monitoring to be done by Quebec partners.

2024 Funded Project Updates

Clarkson University Mooneye Project

Nick Selner (student)/ Thomas Langen PhD. Clarkson University (advisor)

The project objectives were to evaluate Mooneye activity in the Oswegatchie River and develop a citizen science program to report the catch of Mooneye. The capturing activities in 2024 collected very few Mooneyes which accounted for 1.33% of all fish species collected (~30/2550). Mooneye tend to inhabit swift water particularly during spawning. The collection activities apparently missed the peak spawning period. A significant finding was the age distribution of the catch. Older than expected mooneye were collected. Fifteen citizen science reports were collected with one Mooneye caught in Rossie. The original work on Mooneye in the Oswegatchie was done by SUNY Potsdam Professor Glenn Johnson and retired USFWS technician Doug Carlson. Carlson spoke at length at the conclusion of the presentation directing a significant number of questions which FAC fisheries people noted. Carlson reluctantly supported this proposal when initially presented.

SUNY-ESF Fish Habitat Conservation Strategy Update

John Farrell PhD. SUNY-ESF Director of Thousand Island Biological Station and J.P. LeBlanc PhD. Thousand Island Biological Station

John Farrell led the presentation. The presentation was extremely technical in nature and to a significant extent best suited for a conference of fisheries professionals. Dr. Farrell has made presentations in prior years and has never been able to restrain his enthusiasm. This presentation was to last thirty minutes, however it lasted ninety minutes. The objectives of the conservation strategy were addressed. Discussion included the spawning area issues arising from the expansion of Typha which is a non-native cattail species clogging spawning area access. Of note was data presented depicting the continued decline in the adult muskellunge population, diminished however stable populations of other

species, and of major concern the rapid expanding population and range of Chain Pickerel migrating out of the Eastern Basin of Lake Ontario into the St. Lawrence River.

SUNY-Oswego Lake Sturgeon Genetics

Nick Sard, PhD. SUNY Oswego

FEMRF is supporting research in the development of genetic profiling of native vs. stocked lake sturgeon to aid in the assessment of the lake sturgeon population. The presentation was highly technical and required a significant understating of diploid and polypoid genetics. Progress on the objectives of the grant were presented.

USFWS Telemetry Updates

Scott Schlueter, USFWS

Annual update of telemetry data from GLATOS for monitored fish species was presented. Of note was the migration pattern of Walleye tagged in St. Lawrence River tributaries; the Oswegatchie, Brandy Brook, and Sucker Brook. Depending of tagging site, the fish exhibited different migration patterns. A few Walleyes migrated to the Niagara Basin of Lake Ontario only to return to their release sites.

Additional Items Presented

Waddington Referendum

USFWS proposal to create an easement for Whetstone Bay in the Town of Waddington has yet to be voted upon by town residents despite the approval of the Town Board. The project was to create an environmental easement managed by TILT to protect the waters of the bay known to be a muskellunge spawning area.

USFWS Boat

In 2022 FEMRF-FAC approved the purchase of a new craft for the USFWS. The major attributes of the new craft are a hoist mechanism, shelter, and a landing craft design. The current craft places the GLATOS acoustic receivers (97) in the St. Lawrence from Cape Vincent to Moses-Saunders in the spring and retrieves the receivers in late fall. The original order was modified delaying construction and the cost maybe impacted by tariffs.

of EEE amounts in the area can help determine a potential threat to humans before cases appear in people. The County can then perform preventative measures such as public awareness and aerial spraying. Aerial spraying is expensive and will affect numerous non-target species including bees and pollinators. The council, additionally approved the Annual Report to BOL and reviewed report on Fishing Enhancement Mitigation Research Fund (FEMRF) meeting report. The next EMC meeting will be a joint meeting with the County Planning Board on April 10, at 6 p.m. at the HSC.

II. Reports

A. Report of Board of Legislators:

1. Request for Status on Milfoil in County
2. SWCD grant on invasives to control Honey Suckle, Phragmites, on 53 acres in Madrid
3. Clean Capital Solar development of Benson Mines
4. Question on what will happen with Black Lake this year? Will connect to Fisheries Advisory Board.

B. Report of DEC: None

C. Report: Fisheries Enhancement Mitigation Research Fund: (see attached report)

D. Report of Staff:

1. AFPB: Accepting request to add land to Ag District
2. FEMA released beta flood zone maps in GIS files using LIDAR technology
3. Septic Repair Grant: Trying to encourage eligible applications. Showed interactive map on the County webpage: www.stlawco.gov/Departments/Planning/EFCSepticSystemReplacementProgram
 - a. Discussion on old septic systems and primitive camps being converted
 - b. Black Lake TMDL will be significant because of failing septic systems and their proximity to water
 - c. Municipal water or sewer district discussion near Higley Flow because of rapid development and old septic systems.

E. Member Update: L. Hanss last meeting because moving out of the area. Thanked for service and wishing him the best on future endeavors.

III. Unfinished Business:

A. Yearly Report: Motion to accept Annual Report (Hanss/ Woodworth) (passed unanimously)

IV. Announcements:

- A. Sustainability Day and Green Living Fair Saturday, April 12, 10 a.m.- 5 p.m. SUNY Canton
- B. Repair Fair May 3
- C. NYS Invasive Species Expo September 14- 16 in Saratoga Springs, no cost for general attendance

V. Adjourn: (Woodworth/Pearson) 8:10 pm