



Although 2016 will feature slightly better adult salmon returns, they will pale compared to several thousand annually before the mid 1990s. The last good run of large prime (2 Sea Winter) spawners was in 2011 when close to 600 were counted. Since 2012, returns of large salmon have been less than 100 - coincident with the tremendously increased production of sea lice in Bay of Fundy salmon farms when these parasites developed resistance to the very effective in-feed drug SLICE. Seaward

migrating smolt are known world wide to be severely depleted by sea lice - very few of which they would encounter when entering salt water if salmon farms did not exist.

It is interesting to note that seaward migrating smolt numbers resulting from the gradually improving adult salmon returns that began in the mid 2000s were only a bit higher than those resulting from the poor spawning years since that time. It is expected that the genetic diversity (and possibly the resilience) of the population will decrease as the river is populated by juveniles from fewer and fewer parents. Small (1 Sea Winter) salmon in the Nashwaak are known to be about 30 percent female and although their eggs are of lower quality than those produced by large prime spawners, they do contribute to numbers of juveniles in the river.

Although the numbers of fall run fish, which are thought to spawn mainly in the lower river below Stanley, were similar to the numbers of summer run fish in the 1970s, there have been very few of these late run fish in recent years - probably as a result of the increasing population of predatory Small Mouth Bass that prey heavily on juvenile salmon and are able to thrive in the warmer lower reaches of the river.

Membership


The Nashwaak Watershed Association is committed to the management of the Nashwaak River watershed as a healthy ecosystem that balances a variety of economic, recreational, social, and landowner interests.


If you share this objective, we would appreciate your membership. There is a \$10 fee.


You can become a member by sending us your name, address, phone number

and e-mail address to **info@nashwaakwatershed.ca** or to:
Nashwaak Watershed Association Inc.
P.O. Box 314, Station "A"
Fredericton, NB, E3B 4Y2

Let us know if you're interested in volunteering on committees, at the tree nursery, or in other outdoor activities.

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Marieka Chaplin
Executive Director
- 

Jillian Hudgins
Project Coordinator
- 

Shawn Goff
Communications Intern

- Board of Directors**
- Paul McLaughlin, President
Peter Saloni, Past President
Joanna Nickerson, Treasurer
Monique LeBlanc, Secretary
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Jean-Guy Leaman
Stephanie Merrill
Peter Toner



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All are invited to attend the NWA ANNUAL GENERAL MEETING

Wednesday, November 23rd
7:00 PM – 9:00 PM

The Ville Cooperative
(former Alexander Gibson Memorial School)

241 Canada Street
Fredericton, N.B.

In addition to short presentations on the work of the Association, we will have a guest speaker, Ron Jenkins, presenting on the results of the 2016 geomorphic assessment of the Nashwaak River

OPEN TO THE PUBLIC
ALL ARE WELCOME

Connect with us



info@nashwaakwatershed.ca
www.nashwaakwatershed.ca

WaterWays

NEWSLETTER OF THE NASHWAAK WATERSHED ASSOCIATION, INC.



Fall 2016

President's Report

The person I trust most has recently informed me that I have been trying to run this watershed association as president for 7 years now - much longer than I intended, and probably longer than it is good for anyone to warm the same seat.

With the help of our board and volunteers, we have grown in that time and the future looks bright. We have two full time staff members operating on a budget valued at over one hundred and seventy thousand dollars, thanks in no small part to the good proposals submitted by Heather Loomer, who worked for us part time last year. The NWA is now in a position to, once again, contribute to the scientific and environmental legacy of the provinces' NGOs in a meaningful way.

As we all know, the Nashwaak is a fickle and capricious little river, sometimes sweet and bubbling, and at others capable of sweeping away bridges, banks and homes, at times without warning. Bank stability is a constant problem. People often turn to extreme measures to attempt to protect their property and, as often as not, without any sound advice or science to guide them. This leads to a hodgepodge of solutions that often eventually fail utterly, or simply send that same problem downstream to the next property owner who is then in the same predicament. The result is a general degradation of the health of this river we all care about so deeply as well as wasted funds and effort.

In the spring, we commissioned a geomorphic study of the Nashwaak, covering the river from just northwest of Stanley to its confluence with the Saint John River in Fredericton.

This study has been looking at the current state of the river and of its tributaries, noting bank and stream conditions, and developing solutions to bring troubled sections back to health using a holistic approach - viewing it as a complete system rather than a series of local catastrophes. What we learn from the study will inform the development of a three-year action plan on what to do where along the river. Fish habitat enhancement, bank stability, and endangered species habitat protection are all considerations.

Ron Jenkins of Parish Aquatic Services, who led the project, will be our special guest speaker at this year's Annual General Meeting so this may be the best opportunity for everyone with land along or an interest in the river to hear a full account of the threats and possibilities the study has exposed. I urge you to take the time to attend. Please see page 3 of this newsletter for preliminary results.

We've also advanced our work on the Greenway project this year. In July, Josh Noseworthy, along with Stephanie Merrill, met with the Mayor about the report Josh completed on the Silver Maple Wetland Forest. Later, Josh made a presentation to a subcommittee of City Council, explaining the value and importance of this ecology to the City. Councillors were very impressed to learn that the Greenway area, once reforested,

could save the City more than \$2 million dollars annually in flood mitigation, electrical, and other costs. The committee voted to have the idea submitted to the appropriate departments for study and recommendation. What the NWA is asking of the City is for the land to be set aside and protected in perpetuity, with the Association granted management control of municipal lands along the lower river floodplains for the restoration of the Silver Maple forests, in partnership with the City.

There is more going on, of course, our education programs continue to expand, we continue to plant trees to prevent bank erosion, and we are working on expanding our presence in the community. To find out more, and how you can become involved, please drop by our office at The Ville - the old Marysville elementary school on Canada St., and talk to Marieka or Jillian, the NWA's staff.

- Paul McLaughlin

nashwaakwatershed.ca

Environment and Climate Change Canada
Environnement et Changement climatique Canada



Your Environmental
Trust Fund at Work





Our outdoor learning program “Upstream/ Downstream” offers activities and learning across several elementary schools in the Nashwaak Watershed. Throughout September and October, students from Barkers Point School, Nashwaak Valley School, Gibson-Neill School, Garden Creek Elementary and the University of New Brunswick also lent a hand in planting silver maple and bur oak trees. Students were also able to do some critter dipping in the Nashwaak River, and learn about the different species it holds. Board members Peter Toner and Paul McLaughlin are actively involved in the NWAIs outdoor learning program.

out restoration activities for years to come. Beds will be planted in 3 year cycles to guarantee that trees will be large enough to compete against grasses when out-planted.

Nursery technician Diane Fraser and heavy equipment operators Greg Phillips and Andrew Dodds implemented the nursery management plan. This included planting 1,250 Silver Maple tree seedlings in the nursery, planting cover crops, vegetation management, collecting bur oak acorns, 2,000 willow cuttings and other activities. Board members Paul McLaughlin and Jean-Guy Leaman have played key roles in the tree nursery project and Executive Director



MARIEKA CHAPLIN • PHOTOS BY SHAWN GOFF

Community Outreach & Education

The Nashwaak Watershed Association has had an eventful year, with the help of several schools, organizations and members of the St. Mary's First Nation in our events and activities.

Spring and summer planting was off to a great start with volunteers from Siemens Canada and the Nashwaak Watershed Association getting in on the tree planting fun.

The fall season kicked off with volunteers from McInnes Cooper law firm and St. Mary's First Nation lending a hand in planting trees for National Tree Day on Sept. 21. Councillor Stephen Chase of the City of Fredericton also attended the event and said a few words on behalf of the Mayor before the planting began.

The next huge event for the association was STU Cares Day with students from St. Thomas University arriving at the Marysville Flats to lend their muscles and plant plenty of trees.

In total, over 700 trees were planted this year with around 350 hours of restoration and replanting activities by St. Mary's First Nation alone.

Jillian Hudgins is the association's new Project Co-ordinator. Jillian is inspired by what watershed groups have done to restore other areas of the province and is excited about the opportunities that the Nashwaak watershed presents for research and restoration.

2016 also marked the first year of implementation of the NWAIs tree nursery management plan.

The plan was created by Josh Noseworthy, a conservation forester and former NWAIs board member. The plan outlines when and what species to plant at our tree nursery in McLean's Flats in order to ensure that we will have enough stock of certain size trees to carry

Marieka Chaplin was key in coordinating our planting events.

We would like to thank our funders for the restoration projects: the NB Environmental Trust Fund and Environment and Climate Change Canada's National Wetland Conservation Fund.



GEOMORPHIC ASSESSMENT PROJECT SUMMARY

JILLIAN HUDGINS

NWAI, with the help of Parish Aquatic Services, assessed 73 km of the main stem of the Nashwaak River, 2 km of the Tay River and 2 km of the Penniac Stream using rapid geomorphic assessment techniques.

The field work was funded by the Atlantic Salmon Conservation Foundation, the Wildlife Trust Fund, and the Environmental Trust Fund.

The aim of the assessment was to:

- understand erosion and deposition along the river
- identify current and potential future stresses in the watershed
- describe degradation and threats to salmon habitat based on bank stability
- develop a 3-year plan to prioritize projects and areas that are most in need of restoration

Preliminary results show that 59% of the river is in a “transitional or stressed” state and a further 23% is “in adjustment”, meaning that evidence for bank and channel instability was widespread. The primary geomorphic process happening on the river is aggradation, or the accumulation of sediments.

The final report will provide the basis for a 3-year action plan for NWAI to prioritize restoration and management areas, which will be finalized by the end of 2016.

Provincial Water Strategy

STEPHANIE MERRILL

This time last year, Premier Brian Gallant announced that the Department of Environment “will begin in partnership with stakeholders and communities to develop a provincial water strategy.” This was welcome news to NWAI - we have worked hard to ensure the protection and wise use of the Nashwaak River, and all the waters of the province.

So far, the vision for the water strategy is strongly worded and inclusive of people and nature; the guiding principles are rooted in science, conservation, and watersheds as natural management boundaries. It also acknowledges the important role to be played particularly by community-based organizations, such as NWAI.

This water strategy could bring together the good work done by provincial government departments, and potentially the long delayed enforcement of the Water Classification Regulations under the Clean Water Act – something that has been highly anticipated and which NWAI has been a leader in advocating.

While the water strategy development process is still in its early stages, we have participated in the open houses and have submitted recommendations to ensure that it will be a comprehensive approach to protecting New Brunswick's waters. Earlier in October, the Minister of Environment announced the formation of a technical working group on the Water Classification program.

NWAI staff and board remain committed to ensuring that the Nashwaak River is a priority for watershed protection and will continue to be a voice, on behalf of our members and river users, for a strong strategy that is incorporated in a legal framework. The last thing we need is another strategy on the shelf, and there is little public appetite for lip service to water protection and meaningless public consultation.

With advice from scientists, public discussions and input including First Nation communities, and strong political will, we could have a gold-standard water protection strategy in New Brunswick. We remain optimistic.

