

First Nations Liaison/Field Monitor Report

Completed by: Austin Paul

Report covering the period from: August 12th -25th, 2016

Dates: August 17th, 18th, 23rd, 24th, 2016

Activities Conducted:

American eel studies were carried out by the Canadian Rivers Institute in support of the Mactaquac Aquatic Ecosystem Study.

Pertinent Tasks

Daylight studies:

During the daylight hours, the eel team would check various habitat traps located on the shoreline near the generating station. The traps would be pulled from the water and placed in a plastic tote to prevent the eels from escaping. Once eels were captured, they would be sedated in a mixture of ethanol, clove oil and fresh water. Once sedated, the eels would be weighed, measured, revived in a tank of fresh water and finally released back into the Wolastoq.

Night studies:

The methods employed for night surveys are quite different from those used during the day, however, the study areas remain the same. The team uses a fine-meshed net that measures 1 meter squared and is weighted by a steel chain that has been stitched around the perimeter. The net is placed on the river bottom at the various testing locations. The net would be left out for 5 minutes at a time. Once pulled from the water, the net would be placed in a plastic tote and all captured eels would be counted prior to their release.

V.I.E. tagging (Visible Implant Elastomer)

The eel team conducted studies on both the diversion spillway and main spillway ramps. Hundreds of eels attempt to ascend the spillway ramps in the cover of darkness. Our team would carefully remove eels from the ramps and sedate them in the same manner as described above. Once sedated, the eels would be weighed and measured. Two liquid chemicals are combined to form a plastic-like substance which is reactive to U.V. light. This substance is injected into the skin of the eels before their release back into the river. The V.I.E. tagged specimens can be readily identified using a black light.

Interests and Potential Concerns from a First Nations Perspective

The eel studies are relatively non-invasive and do not pose a threat to traditional resource procurement areas and/or archaeological sites.

Photograph



Above: A pit tagged eel under ultra-violet lighting. Notice the fluorescent “tattoo” on the side of the eel

Dates: August 19th, 23rd, 2016

Activities Conducted:

The deployment and maintenance of drift nets near Hart's Island. This work is associated with the Sturgeon studies being carried out by the Canadian Rivers Institute in support of the Mactaquac Aquatic Ecosystem Study.

Pertinent Tasks

Three drift nets were deployed around the islands below Ekpahak. The nets are designed to capture juvenile sturgeon, but are also used to collect fish eggs in the late spring, early summer. Every day, the nets would be pulled from the water, inspected for fish and re-deployed. No juvenile sturgeon were encountered, however, the nets were useful for capturing small eels.

Interests and Potential Concerns from a First Nations Perspective

The fieldwork associated with this study is relatively non-invasive and does not pose a threat to traditional resource procurement areas and/or archaeological sites.

Dates: August 25th, 2016

Activities Conducted:

Archaeological heritage assessment of the project development area (PDA) associated with the Mactaquac Project. This work was carried out by Stantec Consulting.

Pertinent Tasks

This was a pedestrian survey of the PDA. The team members would space themselves 20 meters apart and walk transects across the PDA until all of the areas had been covered. When areas of high archaeological potential were identified, the team would assess the area to determine where to employ subsurface testing. Various areas in the PDA were recommended for subsurface testing. This ground disturbing work will not begin in 2016. Many of the areas that were surveyed had been assessed as disturbed by activities associated with the initial construction of the Mactaquac Dam and therefore offer little in terms of archaeological potential. There were however, some areas that appear as though they have been relatively unaltered and have a heightened potential in terms of discovering pre-contact archaeological sites.

Interests and Potential Concerns from a First Nations Perspective

The fieldwork associated with this study is relatively non-invasive and does not pose a threat to traditional resource procurement areas and/or archaeological sites, no subsurface testing was conducted. NB Power and its contractors follow provincial requirements for Heritage Conservation as contained in the Heritage Conservation Act and its associated regulations. One of the roles performed

by the project's First Nations Liaison/Field Monitor is to watch for potential impacts on such sites and to report them to the project's management team and the Maliseet Consultation Coordinators.

Upcoming work

Over the next 2 weeks, I will be assisting The Canadian Rivers Institute with eel, dragonfly and sturgeon studies. As the summer season draws to an end, the frequency of fieldwork is less pronounced. Plans are now being made on a day-to-day basis.