First Nations Liaison (Field Monitor) Weekly Report

Completed by: Austin Paul

Report covering the period from August 18th -27th, 2015

Date: August 18th, 19th, 20th 2015

Activities Conducted

American eel/elver studies conducted in the St. John River in close proximity to the MGS. Worked in conjunction with the Canadian Rivers Institute in support of the Mactaquac Aquatic Environmental Study.

Pertinent Tasks

- Navigate the St. John River via watercraft to 20 different study locations near the MGS.
- Various forms of eel live traps were used in this study. All traps were pulled from the water and all captured eels were sedated in a clove oil/ ethanol/ fresh water bath.
- Eels were sedated, measured, weighed and photographed prior to being released back into the St. John River.
- Seeing as this study is drawing to an end, all of the eel traps were removed from the water for the season.

<u>Interests and Potential Concerns from a First Nations Perspective</u>

<u>Traditional resource sites:</u> The area near the MGS has been and continues to be a popular fishing location for First Nations individuals.

<u>Traditional land use sites:</u> Both historic and prehistoric Wolastoqiyik archaeological sites are located in the general area, indicative of an occupation extending deep into the past.

Photographs



Date: August 24th and 25th, 2015

Activities Conducted

Striped bass fisheries near the main spillway (tailrace) of the Mactaquac Generating Station working in conjunction with the Canadian Rivers Institute in support of the Mactaquac Aquatic Ecosystem Study.

Note: The Canadian Rivers Institute has all of the appropriate permitting requirements to conduct scientific fish studies in the areas encompassed between the Mactaquac Generating Station and Hartt's Island.

Pertinent Tasks

- Active fishing was conducted from the shore in order to acquire striped bass for tagging and tracking purposes.
- Once a bass was landed on the shore, it would be held in large cooler containing a solution of fresh water, ethanol and clove oil which acts as a sedative.
- Once the bass were properly sedated, a careful surgery was performed to insert an acoustic tag.
 An identification tag was inserted under the dorsal fin. The fish are then transported to a cooler full of fresh water until they become less lethargic. The fish is then placed back into the river and moved back and forth to allow fresh water to enter the gills. Once recovered the fish simply swims away.
- The goal of this particular study was to place an acoustic tag in striped bass that weighed at least 30 lbs. The hot weather seems to have slowed the fishing down; we were only able to catch one fish, which had a weight of 20 lbs.

Interests and Potential Concerns from a First Nations Perspective

<u>Traditional resource sites:</u> The area near the MGS has been and continues to be a popular fishing location for First Nations individuals.

<u>Traditional land use sites:</u> Both historic and prehistoric Wolastoqiyik archaeological sites are located in the general area, indicative of an occupation extending deep into the past.

Photographs



Date: August 26th, 27th, 2015

Activities Conducted

Worked in conjunction with the Canadian Rivers Institute, supporting the Mactaquac Aquatic Ecosystem Study. Salmon smolt tracking was carried out in the area between the Mactaquac beach and Longs Creek.

Pertinent Tasks

- Navigate the head pond via watercraft, periodically using an omni-directional hydrophone to detect tagged smolt.
- Once a tagged smolt was identified, the omni-directional hydrophone was switched out to a directional hydrophone that can more accurately pinpoint the location of the tagged fish. If the smolt do not appear to be moving, it is most likely that the tags have been spit out or that the fish is deceased. All of the fish tracked were actively moving through the head pond.
- Once fish were identified and tracked, the information gathered is recorded in a log book. The
 goal of the study is to establish the travel routes of smolt within the head pond.

Interests and Potential Concerns from a First Nations Perspective

<u>Traditional resource sites:</u> Most of the traditional Wolastoqiyik resource sites in this section of the river are currently under the waters of the head pond.

<u>Traditional land use sites:</u> There are undoubtedly many submerged archaeological sites with the reaches of the Mactaquac head pond. Due to the current water levels, none of these sites are accessible.

Photographs

