Line and Lead Collectors

Miramichi River

MREAC,
Feb 2020

MREAC
MIRAMICHI RIVER ENVIRONMENTAL ASSESSMENT COMMITTEE

New Nouveau Brunswick
Your Environmental Trust Fund at Work

NB Wildlife Trust Fund
Fonds de Fiducie de la Faune du Nouveau-Brunswick

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Acknowledgements

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1.0. Introduction

MREAC was sponsored by the WTF in 2019 to expand the effort to remove waste line and lead from areas of intense recreational fishing on the Miramichi. This was a follow-up from a successful pilot project in 2018 when these units, specialized waste line and lead collectors, were successful at four select sites. In 2020 the NB Environmental Trust Fund supported MREAC in advancing this project.

This waste collection initiatvie was prompted by the explosion of interest in recreational fishing for Striped bass, a fishery that is focused on the Miramichi estuary due to the bass spawning that occurs on this waterway. It was estimated in 2018 that one million spawning Striped bass returned to the Miramichi to spawn on what is understood to the be the only spawning area in the entire Southern Gulf of St. Lawrence. The popularity of this recreational fishery is such that it has attracted fishers from eastern Canada, Quebec and the United States for the "Striper Cup". The Striper Cup was cancelled in 2020 due to the COVID-19 pandemic. Despite this the intensity of recreational fishing was still very high. This fishery has quickly become a significant economic driver to the local Miramichi economy.

Associated with this activity is the significant entanglement and loss of fishing line along with lead sinkers. This waste, almost invisible, is often left on the shoreline with little regard to any lasting harm it might cause to wildlife. Some estimates suggest that this product will persist in the environment of 600 years. MREAC looked for opportunity to reduce this waste material by providing these unique and strategically placed collectors in areas of particularly high fishing activity (Figure 1) . With this resolve, MREAC was able to find support to construct and deploy units along the Miramichi estuary. Funding from the New Brunswick Wildlife Trust Fund was initially forthcoming along with in-kind support. Multiple units were deployed in 2019. The NB Environmental Trust then contributed support for this project in 2020.

Figure 1 Waste Line Collector Installed at Sweezy Bridge - Napan River

Figure 2 Installed Waste Line and Lead Collector - Strawberry Marsh

2.0. Methodology

The following summarizes the construction and deployment of the fourteen (14) waste line and lead collectors along the Miramichi estuary in 2020 (Figure 3).

With guidance from the on-line how-to construct source, MREAC undertook to construct and deploy 10 collector units in 2019. This was added to the four units constructed and deployed as a pilot in 2018 to bring our inventory to 14 units.

Deployment for the most part was at obvious locations, based on the known sites of the most intensive fishing activity. Sites selected included both shoreline locations where fishers would concentrate and at several boat launches.

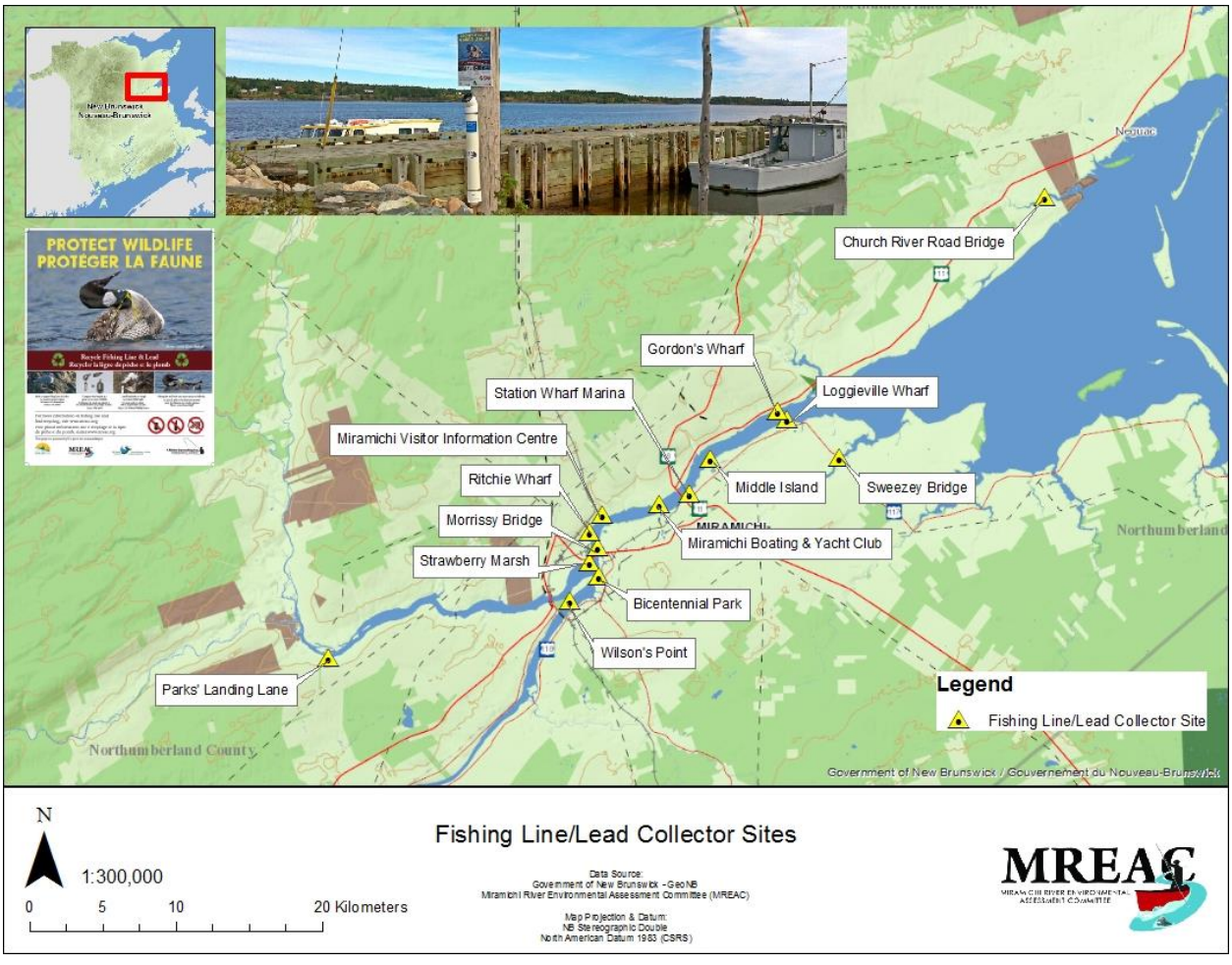

Figure 3 Distribution of Lind and Lead Collectors - Miramichi

The installation of the units was dependent on the site conditions. Where possible the units were attached to existing infrastructure (Figure 4). Most locations required free standing installation into the ground which required a ground spike. Once fabricated, two or more units could be installed daily.

Figure 4 Waste Line and Lead Collector - Loggieville Wharf

Waste collection was mostly the responsibility of MREAC staff although some site managers at marinas and parks agreed to remove the waste materials. When managed by other volunteers we requested a report on the results of how intensively the units were used and to provide pictures, if possible, of the waste materials collected.

Promoting awareness of the issue of wildlife entanglement and lead poisoning was deemed as important as the waste removal from the environment. The sign (Figure 5) is most effective in promoting awareness. Copies of the sign were also provided to sports shops were fishing gear

featured prominently in their sales. These operators readily agreed to display the sign and promote the awareness message it features.

Figure 5 Protect Wildlife Sign

The design of the collectors in such that it limits the size of the waste item it allows. Where possible the units were placed in proximity to other waste bins to encourage a separation of waste materials. Due to the potential risk of sharp objects, MREAC staff use heavy rubber gloves and exercised care in extracting the materials, remaining alert to fishing hooks and other sharps that may pose a risk of injury.

3.0. Results and Observations

All feedback to date suggests that recreational fishers, other stakeholders and the community at large are enthusiastic about the project and the messaging it provides. No negative comments were received throughout the 2018-2020 fishing seasons. During maintenance and waste collection outings, MREAC staff were both commended and congratulate for the initiative.

For the most part the collectors served the function for which they were designed (Figure 5). They were used occasionally to dispose of other wastes (Figure 6), but not to the point of significant risk to staff while removing the materials. With effort aluminum cans can be forced in the collector.

Damage and loss have been minimal. A vehicle backed over one unit breaking the joint between the post and ground spike. Another entire unit, sign, post, collector and ground spiker went missing. However, in the late fall, City of Miramichi staff returned the unit with little damage, that had been recovered along the drift-line by a beach-walkers. It apparently had been extracted and set adrift by vandals.

The volume or weight of waste collected is hard to put forth as a measure of success. The entire season resulted in collection, we estimate, of several kilometers of line and some lead but all of this could be forced into one five gallon pail and the collective weight is far from impressive. We thus gauge the project success by the other measures as noted above and are very pleased with these results.

Figure 1 Waste Fishing Line Extracted from a Collector

Figure 2 Use and Misuse of the Collectors

4.0. Conclusions

This project we hold to be an unqualified success. With the amazing and apparently growing interest in Striped bass angling, MREAC will continue this project into future years. There appear to be opportunities to share this initiative with others and we have had requests for units if/when they become available. MREAC will contine to deploy collectors for our own Miramichi area and actively promote the use of these by other non-government orgnizations.

It is recommendation that the Wildlife Trust Fund, the Environmental Trust Fund and others supporters continue to promote the messaging and support the consruction and use of these waste collectors by MREAC and other watershed organizations

5.0. References

http://bsafishing.com/resources/Documents/MONOFILAMENT%20Collection%20Tube%20Design_Ver%204.1_2016_TEXAS.PDF