

Beaver Management Plan

Wheatley River Improvement Group

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Resources:

The Beaver on Prince Edward Island – Seeking a Balance. Randy Dibblee, The Island, Spring/Summer 1994.

http://vre2.upei.ca/islandmagazine/fedora/repository/vre:islemag-batch2-469/OBJ/08_The_beaver_on_Prince_Edward_Island_p_18-22.pdf

The Wheatley River Watershed Stewardship Plan, 2007. <http://www.wheatleyriver.ca/wp-content/uploads/2011/01/WheatleyRiverStewardshipPlan20073.pdf>

Introduction

Located in central PEI on the north shore of the island, the Wheatley River watershed and its associated sub-watersheds—Cymbria, Chapel Creek, Hornes Creek, Luke’s Creek, and Oyster Bed Bridge—cover approximately 8,830.03 hectares. The land use in this area consists primarily of farm land, residential/developed land, and wetland. The Wheatley River, as a historical focal point for the area, is valued by fisherman, farmers, residents, and visitors alike. Incorporated in 2004, the community group had been active for several years prior to its incorporation. WRIG’s mandate is to protect and enhance the natural resources of the Wheatley River watershed and sub-watersheds. As a community-based environmental group, WRIG values community opinion and carefully considers concerns and feedback from residents in decision-making processes. The group is funded by the Watershed Management Fund, the Wildlife Conservation Fund, Canada Summer Jobs, Jobs for Youth, and membership fees. More information on WRIG and the work we do can be found on our website: www.wheatleyriver.ca.

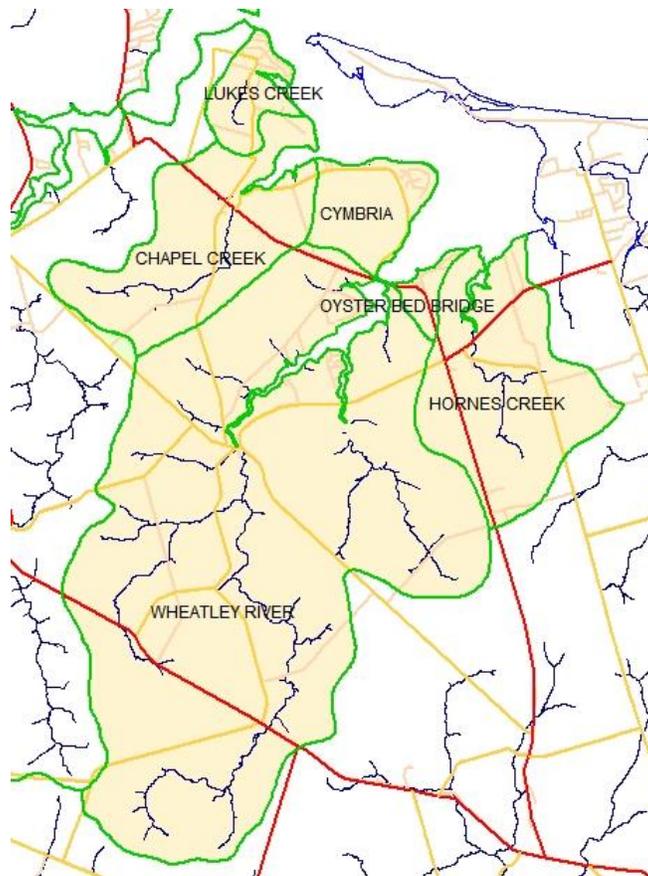


Figure 1 Map of the Wheatley River and Sub Watersheds managed by WRIG.

Beavers

Beavers are native to PEI and are also the national animal of Canada. The history of beaver populations on PEI has been tumultuous. High demand due to the fur trade led to their extirpation from PEI in the 1800s and again after being re-introduced in 1908. Reintroduction of beavers in the 1940s after the second local extinction was followed by another period of heavy trapping which led to the development of a beaver management program in 1971. Low fur prices since the 1980s have reduced beaver trapping which has resulted in populations that exceed stream carrying capacity, cause property damage, and engender negative perceptions of beavers. Annual trapping is necessary in order to avoid overpopulation.

As a keystone species, beaver activity has significant impacts on the environment. These impacts can be both positive and negative. Beavers and their dams, built for protection and food storage, can help to create valuable wetland habitat, have economic and recreational value, and can provide refuge for fish populations and excellent pond habitat. They can also create blockages that result in flooding that damages property, infrastructure, and road ways. Dams also have the potential to block fish passage through streams and degrade upstream habitat by creating shallow areas with high temperatures after flooding and sedimentation. There are areas in which beavers can thrive and create productive wetland areas and beneficial habitat and there are places where beavers block culverts and waterways, causing damaging floods, and harm riparian zones by taking young trees.

WRIG understands both the positive and negative impacts of beavers and their dams and will take an integrated management approach, recognizing the importance of maintaining species diversity and population health while minimizing detrimental effects on fish habitat and being sensitive to the societal concerns about flooding and blockages caused. Beaver populations need to be monitored and controlled in order to prevent over-population as well as over-harvest. We will determine appropriate beaver management strategies for each of our sub-watersheds and will complete monitoring in the spring and fall.

The Wheatley River and its sub-watersheds have historically showed minimal evidence of beaver activity though our neighboring watersheds have beavers in much greater abundance. Beaver activity has been noted by fisherman along the Wheatley River and fresh browsing has been evident at various times. Because beaver activity is increasing, we expect that we will see an increase of activity in our watersheds as well and want to establish a management plan that fits our mission to encourage a healthy and sustainable environment with a rich diversity of aquatic and terrestrial plants and animals and clean, healthy water for current residents and future generations. We respect the members of our community and each landowner's views in regards to beaver management.



<http://yourshot.nationalgeographic.com/u/ss/fQYSUbVfts-T7pS2VP2wnKyN8wxywmXtY0-FwsgxpixKLj0jmp0unR8z3DWmK7hkDRGf-ba-977ppmBZO-cQ/>

Wheatley River Watershed

In the Wheatley River Watershed, approximately 75% of the land is either use for agriculture or development, leaving 20% of the land forested and 5% surface water. Nearly 15% of the land in this watershed is part of the PEI Sloped Land inventory; most of this land is adjacent to waterways. Due to increasing development and extensive farming, a beaver management plan is imperative to address beaver-related conflicts that may arise.

There are also an abundance of other species that WRIG manages the watershed for. The Wheatley River is home to brook trout, gaspereau, smelt, and various stickleback species. Based on research done by Sean Landsman, PhD candidate at UPEI, the productivity of the river system indicates that there is suitable spawning habitat well above Rackham's Community Pond. The natural fishway below the pond is well-designed and does not hinder fish from reaching the pond and areas above it. There is excellent summer refuge habitat for anadromous brook trout and local fisherman report catching brook trout below, in, and above the pond.

Stream rehabilitation work completed by WRIG field crews over the years has focussed on ensuring fish passage from the lower reaches of the river, which have high rates of sedimentation, to the upper reaches and tributaries to ensure access to spawning habitat. Beaver dams along the main channel of the Wheatley River have the potential to impede fish passage and are strongly disliked by local residents and fishermen.

The Wheatley River and its tributaries require varying types of beaver management: removal of nuisance beavers, managing numbers to prevent overpopulation, and consistent monitoring to ensure healthy populations that do not pose a threat to infrastructure or property.

The main branch of the Wheatley River will be classified as a beaver free zone up to the fork between the Little Bungay Branch and the South Branch to permit anadromous fish passage throughout the year. (Appendix II). Beavers looking to establish themselves within this area will be removed along with their dams, once inactive. Special attention will be given to the South Branch of the Wheatley River as it is the section of river crucial for fish to reach spawning areas near the headwaters and in the river's tributaries. It is paramount that fish passage is maintained and any beaver dams that may threaten fish passage will be carefully analyzed. We will seek expertise from the province in these situations.

The tributaries of the Wheatley River—Ross Creek, Pigeon Creek, Bungay Branch, and Little Bungay Branch (see Appendix I)—and the Wheatley River South Branch will be monitored and managed to prevent beaver overpopulation. Nuisance beavers will be removed if complaints are received from landowners.

Chapel Creek, Crooked Creek, and Hornes Creek

Three of the Wheatley River's sub-watersheds are Chapel Creek, Crooked Creek and Hornes Creek. Each of these creeks provide valuable habitat for waterfowl, various fish and amphibians, and upland species. Each of these sub-watersheds will also be monitored for beaver activity and indications of beaver-related conflicts. Though there have been no issues with beavers along those waterways and there is very little indication of beaver presence, monitoring will be done in the spring and fall. WRIG will respond to landowner complaints regarding nuisance beavers and will also encourage and value the

community's observations of beavers in the area. Prior to accessing property or enacting more direct management practices, landowner permission will be acquired.

Beaver Trapping

Trapping of beavers will only take place within the regular trapping season and will only be carried out by individuals with current trapping licenses. Relocation or removal of nuisance beavers will only be done with the proper nuisance permits.

If a nuisance beaver is reported and trapping is required, WRIG will inform the PEI Trappers Association and will contact local trappers that are residents of our watershed. Beavers that are trapped and removed during the winter will have their dams removed the following summer by the WRIG field crew.

Dam Removal

Before a beaver dam is removed, an assessment of the surrounding area will be completed to determine how to minimize erosion and sediment plumes. Large dams will be notched on one side to allow for upstream water levels to lower gradually. After notching, the crew will wait 1-5 days to remove the dam. All dams will be removed by hand using manual labor and hand-held tools. The debris will be moved to the bank of the stream. Ideally, the natural course of the waterway will be maintained and proper assessments will be completed to ensure it. All required permits will be obtained before any work is undertaken.

Monitoring

During the spring, after the snow melt, beaver dams and browse areas will be monitored for activity. On recently active sites, this monitoring will continue regularly until the fall. WRIG will request that the landowners keep an active look out for beaver activity as well, with special focus on problem areas.

WRIG uses WGIS to map field work, monitoring, and assessments in the watersheds. We use a handheld GPS and cameras to thoroughly record the work we do and the observations we make. This information is included in our end-of-year reports and is available on our website. We will accurately record information collected on beaver populations in the Wheatley River and sub watersheds and on active and inactive dams as well as WRIG work-sites.

Concluding Remarks

WRIG will acquire all necessary permits, following permitting guidelines, obtain landowner permission, and complete follow-up monitoring in beaver areas. We will also consult with experts from the Province in any and all situations where questions arise. This plan will continue to evolve and be enhanced as the beaver populations fluctuate in our watershed. Currently, beavers do not pose a significant threat but we recognize that this could change and will adapt accordingly. This beaver management plan composes part of our overall Stewardship Plan for the watershed

Appendix I – Waterways Labeled

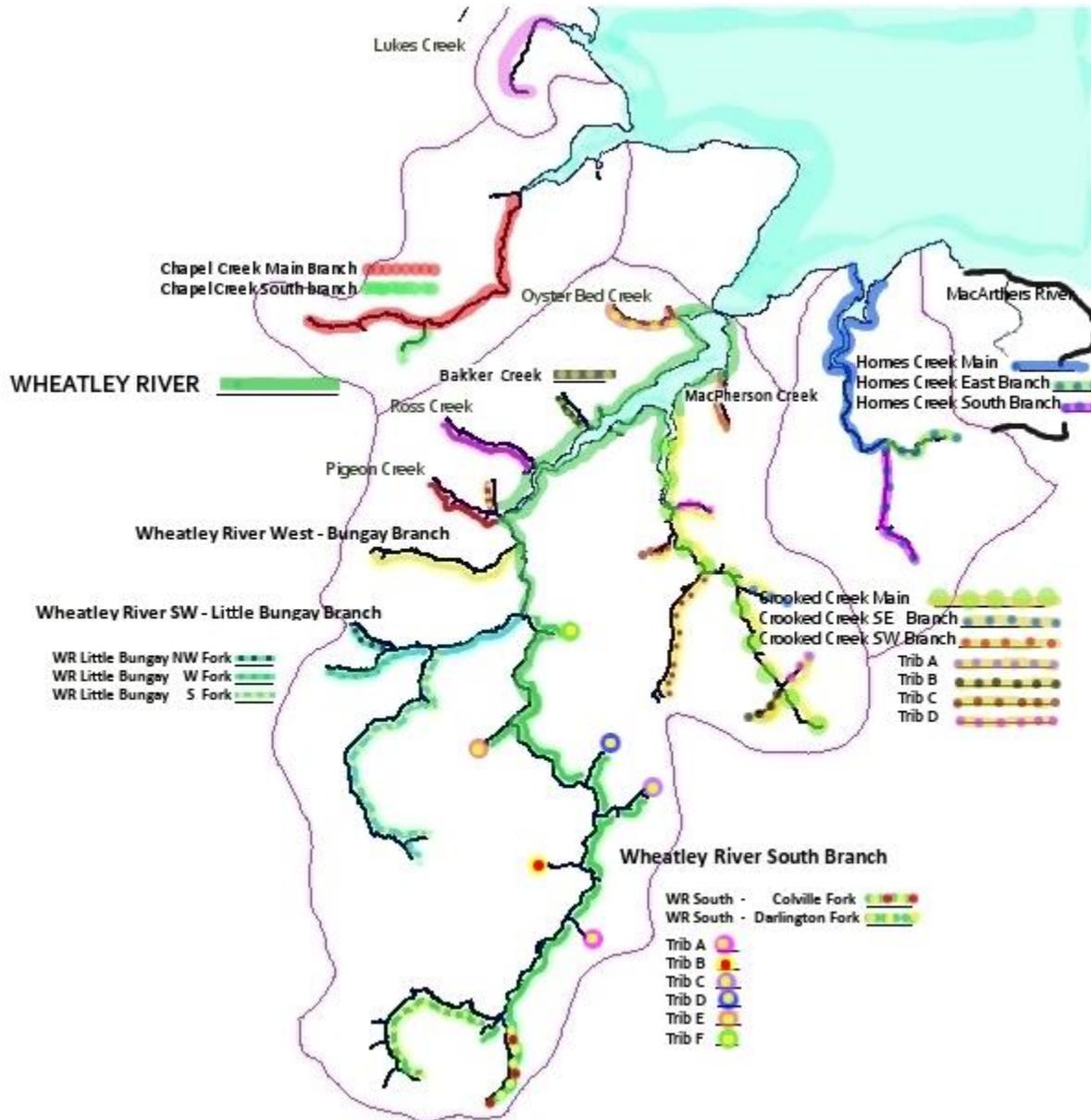


Figure 2 Map of the Wheatley River watershed and sub-watersheds with tributaries labeled.

Appendix II – Wheatley River Main Branch



Figure 3 Main branch of the Wheatley River up to the fork between the Little Bungay Branch and the South Branch, to be designated a 'Beaver Free Zone'.

Appendix III – WRIG Landowner Permission Form



The Wheatley River Improvement Group

Landowner Permission Form

This form gives permission for the Wheatley River Improvement Group to access the riparian buffer zone (15 meters from the stream) of the stream on your property in order to assess and monitor its overall health. If any restoration work is recommended through the assessment process, the Wheatley River Improvement Group will contact you beforehand to ask your permission and discuss the possibilities.

Those undertaking these restoration activities will be directors, employees, or volunteers of the Wheatley River Improvement Group or persons and organizations authorized by the Wheatley River Improvement Group to assist us in our work.

Our watershed restoration work follows all Federal and Provincial laws and regulations and WRIG will obtain permission and appropriate permits before any work is undertaken. We carry insurance for these activities which is arranged through the Prince Edward Island Department of Communities, Land and Environment.

We will contact you to ask permission before we start any activity on your land, except where the WRIG is simply performing a stream assessment and does not step outside the riparian buffer zone (15 meters from the stream).

This form covers such activities from the date of signing to December 31st 20XX. You may cancel this permission at any time by contacting WRIG by either telephone (902-963-3198) or e-mail (kayla@wheatleyriver.ca). WRIG will then send a letter confirming the cancellation.

This permission applies to provincial parcel number(s):

Landowner's name: _____

Landowner's Civic Address: _____

Telephone: _____ E-mail: _____

Landowner's signature: _____

Date: _____

I grant permission for:

- The Wheatley River Improvement Group to assess my stream, staying within the riparian zone (15 meters from the stream)
- Please contact me – I would like trees planted or specific stream/riparian restoration work done on my property
- I am interested in receiving information on the ALUS land retirement program
- Please go ahead and perform restoration work on my stream without contacting me again
- I am interested in helping the WRIG as a volunteer



Please return this completed form to WRIG.