

Beaver River Wetland Conservation Area Management Plan



2020



Lake Simcoe Region
conservation authority

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Executive Summary

The Beaver River Wetland Conservation Area Management Plan provides direction for the future management of the Beaver River Wetland Conservation Area.

The Management Plan has been written in four sections: a **Background Report** which summarizes and synthesizes information on the natural heritage of the property and its current levels of development and public use; a **Development of the Revised Plan** section which describes the public consultation process and input received during plan review, as well as outlining the process and timeline for future plan review; a **Management Plan** which identifies long- and short-term goals for the management of the property; and a **Business Plan** which provides a description and schedule of implementation priorities, coupled with projections of revenues and expenses over a five year period.

Background

Beaver River Wetland Conservation Area is a 500 ha (1236 ac) conservation area situated along the Beaver River, in the Townships of Brock and Scugog, in the Regional Municipality of Durham, with a property in the City of Kawartha Lakes. LSRCA has been acquiring parcels of land to build and expand this Conservation Area since 1994, with the support of the Lake Simcoe Conservation Foundation, the Nature Conservancy of Canada, Ontario Heritage Trust, the Regional Municipality of Durham, the Ministry of Natural Resources and Forestry, Ducks Unlimited Canada, Trans Canada Trail, a large bequest and a number of private donations. Interest in acquiring properties in this area were identified by the Lake Simcoe Region Conservation Authority in the Environmentally Significant Areas Study (Ecologistics Limited, 1982) which stated that this was an area of high ecological and natural heritage features, and that it should be protected for the long term.

Functionally, Beaver River Wetland Conservation Area consists of two parts, an abandoned CN rail line now a recreational rail-trail running along the western side of the conservation area, and an extensive portion of the Provincially Significant Beaver River wetland complex.

In 2009, the process to develop a Management Plan for the property was initiated. Plan review included broad based consultation with LSRCA staff, staff of partner agencies, and with the conservation area's neighbours and users. This process will be adapted to complete an update of the Management Plan. In early 2018, work began to review the implementation and effectiveness of the past Management Plan, and to develop an updated one.

Community Input

Consultation has played an extremely important role in the review of the past management plan, and in the development of this current one. Consultation allows users an opportunity to reflect on their values and use of the property, changes they have seen in the conservation area and their community over time and their visions for the property in the future.

Formal public consultation throughout the process has included a user survey, which was available online from March 1st to May 31st, and a public workshop held at the Sunderland Memorial Arena on April 18th, 2018.

In order to assist with the development of the Management Plan, a Project Team was formed in 2018, to assist in reviewing and providing feedback on documents related to the development of the Management Plan, assisting with public and internal consultation, representing their departments, and ensuring that the Management Plan is consistent with the organization's goals and objectives.

The Project Team consists of the following members:

- Lauren Grzywniak (Project Lead), Land Management Technician
- Brian Kemp, General Manager, Conservation Lands
- Dan Andrews, Land and Resource Planning Technician
- Kevin Kennedy, Land Securement Officer

In addition to the Project Team, an internal group of subject experts was also involved, and were called upon for their expertise throughout the Management Plan review and development phases. This internal group of experts consisted of the following:

- Phil Davies, Manager, Forestry and Greenspace Services
- Shauna Fernandes Chagani, Natural Heritage Planning Coordinator
- Christa Sharp, Restoration Program Coordinator
- Rob Wilson, Aquatic Biologist
- Nicole Hamley, Manager of Education
- Dave Price, Greenspace Services Technician

Management Goals and Objectives

The original Management goal for the property was established back in 2009 with the first iteration of the Management Plan, and this has been carried forward:

“Beaver River Wetland Conservation Area will be managed to conserve and maintain the hydrological and natural heritage values of the Beaver River wetland complex, while providing for compatible recreational, educational, and research activities.”

More specifically, LSRCA aims to:

- Protect and maintain the wetland’s ecological integrity, including its wildlife populations and habitats;
- Provide opportunities for increased public understanding, education, involvement, appreciation, and enjoyment of the wetland;
- Continue to monitor and maintain infrastructure to support authorized and compatible public use of the conservation area;
- Reduce the amount of illegal activities and uses within the Beaver River, specifically the use of motorized vehicles along the trail; and
- Secure additional lands within the Beaver River wetland through donation, purchase and conservation easement, when possible

Management Plan Direction

The Management Plan has identified the following specific projects to further the goals and objectives described above:

- Develop a comprehensive signage strategy, which includes safety signage, permitted uses, emergency access signage, and updated property mapping
- Construct formal water access points
- Develop a Trail Stewards Program
- Install washroom facilities
- Create and implement a Communication and Marketing Strategy for the conservation area
- Develop safe parking spaces along the length of the trail

Business Plan Direction

The Business Plan identifies priorities for implementation, and provides a schedule for the period 2020 – 2024 coupled with projections of revenues and expenses over that five year period. Initial effort will be expended on installing various types of signage, adding small infrastructure such as benches and bike repair stations, and making access to information regarding the conservation area easier and more accessible.

Preliminary projections of the cost to implement projects and programs identified in the Business Plan total approximately \$670,830 as well as additional staff time (approximately 5.48 of a full time equivalent).

Authority Resolution

Moved by: E. Yeo
Seconded by: D. Barton

BOD-124-19 **RESOLVED THAT Staff Report No. 44-19-BOD regarding the Beaver River Wetland Conservation Area Management Plan be received; and**

FURTHER THAT the Management Plan and associated Business Plan be approved; and

FURTHER THAT staff continue to pursue funding and in-kind support to implement the recommendations of the Management Plan. CARRIED

Section I: Background Report

Introduction

Since 1951, Lake Simcoe Region Conservation Authority (LSRCA) has provided a leadership role in the protection and restoration of the environmental health of the Lake Simcoe watershed. LSRCA is mandated under the provincial *Conservation Authorities Act* to “establish and undertake, in the area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals¹.”

In order to meet this mandate, the Conservation Authority works with government, non-profit and community partners to support a number of programs including watershed-level analysis, modelling and planning; forestry and private land stewardship /restoration programs; and a system of conservation areas.

Conservation areas have represented a significant resource for residents in the watershed and beyond, and have enhanced the open space and outdoor recreation opportunities offered by local municipalities. The protection of these lands as well as the access for public use is seen as one of the most important contributions the Authority makes to the communities it serves. As the watershed continues to urbanize the role of conservation areas and other natural areas in the landscape will become increasingly critical.

To date, Lake Simcoe Region Conservation Authority owns or manages over 1602 hectares² (3960 acres) of conservation lands with the financial support of regional and local municipalities, the province, private donations, and other conservation organizations. These lands range from significant natural areas such as the Beaver River Wetland Conservation Area, to more intensive recreational and educational facilities such as those provided at Scanlon Creek or Willow Beach Conservation Areas.

Beaver River Wetland Conservation Area is situated along the Beaver River in the Townships of Brock and Scugog, and the City of Kawartha Lakes, in one of the most ecologically significant natural areas in the Lake Simcoe watershed³. Previously as one of LSRCA’s priority acquisition areas, the Beaver River Wetland Conservation Area constantly grew in size, however due to limited funds acquisitions have stalled and no new land purchases have been made in the area since 2014. The Beaver River Wetland Conservation Area currently consists of 34 km of recreational trail along an abandoned rail line, as well as close to 500 ha of wetland habitat.

The purpose of a conservation area management plan is to establish long- and short-term goals, and to develop strategies by which those goals can be achieved. They should be flexible enough to address unforeseen issues which may arise in the future and should be integrated with the overall goals and objectives of the Conservation Authority, as well as the landscape within which the property is situated.

Successful management planning requires a full understanding and appreciation of the site’s history, natural heritage features, usage levels and patterns, and the constraints influencing the use of the area. This background report provides a summary of the history, development, and human and wildlife use of the Beaver River Wetland Conservation Area. This reference document will act as a baseline of information for future management of the Beaver River Wetland Conservation Area, and can be used in subsequent stages of the management plan development to assist with informed decision making.

¹ Government of Ontario (1990)

² LSRCA (2016)

³ Ecologistics (1982)

Site Location and Brief Description

The 500 ha (1236 ac) Beaver River Wetland Conservation Area is situated in the Township of Brock, Township of Scugog and the City of Kawartha Lakes including; part of Lot 13 Concession III, Lots 12-14 Concession IV, Lots 12-13 Concession V, Lots 13-15 Concession VI, Lots 15-16 Concession VII, Lots 16-18 Concession VIII, Lots 17-18 Concession IX, Lots 1-2 and 18-19 Concession X and Lots 19-20 Concession XI in Brock Township, Durham Region; parts of Lots 1 and 2, Concession X in Scugog Township, Durham Region; and part of Lots 1 and 2 Concession XIV and Lots 2 and 3 Concession XV in Mariposa Township, City of Kawartha Lakes (Maps 1, 2).

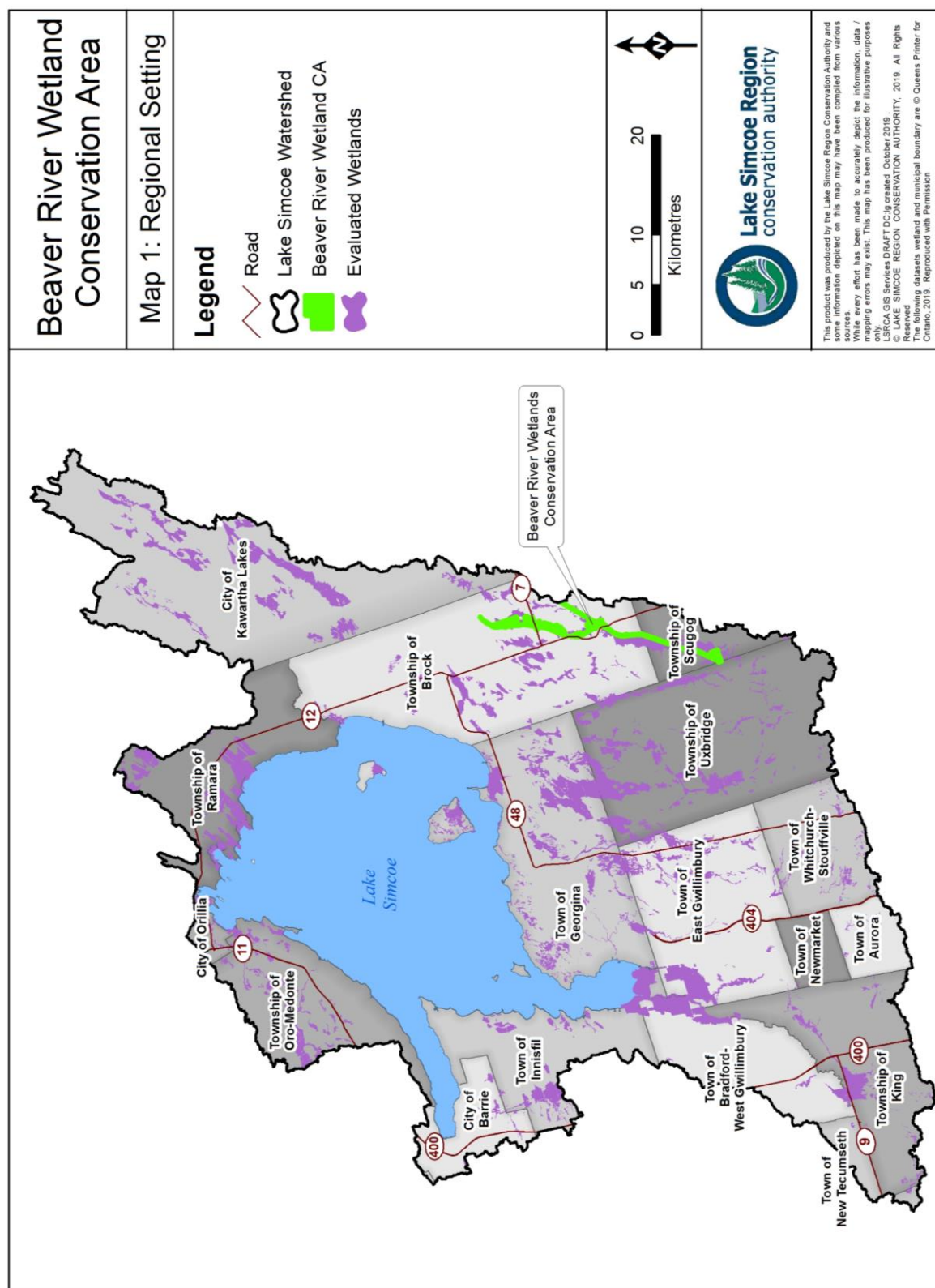
Functionally, Beaver River Wetland Conservation Area consists of two parts, an abandoned CN rail line now a recreational rail-trail running along the western side of the conservation area, and an extensive portion of the Beaver River wetland complex. This wetland complex has been identified as a Provincially Significant Wetland⁴, and an Environmentally Sensitive Area⁵.

Currently there are a number of locations where the public can access the Beaver River Wetland Trail, these include access points near Blackwater south of Concession 4, Sunderland at Concession 6, and Cannington, accessible from the Community Centre. These are the more well-known access points, although the trail sections LSRCA is responsible for managing extend from Lakeridge road to the southwest and continues to Simcoe St in the northeast.

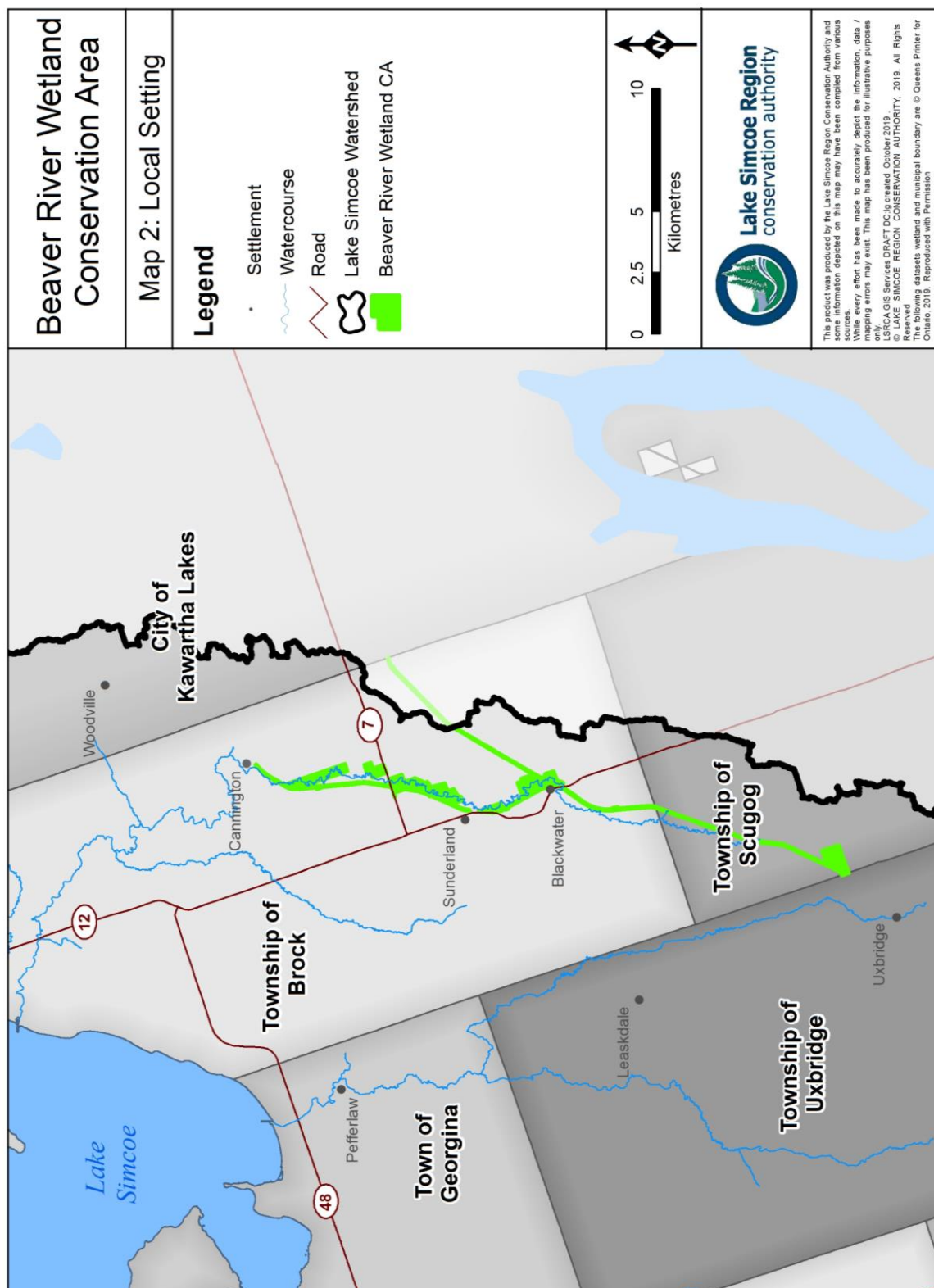
⁴ MNR (2014)

⁵ Ecologistics (1982)

Map 1. Regional Setting



Map 2: Local Setting



Topography and Soils⁶

The Beaver River Wetland Conservation Area lies at the western extent of the Peterborough Drumlin Field which is characterised by a rolling calcareous sand and clay till plain, dotted with numerous drumlins and eskers. The upland features in this physiographic region tend to be well drained, and promote the accumulation of water in the intervening low-lying areas of finer till. The combination of excess water, water-retentive soil, and the flat topography of the till plain makes the Peterborough Drumlin Field typically one of steep well-drained hills interspersed with low swampy areas.

The Beaver River is located within a deep, but gradually sloping, valley in this till plain. The river tends to be slow moving, with fluctuating water levels corresponding to seasonal changes and precipitation events. Over the millennia since the retreat of the glaciers, this broad flat valley has almost always been saturated with water, allowing organic debris to accumulate rather than decompose. This partially decomposed organic matter increases the water holding capacity of the soil and has allowed the development of the Beaver River wetland complex. The most common soil types within the Beaver River Wetland complex are sandy loam, muck, loam, and bottom land⁷.

Hydrology

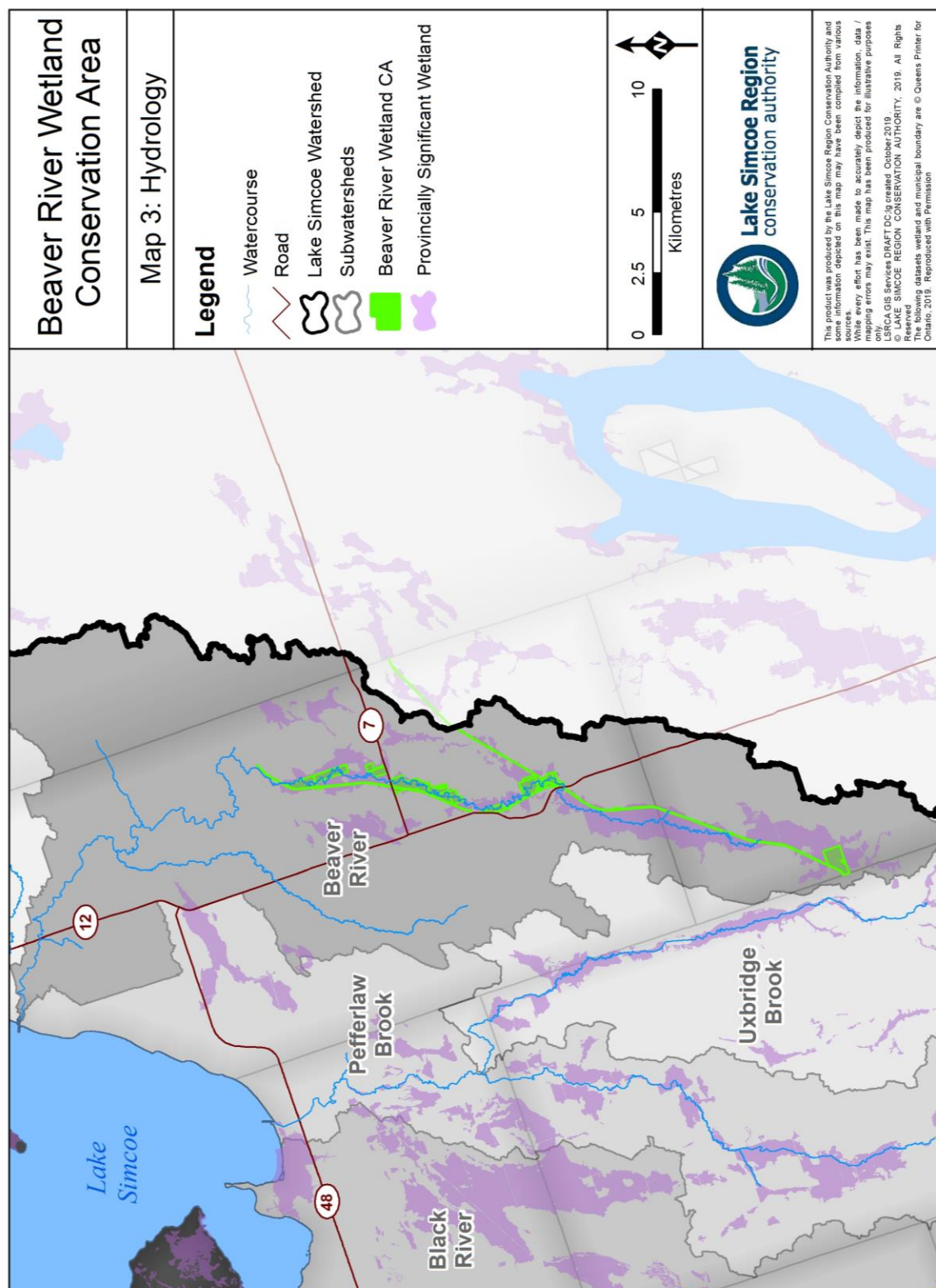
The Beaver River Wetland Conservation Area is dominated by the Beaver River and its associated wetland. The river is slow flowing, meandering and shallow, mostly less than a metre in depth, and ranges from 15 to 60 metres in width. The Beaver River has a 327 km² drainage area, which stretches from Uxbridge north to Beaverton where it empties into Lake Simcoe (Map 3).

Approximately 10.2 km of the Beaver River, as well as a number of short tributaries, flow through the conservation area. Due to the relatively inaccessible nature of much of the conservation area, it remains relatively unimpacted by disturbance to the watercourse or wetlands, however recent inventories by LSRCA have found some locations along the rail trail which have been impacted, primarily by motorized vehicles, culverts, or bridges.

⁶ Based on Olding et al (1950), Chapman and Putnam (1966), and Beacon Environmental (2008a, 2008b, 2008c)

⁷ LSRCA (2018e)

Map 3: Hydrology



The river has a relatively wide floodplain, underlain by organic soils, which has supported the development of an extensive wetland complex, approximately 2453 hectares in size. This complex has been assessed under a number of different programs, including a 1985 wetland evaluation by the Ministry of Natural Resources and Forestry. Invariably, these studies have identified the Beaver River wetland as being one of the most significant natural areas in the Lake Simcoe watershed. MNRF's wetland evaluation identified the wetland as being 'Provincially Significant' as a result of its size, habitat diversity, and number of rare species it supports⁸. No further wetland evaluations have been completed on this complex by the MNRF since 1985.

By the time water draining from the Beaver River subwatershed enters Lake Simcoe it is among the cleanest of any tributary feeding the lake⁹. Water quality within the wetland complex itself is a bit more uncertain, because LSRCA does not currently sample water quality within the wetland. However, when out on site visits to various properties throughout the wetland complex, and when canoeing along the Beaver River, a variety of frog species can be seen and heard, which supports the "good" water quality grade the Beaver River Subwatershed was provided in 2018 in LSRCA's Watershed Report Card¹⁰, as well as a number of snapping and painted turtles which can be spotted in the wetland.

Climate

Beaver River Wetland Conservation Area falls within the Simcoe and Kawartha Lakes climatic region¹¹. Over the past 15 years, the Beaver River wetland area has experienced an average of 886mm of precipitation per year, of which an average 729mm is rainfall, and 157cm is snowfall. Annual temperatures over the past 15 years were taken at the Udora station, which is in close proximity to the Beaver River Wetland. The annual daily average over the past 15 years is 6.9°C, the average daily maximum temperature is 25.7°C in July, and the daily average minimum is -11.4 °C in both January and February¹².

According to data from Environment Canada, since the Management Plan update in 2010, the daily average temperature has already increased from 6.4°C (2010) to 6.9°C¹³ (2018). This increasing temperature will have large impacts on the Beaver River Wetland over time.

LSRCA has completed a number of climate projections, using Global Climate Models (GCM) and the Shanty Bay historic climate data to develop projections of how climate within the Lake Simcoe watershed will change in the future. LSRCA's climate change projections suggest that in the future within the Lake Simcoe watershed that there will be a variety of impacts to natural process and features, as a result of changes in the climate. Below is a list of the broad list of changes that are projected to occur in the future in the watershed¹⁴:

- More extreme heat (+30°C) days, and more extreme cold (-10°C) days
- Increased risk of short-duration intense precipitation
- Winters are getting warmer and shorter
- Warmer air temperatures, leading to warmer water temperatures
- More winter precipitation falling as rain instead of snow
- More water deficits in the future

⁸ MNR (1985)

⁹ LSRCA (2018a)

¹⁰ LSRCA (2018a)

¹¹ Brown et al. (1981)

¹² Environment Canada (2018)

¹³ Environment Canada (2018)

¹⁴ LSRCA (2019b)

- Higher rates of evapotranspiration
- Increased growing season length

Overall, by the year 2050 LSRCA's research suggests a mean temperature increase of 3.3°C for the Lake Simcoe watershed. The mean air temperature increase during the summer is predicted to be 2°C, but the winter increase is predicted to be 4°C¹⁵.

Potential Impacts of Climate Change

Climate change is undoubtedly occurring around the world, including throughout the Lake Simcoe Watershed. Climate change is predicted to have impacts on numerous natural heritage features, including wetlands such as the Beaver River Wetland. Wetlands cover approximately 6% of the world's land surface, and contain about 12% of the global carbon pool, which plays an important role in the global carbon cycle¹⁶. However, there is still a significant amount of unknown factors surrounding exactly how wetlands will react to climate change. It is projected that wetlands in the Great Lakes Basin are vulnerable to changes in groundwater inflows, air temperature, and precipitation levels. The Ontario Ministry of Natural Resources and Forestry created projections using the B1 and A2 emissions scenarios to predict future impacts¹⁷. The projections from these scenarios will result in changes to the quantity and quality of water supply, overall impacting the hydrological cycle¹⁸. Climate change is also expected to increase the severity and frequency of severe climate events, including floods, droughts, and possibly even wildfires. Increasing introductions and spreading of diseases and exotic species are also projected to occur as a result of climate change¹⁹.

There are many additional impacts that climate change will have on wetlands, but some of the most commonly accepted impacts that will reduce a wetlands ability to properly function in the future are:

- more frequent and larger rain events and storms,
- drier and hotter summers resulting in less water in wetlands,

lower water levels potentially leading to warmer water temperatures. In an attempt to mitigate the impact of climate change on the Beaver River Wetland, there are a number of recommendations that can be taken into consideration, including 1) to maintain the current hydrology of the system, 2) reduce pollution entering the hydrologic system, 3) control exotic or invasive vegetation and species, and 4) protect wetland biodiversity and integrity to maintain resiliency²⁰.

The MNRF also developed a list of recommendations to assist with adapting to climate change, including 1) limiting the amount of groundwater and surface water withdrawals, 2) modifying man-made drainage structures to promote water retention, and 3) limiting the spread of invasive plants, such as phragmites, in wetlands²¹. The specific actions that may be taken to mitigate the impacts that climate change may have on the Beaver River Wetland Conservation Area will be discussed in *Section 3: Management Plan Development*.

¹⁵ LSRCA (2019b)

¹⁶ International Panel on Climate Change (1996)

¹⁷ MNRF (2018)

¹⁸ Erwin (2009)

¹⁹ Erwin (2009)

²⁰ Kusler et al (1999)

²¹ MNRF (2018)

Human History and Settlement²²

Archaeological evidence suggests the Beaver River watershed was inhabited by First Nations peoples for many centuries, prior to the first permanent settlement in the area dating back to 1818. As Brock Township was established, the rich loamy soil allowed the development of a productive agricultural community in this area, and by the 1830's a number of sawmills, woollen mills, and grist mills had been built on the Beaver River near the communities of Sunderland and Cannington.

Fuelling the need for wood and wheat, by 1871 the Toronto-Nipissing Rail line, running from Toronto to Coboconk, was built along the Beaver River. Blackwater, Sunderland and Cannington were all stops created on the route intended to carry lumber from northern Ontario and grain from Durham Region to markets in Toronto, and passengers north to Stouffville, Uxbridge, and Beaverton. The addition of the rail line was a financial boon to the area, and led to a rapid increase in population in communities along its length, including Sunderland and Cannington. Over the years this rail line changed hands until it was ultimately decommissioned and divested by Canadian National Railways in the 1980s. Blackwater, Sunderland and Cannington remain today, but the rail stations are no longer.

Property Acquisition

The Beaver River wetland complex came under LSRCA jurisdiction in 1978 when Brock Township joined the Conservation Authority. Shortly thereafter, the wetlands importance as a natural heritage feature was highlighted in a watershed-wide assessment of environmentally significant areas in the early 1980's²³.

By the early 1990s, this expert-based acknowledgement of the value of the wetland complex was accompanied by an increasing local awareness. Local residents, including celebrated author Timothy Findley, formed grassroots conservation organizations to lobby the municipality and the then South Lake Simcoe Conservation Authority to increase the protection of wetlands in Brock Township. In response to their interest and the Environmentally Significant Area study 1982 which identified this area ESA #A46, in 1992 the Conservation Authority developed a plan for the acquisition of portions of the wetland between Blackwater and Cannington²⁴. At the request of Township Council in Scugog, this plan was later expanded to include those portions of the PSW in Scugog Township as well.

The acquisition of a 15 km length of the abandoned CN line in 1994 was the initial first step in the acquisition plan. This project was coordinated by Charles Sauriol, and funded by a number of private foundations. Additional outreach to landowners along the wetland was conducted by Findley and his associates.

Acquisitions slowed after the mid 1990's due to lack of funding until 2004 when Ms. Katharine Symons made a significant bequest to the Authority specifically to support the acquisition of additional wetland properties in the Beaver River wetland complex. With this generous gift LSRCA was able to partner with other conservation organizations such as Ducks Unlimited Canada, the Nature Conservancy of Canada, Ontario Heritage Trust, Lake Simcoe Conservation Foundation, Ontario Ministry of Natural Resources, the Region of Durham and other private donations to acquire and protect an additional 420 ha of wetland (Map 4).

Securement of additional parcels of land in the Beaver River wetland complex remains a priority for LSRCA²⁵. The Authority continues to identify priority lands which contribute to the protection of this natural heritage complex,

²² Based on Farewell (1971) and Johnson (1973)

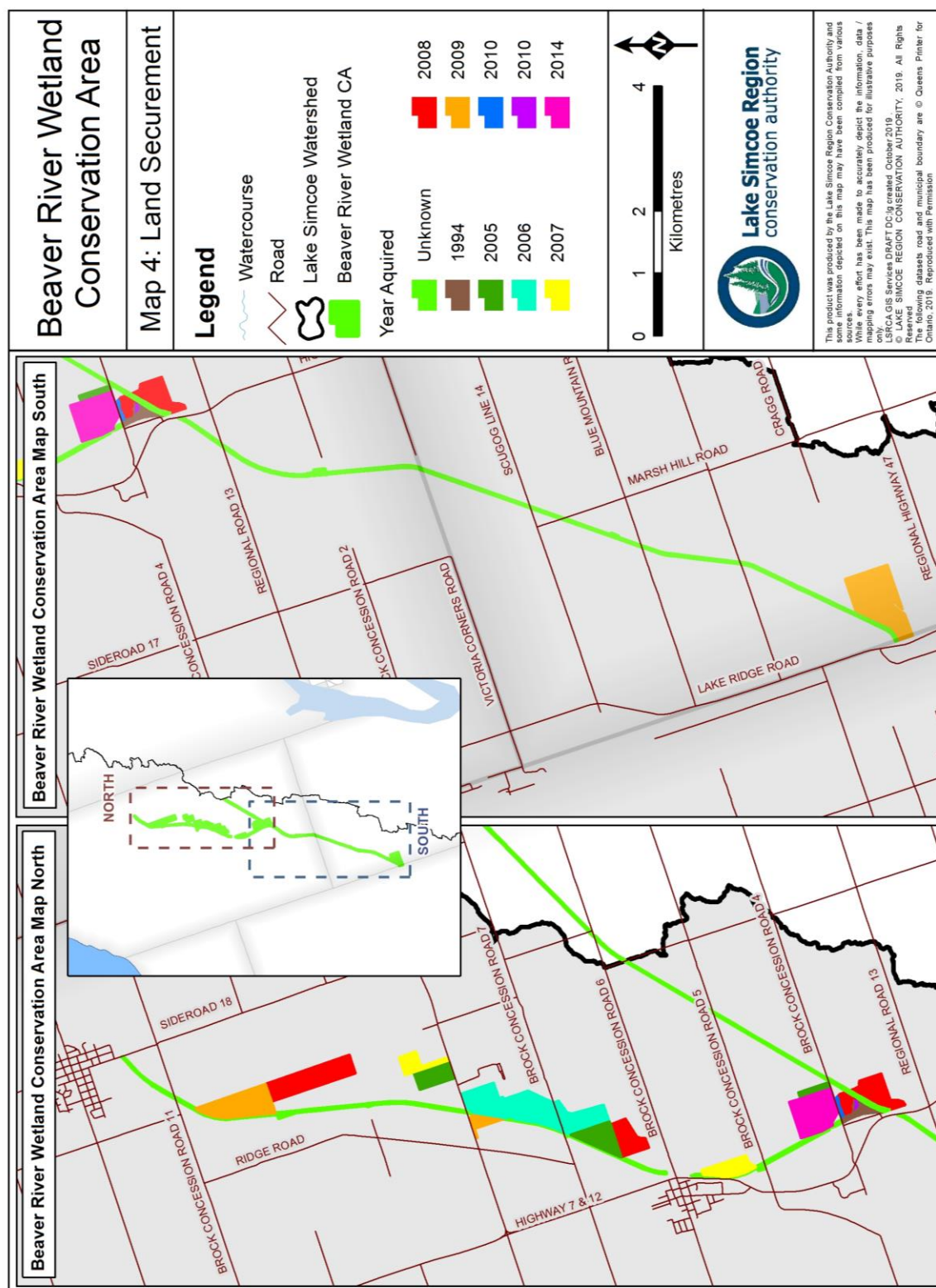
²³ Ecologistics (1982)

²⁴ LSRCA (1992)

²⁵ LSRCA (2019c)

which it is able to acquire from landowners on a willing buyer - willing seller basis. Securement of land is through a number of mechanisms, including purchase, donation, conservation easement, bequest, or combination of the above, with value established by fair market appraisal.

Map 4: Land Securement



Ecosystems²⁶

Ecosystems of the Beaver River Wetland Conservation Area include a variety of wetland types, with dominant species varying in relation to hydrology. The river valley, with its slight changes in elevation and water depth laterally across the channel, as well as complex meanders longitudinally along the river, support both a diversity of habitat types and an interspersion of wetland communities, a factor that is extremely important for some wetland dependent species such as waterfowl.

The broad and relatively shallow river channel is dominated by submerged and floating-leaved aquatic communities, composed of mixes of pondweed, water lily, and bullhead lily, with occasional stands of wild rice along the sides of the main channel. This is an extremely productive area, and by late summer the vegetation in the river can become so thick it is difficult to navigate through the channel in a canoe.

Along the margins of the river, in areas typically with shallower water, are marshes dominated by narrow leaf and broad leaf cattail, as well as their hybrid. Interspersed with the cattails in some locations are broad leafed sedge marshes and willow thickets. Marshes are the most common habitat type in the conservation area and provide extremely important wildlife habitat.

Along the upland margins of the wetland are treed swamps, including sites dominated by mixes of Freeman's maple, yellow birch, American elm and white cedar, and sites dominated by a mix of white cedar, white spruce and balsam fir. Small occurrences of black spruce – tamarack ecosystems can also be found. Swamps in the Beaver River Wetland Conservation Area can vary from upland sites, overlooked in the original wetland evaluation, to areas more obviously swamp with inclusions of open water and cattails. One stand of black ash, Freeman's maple and white cedar swamp was identified in the most recent biological inventory as a possible old growth forest.

At the interface between treed swamp and cattail marsh are extensive stands of thicket swamp composed primarily of speckled alder and slender willow. These habitats can include portions of other habitat types, including areas of open water, cattails and trees such as eastern white cedar.

As documented in 2008 inventories conducted by Beacon and LSRCA, the Beaver River wetland complex is home to 35 plant species which are rare elsewhere in the Lake Simcoe Watershed. Of those, 6 species have been recorded in the conservation area. Included in this list of watershed rare species is the provincially endangered butternut, which in the past, could be found in at least one location along the railway trail.

Invasive species are rare within the Beaver River wetland complex; however there are scattered occurrences of a number of invasive species (e.g. dog strangling vine, European buckthorn, Japanese knotweed and phragmites) along the railway trail. European buckthorn can also be found in other relatively dry areas, including small upland knolls, and along upland edges of swamps. Phragmites is an invasive plant that is established in the Durham Region, and is slowly creeping into the wetland at various locations. It is recommended that actions be taken to address the invasion of phragmites in the wetland parcels that are owned and managed by LSRCA before the patches become too large and unmanageable. Control of phragmites is very challenging, especially when it occurs in patches throughout the wetland which are not accessible by land based machinery.

²⁶ For more detail see MNR (1985), Beacon Environmental (2008) and Beacon Environmental (2008a)

Wildlife²⁷

The Beaver River wetland complex, due to its size, the diversity of habitat types, its north-south orientation, and the relatively low levels of human influence, is an extremely important habitat area for wildlife in the Lake Simcoe watershed.

Many of the more interesting and rare species are associated with the extensive marsh habitats. This includes the Threatened least bittern, the Special Concern black tern and various wetland specialists such as Virginia rail, American bittern, and pied-billed grebe²⁸. Waterfowl such as wood duck, red-breasted merganser, and Canada goose also use the marshes for brood habitat. Snapping and painted turtles use the marsh habitat for at least part of their life cycles, and can be found throughout sections of the wetland. In addition, amphibian monitoring from 2015 to 2017 has shown a wide variety of amphibian species to be present within the Beaver River Wetland, including green frog, gray tree frog, western chorus frog, wood frog, mink frog, spring peeper, northern leopard frog, American bullfrog, and American toad.²⁹



Image 1: Leopard Frog

The extensive shrub thicket communities provide important habitat for species such as yellow warbler, common yellowthroat, Nashville warbler, alder flycatcher, willow flycatcher and eastern kingbird, while the northern harrier can be seen hunting for unwary blackbirds or small mammals among the mosaic of marsh and shrubs. Many of the marsh species noted above also use the shrub areas to a greater or lesser extent.

²⁷ For more detail see Beacon Environmental (2008a, 2008b, 2008c)

²⁸ LSRCA (2018b)

²⁹ LSRCA (2018b)

The more heavily forested wetlands support a wide range of sensitive wildlife including northern goshawk, red-shouldered hawk, several species of woodpecker, great crested flycatcher, nuthatches, veery, wood thrush, red-eyed vireo, and several species of warbler, including the Canada warbler, designated as Threatened by COSEWIC³⁰ and of Special Concern by the MNRF, as well as the blue spotted salamander, and gray treefrog.

The gravel base of the rail trail makes it attractive nesting habitat for snapping turtles and basking habitat for garter snakes.

In addition to the breeding birds, migrant waterfowl use the marsh for feeding and resting. It is likely that many hundreds of thousands of birds use Beaver River Wetland Conservation Area each spring and fall during the migration periods. For example, large roosts of blackbirds and tree swallows have been seen roosting in the cattail marshes in late summer prior to, or during, their southbound migration.

The Beaver River is regularly monitored for water quality, fish and benthic community structure. However, the closest sampling site is not within the actual conservation area, but is north of its boundary, within the community of Cannington. LSRCA's Watershed Report Card (2018) determined the Beaver River Subwatershed to have a surface water quality as Good, based on two parameters, the concentration of phosphorus and the benthic invertebrate communities.

Due to the morphology of the river within the conservation area boundaries, no recent fish sampling has been undertaken by LSRCA. The stretches of river within the conservation area cannot be sampled using a backpack electrofisher, which significantly limits the fish sampling LSRCA can conduct. However, electrofishing does occur downstream at the monitoring site adjacent to the Cannington War Memorial where the river is shallower and easier to access. This site is not representative of the Beaver River upstream of Cannington, because it has very different land cover and characteristics than the channel within the conservation area. This fish monitoring site located in Cannington shows that the fish community in this location is ranked as "Fair"³¹. This section of the river is much shallower, wider, and lacks a vegetative buffer between the urban landuses of Cannington, compared to the conservation area.

The Beaver River Subwatershed Plan stated that a mix of coldwater and warmwater fish species have been found throughout the length of the entire Beaver River Subwatershed. Benthic invertebrates collected at the monitoring site in Cannington adjacent to the Cannington War Memorial were analyzed and are considered to be an "impacted" site³².

In addition to the formal data collected by the MNR in the 1970s and 1980s, and by Beacon Environmental in 2008, naturalist clubs have been visiting the conservation area near Blackwater for several years, participating in annual counts of butterflies, dragonflies and spiders. Although it is difficult to interpret the results of lists such as these, due to their inherent biases, it is worth noting these observers have identified a number of regionally rare insect species inhabiting the Beaver River Wetland Conservation Area.

Development and Infrastructure

Development within the Beaver River Wetland Conservation Area is almost entirely limited to the abandoned CN rail line, turned rail-trail. In the 1980s the rail line was removed, and the rail bed from Uxbridge to Kawartha

³⁰ COSEWIC- Committee On the Status of Endangered Wildlife In Canada

³¹ LSRCA (2019)

³² LSRCA (2012)

Lakes was secured by the Ontario Government, while the spur line from Blackwater to Cannington was secured by LSRCA, with both routes becoming undeveloped recreational trail for nearly 20 years (Map 1 & Map 2).

Beginning in 2010, in an effort to connect The Great Trail (the Trans Canada Trail), LSRCA established a collaborative working group to improve the surface of the entire 35km trail, upgrading it from an inconsistent compacted dirt surface to a compacted smooth limestone surfaced trail, with a minimum standard width of 3 metres. These upgrades were conducted from 2012 to 2015, and made possible with funding from multiple partners, including Trans Canada Trail, Brock Township, Ontario Cycle, and LSRCA. Along the trail there are multiple trestle bridges, which bring a visitor to the water's edge in many places along the route. The entire rail-trail is managed by LSRCA, with assistance from the Heart of Ontario Snowmobile Club in the winter months and when requested for specific projects.

Signage along the trail is an on-going issue for LSRCA. Signage has been posted multiple times indicating restricted uses on the trail (e.g. no motorized vehicles) as well as regulations associated with the use of the snowmobile trail. Signage continues to be a top priority for LSRCA within the Beaver River Wetland Conservation Area moving forward. LSRCA will take proactive steps in developing a more streamlined signage strategy, for directional signage, safety signage, and emergency management signage. This may include adapting signs from stating which uses are prohibited to which uses are allowed and encouraged on the trail or within the conservation area. Ideally, replacing the negative message of what is not allowed on the trail with the positive message of permitted activities will provide a more positive experience, and ideally will result in less damage to, and fewer stolen, missing, or vandalized signs.

Trailhead, road crossing and interpretive signs have also been developed on the trail. A kiosk was installed at Blackwater in 2017 to share more details about the trail and there was also a monument established at the site in front of the kiosk in memoriam of Katherine Symons' brother, in whose name the bequest was made to acquire the Beaver River wetland properties. Image 2 includes an image of the newly constructed kiosk.



Image 2: Newly constructed kiosk at Blackwater (2017)

In attempts to keep only authorized uses on the trail, gates were constructed and installed at various locations once the completion of the trail upgrades. A variety of gate types and styles have been installed at multiple access points to the trail; primarily at road crossings. Unfortunately, these gates have also received intense vandalism and destruction; most likely from the motorized vehicle users (such as ATV's and dirt bikes) that LSRCA is trying to prevent from gaining access to the trail. Concrete blocks were also placed at trail entrances, which were then pushed off the trail, pushed into the wetland, or stolen. The destruction that has occurred to the gates and to the concrete blocks has not only encouraged unauthorized access to the Beaver River Wetland Trail and The Great Trail, but has also negatively impacted the environment and the trail surface itself. LSRCA will continue to work towards developing a more effective system to encourage desired trail use, while discouraging unauthorized motorized vehicles from entering the trail.

Public Use

Despite the length of the recreational trail and inter-municipal recreational opportunities it provides, the Beaver River Wetland Conservation Area receives some of the lowest use of LSRCA's conservation areas that are open

to the public³³. There is a dedicated group of local users who use the trail for hiking, dog walking, jogging, or who generally just take advantage of its proximity and enjoy the contact with nature that the area provides^{34,35}.

In the Spring of 2018 a Conservation Area User Survey was shared publically, which targeted the users of the Beaver River Wetland Conservation Area, with the goal of receiving feedback regarding the property, which would be used to update the management plan and improve visitor experience. Due to the timing of the survey, it may have captured some snowmobilers, but likely captured those travelling primarily on foot. This rail-trail is a designated Ontario Federation of Snowmobile Clubs (OFSC) trail, and is managed to support snowmobile use by the Heart of Ontario Snowmobile Club (HOOSC). In exchange for their use of the trail, HOOSC members assist with trail maintenance and assist in attempts to ensure it is inaccessible to motorized vehicles in the off season.

Although not a permitted use, all-terrain vehicle riders also make use of this property as an off-road alternative to travel between Blackwater, Sunderland, Cannington, and Kawartha Lakes. They can access the property from a number of locations including road junctions, ditches, and from adjacent properties. Unfortunately, the gravel base of the trail is attractive nesting habitat for snapping turtles, making the turtle eggs and young hatchlings vulnerable to being crushed by ATVs. The south end of the conservation area, near Blackwater, experiences the highest levels of ATV use and demonstrates the greatest evidence of soil erosion and wetland disturbance.

More detail regarding the uses the trail receives and about how people view the conservation area as a whole are provided in the summary report of the User Survey conducted in the Spring of 2018. This information can be found in Section 2 of this management plan.

In recent years LSRCA has made an effort to determine a more accurate estimate of how many people are using the conservation area and trail. Beginning in early 2018 LSRCA purchased a number of trail counters, which were then installed along various locations throughout the Beaver River Wetland trail. Trail counters provide fairly specific and accurate information regarding the number of users passing through a specific section of trail over a period of time. This information greatly assists LSRCA in determining which trail sections are used most frequently, and the time of day which is most popular for people to travel along the trail.

Trail counter data has shown that there is use along the trail during the week and it increases during the weekend in all seasons. There is greater use along the trail when the weather is mild and it remains consistent from spring through to fall. To date, the counters have collected data indicating approximately 5,000 visits per year.

Landscape Influences

As a conservation area dominated by a river, the ecological health of the Beaver River Wetland Conservation Area is very much influenced by land uses upstream in the watershed. Of the total Beaver River watershed, 138 km² drain into the conservation area. Although LSRCA does not sample water quality within the wetland, water flowing into Lake Simcoe at Beaverton is among the cleanest of any tributaries entering the lake³⁶. Due to the linear shape of the Beaver River Wetland Conservation Area, there are many adjacent land owners and land uses within a short distance of its boundaries and of the river itself that impact the conservation area and the health of the river. The primary land uses currently surrounding the conservation area are agriculture, open space

³³ LSRCA (2017)

³⁴ LSRCA (2017)

³⁵ LSRCA (2018c)

³⁶ LSRCA (2018a)

(which includes the wetland itself), and some residential and aggregate³⁷ (Map 6). Runoff, specifically from agricultural properties, typically contains high levels of nutrients and sediments, which can negatively impact the water quality and other aspects of the river³⁸. Having a vegetated buffer between different land uses and the river itself helps to filter the runoff before it enters the river, by slowing the flow of water, allowing the deposition of sediments and other contaminated particulates before they enter the river³⁹. Without a constant vegetated buffer, which is currently in place throughout the length of the trail that LSRCA owns in the BRW, the nutrient loading in the Beaver River could become a significant concern and a threat to the health of the river, by deteriorating water quality and habitat⁴⁰.

In the past 10 years from 2007 to 2017 Brock Township has had a population increase of 5.7%⁴¹. Brock Township's population is expected to continue to increase by approximately another 12% until 2031, where it will have a population of approximately 14,000⁴². As the population continues to increase, additional challenges to the conservation area may arise, including increased use pressures, additional encroachments as the number of conservation area neighbours increase, and increases in stormwater run-off, particularly from those developments adjacent to the conservation area.

The Beaver River Wetland Conservation Area is LSRCA's longest and narrowest conservation area. Despite the vulnerability to neighbouring land uses this creates, it makes the conservation area valuable for wildlife movement. In Ontario, north-south trending features often attract large numbers of migrant birds in the spring and fall. The river itself provides critical and relatively unbroken connectivity for aquatic species and ecosystem processes, and wide ranging mammals appear to make use of this movement corridor as well⁴³. Over the long-term, north – south oriented protected areas such as this one will likely help alleviate the impacts of climate change by assisting in the northward migration of species.

Likewise, the north – south trending trail also provide recreational connectivity through Durham Region. The HOOSC utilizes the rail-trail under an Agreement with the Authority and also uses sections of the trail north and south of the conservation area. Similarly, portions of this abandoned rail line in both Uxbridge and Kawartha Lakes have become part of the Trans Canada Trail (Map 5). Brock Townships Official Plan (2018) states that tourism will continue to be a growing and significant part of Brock's economy, and the Township will continue to plan for and make public investments to support for the enhancement of natural heritage assets, and the creation of trails, and public open spaces and facilities. This goal from Brock Township can be achieved through partnerships with LSRCA and can satisfy both parties by using the Beaver River Wetland Conservation Area⁴⁴.

According to the LSRCA's mapping of the Township of Brock's Official Plan, the Beaver River Wetland Conservation Area, including the trail corridor, falls entirely within the general landuses of Agricultural and Open Space⁴⁵. Once the trail reached Cannington in the North, it abuts an Industrial landuse, but that is where the trail corridor owned by LSRCA and available to the public ends.

³⁷ LSRCA (2019a)

³⁸ LSRCA (2012)

³⁹ LSRCA (2012)

⁴⁰ LSRCA (2012)

⁴¹ Durham Region Health Department (2018)

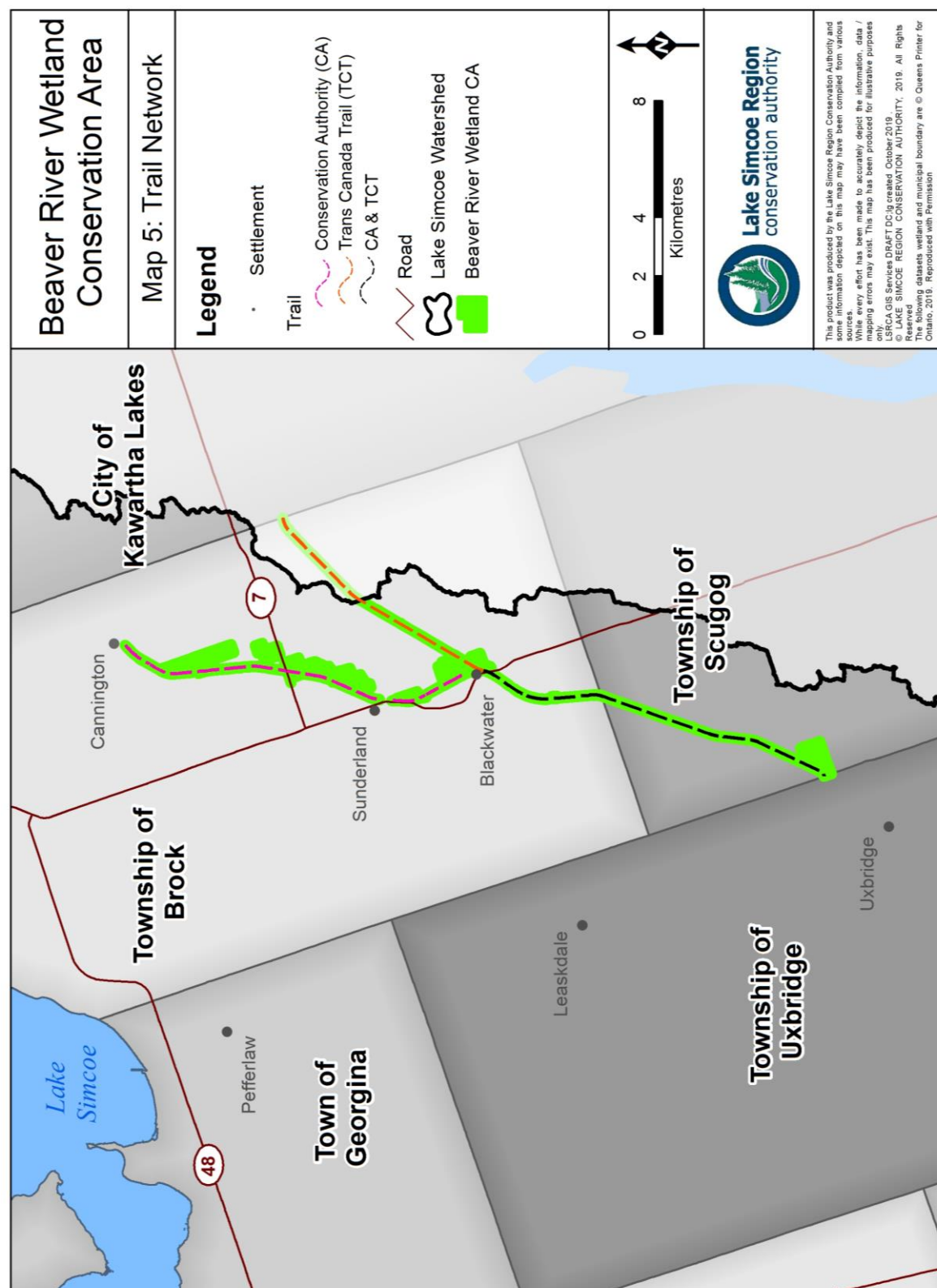
⁴² Brock Township (2018)

⁴³ Beacon Environmental (2008)

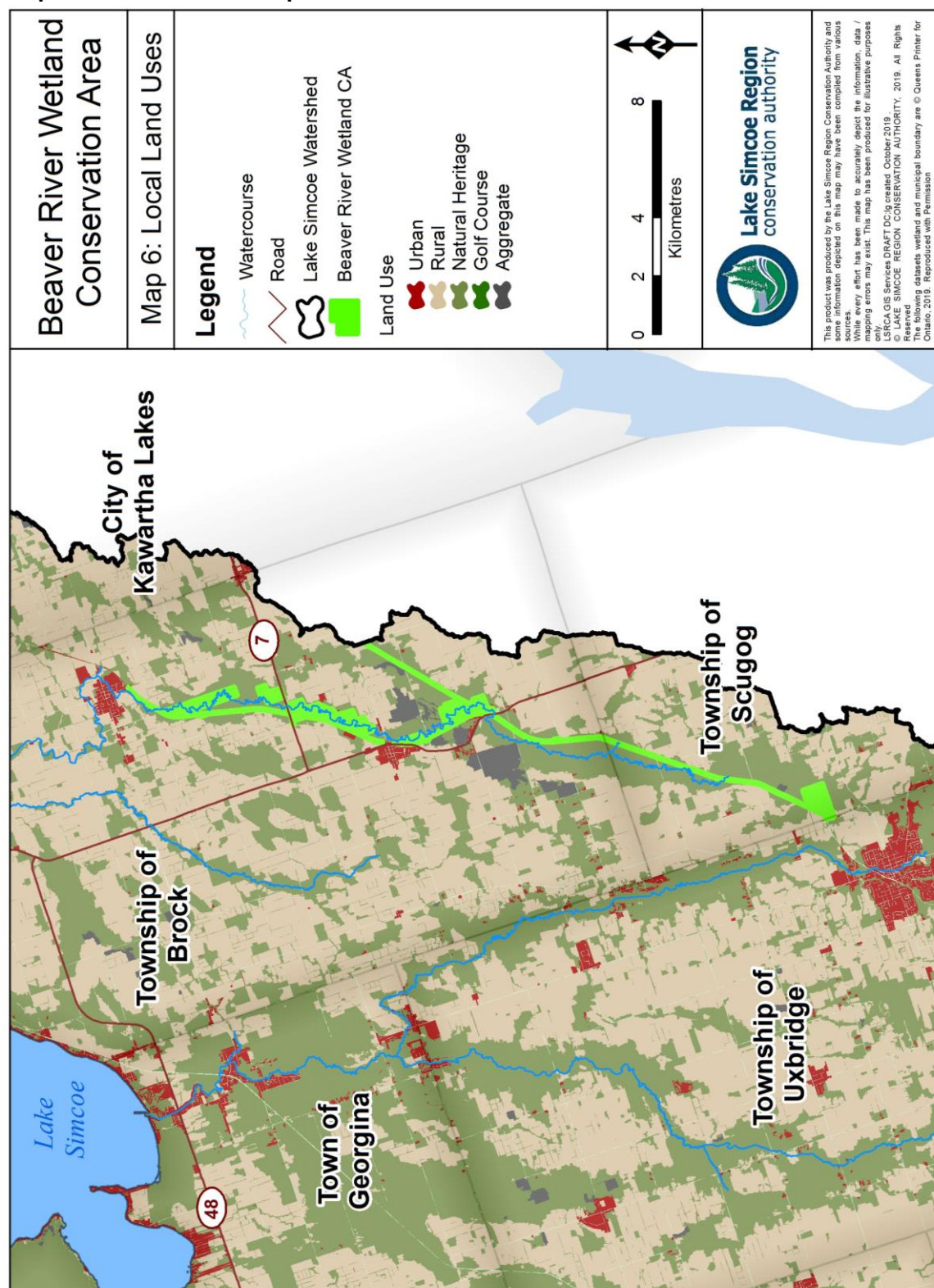
⁴⁴ Brock Township (2018)

⁴⁵ LSRCA (2019a)

Map 5: Trail Network



Map 6: Local Land Use Map



Section II: Management Plan Development

Introduction

Development of this management plan has involved both broad-based and focused public consultation. Public consultation opportunities included a Conservation Area and Trail User Survey from the beginning of March to the end of May in 2018, and a Public Workshop in April 2018. An additional consultation opportunity was provided to those identified as key stakeholders who have an interest in the property, through management, funding partnerships, use agreements, community groups, or other groups who were deemed to have a vested interest in the conservation area. This Stakeholder group was brought together for a meeting to discuss the property and to gain a better understanding of what these groups and organizations think would help to improve the property.

Consultation with conservation area users has always been an important part of the management plan update. Consultation allows users an opportunity to reflect on their values and use of the property, changes they have seen in the conservation area and their community over the years and their visions for the property in the future. This public consultation combined with consultation from both the Stakeholder group and with LSRCA's Internal Working Group has provided much of the direction in the current proposed management plan.

However, these are not the only consultation activities that have occurred regarding the Beaver River Wetland Conservation Area.

Previous Consultation Opportunities

Consultation played a key role during the development of the previous Management Plan for the Beaver River Wetland Conservation Area. There were a number of Public Workshops held in order to gain an understanding of what the users thought of the property. Below is a summary of each event, and a few of the top concerns, issues, or values.

Steering Committee, 2009

In June 2009, the Beaver River Wetland Conservation Area Management Plan Steering Committee was formed to direct the development of the Beaver River Wetland Conservation Area Management Plan. This committee met periodically to review input received from the public and from LSRCA staff, to examine the costs and benefits associated with potential management directions, and to provide recommendations on the final management plan. This plan will then be forwarded to the LSRCA Board of Directors for formal approval.

The 2009 Steering Committee consisted of:

- Durham Region, Regional Councilor and Lake Simcoe Region Conservation Authority, Board representative – John Grant;
- Lake Simcoe Region Conservation Authority, Chief Administrative Officer – Gayle Wood;
- Township of Brock, Chief Administrative Officer and Municipal Clerk - Thom Gettinby;
- Durham Region, Senior Planner - Lori Riviere-Doersam;
- Trans Canada Trail Ontario, General Manager – Dan Andrews;
- Heart of Ontario Snowmobile Club, President – Doug Baker

The committee was supported by the following LSRCA staff:

- General Manager of Conservation Lands – Brian Kemp;
- Land Securement Officer – Kevin Kennedy;

- Conservation Lands Planner – Bill Thompson;
- Conservation Lands Administrative Assistant – Wanda Black

Public Workshop, September 2009⁴⁶

On September 27, 2009 a public workshop was held at the Sunderland Co-op to engage the public in developing a vision for the Beaver River Wetland Conservation Area. After advertising in local papers, and by sending written invitations to neighbouring landowners and other interested stakeholders, approximately 30 people attended the workshop.

Important values of the conservation area held by workshop participants

Values of the Beaver River wetland, as identified by participants, included factors related to the conservation of natural and cultural heritage, recreational opportunities, and the provision of ecological services:

- Protection of greenspace as Ontario becomes more urbanized
- Nature appreciation (frogs, herons, turtles)
- Protection of wildlife
- The hiking trail
- Contribution to local history
- A legacy for future generations
- Flood prevention Public ownership of the land, it's available for public use
- Opportunities for local economic development associated with trails
- Navigable water/canoe access
- Protection of breeding and migratory habitat for birds
- Physical activity
- Safe place to walk with dogs
- Opportunities for scientific research
- Education values for schools and families
- Improving and maintaining air quality
- Public ownership of the land, it's available for public use
- Improving and maintaining water quality

Issues workshop participants wish addressed

Attendees at the workshop were asked to identify issues which, if addressed, could improve the Beaver River wetland and Beaver River Wetland Conservation Area, and potential actions to resolve those issues. After discussion for approximately half an hour, attendees were asked to participate in an exercise ranking the items that they wished would be addressed. Below are the top five results.

The top five issues brought forward by the public during this workshop were:

1. ATV's and Dirtbikes
2. Need for improved signage
3. Declining wildlife populations
4. Illegal hunting
5. Need for increased enforcement

⁴⁶ LSRCA (2010)

Public Workshop, May 2010

On May 15, 2010 a second public workshop was held at the Sunderland Co-op to provide the public with an opportunity to review the draft plan and provide feedback to the Steering Committee. The public was made aware by the second workshop in a variety of ways.

After a summary presentation about the conservation area and the draft management plan, participants were invited to provide their feedback and constructive criticism on the draft plan. Responses from the group included the following:

- Public awareness needs to be increased, through a variety of methods and strategies
- The participants felt that the fundamental challenge with the Beaver River Wetland Conservation Area (and trail) was in raising public awareness
- Hold a public launch of the trail upgrades
- Trail Upgrades: upgrade the trail, make it more appealing to a broader audience
 - Trail upgrades are a good idea, and will have a positive impact when the public becomes aware of them
 - The proposed trail upgrades could make Brock and its villages more of a tourist destination, increase physical activity, and help maintain natural resources
 - Signage is a great idea, but should include historical/cultural interpretation
- Parking lots need to be constructed for safe trail access
- Volunteer Involvement: allow for more opportunities for the community to volunteer and get involved
- Fundraising needs to take a 'toolbox' approach, rather than relying on just one approach or source

Consultation Phase – 2018

Consultation is a key phase in any management plan development or update. For the update of this management plan, the public was provided with two primary opportunities to provide feedback, the online user survey and the public workshop. There was also a Stakeholder consultation meeting, which encouraged community groups and key stakeholders to come out and share their thoughts and opinions regarding the Beaver River Wetland Conservation Area, and the direction they would like to see this current management plan take. Below is a summary of the most recent consultation activities, including the results or major themes from each.

Public Workshop

On April 18, 2018 a public workshop was held at the Sunderland Memorial Arena to engage the public in sharing their values, visions and desires for the Beaver River Wetland Conservation Area. After advertising through social media with posts on Facebook and Instagram, signage posted on the property, and by sending written invitations to landowners in Cannington and Sunderland, more than 35 people attended the workshop.

A variety of methods were used to get in touch with members of the public regarding the Public Workshop, including social media posts, e-mails sent directly to specific community groups, and a Canada Post mail-drop which was by-far most effective method. Approximately 2300 residents in Cannington and Sunderland received letters in the mail inviting them to a Public Workshop for the Beaver River Wetland Conservation Area Management Plan Update through the Canada Post mail drop. The Public Workshop took place at the Sunderland Memorial Arena, on April 18, 2018 from 7pm to 9pm. The results of the exercises at the Public Workshop are summarized below, in Tables 1 and 2.

To begin the workshop, a brief presentation was provided to those who attended, which provided background on the property, an overview of the past BRWCA Management Plan from 2010, emerging issues, LSRCA's future plans for the area, an explanation of the two exercises the attendees were asked to participate in, and a description of the next steps of the Management Plan update process.

The two exercises that the Public Workshop attendees were asked to participate in were DOT-Mocracy and Stop, Start, Continue. These two exercises were selected with a goal of gaining valuable and insightful feedback from those who utilize the trail, to determine what they would like to see added or removed from the Conservation Area, or other factors that would improve their experience while visiting the Beaver River Wetland Conservation Area. DOT-Mocracy was selected as one of the exercises because it provides LSRCA a clear understanding of what people value most about the Beaver River Wetland Conservation Area, which assists in providing a clear direction moving forward. Everyone who attended the Public Workshop was given a total of 15 "points" to participate in the DOT-Mocracy exercise. Participants were provided with one large sticker worth 5 points, and 10 small stickers worth one point each, adding up to a total of 15 points. People were instructed to put their "points" under the categories they felt were the most important at Beaver River Wetland Conservation Area. Table 1 below shows the tallied points for each category, and displays the results in order from the most highly valued items to the lowest, according to the public workshop attendees.

Table 1: DOT-Mocracy Results

Value	Description	Results
Nature Preservation	A place where the priority is preserving the natural environment .	95
Recreation	A place where people can engage in outdoor activities .	80
Nature Conservation	A place where there is a balance between recreation and the natural environment .	53
Education /Programming	Where schools , their students , and community members can participate in outdoor, environmental education .	40
Biodiversity	A place with a diversity of habitats, flora and fauna, adding variety to visitor experience .	37
Accessibility	Where people of all abilities feel included and are able to enjoy the property's features.	34
Natural Setting	Where people can escape from the hustle and bustle of "city life" and enjoy a tranquil, non-commercialized place.	32
Nature Appreciation	Where people can connect with and learn about nature hands on.	30
History	A place where the cultural, historic and natural heritage is recognized and valued .	21
Community	A safe comfortable place where people can gather and connect with each other.	18

Table 1 above shows that Nature Preservation and Recreation are the two most important values for those that attended the Public Workshop. The two lowest ranked values were History and Community. It was mentioned to LSRCA staff that "Community" may have been ranked lower because it was defined as "A safe comfortable place

where people can gather and connect with each other” and due to the presence of bears in the area, some people may not consider the wetland and trail to be a “safe” space.

The second exercise; Stop, Start, Continue; provided an opportunity for the attendees to record their own thoughts, which they could be more specific about. In order to assist and provide some overall structure, this exercise was broken down into 6 categories: Administration, Natural Features, Trails, Programming, Amenities, and Other. Participants were asked to use a sticky note to record their thoughts, and to place the sticky note under the category which their thought most aligned with. This allowed participants the opportunity to state what they wanted to see stop on the property, what they like and want to see continued, and ideas of what they would like to see started on the property. Overall the comments were very informative, and allow LSRCA to gain a more in-depth understanding of the direction the public would like to see the property move in.

Table 2 below provides all the comments that were provided by the Public Workshop attendees for the Stop, Start, Continue exercise.

Table 2: Stop, Start, Continue Exercise Results

Stop, Start, Continue Results	
Administration	
Stop	<ul style="list-style-type: none"> No ATV enforcement
Start	<ul style="list-style-type: none"> Enforcement of park rules, barricades Include North Durham Nature and other conservation groups in Steering Committee Find ways to purchase more land Environmental education to government and developers All people in Brock notified of meetings such as these All Brock residents invited to meetings to participate Much more concern and supervision of environmental issues Take a more active stance on bigger interest in stopping Durham’s plan to use chemicals to breakdown human waste in Sunderland and Cannington’s open air sewage lagoons. This is being studied and will be approved to allow development to build beyond current capacity and discharge 2 times a year into Beaver River- Environment is more important than a developers profit
Continue	<ul style="list-style-type: none"> Continue reaching out to user groups for input and participation in the management plan More signage regarding no littering More garbage receptacles
Natural Features	
Stop	<ul style="list-style-type: none"> No Comments

Start

- Build turtle nesting platforms
- Inventory populations of turtles, frogs, etc. biological inventory
- Frog crossing
- Turtle and frog underpass
- Turtle nesting
- Get rid of phragmites and buckthorn
- Migratory bird survey and research
- Hold a BioBlitz- let's find out what's here
- Look into effects on nature when brine is laid on roads (ie: turtles crossing roads and effects)
- Bird banding protocol
- Monitor songbirds, waterfowl, and raptors
- Survey for species
- Vast educational opportunities
- Bird nesting boxes
- Labels for flora and fauna

Continue

- Planting native plants and enhancing wildlife habitat
- More interpretative signage

Trails

Stop

- Stop ATV's on trails
- ATV's
- Car parking near roads

Start

- Fill in holes, erosion problems caused by predators digging up turtle eggs
- Build a viewing platform
- Better parking facilities
- Weekly maintenance inspections
- Signage at trail crossings
- Complete trail connection in Sunderland
- Emergency numbers
- Identification by GPS locations along the trail for emergency
- Need to resolve trail "gap" in Sunderland
- Fix up trail north of Laidlaw in Cannington, north of where the snowmobile club is
- Boat, kayak, or canoe launch where bridges are help to portage, which will help bring people out
- Cans for litter
- Focus on litter prevention

Continue

- Keep them open

- Keep upkeep
- Maintenance
- Continue maintaining trails
- Continue maintaining trails and improve signage

Programming

Stop

- No more programming until parking situation is improved

Start

- Camps for kids into the night
- Plan around specific dates that avoid nesting seasons when organizing biking and running events
- Nature walks with Naturalists or birders
- More parking
- Build a boardwalk
- More school and community usage and publicity
- Programming for kids based on river and nature
- Build a kayak and canoe rental area that can draw visitors, create summer jobs, enhance services, tourism, and the local economy
- More nesting boxes in wild areas, maybe the Scouts or Cubs can do this
- Public education workshops in schools
- Education on importance of conservation
- Create volunteer days to clean garbage debris up in rivers and at bridge, a few are bad in Cannington
- Start education programs for local politicians and the public that tell the truth about the environmental impacts of development on the Beaver River wetlands, when protective infrastructure (i.e.: proper sewage treatment) is not in place

Continue

- No Comments

Amenities

Stop

- No Comments

Start

- Parking areas needed
- Access points for canoeing
- Observation platforms
- Water access off Highway 7 and exit in Cannington before the dam
- Rest areas or benches with views
- Add river access for canoes and kayaks at multiple spots
- Canoe access points
- Observation platforms

- Build a pedestrian bridge over Highway 12 that leads people safely across to Beaver River trail from Sunderland
- Consider canoe and kayak rentals
- Bird watching hikes
- Some kind of shelter for bad weather or for picnicking
- Parking at road crossings
- More frequent area access and river via a canoe or kayak
- Install docks for launching canoes and birdwatching

Continue

- No Comments

Other

Stop

- Stop litter problem between Laidlaw Rd and Concession 11
- Stop development, trees, wetlands, clean water are first
- Watershed areas rural buffers in Sunderland are being rezoned rather than protected, they flow into Beaver River- Concern for developer profits before protection on environment
- Durham Region has contacted a private consultant to introduce /find ways of using “chemicals” that breakdown human waste in our open air sewage lagoons (both Sunderland and Cannington) to increase sewage capacity so more development can happen, these sewage lagoons are discharged 2 times a year into the Beaver River, this instead of the Region investing in a proper sewage plant and we want this stopped as it has a direct environmental risk
- Durham growth plan for developers- stop discharge increase into Beaver River from open air sewage lagoons, Region wants to introduce new chemicals

Start

- Turtle hatchling protected sites, at 6th Concession and the river
- More turtle nesting areas to keep them off the road shoulders
- Discuss acquisition of local lands from private landowners to build better parking, and docking, and boardwalk
- Reach out to all municipalities that the wetland passes through, not just a letter to Brock Township
- More observation areas away from populated areas
- Recreation tourism in Sunderland, businesses such as restaurants would benefit if connections to/from trail were promoted
- Post signs to warn walkers of bears

Continue

- No Comments

The information provided during the Stop, Start, Continue exercise as shown above, indicates that the public want to see more happening with the property. In the categories overall, the “Start” categories have more comments than “Stop” or “Continue.” This shows that the community would like to see more happening at the Beaver River Wetland Conservation Area, and that they are interested in seeing more amenities, programming,

and natural features occurring. Some of the most common themes were to increase enforcement of ATV's, stop littering, increase habitat for turtles and frogs, including safe road crossings and nesting features, developing water access points for canoeing and kayaking, and the creation of safe parking locations.

There are a few comments that don't relate to the Beaver River Wetland or Conservation Area, but all comments were included in the list. Overall, the comments were quite positive, showing that the public is supportive of the Beaver River Wetland Conservation Area, are invested in it doing well, look forward to the direction the BRWCA is heading, and appreciate the opportunity to participate in the process.

Stakeholder Workshop

A group of individuals identified as "key stakeholders" by LSRCA met at the Sunderland Memorial Arena on Monday, April 9th, 2018 to discuss the Beaver River Wetland Conservation Area Management Plan review and update. This group was selected based on their organization, business, or community group's involvement in the BRW, either as managing partners, key groups, tourism links, major funders, valued community groups, or other important connections.

The stakeholder meeting went well, and there were a number of positive and productive discussions. The meeting was opened with an introduction from Brian Kemp, General Manager, Conservation Lands at LSRCA, followed by individual introductions including the organization /group they represent. A brief presentation was then given regarding the past Management Plan Implementation, including a review of the objectives to determine which ones had been met, which ones had not, and possible reasons for why they were not met. The review also included looking at the management agreements and partnerships which are in place on the property, emerging issues, and a brief idea of what LSRCA's future plans for the property are. The presentation is summarized in Appendix A.

A list of the topics that were discussed during the stakeholder meeting:

- Trail improvements and resurfacing
- Vandalism on the property, specifically to the gates and trails
- How the trails are patrolled by Durham Regional Police to reduce the unauthorized use of motorized vehicles
- Possible loss of biodiversity along the trail corridor
- Public education opportunities for schools and the community by LSRCA
- Possibility of public access to the river
- Plans for creating a parking lot along the trail
- The connection between communities to the trail
- The possibility of cycling amenities along the trail (drinking water, air for tires, etc.)
- How to get the community more involved with the property

This variety of topics demonstrates that the Stakeholder's involved in this process are passionate about the Beaver River Wetland, and wish to work with LSRCA to continue making improvements to a variety of items related to the Conservation Area, and to continue to improve the user experience along the trail.

Online User Survey

In order to gain feedback from a wide variety of users, an online survey was developed. This survey consisted of 22 questions aimed at gaining valuable feedback from the public regarding their thoughts, feelings, and opinions about the Beaver River Wetland Conservation Area. The survey was completed a total of 135 times. Out of the

135 surveys, 111 surveys were completed by people who had visited the property, 22 surveys were completed by people who have never visited the BRWCA, and 2 surveys had no responses, and therefore were deleted.

A general sense of the users of the BRWCA is provided below:

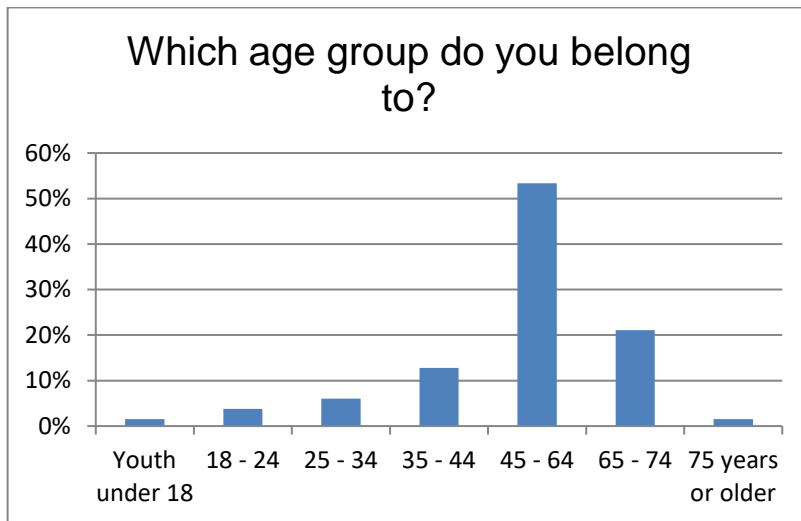


Figure 1: Age Distribution of BRWCA Users

The most popular age group for users of the Beaver River Wetland are those between the ages of 45 and 64, as shown above with 53% of survey respondents falling into this category.

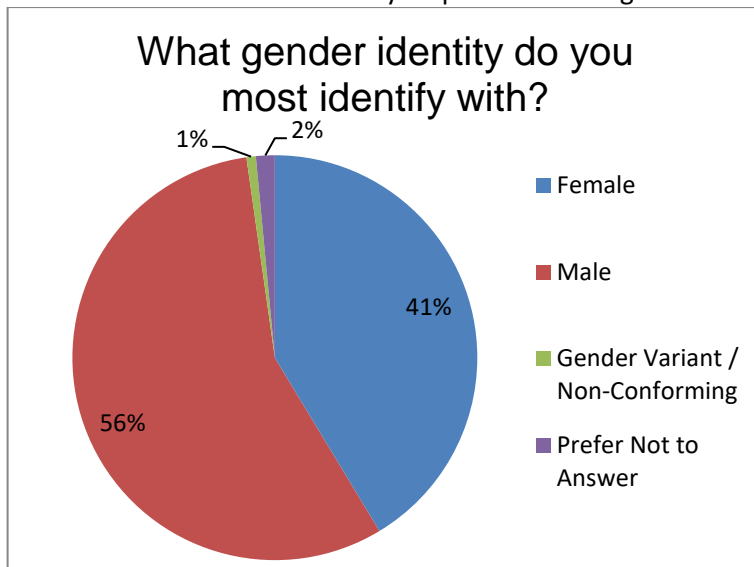


Figure 2: Gender distribution of BRWCA Users

The majority of users who completed the survey were male (56%), followed by females (41%). There may be more men because it is a rural area which is fairly isolated, and females may not always feel safe travelling along the trail in a rural area by themselves. This comment has been made to LSRCA multiple times, which may result in why men are more likely to visit the property.

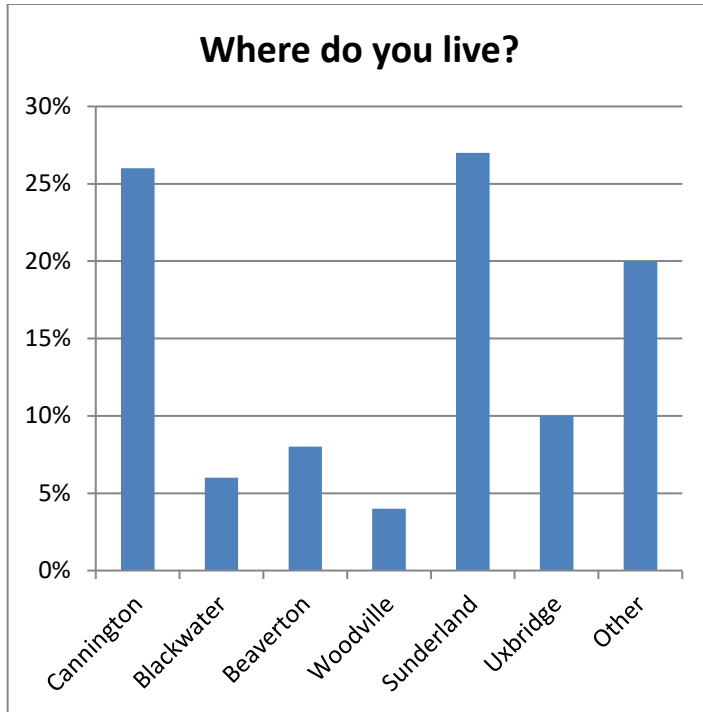


Figure 3: Where Beaver River Wetland survey respondents live

Due to its linear shape, the Beaver River Wetland Conservation Area and trail come within close proximity to a number of communities. Of those listed, LSRCA's section of the trail comes within mere kilometres of Cannington (26%), Blackwater (6%), Woodville (4%), and Sunderland (27%), which is a total 63% where the visitors to the property reside.

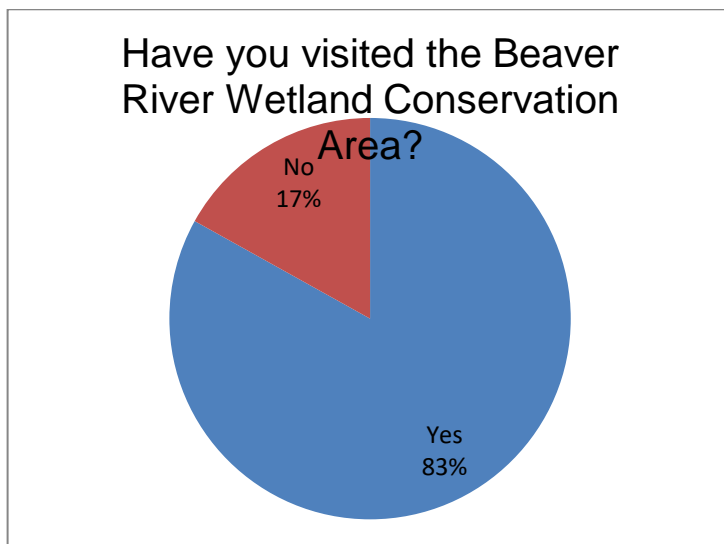


Figure 4: Percentage of those who have visited Beaver River Wetland and those who haven't

When asked if the survey respondents had ever visited the Beaver River Wetland Conservation Area, 17% of respondents answered "No." The following response data only includes the 83% of responses from individuals that answered they have visited the Beaver River Wetland Conservation Area.

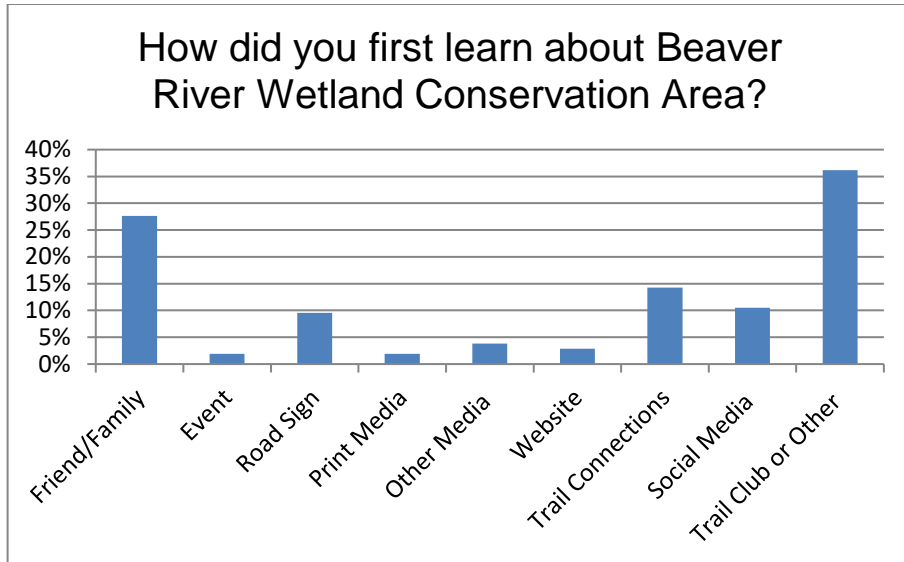


Figure 5: How visitors first learned about Beaver River Wetland Conservation Area

Figure 5 states the most common way the public learned about the BRWCA was through “Trail Club or Other” with 36%. The second most common method people learned of the trail was through “Friends /Family” with 28%. There has not been a focused, significant media campaign promoting the Beaver River Wetland Conservation Area to a variety of users, so it’s not surprising that the Event, Print Media, Other Media, and Social Media options only total 18%. It is expected that once promotion and advertising is increased for the Beaver River Wetland more people will learn about the property through various advertising and media sources.

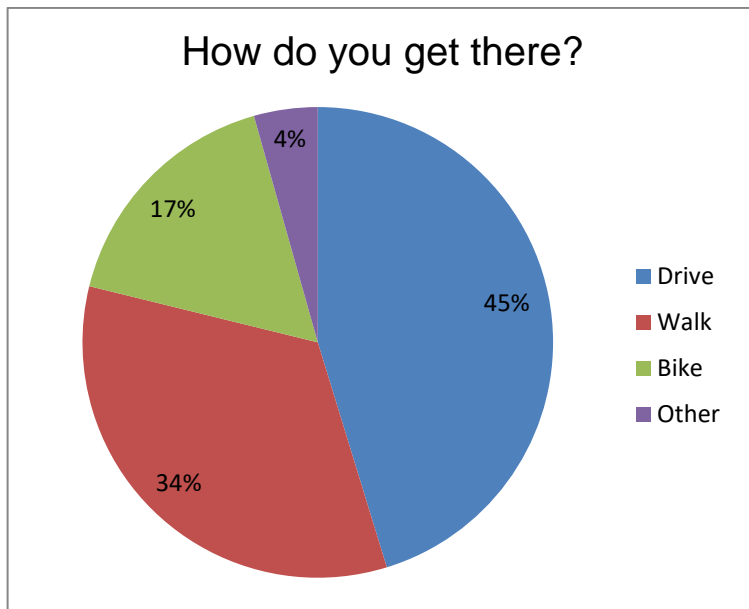


Figure 6: How visitors enter the trail

Although the BRW trail is connected to a number of other trails, 45% of users still drive to access the trail. What is encouraging is that 34% of users access the trail by walking, and 17% by biking, which is much higher than other conservation areas in the watershed. This is a strong indicator that the trail receives fairly high usage by

members of the local communities. The 4% of “other” means of accessing the trail included primarily snowmobiling.

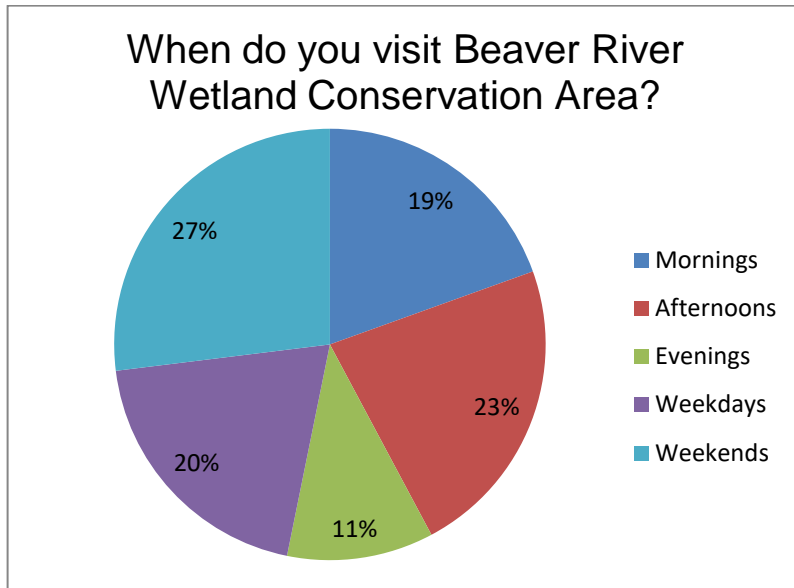


Figure 7: Time of visits to Beaver River Wetland

The most popular time for users to visit the Beaver River Wetland is on the weekends (27%) in the afternoons (23%). The majority of users selected multiple boxes for this question, which implies that there is a wide variety of times users visit the property. The least common time for users to visit the property is during the weekdays (20%) and in the evenings (11%).

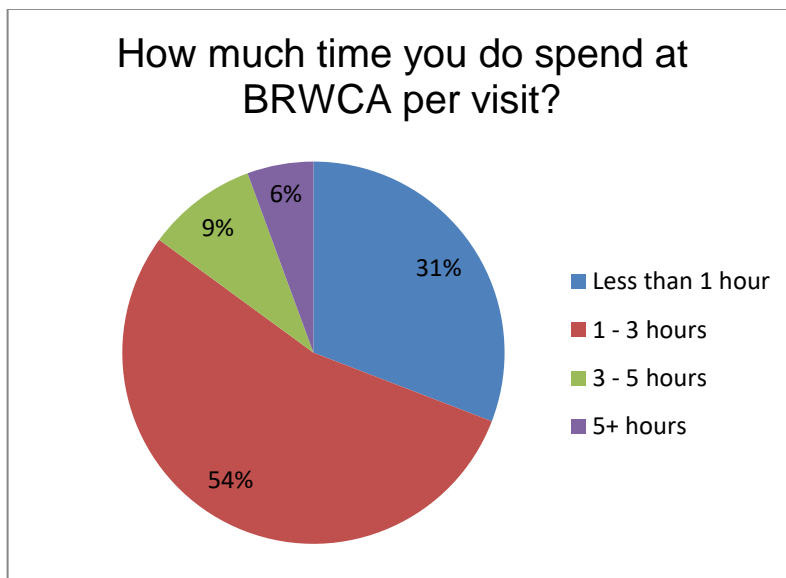


Figure 8: Amount of time spent during each visit

According to the survey results, the majority of people spend between 1 and 3 hours on the property (54%) as shown in Figure 8. 31% of users spend less than an hour, and 15% spend more than 3 hours. Considering the

linear shape of the property due to the trail, it's expected that anyone travelling by bike along the trail would take between 1 to 3 hours to travel across trail sections owned or managed by LSRCA.

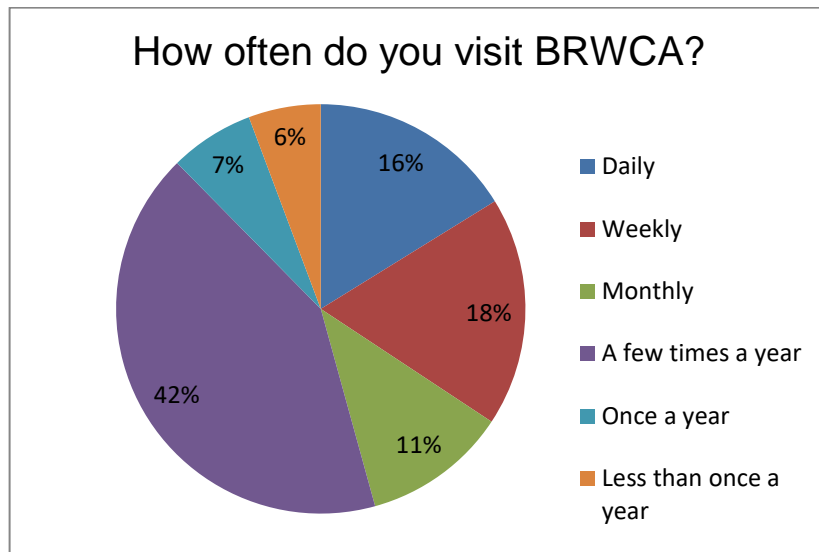


Figure 9: Visitor frequency

Figure 9 indicates that the majority of people who completed the survey only visit BRWCA a few times a year or less, with 55% of the total responses. It is worth noting however, that respondents who visit Daily (16%), Weekly (18%), and Monthly (11%) represent a greater level of regular property use. A quick assessment of use indicates that daily, weekly and monthly users represent approximately 5,200 visits per year.

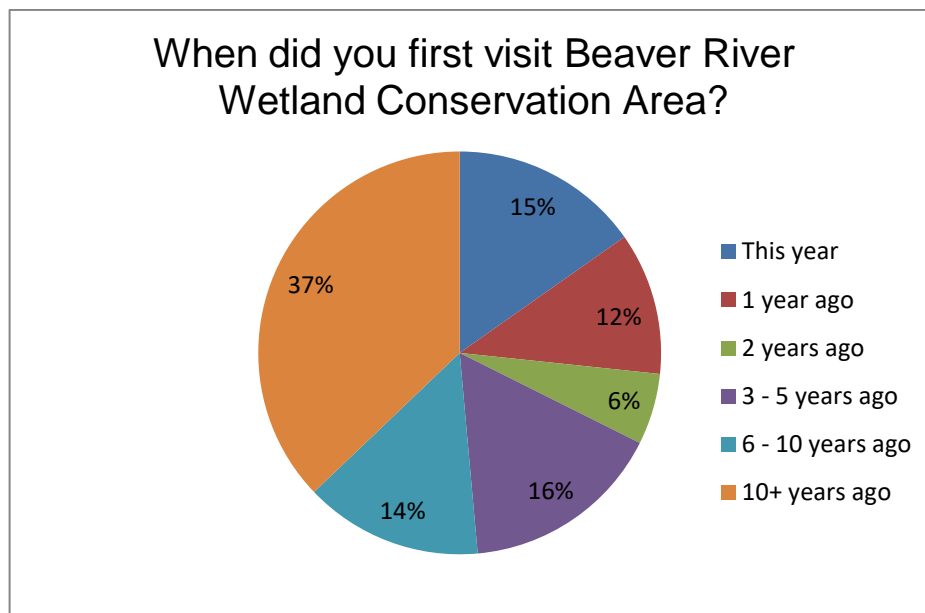


Figure 10: How long visitors have been utilizing the property

The majority of users have been visiting the conservation area for more than 10 years, which proves that the Beaver River Wetland CA has a very dedicated user group. There was also a spike in the amount of people who

visited for the first time in 2018, which went up from 2017 12% to 15%, which may partially be attributed to the community event held by LSRCA in August 2017, and social media posts promoting those events.

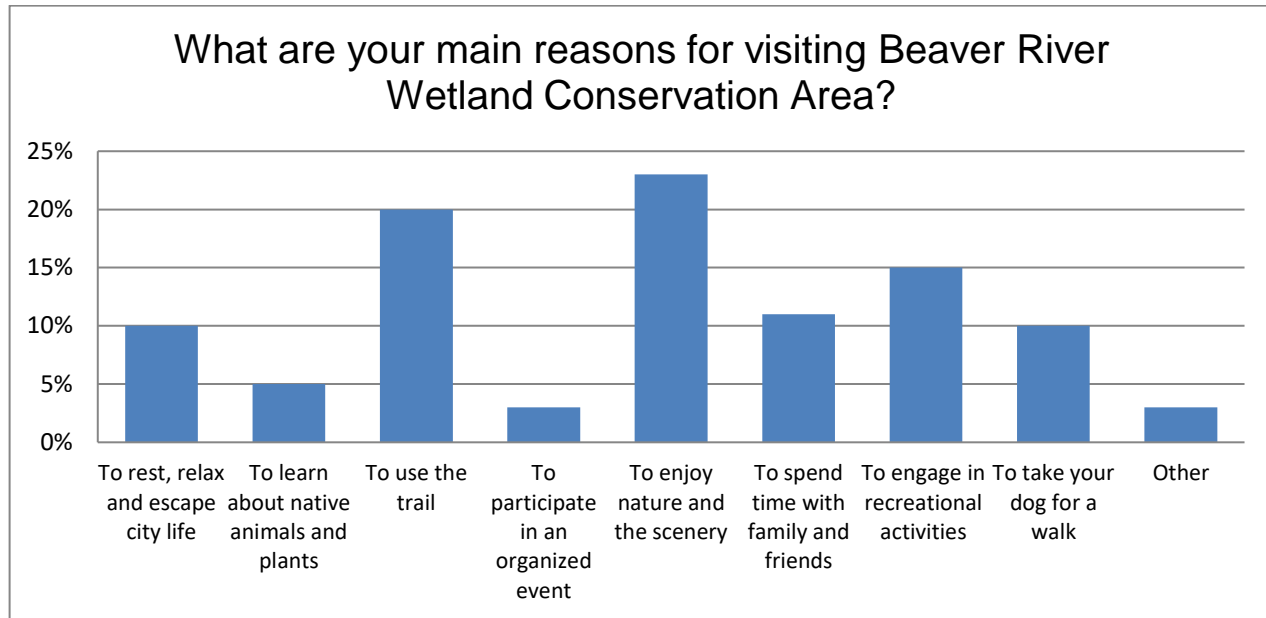


Figure 11: Main reasons for visiting Beaver River Wetland Conservation Area

The most popular reason people visit BRWCA is to enjoy nature and the scenery (23%), followed closely by trail use (20%), and to engage in recreational activities (15%). It's encouraging that the majority of people are focused and aware of the beautiful scenery in the area. The bottom two responses were to participate in an organized event (3%), and "other" (3%) which included canoeing, have a cottage near Beaverton, kayaking, photography (2), snowmobiling (3), the health benefits of nature. These are most likely the lowest ranked items because in recent years there has only been one organized event for the public by LSRCA, and prior to the installation of the kiosk at Blackwater in the summer of 2017, there was no interpretative signage along the trail. The Beaver River Wetland truly is spectacular, and it's promising that the majority of users recognize that.

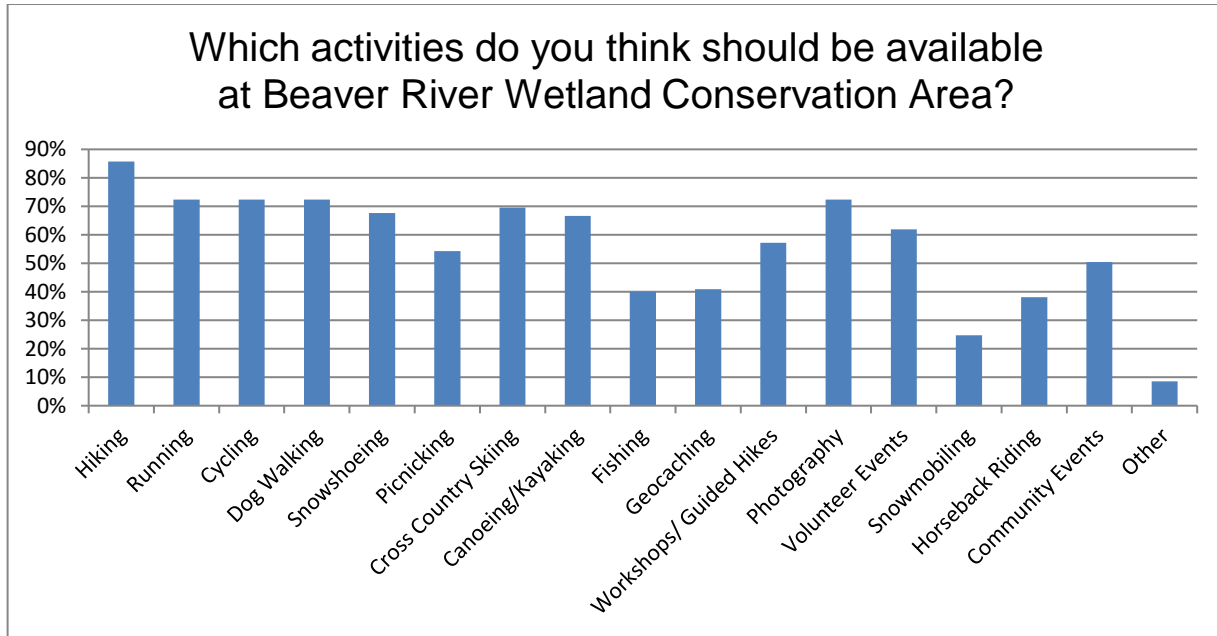


Figure 12: Activities users think should be available at the Beaver River Wetland Conservation Area

A list was provided in the user survey asking respondents which activities they think should be available at BRW. From the list provided, the public agrees with the majority of activities. The most popular activities include hiking (86%), photography, running, cycling and dog walking all with 72%. However snowmobiling (25%), fishing (40%), geocaching (41%), and horseback riding (38%) were among the least popular activities. “Other” activities that conservation area users recommended to be allowed activities they could participate in while at the Beaver River Wetland Conservation Area include:

- ATVing (6)
- Dirt biking
- Environmental clean-up
- Skating
- Hunting
- Birding

Some respondents made it very clear that they are not in agreement that snowmobiles can use the trail during the winter, but that ATV’s are not permitted to use the trail in the other three seasons.

The following section of the survey asked respondents to rate the importance of the following statements to them as a user. The results are shown in Table 3 below. The most popular response for each item has been bolded.

Table 3: Satisfaction levels of specific criteria regarding the BRWCA

Satisfaction Statements	Not at all important	Not very important	Somewhat important	Very important	Extremely important
Easy to find information before visiting	7%	9%	29%	43%	12%
Directional road signs to help get you there	10%	14%	22%	39%	15%
Access to friendly, responsive staff	10%	23%	40%	17%	10%
Useful visitor guides and trail maps available	8%	3%	25%	42%	22%
Clear information about rules and visitor safety	4%	5%	21%	38%	32%
Access to clean washroom facilities	8%	10%	31%	31%	20%
Sheltered picnic areas	17%	21%	34%	20%	8%
Access to picnic tables and benches	15%	17%	37%	22%	9%
Well-kept roads and parking areas	5%	3%	36%	35%	21%
Well designed and maintained trails	1%	1%	16%	52%	30%
Interpretive signage	7%	5%	43%	36%	9%
Native wildlife sightings	1%	5%	26%	40%	28%
Broad range of activities	2%	3%	23%	42%	30%
Weekend programs such as workshops or hikes	9%	17%	44%	20%	10%
Accessible features for those with limited mobility	5%	5%	35%	35%	20%

Out of the five responses provided, “not at all important”, “not very important”, and “extremely important” were never the most common response. This shows that the conservation area users think that each statement listed had some level of importance.

Table 4 below shows the responses that conservation area users had when they were asked to rank their satisfaction to a list of statements. The most common response for each statement has been bolded. It is worth

noting that the vast majority of users are “Somewhat Satisfied” with their experience at Beaver River Wetland Conservation Area. The exception being that users are “Very Satisfied” with the design and maintenance of the trails.

Table 4: Satisfaction ranked by conservation area users

Satisfaction Statements at Beaver River Wetland	Not at all satisfied	Not very satisfied	Somewhat satisfied	Very satisfied	Extremely satisfied
Easy to find information before visiting	2%	15%	40%	19%	10%
Directional road signs to help get you there	5%	16%	30%	21%	9%
Access to friendly, responsive staff	3%	13%	23%	12%	3%
Useful visitor guides and trail maps available	4%	20%	29%	17%	6%
Clear information about rules and visitor safety	6%	17%	34%	19%	3%
Well designed and maintained trails	3%	5%	30%	34%	20%
Interpretive signage	4%	13%	29%	20%	6%
Native wildlife sightings	2%	14%	30%	23%	13%
Broad range of activities (hiking, biking, etc.)	1%	6%	34%	28%	18%
Accessible features for those with limited mobility	4%	13%	34%	9%	5%

Overall, conservation area users are satisfied with their experience at the Beaver River Wetland Conservation Area, and they enjoy the natural beauty and appreciate the ecological significance of the area. While there are aspects that can be improved or developed to increase the level of enjoyment visitors experience when visiting the property, overall people are satisfied with the Beaver River Wetland Conservation Area and the opportunities and activities it provides.

Project Team

In order to assist with the development of the Management Plan, a Project Team was established in 2018 to help guide the Management Plan process. The Project Team consisted of LSRCA Conservation Lands staff, and the internal group of subject experts was composed of LSRCA staff across multiple departments. Both groups met periodically to discuss specific items, review comments from both stakeholders and the public, to review internal documents pertaining to the Management Plan update, and to provide input on Management Plan direction and recommendations for the final Management Plan.

The Project Team consisted of the following members:

- Lauren Grzywniak (Project Lead), Land Management Technician
- Brian Kemp, General Manager, Conservation Lands
- Dan Andrews, Land and Resource Planning Technician
- Kevin Kennedy, Land Securement Officer

In addition to the Project Team, an internal group of subject experts was also involved, which were called upon for their expertise throughout the Management Plan review and development phases. This Internal Group of Experts consisted of the following individuals (additional or alternative members may have been identified as appropriate):

- Phil Davies, Manager, Forestry and Greenspace Services
- Shauna Fernandes Chagani, Natural Heritage Ecologist Coordinator
- Jessica Chan, Natural Heritage Ecologist
- Christa Sharp, Restoration Program Coordinator
- Rob Wilson, Aquatic Biologist
- Nicole Hamley, Manager of Education

Future Evaluation and Review of Management Plans

The current Management Plan consists of two parts: a Management Plan which provides long- and short-term goals for the management of the conservation area, and a Business Plan which provides a description and schedule of implementation priorities, coupled with projections of revenues and expenses over a five year period. At the end of each five year operational period, both the Management Plan and the Business Plan will be evaluated to determine their continued relevance to conservation area operations. If it is determined that either of these plans is outdated, they will be reviewed and updated. LSRCA may also opt to update the management plan and/or business plan outside the five-year review period if necessary. Plan evaluation will include an assessment of the conservation area's ecological integrity, management effectiveness, financial situation, as well as a review of the relevance of stated goals and objectives.

When a management plan is reviewed, the public and key stakeholders will be consulted throughout the process. Public and Stakeholder consultation plays a key role in the review and updating of a management plan. Knowing how the property is being used has a significant impact on how it should be managed. Without hearing from the conservation area users, it can be difficult for LSRCA to make meaningful management decisions. Therefore, whenever the management plan is being reviewed, updated, or amended, having current user information plays a key role.

Management effectiveness of the conservation area will be evaluated in-part by assessing to what extent the objectives within the management plan have been met, the adequacy of staffing resources and infrastructure, and to what extent expected outcomes (e.g. increases in visitor use, advancement of LSRCA mandate, etc.) were achieved. This assessment may include surveys of the users of Beaver River Wetland Conservation Area, as well as discussions with core staff.

The Business Plan evaluation will include an assessment of actual revenues and expenses over the five-year operational period, and a comparison to projected revenues and expenses. This evaluation will be used to refine the Business Plan for the succeeding five-year period. This information will be used to assist in moving forward and updating the next Management Plan, and may be used to identify gaps in resources, such as funding and staffing, which will help ensure that the next management plan will have adequate resources allocated to complete the outlined tasks.

Section III: Management Plan

Introduction

This Management Plan provides the basis and long-term direction for the management of Beaver River Wetland Conservation Area. It is based on an identification of the constraints and capabilities provided by the property (Section I), and extensive public and internal consultation (Section II). This section outlines in more detail what LSRCA aims to achieve in the next five years regarding how the property should be managed. The following objectives were formed primarily through the results of the Public and Stakeholder Consultations, with some additional items included by LSRCA; primarily relating to the day-to-day and background activities involved in owning and managing property.

Goal and Objectives

The goal of the Beaver River Wetland Conservation Area Management Plan is:

“Beaver River Wetland Conservation Area will be managed to conserve and maintain the hydrological and natural heritage values of the Beaver River wetland complex, while providing for compatible recreational, educational, and research activities.”

More specifically, LSRCA aims to:

- Protect and maintain the wetland’s ecological integrity, including its wildlife populations and habitats;
- Provide opportunities for increased public understanding, education, involvement, appreciation, and enjoyment of the wetland;
- Continue to monitor and maintain infrastructure to support authorized and compatible public use of the conservation area;
- Reduce the amount of illegal activities and uses within the Beaver River, specifically the use of motorized vehicles along the trail; and
- Secure additional lands within the Beaver River wetland through donation, purchase and conservation easement, when possible

Administration

Managing property always comes with certain administrative tasks. Outlined below are a few examples of these administrative tasks, along with a brief description of each. Some tasks are annual, and required, such as property taxes and insurance, as well as additional administrative tasks that LSRCA is planning to achieve within the life of this management plan to improve visitor experience.

Agreements

Managing a property with a wide variety of uses and partners usually involves the creation of many agreements to ensure each partner is following through on the actions outlined in the agreements. The Beaver River Wetland Conservation Area is no exception to this. There are multiple agreements surrounding the trail, its usage, and maintenance. It is imperative to LSRCA that these agreements stay current and up-to-date. Expired agreements put LSRCA at a higher risk of liability and possibly legal action. All agreements should be kept current, and should be updated at the end of their term or earlier if significant changes to the property or partnership occur.

Communication and Marketing

Marketing and advertising of the Beaver River Wetland Conservation Area up to this point has been very limited and specific. Due to limited infrastructure and up to date property signage, it was determined to promote the property very selectively, and to hold off on broad scale marketing and advertising of the property to a wider audience. Up to this point, few public events have been hosted at the BRWCA, and always for a specific purpose, focusing on attracting members of the public from the local communities which are connected by the trail.

Once more infrastructure is added to the property, then marketing initiatives can be introduced to invite more visitors. A Communication Strategy will be developed in the later stages of the management plan implementation schedule in partnership with other organizations to ensure a wide variety of target audiences are reached, along with getting specific messages out to the public, including rules and regulations.

Marketing and advertising will be conducted in combination with partner organizations, through cross promotion, in order to reach target markets. LSRCA staff is currently working with other organizations, including Brock Township and the Regional Tourism Organization 6, to assist in how the area can be further developed for tourism and how the BRWCA fits into the larger picture for tourism in the area.

It is likely that public events and openings will be held at the conclusion of key projects, such as official opening ceremonies.

Sustainable Funding /Resources

Sustainable funding and resources play a major role in implementing most objectives outlined in the Implementation Schedule. Insufficient funding and resources at any point in the during the management plan implementation could result in not all objectives getting completed, and may have negative impacts financially, organizationally, on public appearance, and socially for LSRCA and the neighbouring communities. One of the largest and most important tasks throughout the implementation of this management plan is finding and securing sustainable funding and resources. This can be done through a variety of tactics and avenues, with the overarching goal in mind to improve the Beaver River Wetland Conservation Area, while protecting its natural heritage value. Below are some of the proposed tactics to assist in securing sustainable funding and resources.

Revenue Generation

Currently there are no fees associated with the Beaver River Wetland Conservation Area for revenue generation. This is primarily due to a lack of infrastructure and services provided at this point in time. Through the implementation of this management plan, the level of infrastructure and services is scheduled to increase. Therefore, if deemed appropriate by Conservation Lands staff and with approval by LSRCA's Board of Directors, the possibility of fees associated with the Beaver River Wetland Conservation Area are subject to change in the future. LSRCA has a Fee Schedule which was approved by the Authority's Board of Directors in 2016⁴⁷ that would dictate the fees for specific activities /purposes, in order to keep them consistent with other conservation areas across the watershed, and with neighbouring Conservation Authorities. Any revenue generated at the Beaver River Wetland Conservation Area would be retained and used for future projects or maintenance within that specific conservation area. Items which may be subject to fees in the future may be parking, events (biking /running events that utilize the trail), guided hikes, or other large group events.

⁴⁷ LSRCA (2016b)

External sources of revenue and funding will be sought throughout the implementation of this management plan. These sources of revenue may come from municipal funding, special project budgets, public funding, grants or donations.

Sponsorship /Adopt a Trail /Trail Stewards Program

Since trail monitoring and maintenance is one of the most time-intensive and significant tasks LSRCA faces with the management of a long, linear property, implementing a volunteer program to conduct trail inspections would be ideal. Developing and implementing a “Trail Stewards” or an “Adopt-a-Trail” type of program for the BRWCA is currently being discussed. This would allow members of the local communities to get more involved with the property, while still maintaining a fairly low level of commitment.

LSRCA also has an Infrastructure Sponsorship and Naming Policy, which outlines how larger pieces of infrastructure, such as bridges, boardwalks, or lookout can be sponsored and named by an individual, organization, corporation or family. This is another avenue LSRCA will consider when larger pieces of infrastructure are required.

LSRCA will also investigate the feasibility of developing and implementing a Trail Stewards or an Adopt-A-Trail Program at the Beaver River Wetland Conservation Area. A Trail Stewards Program can assist LSRCA greatly by having Stewards on the ground monitoring the trail more frequently than LSRCA staff have the capacity to, and by informing LSRCA of hazards, trail surface issues, or items that require maintenance that could be improved in a more timely fashion.

Partnership Development /Engagement

As previously stated, Lake Simcoe Region Conservation Authority has existing agreements in place with a variety of partners regarding the Beaver River Wetland Conservation Area. Typically, these partnerships and agreements focus on the maintenance, management and legal side of property ownership, maintenance, and use. A primary objective of this management plan is to branch out and develop partnerships with new groups, organizations, and committees within local communities. Developing new partnerships, rekindling past ones, and engaging with members of the public could be greatly beneficial to the conservation area.

It is hard to predict which partners LSRCA will interact with moving forward, but some of the agencies or groups that LSRCA is currently working with are the Township of Brock, Trans Canada Trail, and the Heart of Ontario Snowmobile Club. Other organizations that LSRCA has a working relationship with, but not necessarily formal agreements are Cannington Historical Society, Sunderland Lions Club, and Regional Tourism Organization #6.

LSRCA will reach out to newer partners who have shown interest, and who LSRCA could have a mutually beneficial relationship with, such as the North Durham Nature, the Uxbridge Horsemen’s Association, the Cannington Horticultural Society and Durham Outdoors. Developing local partnerships and engaging with the public will certainly have positive impacts on the Beaver River Wetland Conservation Area in a variety of ways. Throughout this management plan, LSRCA will make a conscious effort to continue establishing and fostering relationships with members of the public, community groups, and organizations.

Once additional infrastructure, facilities and amenities have been constructed, LSRCA will work with its partners to offer more public events. These events will create opportunities for the community to visit the property in a group setting and engage with staff and veteran users. Examples of community events which may be held are litter clean-up days, guided hikes, interpretative /nature walks, trail and infrastructure maintenance (brushing, re-decking bridges, re-installing signs, etc.), invasive species removals, and wildlife or habitat monitoring or restoration activities.

Asset Management /Monitoring

In order to maintain the Beaver River Wetland Conservation Area to the outlined Maintenance Standards⁴⁸ regular monitoring and assessments of infrastructure and assets on the property must occur. The following sections lists some of the assets that currently exist on the property, or are included within this management plan, and are projected to be constructed and installed within the next five years. Items in this category include trails, multiple forms of signage, property maps, accessibility features, bridges and culverts, and future parking lots.

Occasionally funding or grant opportunities are made available through different avenues (such as provincial grants, etc.). These funding opportunities are inconsistent, and are not necessarily scheduled on a regular basis. This presents a challenge when developing a timeline for when specific implementation objectives can be physically implemented. When presented with additional funding opportunities or grant programs, LSRCA will take advantage of these. When the funding requirements align with the management plan implementation objectives, LSRCA will submit the necessary applications to access a portion of the available funding.

Any additional infrastructure that LSRCA constructs at the BRWCA will be to support the goals and objectives described in this management plan. Any future development would be subject to the requirements of the Environmental Assessment Act, Conservation Authorities Act, Fisheries Act and other relevant Federal, Provincial and Municipal legislation, and would require a site inspection to mitigate detrimental impacts on the values of the conservation area. All new infrastructure would be designed and constructed to Accessibility for Ontarians with Disabilities Act (AODA) standards, and would be built to be durable and fit with the surroundings as much as possible.

Trails

Recreational trails in the Beaver River wetland are limited to the abandoned rail corridor due to the extremely wet nature of the site. With the funding support of a variety of partners, LSRCA was able to upgrade the trail surface of this corridor between 2012 and 2015, which provides a more consistent and pleasant experience for trail users. The creation of unsanctioned trails is extremely destructive to such an ecologically sensitive area. Unsanctioned trails will be closed or blocked to prevent future use when feasible.

Trails will be monitored as outlined by LSRCA's Maintenance Standards⁴⁹, and will be inspected for a number of items, including: water pooling, erosion, evidence of motorized vehicle use, vandalism, corridor clearance, infrastructure condition, and uneven tread surfaces. Boardwalks will be used in very wet areas when necessary, to allow for trail continuity and promote a more immersive wetland experience while mitigating the negative impacts on the environment. An ideal location for a boardwalk would be the trail break in Sunderland, south of Concession Road 6 in Sunderland, as this would allow for the trail to be connected, as well as provide an enhanced experience.

Prohibited activities such as motorized vehicle use, will be strongly discouraged by continuing to install barriers and signage throughout the trail corridor. This is an ongoing issue and how it will be dealt with will continue to be adapted until an effective solution has been discovered and implemented.

Existing water crossings will be upgraded as necessary to ensure compliance with the Accessibility for Ontarians with Disabilities Act and to promote use of the bridges by cyclists and equestrians. When undergoing major

⁴⁸ LSRCA (2017b)

⁴⁹ LSRCA (2017b)

maintenance or upgrades, consideration will also be given to enlarging culvert and bridge sizes to assist with climate change adaptation to allow for unobstructed movement of water to reduce flooding.

Where possible, LSRCA will engage local management partners to assist in monitoring and minor clean-up of the trail. This may also include the development of a Trail Stewards Program, as previously discussed.

LSRCA reserves the right to close any trail within the Beaver River Wetland Conservation Area at any point in time. Trail closures may be attributed to a number of factors, such as trail maintenance, hazard tree removal, for ecological purposes (such as nesting season), visitor safety, or for restoration projects. Any scheduled trail closures will be posted on-site with signage and will be listed on LSRCA's website.

Signage and Maps

According to conservation area users, signage within the Beaver River Wetland is lacking⁵⁰⁵¹. Beginning in 2019 LSRCA will be undergoing an exercise to update the corporate signage strategy, which will include signs for conservation areas, and will state how and where the signs should be placed, in order to achieve consistency between many conservation areas within the Lake Simcoe watershed.

In 2017 LSRCA installed three trail kiosks along the trail, each providing a map of the conservation area and other trail use information. The kiosk in Blackwater provided space for interpretative signage, which includes information on the area, a brief history, and some of the natural features and species you can expect to find when visiting the property. LSRCA will develop and install trail way-finding signage to assist people in navigating the trail more confidently, interpretative signage to describe some of the natural heritage features, and emergency location signage along the length of the trail. Every effort will be made to post signs at key locations, together with our partners without inundating the property.

Trail and property maps will also be developed, both as hard-copies (printable PDF's) and electronically to use on mobile devices for the public to download and utilize. Providing property maps will not only help users to understand where they are, but encourage them to plan their routes, and educate them on which properties are owned or managed by LSRCA.

Accessibility

When constructing new features and infrastructure, the Accessibility for Ontarians with Disabilities Act (AODA) will be taken into consideration, and every effort will be made to ensure any new infrastructure will adhere to AODA standards. Best efforts will be made to ensure barriers will not restrict those with limited mobility from utilizing the trail. Parking lots, bridges, and smaller infrastructure will be built or updated when required to comply with AODA standards when reasonably possible.

Parking Lots

LSRCA will aim to provide additional parking at key locations along the length of the trail, focusing on locations in between municipalities. LSRCA will also pursue partnerships with local municipalities to take advantage of existing public parking lots to provide access to the trail. Appropriate parking locations will be contingent on the availability of suitable land for parking locations.

⁵⁰ LSRCA (2017a)

⁵¹ LSRCA (2018c)

Parking lots will be subject to conditions associated with development near wetlands and floodplains under the Conservation Authorities Act, as well as any relevant conditions associated with the Federal Fisheries Act. Parking lots will be gravel, and will be re-graded or top-dressed semi-annually as necessary.

Garbage cans will not be provided in conservation area parking lots by LSRCA to reduce the amount of residential and commercial garbage dumping that may occur in those locations.

Bridges /Culverts

Bridges and culverts will continue to be inspected bimonthly, as outlined in the Maintenance Standards under Due Diligence Inspections⁵². If any new bridges or culverts need to be constructed, or any existing ones require major repairs or significant renovations, then they should be rebuilt to comply with current AODA standards when possible and reasonable.

Visitor Experience /Management

When managing a conservation area one of the primary objectives is to manage visitors and their actions to ensure they have a positive experience when visiting the conservation area, but also ensuring they have minimal impacts on the outstanding natural heritage features. This section states how LSRCA will attempt to improve visitor experience and satisfaction when at the conservation area. It also describes the types of items or infrastructure that are outlined in the Business Plan that should increase visitor experience and satisfaction.

Access Points

Due to the linear shape of the Beaver River Wetland Conservation Area, there are many places where access to the trail may be gained. The vast majority of these access points are from the roads which intersect the trail. In an effort to keep unauthorized motorized vehicles off the trail, in recent years gates were installed in many places to limit the size of equipment or machines entering the trail. After a number of years and many different designs, gates have been an ineffective method at keeping motorized vehicles off the trail. Efforts to increase the safety of trail users at road crossings are continuing, and safety signage will be installed.

Within this management plan, there is an objective to achieve water access points for people wishing to either launch canoes or kayaks, or for those simply hoping to get closer to the water, such as for birdwatching. Site inspections are currently underway to determine which locations these water access points are most suitable for, and to determine how many water access points are feasible.

Washroom /Privy

It was made clear through the public consultation phase that washroom facilities would be greatly beneficial in attracting new user groups to the conservation area. As previously stated, due to the wetland, and the fact that the majority of the property owned or managed by LSRCA is within the floodplain, constructing any type of infrastructure will be challenging. LSRCA will consider many washroom types, designs, and options to install at the Beaver River Wetland Conservation Area, while abiding by all regulations and the permit process.

Lookout Point

LSRCA and its partners will work to establish a formal viewing area, with a lookout platform and rest area, possibly with interpretative signage, in a location that is suitable within the conservation area. Site investigations

⁵² LSRCA (2017b)

will be conducted to ensure that the selected location is ideal for a variety of conservation area users, that is accessible to different user groups, and that will not have significant impacts on the wetland.

Shade Structure

The installation of one or multiple shade structures along the trail is very important to users, since the trail is long and fairly open, offering little overhead protection. A shade structure would assist in both protection from the sun, and from inclement weather. LSRCA will work with all required agencies to obtain the required permits and approvals to construct this feature. Due to the majority of the property being within the floodplain, the potential location of such a structure may be fairly limited.

Permitted Uses

In attempts to enhance the experience for many visitors when on the Beaver River Wetland Trail, LSRCA will work to increase awareness of the permitted uses which are acceptable on the trail. LSRCA will post signs which clearly indicate which uses are acceptable or unacceptable at major entrances to the trail, focusing on kiosks and trail heads.

The Beaver River Wetland Conservation Area will be managed to provide the public with an enjoyable experience in a significant natural setting. To create a positive experience, some potential uses of the property have been prohibited by a Provincial Regulation under the Conservation Authorities Act (O Reg. 90/112)⁵³.

The Beaver River Wetland Trail will be a multi-use trail permitting hiking, cycling, horseback riding, and cross-country skiing. Dog walking is also permitted, however dogs must remain on leash at all times. LSRCA permits snowmobile use of the rail trail (with the exception of the portion between Linden Valley Road and English Road in the City of Kawartha Lakes) by holders of OFSC trail permits, through a trail use Agreement signed with the Heart of Ontario Snowmobile Club. LSRCA will continue to maintain this Agreement on an annual basis, providing the terms of the Agreement are adhered to. Other motorized use of the trail, with the exception of maintenance and emergency response vehicles, is prohibited.

Hunting is prohibited on LSRCA owned or managed land. When evidence of hunting is present or reports of hunting activity have been made, LSRCA will work with Ministry of Natural Resources and Forestry staff to ensure that this prohibition is enforced.

Camping, littering, cutting trees, removing vegetation, or lighting fires is strictly prohibited in this conservation area.

Lake Simcoe Region Conservation Authority will clearly mark all entrances to the Conservation Area with permitted uses. Enforcement of these regulations will be undertaken with the assistance of the Ontario Provincial Police and the Durham Regional Police Service, and by trained LSRCA staff.

Boundary Management

Boundary management is an issue for many remote properties, which is especially true at the Beaver River Wetland Conservation Area. Due to the long, linear shape of the property and that multiple parcels are dispersed across the wetland, there is an extensive amount of property boundaries. Sharing property boundaries with such a multitude of private landowners is often very challenging. When property boundaries aren't clearly defined by a structure, such as a fence, sometimes those boundaries end up being pushed back, either

⁵³ Government of Ontario (1990); For more detail see www.e-laws.gov.on.ca

purposefully or by accident. Boundary management and encroachments of neighbours onto conservation authority land is currently one of the challenges LSRCA is facing within the Beaver River Wetland Conservation Area.

LSRCA recently commissioned an encroachment study to be conducted, where a surveyor visited the property, conducted surveys of the property boundaries, and provided LSRCA with a report of which properties have encroached onto conservation authority lands, including some who have built permanent or semi-permanent structures on Authority land instead of their own. LSRCA will take this information and will develop a plan to deal with these encroachments in a formal manner. The Encroachment Plan will also state how these situations can be avoided in the future, and may involve installing infrastructure such as fences and /or up to date no trespassing signage and markings.

Property Acquisition

Currently the Beaver River Wetland Conservation Area is composed of 26 individual land parcels, with a few priorities remaining for land acquisition to complete the trail connection. The updated Land Securement Strategy⁵⁴ states priority land securement areas are established for ecological protection and ecological restoration /enhancement, with a focus on proximity to existing publicly accessible lands, such as conservation areas or municipally owned lands. This means that although the Beaver River Wetland complex may not directly be listed as a priority land securement area anymore, it still fits the criteria for possibly acquisition or securement.

Securement of land may be through a number of mechanisms, including purchase, donation, conservation easement, bequest, or combination of the above. All securement initiatives will be on a willing buyer - willing seller basis, and conditional upon available funding, with value to be determined by fair market appraisal. All securement initiatives will also include the creation and registration of a plan of survey.

The focus of land acquisition will be on completing the trail corridor by acquiring missing linkages. LSRCA will reach out to those landowners to determine their willingness to part with either the entire property, or a part of the property parcel to assist LSRCA in completing the trail corridor. In order to achieve the completion of the trail corridor near Sunderland, LSRCA will need to work with the Township of Brock in order to have access through the un-opened road allowance permitted. When new land parcels are acquired, LSRCA will conduct an inventory to document property conditions, including natural heritage assessments, the existence of trails or other infrastructure, existing public use, and disturbance or trespasses. LSRCA will also assess the extent to which the newly secured land contributes to meeting the objectives of a variety of documents and strategies, including the Natural Heritage System and Restoration Strategy (2018), LSRCA's Land Securement Strategy (2018), and implementing projects proposed by the management plan.

Encroachment Management

Due to the linear shape of the Beaver River Wetland Conservation Area, there is a large number of properties that abut the conservation area boundaries. Since the vast majority of the properties do not have physical barriers visually showing the property lines (ex: fences), occasional encroachment issues have occurred crossing the conservation area boundary. The LSRCA initiated a review of known property encroachments which was completed in January 2019. The encroachment's were mapped by H.F Grander, Ontario Land Surveyor, which outlined the conservation area boundary in Blackwater, and showed the encroachments that had occurred⁵⁵.

⁵⁴ LSRCA (2018d and 2019c)

⁵⁵ Grander (2019)

LSRCA needs to deal with these boundary issues in order to reduce its liability and risk. There are a number of strategies that LSRCA may use to rectify these encroachments, starting with soft action and moving towards legal action if required.

An educational campaign will first be undertaken, which may include a letter to landowners outlining the nature of the encroachments, additional information, and a request to meet with LSRCA staff. This may require canvassing residents by knocking on doors, or arranging one-on-one meetings with individual landowners. Staff will work with landowners to amicably resolve these encroachments without legal action, but if necessary, legal action may have to be taken as a last resort. Given liability and the potential loss of land through “adverse possession” LSRCA will work with Brock Township and landowners to address any encroachment issues on public lands.

LSRCA will work to prevent any future encroachments in the Blackwater area, likely by installing a fence along the property boundary. In locations that have been encroached upon already, and sites that have a higher risk of future encroachment will be monitored annually, as stated in the Conservation Landholding Classification System and Maintenance Standards (2017)⁵⁶. The properties that back onto more rural or unused properties that are considered “Natural Heritage Areas” will have their boundaries inspected biennially for encroachments (LSRCA, 2017)⁵⁷. The boundaries of these property types (Passive Recreation and Natural Heritage Preserve) should be marked with yellow dots under the *Trespass to Property Act* to ensure the boundaries are clearly marked (LSRCA, 2017)⁵⁸.

Overall, LSRCA needs to make monitoring and enforcing property boundaries a priority, in order to reduce the amount and extent of encroachments into the BRWCA. This will likely require a significant amount of work in the beginning, but once current encroachment issues have been resolved, adjacent landowners ideally will understand that encroachments are unacceptable, and strategies will be undertaken to eliminate or reduce the encroachments, and to restore and properly identify the property boundary.

Natural Heritage Feature Management

The Beaver River Wetland was first targeted as an area for land acquisition by LSRCA due to its significant natural heritage features and value. Building on this key aspect, this management plan focuses on developing the conservation area in a way that conserves these natural heritage values. Outlined below are some of the ways in which LSRCA will continue to maintain these features, and how the property will be managed to adapt to the impacts of climate change on the conservation area and the wetland.

Vegetation Management

Forest management at Beaver River Wetland Conservation Area will include the removal of hazard trees as necessary⁵⁹, as well as management to promote habitat values for native flora and fauna. Any trees cut, or debris falling naturally, will be removed from trails or parking lots as necessary, with an appropriate amount of material left onsite to decompose naturally.

⁵⁶ LSRCA (2017b)

⁵⁷ LSRCA (2017b)

⁵⁸ LSRCA (2017b)

⁵⁹ LSRCA (2009)

As a part of regular maintenance, brushing and mowing along the sides of the trail will be done regularly to ensure the trail corridor does not become overgrown, and improve sightlines to reduce the risk of safety issues and will be completed with the support of partners.

When necessary, realistic, and when resources permit, invasive species management may also occur within the Beaver River Wetland Conservation Area. Any invasive species removals will be done abiding by all rules and regulations, as well as using the best management practices for each specific species.

Monitoring

Regular monitoring for water quality occurs within LSRCA's Environmental Science and Monitoring program. Water quality sampling occurs in Beaverton, downstream of where the conservation area is located. This monitoring should continue throughout the life of this management plan, to ensure there are no significant changes to the water quality, and to make LSRCA aware if there are.

Moving forward invasive species monitoring for primarily terrestrial plants should occur at least every three years within the boundaries of the conservation area. Phragmites (*phragmites australis*) will be the primary focus species, but other terrestrial and aquatic plants will also be monitored for and recorded. When feasible, LSRCA may decide to conduct removals of specific invasive species at certain locations.

Fish and benthic monitoring also occurs regularly throughout the Beaver River Subwatershed. LSRCA's Environmental Science and Monitoring department is responsible for conducting these, and shall continue to do so over the next 5 years. Benthic invertebrates are excellent indicators of stream health, as are certain fish species.

LSRCA plans to involve local community groups in the monitoring of the species within the Beaver River Wetland Conservation Area, focusing on birds and amphibians. There are groups who currently conduct regular monitoring, such as North Durham Nature's Christmas Bird Count. Partnering with LSRCA for these activities would be mutually beneficial for both groups. Amphibians are good indicators of water quality and of overall ecosystem health. Monitoring for amphibians can be a good start to determining if the wetland is changing quickly or becoming degraded.

Restoration

LSRCA's Restoration department is currently focusing on wetland and grassland creation and enhancement projects. If any opportunities are presented within the term of this management plan for wetland or grassland enhancement, they will be investigated and taken into consideration.

Privately owned lands surrounding the conservation area are being targeted to implement these projects on, which would benefit the overall area, including the existing wetlands along the Beaver River.

Climate Change Adaptation

The warming associated with climate change has already begun affecting the Beaver River and surrounding wetlands and the impacts of climate change will intensify. The two critical responses to addressing the impacts of climate change are mitigation and adaptation. Mitigation addresses the root causes of climate change by reducing greenhouse gas emissions or promoting sequestration. Adaptation seeks to lower the risks associated with the shifting weather patterns that are caused by increasing greenhouse gas concentrations. LSRCA is currently developing strategies to mitigate and to adapt to the unavoidable impacts of climate change over the coming decades. Any reasonable actions to adapt to the unavoidable impacts of climate change on the Beaver

River Wetland Conservation Area will be taken into serious consideration. Objectives that may impact visitor safety and ecological health of the area will be given priority over other items.

Some anticipated impacts of climate change include the increased spread of invasive species, northern migration of species, increased flooding, more frequent and severe storms, more rainfall in the winter, drier and hotter summers resulting in lower water levels, etc.

Initial investigations state that some of the items most likely to be recommended to adapt to climate change in regards to the Beaver River Wetland Conservation Area are the replacement of current culverts to oversized culverts to adequately manage the increased occurrences and severity of flooding events. Due to the north-south orientation of the conservation area, it is also anticipated that this will become a migration corridor for species to move north when seeking new suitable habitats due to climate change. Maintaining the natural features in this corridor will continue to remain a priority for LSRCA.

The LSRCA Climate Change Adaptation Strategy will provide conservation management recommendations that address any gaps in the current projects and programs, as well as recommend new actions that address anticipated changes in watershed features that will affect the work undertaken the by Conservation Lands team. Adaptation recommendations are designed to enhance the overall resilience of the Beaver River Wetland Conservation Area. This document will be the primary guide for LSRCA to follow when determining how to adapt the conservation area to climate change. Upon the finalization and release of this document, the Conservation Lands team will meet and determine which actions to pursue during the remainder of this Management Plan.

Section IV: Business Plan

Introduction

The purpose of a conservation area management plan is to establish long and short-term goals for the management of the property and identify priorities for implementation. The Business Plan component is a description and schedule of implementation priorities, coupled with projections of expenses and revenues over a five year period.

In addition to revenues and expenses, this business plan will identify potential funding sources and will provide guidance for LSRCA in implementing the Beaver River Wetland Conservation Area management plan. To these ends, priorities for investing in facilities and amenities for the period 2020 – 2024 have been identified (Table 5). The items listed in Table 5 are considered above the scope of regular maintenance and establish a proactive management approach, however, all activities including regular maintenance and monitoring are included in the Implementation Schedule.

Table 5: Implementation Priorities (2020 to 2024)

Year	Priorities
2020	<ul style="list-style-type: none"> • Conduct Accessibility Audit on trail from Blackwater to Cannington • Develop Sponsorship Sign Program • Add one bench annually along the trail
2021	<ul style="list-style-type: none"> • Implement the Conservation Area Signage Strategy • Develop a Sponsorship program for additional amenities • Add bike repair stations along the trail • Construct semi-formal water access and launch points • Add a lookout • Implement recommendations out of the Encroachment Study and Plan
2022	<ul style="list-style-type: none"> • Develop and implement an Emergency Signage Strategy • Develop a Communication and Marketing Strategy • Plan for and install accessible parking spaces • Install a washroom /privy • Create a Trail Stewards Program • Review LSRCA's Climate Change strategies and implement relevant recommendations • Conduct ecological assessments on specific properties • Work with a local community group to conduct regular bird monitoring
2023	<ul style="list-style-type: none"> • Implement the Communication and Marketing Strategy • Develop more accessible parking spaces • Construct two formal water access points • Conduct ecological assessments on specific properties
2024	<ul style="list-style-type: none"> • Continue implementing the Communication and Marketing Strategy • Continue implementing recommendations from the Encroachment Plan • Apply recommendations from various LSRCA climate change adaptation strategies • Conduct ecological assessments on specific properties

Budget Projection

The budget projection model predicts a five-year financial outlook for Beaver River Wetland Conservation Area. The model predicts the cost (both staff time and dollar value) to conduct all tasks listed in this management plan. It also includes the predicted revenue sources to fund these implementation objectives. Table 6 below breaks down the projected revenues and expenses required to implement the outlined objectives. Overall, it is estimated that to complete all the tasks listed in this management plan, it will cost approximately \$670,830 (details are noted in Table 7). It's also projected that it will require a Full Time Equivalent (FTE) of 5.48 staff over five years to adequately deal with this workload (details are noted in Table 7).

Table 6: Revenues and Expenses per year (excluding staff time)

Financial Outlook	2020	2021	2022	2023	2024	Total
Revenues	\$56,918	\$159,933	\$101,088	\$274,533	\$81,358	\$670,830
Expenses	\$56,918	\$159,933	\$101,088	\$274,533	\$81,358	\$670,830

LSRCA will continue to make fiscally responsible management decisions for the conservation area, and will prioritize objectives and will implement them once the resources to complete them have been secured.

Projected Expenses

Operational expenses at Beaver River Wetland Conservation Area have been divided into seven categories: Administration, Sustainable Funding /Resources, Asset Management /Monitoring, Visitor Experience /Management, Boundary Management, Natural Heritage Feature Management, and Partnership Development /Engagement. Table 7 below shows the projected expenses to implement the objectives. It also includes the Full Time Equivalent (FTE) which considered the projected amount of staff time required to implement the outlined tasks. The amount of resources required annually varies greatly, depending on the tasks outlined each year. More details regarding which tasks are scheduled for completion in specific years can be found either as a summary in Table 7, or outlined in the Implementation Schedule. Although the expenses listed in this Business Plan are projected to total \$670,830, this is subject to change as the true cost of equipment charge-outs are being finalized. LSRCA is in the beginning stages of determining more representative charge-out costs for equipment in order to accurately incorporate their value over the lifetime of the piece of equipment. This management plan included lumped sum charge out costs for small equipment and large equipment. For the purposes of this management plan it was determined that the small equipment charge-out cost would be \$70 per day, for hand-held pieces of equipment such as string trimmers, chainsaws, pole saws, and other hand tools. Large equipment charge out rates were set at \$150 per day, which includes larger equipment such as the tractor, wood chipper, trailers, and the riding lawn mowers. These rates were chosen based on other charge out costs from a few municipal partners, as well as the cost of replacing a piece of equipment and how much usage it sees. LSRCA is looking into this with more detail in the upcoming months, and any changes in equipment charge out costs will be reflected in the management plan once the rates are finalized.

Full Time Equivalent (FTE)

This budget projects that the implementation of all tasks associated with this management plan would require the full-time equivalent of 5.48 staff over the five year implementation period, from 2020 to 2024. The Conservation Lands division already has staff, and this projection fits within the scope of the work that can be completed in a calendar year, given there aren't other significant requirements at other conservation areas. The basis of including FTE in the Business Plan is to assist with annual work-planning, and to understand how much demand and staff would be required to complete all the tasks for this management plan, but also to showcase how much staff time is involved with simply managing a conservation area. This reference to FTE in the Business Plan is not an ask for additional staff at this time. If there is a time when additional staff resources are required, a formal Business Case will be developed and submitted to LSRCA's Board of Directors, as per LSRCA protocol. Currently, salaries in the Conservation Lands division are funded through existing Municipal Levy.

Table 7: Projected Expenses and Staff Time per Category

Expenses	2020 \$	2020 FTE	2021 \$	2021 FTE	2022 \$	2022 FTE	2023 \$	2023 FTE	2024 \$	2024 FTE
Administration	\$8,948	0.09	\$125,173	0.16	\$15,948	0.11	\$16,673	0.11	\$18,198	0.41
Sustainable Funding /Resources	\$0	0.06	\$1,000	0.08	\$500	0.03	\$500	0.03	\$500	0.03
Asset Management /Monitoring	\$41,050	0.15	\$19,250	0.25	\$15,230	0.24	\$201,450	0.43	\$6,750	0.21
Visitor Experience /Management	\$0	0.04	\$0	0.18	\$8,700	0.25	\$500	0.21	\$500	0.21
Boundary Management	\$500	0.07	\$11,490	0.12	\$6,490	0.08	\$6,490	0.08	\$6,490	0.08
Natural Heritage Features Management	\$2,220	0.17	\$2,220	0.19	\$47,720	0.27	\$47,720	0.24	\$47,720	0.24
Partnership Development /Engagement	\$1,200	0.11	\$800	0.12	\$6,500	0.15	\$1,200	0.14	\$1,200	0.14
Annual Totals	\$53,918	0.69	\$159,933	1.10	\$101,088	1.13	\$274,533	1.24	\$81,358	1.32

5 year total expenses: \$670,830

Projected Revenues

In order to complete the objectives listed in this Business Plan, LSRCA will actively seek new funding opportunities to ensure priority items are implemented. LSRCA will work on reaching out to existing partners for funding assistance, and will continue to apply for grants with LSCF for major projects requiring additional funds. Organizations and additional opportunities that may be sought out to provide additional funding may include:

- Municipal Levy
- Special Capital
- Trans Canada Trail (Ontario)
- Brock Township
- Volunteers and donations
- Participation Fees
- Additional Partner Organizations (RTO6, Ontario Heritage Trust, Ducks Unlimited, Heart of Ontario Snowmobile Club etc.)
- Grants and Awards (Ontario Trillium Foundation, Accessibility Funds, etc.)

The projected infrastructure and amenity upgrades identified in this Business Plan represent significant new expenses for LSRCA, which will require additional funding. Staff projections to achieve these implementation priorities also represent a significant workload increase, approximately equivalent to a full-time staff position annually. Table 8 shows the proposed breakdown of projected revenue sources by each funding partner. Specific objectives were selected to be funded by groups or organizations that would be interested in those specific items. For a further breakdown of the items to be funded by each organization, please refer to the Implementation Schedule.

Table 8: Projected Revenue Summary

Category	2020	2021	2022	2023	2024	Total 5 Year Revenues
Municipal Levy	\$12,838	\$24,553	\$20,458	\$20,703	\$24,828	\$103,380
Special Capital	\$10,275	\$43,159	\$29,359	\$85,560	\$18,759	\$187,112
Trans Canada Trail	\$250	\$250	\$250	\$250	\$250	\$1,250
Grants	\$10,280	\$31,964	\$21,581	\$83,415	\$16,614	\$163,854
RTO6	\$10,000	\$2,316	\$4,583	\$2,750	\$2,750	\$22,399
Brock Township	\$10,275	\$30,641	\$6,825	\$67,323	\$525	\$115,589
Participant Fees	\$0	\$800	\$4,700	\$1,200	\$4,300	\$11,000
Additional Funding Partners	\$0	\$26,250	\$13,332	\$13,332	\$13,332	\$66,246
Total	\$53,918	\$159,933	\$101,088	\$274,533	\$81,358	\$670,830

Municipal Levy

Funding received from LSRCA's municipal partners primarily supports operational administrative and overhead expenditures, including staff wages, and obligatory property management costs such as property taxes, insurance and vehicle mileage. Municipal levy contributes to the management, maintenance and development program of conservation areas, which traditionally covers costs such property management and monitoring,

maintaining/improving infrastructure, general property maintenance (painting, garbage clean-up, mowing, trail repairs, etc.) and hazard tree management. The Municipal Levy requirements outlined in this Business Plan will continue to utilize existing Municipal Levy funds, and will not require additional funding from municipal partners; if it does a special Business Case will be developed in consultation with our Municipal partners.

Special Capital

Special Capital funding from LSRCA's partner municipalities is used to advance programs and projects and will remain a very important part of the funding formula for Beaver River Wetland Conservation Area. Existing Special Capital will be utilized to replace, upgrade or construct major infrastructure such as bridges, boardwalks, washrooms, trail surface, shade shelters, and viewing platforms. Special capital funding also provides the seed funding necessary to attract matching funds from other agencies.

Special Capital funding is already an existing funding portion being used to manage and maintain many conservation areas. The incorporation of this funding source is projected to continue to be included at the Beaver River Wetland, based on priority projects across all Conservation Areas.

Brock Township

In keeping with the relationship between Brock Township and LSRCA, it is anticipated that the majority of revenue projected to come from Brock Township will come from in-kind work. Although it is projected to be primarily in-kind, it is appropriate to associate those in-kind costs with dollar values to ensure the true cost of managing and improving conservation areas is captured.

Lake Simcoe Conservation Foundation (LSCF)

The Lake Simcoe Conservation Foundation is a registered charity that raises funds for the Lake Simcoe Region Conservation Authority to assist LSRCA in gaining the funds necessary to undertake tasks and complete implementation objectives, promoting the completion of Authority goals. The Foundation will be involved in fundraising for larger implementation items, such as purchasing new properties, constructing boardwalks, viewing platforms, and installing accessible water access points. LSCF will be very involved in the administration of applying for grants to complete specific items listed in this management plan.

Grants and Awards (Ontario Trillium Foundation, Accessibility)

LSRCA, in collaboration with the LSCF, will pursue project or program specific funding opportunities through government and non-government funds and grants as they apply to the implementation of priorities identified in this Management Plan. Prior to submitting applications or proposals to various grant opportunities, anticipated administrative investment required to manage any grants received as well as any required matching funds will be considered and planned for accordingly.

Some of the existing funding programs that LSRCA will look more closely at include the Ontario Trillium Foundation (OTF). The Ontario Trillium Foundation provides funding to community-based initiatives supporting the environment, arts and culture, human and social services and sports and recreation. Although neither Conservation Authorities nor municipalities are eligible, they may receive grants as part of a collaborative effort with community groups. Ontario Trillium Foundation will provide support up to \$500,000 over five years through a number of its funding streams. Some streams that may be applicable to this Management Plan are: Green People, Fostering more Active Lifestyles, and Inspired People- Enriching People's Lives through Arts, Culture, and Heritage. Projects at the conservation area which may be eligible for this funding include community

programming and involvement, trail upgrades, infrastructure development, and water quality improvement projects.

Many of the implementation objectives outlined in the Business Plan have a focus to be built or upgraded to meet Accessibility for Ontarians with Disabilities Act (AODA) standards. LSRCA will seek funding from a variety of sources specifically for accessibility projects in order to obtain the resources necessary to complete those projects.

Partner Organizations (ex: RTO6, Ducks Unlimited, Ontario Heritage Trust, HOOSC, etc.)

There are a number of organizations that LSRCA currently partners with, in hopes that this will continue to expand in the future. These partner organizations will also be looked at for some funding support when appropriate and when funds are available. Organizations such as the Ontario Heritage Trust (OHT) and Ducks Unlimited (DU) are existing partners with LSRCA, as both were involved in providing partial funding the purchase one or more of the properties that compose the Beaver River Wetland Conservation Area.

The Heart Of Ontario Snowmobile Club (HOOSC) is another pre-existing partner that has assisted LSRCA with property maintenance and management, especially in the winter months. RTO6- Central Counties Tourism has been working with Brock Township on a Tourism Strategy and the draft strategy outlines support for the Beaver River Trail, Central Counties Tourism and Brock Township will be engaged throughout the duration of the implementation plan to improve visitor experience along the Beaver River Wetland Trail and support the tourism plan.

Trans Canada Trail (Ontario)

Since a portion of the Trans Canada Trail (TCT) utilizes the Beaver River Wetland Conservation Area, TCT will be approached regularly for funding requests to maintain that portion of the trail and to conduct improvements when necessary. LSRCA currently has a positive business partnership with TCT Ontario, and will continue building this partnership moving forward.

Participation and Permit Fees

Currently LSRCA does not charge fees for the use of the Beaver River Wetland Trail and Conservation Area. However, this will likely change in the future. If an organization or an individual hosts an event that utilizes the trail, they will be required to obtain a permit, which will be available for a set fee. All revenues obtained from these fees as well as any additional parking or user fees that may be implemented, in accordance with LSRCA's Fee Schedule⁶⁰, will be used to maintain this conservation area specifically. Revenue generated through parking and permit fees support management of the property which may include anything from grounds maintenance to infrastructure improvements.

The revenues projected to come from the sources listed above are simply projections. This does not hold that group to being responsible for that funding, but each implementation objective was specifically selected to receive funding from those organizations or sources, because it aligns with their mission or values, and what they've been involved with in the past.

⁶⁰ LSRCA (2016b)

Implementation Schedule: 2020 – 2024

The Lake Simcoe Region Conservation Authority staff will implement, as resources permit, the objectives and tasks identified in the Beaver River Wetland Conservation Area Management Plan as described below. Please note that the costs associated with each item outlined in the Implementation Schedule do not include the cost of travelling back and forth to the Beaver River Wetland from the Field Operations Centre located at Scanlon Creek Conservation Area.

2020

Administration

Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1000
- Projected funding source: Municipal Levy

Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$105
- Projected funding source: Municipal Levy

Infrastructure Ontario Contract Renewal

- Renew the Infrastructure Ontario Contract annually
- Conservation Lands will be responsible for achieving this objective
- Estimated Cost: \$1000
- Projected funding source: Municipal Levy

Agreement /Document Review

- Review all existing agreements and documents to ensure continues alignment with property goals and values
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Review Road Crossing Agreement with MTO

- Review and update /develop an agreement with the Ministry of Transportation
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Acquire Property to Complete Trail Linkage

- Investigate acquiring the property that is the missing link along the trail corridor in
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Update existing agreement with Durham Regional Police

- Update the existing agreement with Durham Regional Police focusing on enforcement
- Conservation Lands will be responsible for achieving this objective

- Estimated cost: \$0

Mileage for Fleet Vehicles

- Cover the costs of fleet vehicles driving to and from the Beaver River Wetland
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$6655
- Projected funding source: Municipal Levy

Sustainable Funding/Resources**Fundraise for signs with Partners**

- Work with partners when required or when opportunities arise to fundraise for signage
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Search for Funds for Accessibility Features

- Work with partners to gain funds to implement accessibility features
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Apply for funding for Amenities, Facilities and Features

- Seek funds to design, construct, and install various amenities, facilities and features
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Develop a Sponsorship Program

- Develop a sponsorship program to offset the cost of infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Asset Management/Monitoring**Install Safety Signage**

- Re-install and remove safety signage bollards at road crossings, following snowmobile season
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$250
- Projected funding source: Trans Canada Trail

Plan for Accessible Parking Spaces

- Work with partners to determine locations for accessible parking spaces along the trail
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Infrastructure repairs and replacements

- Work is currently underway to determine what infrastructure should be repaired or replaced, which will soon be aligned with LSRCA's Asset Management system
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: TBD

Construct Water Access Points

- Develop semi-formal water access points for the public to launch canoes /kayaks into the Beaver River while minimizing the impact on vegetation and the landscape
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Construct a bench along the trail

- Construct and install one bench as a rest area along the length of the trail
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$550
- Projected funding source: Special Capital and Brock Township

Conduct regular due diligence inspections

- Continue to conduct regular due diligence inspections in alignment with LSRCA's Maintenance Standards
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$250
- Projected funding source: Municipal Levy

Conduct Accessibility audit on trail from Blackwater to Cannington

- Assess the accessibility of the trail from Blackwater to Cannington for accessibility compatibility
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$40,000
- Projected funding source: Regional Tourism Organization, Brock Township, Grants, and Special Capital

Visitor Experience/Management**Work with Durham Region Police to increase visitation frequency**

- Continue building partnership with DRP to increase visitation frequency to the property for enforcement
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop a Trail Counts Program

- Install trail counters at specific locations along the trail to gain a better understanding of number of visitors
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Boundary Management**Enforcement of Property Boundaries**

- Develop a plan on how to deal with encroachments and property boundary violations
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Annual encroachment monitoring

- Monitor specific property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding sources: Municipal Levy

Natural Heritage Feature Management

Restoration Opportunities

- Any opportunities that are identified within the conservation area to benefit from restoration activities will be reviewed and taken into consideration
- Watershed Restoration Services will be responsible for achieving this objective
- Estimated cost: \$0

Monitor for and manage hazard trees

- Conduct Level 1 Assessments of the trail corridor as outlined in the Hazard Tree Policy
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$140
- Projected funding source: Municipal Levy

Manage brush along the corridor of the trail

- Clear overgrown brush within the trail corridor
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1800
- Projected funding source: Municipal Levy

Monitor and manage for wildlife

- Monitor infrastructure and facilities for impacts from wildlife, and find ways to deal with those issues
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$280
- Projected funding source: Grants

Incorporate LSRCA's Climate Change Strategies into management

- Review the strategies LSRCA has created regarding climate change, and make it applicable to the BRW when/where appropriate
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Partnership Development /Engagement

Community partner engagement and development

- Work with local community groups to build mutually beneficial relationships
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop Sponsorship program on signs

- Develop a Sponsorship program to aid in the cost of installing signage
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1200
- Projected funding source: Municipal Levy

Accumulate resources for infrastructure and amenities

- Work with partners to accumulate resources (financial, volunteers, etc.) for infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Ensure alignment of the BRWMP with the Beaver River Subwatershed Plan

- Conduct annual reviews of the Beaver River Subwatershed Plan, and determine any overlaps and tasks that overlap that could be completed at the Beaver River Wetland. These projects have not been included in the scope of this Business Plan.
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

2021

Administration

Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1020
- Projected funding source: Municipal Levy

Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$110
- Projected funding source: Municipal Levy

Infrastructure Ontario Contract Renewal

- Renew the Infrastructure Ontario Contract annually
- Conservation Lands will be responsible for achieving this objective
- Estimated Cost: \$1000
- Projected funding source: Municipal Levy

Acquire Property to Complete Trail Linkage

- Acquire the property that is the missing link along the trail corridor in
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$105,000
- Projected funding sources: Special Capital, Brock Township, Ontario Heritage Trust, and Grants

Update existing agreement with Durham Regional Police

- Update the existing agreement with Durham Regional Police focusing on enforcement
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Implement Signage Strategy

- Implement the recommendations from LSRCA's signage Strategy
- Conservation Lands and Communications will be responsible for achieving this objective
- Estimated cost: \$11,200
- Projected funding source: Special Capital

Mileage for Fleet Vehicles

- Cover the costs of fleet vehicles driving to and from the Beaver River Wetland
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$6655
- Projected funding source: Municipal Levy

Sustainable Funding/Resources

Fundraise for Signage with Partners

- Work with partners when required or when opportunities arise to fundraise for signage
- Conservation Lands will be responsible for achieving this objective with various partners

- Estimated cost: \$0

Search for Funds for Accessibility Features

- Work with partners to gain funds to implement accessibility features
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Apply for funding for Amenities, Facilities and Features

- Seek funds to design, construct, and install various amenities, facilities and features
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Finalize and Implement a Sponsorship Program

- Finalize and begin implementing a sponsorship program to offset the cost of infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1000
- Projected funding sources: Brock Township, Regional Tourism Organization #6

Asset Management /Monitoring**Install Safety Signage**

- Re-install and remove safety signage bollards at road crossings, following snowmobile season
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$250
- Projected funding source: Trans Canada Trail

Plan for Accessible Parking Spaces

- Work with partners to determine locations for accessible parking spaces along the trail
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Infrastructure repairs and replacements

- Work is currently underway to determine what infrastructure should be repaired or replaced, which will soon be aligned with LSRCA's Asset Management system
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: TBD

Construct Water Access Points

- Construct and install semi-formal water access points for the public to launch canoes /kayaks into the Beaver River while minimizing the impact on vegetation and the landscape
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1900
- Projected funding sources: Municipal Levy

Construct a Lookout /Viewing Platform

- Construct and install a viewing platform /lookout with a vista of the wetland
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$5450

- Projected funding source: Special Capital, Brock Township and Grants

Construct a bench along the trail

- Construct and install one bench as a rest area along the length of the trail
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$550
- Projected funding source: Special Capital and Brock Township

Add bike repair stations along the trail

- Purchase and install bike repair stations along the length of the trail
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$4950
- Projected funding source: Special Capital, Brock Township, and Grants

Add shade structures

- Construct and install a shade shelter on the side of the trail
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$5900
- Projected funding source: Special Capital, Brock Township, and Grants

Conduct regular due diligence inspections

- Continue to conduct regular due diligence inspections in alignment with LSRCA's Maintenance Standards
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$250
- Projected funding source: Municipal Levy

Visitor Experience /Management

Work with Durham Region Police to increase visitation frequency

- Continue building partnership with DRP to increase visitation frequency to the property for enforcement
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop a Trail Counts Program

- Install trail counters at specific locations along the trail to gain a better understanding of number of visitors
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Conduct more patrols of the Conservation Area

- LSRCA staff to increase their presence on the property and to conduct patrols to ensure conservation area rules and regulations are being adhered to
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Boundary Management

Enforcement of Property Boundaries

- Begin enforcing property boundaries and taking necessary actions to delineate those boundaries in alignment with the Encroachment Management Plan
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$5000
- Projected funding source: Municipal Levy

Annual encroachment monitoring

- Monitor specific property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding sources: Municipal Levy

Mark Property Boundaries with Yellow and /or Red Dots

- Mark property boundaries in line with the Trespass to Property Act requirements with red or yellow dots along the property boundary
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$990
- Projected funding source: Municipal Levy

Implement Recommendations out of the Encroachment Plan

- Once the Encroachment Plan has been developed, recommendations on how to deal with property boundary encroachments will be implemented
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$5000
- Projected funding sources: Municipal Levy

Natural Heritage Feature Management

Restoration Opportunities

- Any opportunities that are identified within the conservation area to benefit from restoration activities will be reviewed and taken into consideration
- Watershed Restoration Services will be responsible for achieving this objective
- Estimated cost: \$0

Monitor for and manage Hazard Trees

- Conduct Level 1 Assessments of the trail corridor as outlined in the Hazard Tree Policy
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$140
- Projected funding source: Municipal Levy

Manage brush along the Trail Corridor

- Clear overgrown brush within the trail corridor
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1800
- Projected funding source: Municipal Levy

Monitor and manage for wildlife

- Monitor infrastructure and facilities for impacts from wildlife, and find ways to deal with those issues
- Conservation Lands will be responsible for achieving this objective

- Estimated cost: \$280
- Projected funding source: Grants

Incorporate LSRCA's Climate Change Strategies into management

- Review the strategies LSRCA has created regarding climate change, and make it applicable to the BRW when/where appropriate
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Partnership Development /Engagement

Community partner engagement and development

- Work with local community groups to build mutually beneficial relationships
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop Sponsorship program on signs

- Develop a Sponsorship program to aid in the cost of installing signage
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$800
- Projected funding source: Participation/Event Fees

Accumulate resources for infrastructure and amenities

- Work with partners to accumulate resources (financial, volunteers, etc.) for infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Ensure alignment of the BRWMP with the Beaver River Subwatershed Plan

- Conduct annual reviews of the Beaver River Subwatershed Plan, and determine any overlaps and tasks that overlap that could be completed at the Beaver River Wetland. These projects have not been included in the scope of this Business Plan.
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

2022

Administration

Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1040
- Projected funding source: Municipal Levy

Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$115
- Projected funding source: Municipal Levy

Infrastructure Ontario Contract Renewal

- Renew the Infrastructure Ontario Contract annually
- Conservation Lands will be responsible for achieving this objective
- Estimated Cost: \$1000
- Projected funding source: Municipal Levy

Update existing agreement with Durham Regional Police

- Update the existing agreement with Durham Regional Police focusing on enforcement
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop a Communication and Marketing Strategy

- Communications to develop a Communication and Marketing strategy to promote and advertise the Beaver River Wetland Conservation Area
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Implement Signage Strategy

- Implement the recommendations from LSRCA's signage Strategy
- Conservation Lands and Communications will be responsible for achieving this objective
- Estimated cost: \$6950
- Projected funding source: Special Capital

Mileage for Fleet Vehicles

- Cover the costs of fleet vehicles driving to and from the Beaver River Wetland
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$6655
- Projected funding source: Municipal Levy

Sustainable Funding /Resources

Fundraise for Signage with Partners

- Work with partners when required or when opportunities arise to fundraise for signage

- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Apply for funding for Amenities, Facilities and Features

- Seek funds to design, construct, and install various amenities, facilities and features
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Refine and Implement the Sponsorship Program

- Adjust as necessary and implement the sponsorship program to offset the cost of infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding sources: Brock Township, Regional Tourism Organization #6

Asset Management/Monitoring**Install Safety Signage**

- Re-install and remove safety signage bollards at road crossings, following snowmobile season
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$250
- Projected funding source: Trans Canada Trail

Plan for Accessible Parking Spaces

- Work with partners to construct accessible parking spaces along the trail
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$13,400
- Projected funding sources: Special Capital, Brock Township, and Grants

Infrastructure repairs and replacements

- Work is currently underway to determine what infrastructure should be repaired or replaced, which will soon be aligned with LSRCA's Asset Management system
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: TBD

Maintain Water Access Points

- Maintain semi-formal water access points for the public to launch canoes /kayaks into the Beaver River while minimizing the impact on vegetation and the landscape
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$780
- Projected funding sources: Municipal Levy

Construct a bench along the trail

- Construct and install one bench as a rest area along the length of the trail
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$550
- Projected funding source: Special Capital and Brock Township

Conduct regular due diligence inspections

- Continue to conduct regular due diligence inspections in alignment with LSRCA's Maintenance Standards
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$250
- Projected funding source: Municipal Levy

Visitor Experience /Management

Update property maps for the Beaver River Wetland Conservation Area

- Update property maps for the Beaver River Wetland Conservation Area for online use , and replace maps on the trail kiosks if required
- Conservation Lands and GIS will be responsible for achieving this objective
- Estimated cost: \$5,500
- Projected funding source: Special Capital, Brock Township and Regional Tourism Organization #6

Work with Durham Region Police to increase visitation frequency

- Continue building partnership with DRP to increase visitation frequency to the property for enforcement
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop a Trail Counts Program

- Replace and install trail counters at specific locations along the trail to gain a better understanding of number of visitors
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1200
- Projected funding source: Participation /User Fees

Create a Trail Stewards Program

- Design a Trail Stewards Program to get volunteers to monitor sections of the trail and report any issues or concerns to LSRCA
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$2000
- Projected funding source: Municipal Levy

Conduct more patrols of the Conservation Area

- LSRCA staff to increase their presence on the property and to conduct patrols to ensure conservation area rules and regulations are being adhered to
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Boundary Management

Enforcement of Property Boundaries

- Continue enforcing property boundaries and taking necessary actions to delineate those boundaries in alignment with the Encroachment Management Plan
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$2500
- Projected funding source: Municipal Levy

Annual encroachment monitoring

- Monitor specific property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding source: Municipal Levy

Mark Property Boundaries with Yellow and /or Red Dots

- Mark property boundaries in line with the Trespass to Property Act requirements with red or yellow dots along the property boundary
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$990
- Projected funding source: Municipal Levy

Implement Recommendations out of the Encroachment Plan

- Continue to implement recommendations from the Encroachment Plan regarding how to deal with property boundary encroachments
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$2500
- Projected funding sources: Municipal Levy

Natural Heritage Feature Management**Conduct regular Bird Monitoring with a community group**

- Work with a local group to conduct regular bird monitoring within the conservation area
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding sources: Grants

Monitor for invasive species

- The trail corridor will be monitored by visual inspection for invasive terrestrial species, focusing on phragmites
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Conduct ecological monitoring on various properties

- Conduct an ecological inventory on approximately 8 of the 26 properties that compose the conservation area
- Conservation Lands will be responsible for hiring an external consultant to achieve this objective
- Estimated cost: \$40,000
- Projected funding sources: Special Capital, Ontario Heritage Trust, and Grants

Restoration Opportunities

- Any opportunities that are identified within the conservation area to benefit from restoration activities will be reviewed and taken into consideration
- Watershed Restoration Services will be responsible for achieving this objective
- Estimated cost: \$0

Monitor for and manage Hazard Trees

- Conduct Level 1 Assessments of the trail corridor as outlined in the Hazard Tree Policy
- Conservation Lands will be responsible for achieving this objective

- Estimated cost: \$140
- Projected funding source: Municipal Levy

Manage brush along the Trail Corridor

- Clear overgrown brush within the trail corridor
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1800
- Projected funding source: Municipal Levy

Monitor and manage for wildlife

- Monitor infrastructure and facilities for impacts from wildlife, and find ways to deal with those issues
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$280
- Projected funding source: Grants

Incorporate LSRCA's Climate Change Strategies into management

- Review the strategies LSRCA has created regarding climate change, and make it applicable to the BRW when/where appropriate
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$5,000
- Projected funding sources: Special Capital and Grants

Partnership Development /Engagement

Community partner engagement and development

- Work with local community groups to build mutually beneficial relationships
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$5,000
- Projected funding sources: Regional Tourism Organization #6 and Participation /User fees

Develop Sponsorship program on signs

- Develop a Sponsorship program to aid in the cost of installing signage
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1000
- Projected funding source: Participation/Event Fees

Accumulate resources for infrastructure and amenities

- Work with partners to accumulate resources (financial, volunteers, etc.) for infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop opportunities for student research within the conservation area

- Build relationships with educational institutions allowing specific research opportunities to be conducted within the conservation area
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding source: Grants

Ensure alignment of the BRWMP with the Beaver River Subwatershed Plan

- Conduct annual reviews of the Beaver River Subwatershed Plan, and determine any overlaps and tasks that overlap that could be completed at the Beaver River Wetland. These projects have not been included in the scope of this Business Plan.
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

2023

Administration

Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1060
- Projected funding source: Municipal Levy

Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$120
- Projected funding source: Municipal Levy

Infrastructure Ontario Contract Renewal

- Renew the Infrastructure Ontario Contract annually
- Conservation Lands will be responsible for achieving this objective
- Estimated Cost: \$1000
- Projected funding source: Municipal Levy

Update existing agreement with Durham Regional Police

- Update the existing agreement with Durham Regional Police focusing on enforcement
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Implement the Communication and Marketing Strategy

- Implement the Communication and Marketing strategy promoting the Beaver River Wetland Conservation Area
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$5,000
- Projected funding sources: Municipal Levy and Regional Tourism Organization #6

Implement Signage Strategy

- Implement the recommendations from LSRCA's signage Strategy
- Conservation Lands and Communications will be responsible for achieving this objective
- Estimated cost: \$2650
- Projected funding source: Special Capital

Mileage for Fleet Vehicles

- Cover the costs of fleet vehicles driving to and from the Beaver River Wetland
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$6655
- Projected funding source: Municipal Levy

Sustainable Funding /Resources

Fundraise for signs with Partners

- Work with partners when required or when opportunities arise to fundraise for signage

- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Apply for funding for Amenities, Facilities and Features

- Seek funds to design, construct, and install various amenities, facilities and features
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Develop a Sponsorship Program

- Develop a sponsorship program to offset the cost of infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding sources: Brock Township and Regional Tourism Organization #6

Asset Management /Monitoring**Install Safety Signage**

- Re-install and remove safety signage bollards at road crossings, following snowmobile season
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$250
- Projected funding source: Trans Canada Trail

Resurface trail on recently acquired parcel

- Once the property is acquired, resurface the trail near Sunderland to complete trail linkage
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$75,000
- Projected funding sources: Special Capital, Brock Township, and Grants

Plan for Accessible Parking Spaces

- Work with partners to construct accessible parking spaces along the trail
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$13,400
- Projected funding sources: Special Capital, Brock Township, and Grants

Infrastructure repairs and replacements

- Work is currently underway to determine what infrastructure should be repaired or replaced, which will soon be aligned with LSRCA's Asset Management system
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: TBD

Construct Accessible Water Access Points

- Install two AODA accessible water access points for the public to launch canoes /kayaks into the Beaver River while minimizing the impact on vegetation and the landscape
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$60,900
- Projected funding sources: Special Capital, Brock Township and Grants

Construct a bench along the trail

- Construct and install one bench as a rest area along the length of the trail

- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$550
- Projected funding source: Special Capital and Brock Township

Add a washroom /privy along the trail

- Construct a washroom or privy within the conservation area
- Estimated cost: \$50,450
- Projected funding source: Special Capital, Brock Township and Grants

Maintain or replace bike repair stations along the trail

- Monitor bike repair stations originally added in 2019, and repair them or replace as required
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$650
- Projected funding source: Special Capital, Brock Township and Grants

Conduct regular due diligence inspections

- Continue to conduct regular due diligence inspections in alignment with LSRCA's Maintenance Standards
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$250
- Projected funding source: Municipal Levy

Visitor Experience /Management**Work with Durham Region Police to increase visitation frequency**

- Continue building partnership with DRP to increase visitation frequency to the property for enforcement
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop a Trail Counts Program

- Install and monitor trail counters at specific locations along the trail to gain a better understanding of number of visitors
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Create a Trail Stewards Program

- Implement the Trail Stewards Program to get volunteers to monitor sections of the trail and report any issues or concerns to LSRCA
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding source: Municipal Levy

Conduct more patrols of the Conservation Area

- LSRCA staff to increase their presence on the property and to conduct patrols to ensure conservation area rules and regulations are being adhered to
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Boundary Management

Enforcement of Property Boundaries

- Continue enforcing property boundaries and taking necessary actions to delineate those boundaries in alignment with the Encroachment Management Plan
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$2500
- Projected funding source: Municipal Levy

Annual encroachment monitoring

- Monitor specific property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding source: Municipal Levy

Mark Property Boundaries with Yellow and /or Red Dots

- Mark property boundaries in line with the Trespass to Property Act requirements with red or yellow dots along the property boundary
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$990
- Projected funding source: Municipal Levy

Implement Recommendations out of the Encroachment Plan

- Continue to implement recommendations from the Encroachment Plan regarding how to deal with property boundary encroachments
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$2500
- Projected funding sources: Municipal Levy

Natural Heritage Feature Management**Conduct regular Bird Monitoring with a community group**

- Work with a local group to conduct regular bird monitoring within the conservation area
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding sources: Grants

Conduct ecological monitoring on various properties

- Conduct an ecological inventory on approximately 8 of the 26 properties that compose the conservation area
- Conservation Lands will be responsible for hiring an external consultant to achieve this objective
- Estimated cost: \$40,000
- Projected funding sources: Special Capital, Ontario Heritage Trust and Grants

Restoration Opportunities

- Any opportunities that are identified within the conservation area to benefit from restoration activities will be reviewed and taken into consideration
- Watershed Restoration Services will be responsible for achieving this objective
- Estimated cost: \$0

Monitor for and manage Hazard Trees

- Conduct Level 1 Assessments of the trail corridor as outlined in the Hazard Tree Policy
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$140
- Projected funding source: Municipal Levy

Manage brush along the Trail Corridor

- Clear overgrown brush within the trail corridor
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1800
- Projected funding source: Municipal Levy

Monitor and manage for wildlife

- Monitor infrastructure and facilities for impacts from wildlife, and find ways to deal with those issues
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$280
- Projected funding source: Grants

Incorporate LSRCA's Climate Change Strategies into management

- Review the strategies LSRCA has created regarding climate change, and make it applicable to the BRW when/where appropriate
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$5,000
- Projected funding sources: Special Capital and Grants

Partnership Development /Engagement

Community partner engagement and development

- Work with local community groups to build mutually beneficial relationships
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop Sponsorship program on signs

- Develop a Sponsorship program to aid in the cost of installing signage
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1200
- Projected funding source: Participation/Event Fees

Accumulate resources for infrastructure and amenities

- Work with partners to accumulate resources (financial, volunteers, etc.) for infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop opportunities for student research within the conservation area

- Build relationships with educational institutions allowing specific research opportunities to be conducted within the conservation area
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Ensure alignment of the BRWMP with the Beaver River Subwatershed Plan

- Conduct annual reviews of the Beaver River Subwatershed Plan, and determine any overlaps and tasks that overlap that could be completed at the Beaver River Wetland. These projects have not been included in the scope of this Business Plan.
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

2024

Administration

Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1080
- Projected funding source: Municipal Levy

Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$125
- Projected funding source: Municipal Levy

Management Plan Review and Update

- Review the implementation status of this Management Plan, and begin developing the next one
- Conservation Lands will be responsible for achieving this objective
- Estimated Cost: \$1500
- Projected funding source: Municipal Levy

Infrastructure Ontario Contract Renewal

- Renew the Infrastructure Ontario Contract annually
- Conservation Lands will be responsible for achieving this objective
- Estimated Cost: \$1000
- Projected funding source: Municipal Levy

Update existing agreement with Durham Regional Police

- Update the existing agreement with Durham Regional Police focusing on enforcement
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Refine and Implement the Communication and Marketing Strategy

- The Communication and Marketing strategy promoting the Beaver River Wetland Conservation Area to be adjusted as required and implemented
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$5,000
- Projected funding sources: Municipal Levy and Regional Tourism Organization #6

Implement Signage Strategy

- Implement the recommendations from LSRCA's signage Strategy
- Conservation Lands and Communications will be responsible for achieving this objective
- Estimated cost: \$2650
- Projected funding source: Special Capital

Mileage for Fleet Vehicles

- Cover the costs of fleet vehicles driving to and from the Beaver River Wetland
- Conservation Lands will be responsible for achieving this objective

- Estimated cost: \$6655
- Projected funding source: Municipal Levy

Sustainable Funding/Resources

Fundraise for signs with Partners

- Work with partners when required or when opportunities arise to fundraise for signage
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Apply for funding for Amenities, Facilities and Features

- Seek funds to design, construct, and install various amenities, facilities and features
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$0

Implement the Sponsorship Program

- Continue to implement the sponsorship program to offset the cost of infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding sources: Brock Township and Regional Tourism Organization #6

Asset Management /Monitoring

Install Safety Signage

- Re-install and remove safety signage bollards at road crossings, following snowmobile season
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$250
- Projected funding source: Trans Canada Trail

Construct Accessible Parking Spaces

- Work with partners to construct accessible parking spaces along the trail
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$3100
- Projected funding sources: Participation /User Fees

Infrastructure repairs and replacements

- Work is currently underway to determine what infrastructure should be repaired or replaced, which will soon be aligned with LSRCA's Asset Management system
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: TBD

Maintain Accessible Water Access Points

- Maintain the two AODA accessible water access points
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$2100
- Projected funding sources: Municipal Levy

Construct a bench along the trail

- Construct and install one bench as a rest area along the length of the trail

- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$550
- Projected funding source: Special Capital and Brock Township

Conduct regular due diligence inspections

- Continue to conduct regular due diligence inspections in alignment with LSRCA's Maintenance Standards
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$750
- Projected funding source: Municipal Levy

Visitor Experience/Management

Work with Durham Region Police to increase visitation frequency

- Continue building partnership with DRP to increase visitation frequency to the property for enforcement
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Implement Trail Counts Program

- Continue to install and monitor trail counters at specific locations along the trail to gain a better understanding of number of visitors
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Implement Trail Stewards Program

- Continue to implement the Trail Stewards Program to get volunteers to monitor sections of the trail and report any issues or concerns to LSRCA
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding source: Municipal Levy

Conduct more patrols of the Conservation Area

- LSRCA staff to increase their presence on the property and to conduct patrols to ensure conservation area rules and regulations are being adhered to
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Boundary Management

Enforcement of Property Boundaries

- Continue enforcing property boundaries and taking necessary actions to delineate those boundaries in alignment with the Encroachment Management Plan
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$2500
- Projected funding source: Municipal Levy

Annual encroachment monitoring

- Monitor specific property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500

- Projected funding source: Municipal Levy

Mark Property Boundaries with Yellow and /or Red Dots

- Mark property boundaries in line with the Trespass to Property Act requirements with red or yellow dots along the property boundary
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated cost: \$990
- Projected funding source: Municipal Levy

Implement Recommendations out of the Encroachment Plan

- Continue to implement recommendations from the Encroachment Plan regarding how to deal with property boundary encroachments
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$2500
- Projected funding sources: Municipal Levy

Natural Heritage Feature Management

Conduct regular Bird Monitoring with a community group

- Work with a local group to conduct regular bird monitoring within the conservation area
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$500
- Projected funding sources: Grants

Conduct ecological monitoring on various properties

- Conduct an ecological inventory on approximately 8 of the 26 properties that compose the conservation area
- Conservation Lands will be responsible for hiring an external consultant to achieve this objective
- Estimated cost: \$40,000
- Projected funding sources: Special Capital, Ontario Heritage Trust and Grants

Restoration Opportunities

- Any opportunities that are identified within the conservation area to benefit from restoration activities will be reviewed and taken into consideration
- Watershed Restoration Services will be responsible for achieving this objective
- Estimated cost: \$0

Monitor for and manage Hazard Trees

- Conduct Level 1 Assessments of the trail corridor as outlined in the Hazard Tree Policy
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$140
- Projected funding source: Municipal Levy

Manage brush along the Trail Corridor

- Clear overgrown brush within the trail corridor
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1800
- Projected funding source: Municipal Levy

Monitor and manage for wildlife

- Monitor infrastructure and facilities for impacts from wildlife, and find ways to deal with those issues
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$280
- Projected funding source: Grants

Incorporate LSRCA's Climate Change Strategies into management

- Review the strategies LSRCA has created regarding climate change, and make it applicable to the BRW when/where appropriate
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$5,000
- Projected funding sources: Special Capital and Grants

Partnership Development /Engagement**Community partner engagement and development**

- Work with local community groups to build mutually beneficial relationships
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop Sponsorship program on signs

- Develop a Sponsorship program to aid in the cost of installing signage
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$1200
- Projected funding source: Participation/Event Fees

Accumulate resources for infrastructure and amenities

- Work with partners to accumulate resources (financial, volunteers, etc.) for infrastructure and amenities
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Develop opportunities for student research within the conservation area

- Build relationships with educational institutions allowing specific research opportunities to be conducted within the conservation area
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

Ensure alignment of the BRWMP with the Beaver River Subwatershed Plan

- Conduct annual reviews of the Beaver River Subwatershed Plan, and determine any overlaps and tasks that overlap that could be completed at the Beaver River Wetland. These projects have not been included in the scope of this Business Plan.
- Conservation Lands will be responsible for achieving this objective
- Estimated cost: \$0

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Appendices

Appendix A: Summary of the Stakeholder Workshop Presentation

Appendix B: Presentation Summary from the Public Workshop

Appendix A: Summary of the Stakeholder Workshop Presentation

Stakeholder Consultation- Beaver River Wetland Management Plan Review

April 9th, 2018
Lauren Groywniak- LSRCOA



**Lake Simcoe Region
Conservation Authority**

Member of Conservation Ontario

Agenda

- Introductions
- Purpose of this meeting
- Beaver River Wetland Conservation Area Overview
- Beaver River Wetland CA past Management Plan
- Review of the Implementation Report 2010- 2017
- Emerging Issues
- Open Floor Discussion
- Next Steps
- Questions and Comments

Lake Simcoe Region Conservation Authority

Beaver River Wetland Conservation Area

- 26 land parcels
- 500 ha (1236 acres)
- CA Trail= 17 km
- The Great Trail= 20 km



Lake Simcoe Region Conservation Authority

Beaver River Wetland Conservation Area



Lake Simcoe Region Conservation Authority

Management Partnerships

- Trans Canada Trail
- Brock Township
- Heart of Ontario Snowmobile Club (HOOSC)
- Province of Ontario
 - Ontario Infrastructure and Lands Corporation
 - Ontario Heritage Trust

Lake Simcoe Region Conservation Authority

Past Management Plan

- Management Plan created in 2010 (to 2014)
- Now updating it (2019 - 2023)



Lake Simcoe Region Conservation Authority

Management Goal

"The Beaver River Wetland Conservation Area will be managed to enhance the hydrological and natural heritage values of the Beaver River wetland complex, while providing for compatible recreational, educational, and research activities."



-2010 Management Plan

Lake Simcoe Region Conservation Authority

Implementation Review and Process

- Reviewed previous Business Plan
- Analyzed projected and actual expenses and funding sources
- Determined which tasks were completed, which were not, and why (ex: resources, staff time, funding, etc.)
- Notable Achievements
- Opportunities in the Future
- Recommendations

Category	Task	Status	Notes
Management	Business Plan	Completed	
	Annual Report	Completed	
	Financial Report	Completed	
	Wetland Inventory	In Progress	
Education	Wetland Tours	Completed	
	Wetland Signage	Completed	
	Wetland Interpretive Panels	Completed	
	Wetland Research	In Progress	
Recreation	Trail Maintenance	Completed	
	Trail Signage	Completed	
	Trail Interpretive Panels	Completed	
	Trail Research	In Progress	

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Emerging Issues

- ATV's and motorized vehicles on the trail
- Damage to gates and trail access points
- Road crossings
- Lack of parking
- Garbage and litter
- Encroachments
- Any additional issues?



Lake Simcoe Region Conservation Authority

LSRCA Future Plans/ Ideas

- Improve trail signage
- Continue partnerships regarding enforcement of unauthorized motorized vehicles
- Continued maintenance (trail, bridges, etc.)
- Look into staging area/ parking lot development
- Investigating feasibility of water access



Lake Simcoe Region Conservation Authority

What We Need

- An idea of future needs/ infrastructure changes/ signage of the BRW and connecting lands and trails
 - Guided hikes, etc.
 - Lake to Lake Epic Ride Event, CycleON proposed route
 - Paddle the Beaver River events
 - Other events
- Any physical/ infrastructure changes
- Sustainable funding

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Questions

1. Over the next 5 years in this new management plan, what are some significant changes you would like to see made at Beaver River Wetland CA?
2. Have there been challenges that you have encountered related to the Beaver River Wetland and Trail that could reasonably be resolved? If so, what was the issue/ how could it be resolved?
3. Are there any additional natural heritage counts that you are aware that occur? Ex: spiders, butterflies, birds, etc.

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Additional Discussions

1. Are there any opportunities that you are aware of that LSRCA may want to get involved with in this area/ other groups that may want to be involved?
2. Is there anything we've missed? Other issues? Other organizations?



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Next Steps: CA Management Plan

- Public Workshop: April 18th, Sunderland Arena, 7-9pm Share with the local communities!
- Conservation Area User Survey- open until May 31st
- Public Consultation Report: June - July
- Needs Assessment: July - September
- Draft Management Plan out for Review: September-November
- Finalized Plan: December
- Presentation to Partners: January

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Thank you for participating!

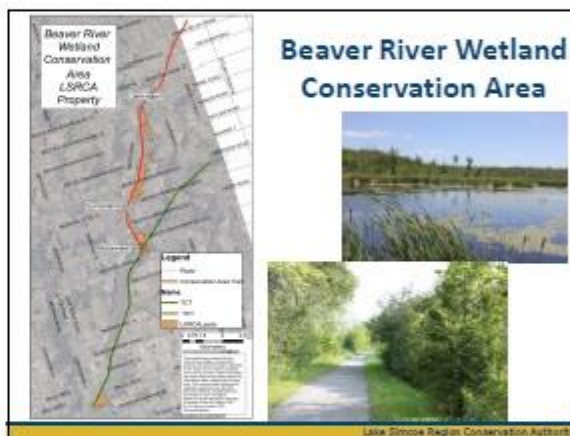
If you have further questions or comments
please contact me at:

Lauren Grzywinski
L.Grzywinski@lsra.on.ca



Member of Conservation Ontario

Appendix B: Presentation Summary from the Public Workshop



Management Goal

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-2010 Management Plan

Lake Simcoe Region Conservation Authority

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- Investigating feasibility of water access
- Others?




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What We Need From You!!



- Participate in the two exercises I will explain: DOT-Mocracy and Stop, Start, Continue
- Any additional information about the Beaver River Wetland CA
- Any natural heritage information you might have (bird counts, plant inventories, etc.)

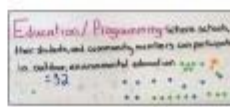
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DOT-Mocracy

- Large dot= 5 points
- Small dot= 1 point each
- You will get 15 "points" to place around the room, based on what YOU value most about the Beaver River Wetland CA

Categories include:

- Accessibility
- Nature Conservation
- History
- Nature Appreciation
- Education/ Programming
- Natural Setting
- Community
- Biodiversity
- Recreation
- Nature Preservation



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Start, Stop, Continue

- 3 different colours of sticky notes
 - Pink= STOP
 - Orange= CONTINUE
 - Yellow/green= START
- Categories are:
 - Administration
 - Natural Features
 - Trails
 - Programming
 - Amenities
 - Other



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Next Steps: CA Management Plan

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- Finalized Plan: December



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