

# **Habitat Conservation Plan for the Town of Centreville- Wareham-Trinity**



**September 2018**

**Prepared by the Newfoundland and Labrador Department of Fisheries and Land Resources and SAM  
(Stewardship Association of Municipalities) in partnership with the Town of Centreville-Wareham-  
Trinity**



**Town of Centreville-Wareham-Trinity**

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**NL Eastern Habitat Joint Venture**

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## Preface


In the province of Newfoundland and Labrador some of the wildlife and wildlife habitats that are in greatest danger of being negatively impacted are those in municipalities. In this province, the primary focus of the Eastern Habitat Joint Venture (EHJV) is to conserve wildlife habitat through Habitat Stewardship Agreements. The Town of Centreville-Wareham-Trinity was identified as having just such ecologically valuable, and unique, habitat located within its Municipal Planning Area.

The Town of Centreville-Wareham-Trinity signed a Habitat Stewardship Agreement with the Government of Newfoundland and Labrador on November 17<sup>th</sup>, 2017. Both signees committed to conservation and protection of habitat within the designated land areas known as the Management Units. In accordance with this agreement, the Town of Centreville-Wareham-Trinity manages these areas with technical advice provided through the provincial Wildlife Division, in part via this Habitat Conservation Plan. With the signing of this plan, the parties accept this Habitat Conservation Plan and its objectives and will use it as a guide to minimize negative impacts within the Management Units.


## Plan Objectives

- (1) To present an assessment of the habitats and wildlife species designated for conservation.
- (2) To recommend protection, conservation, and enhancement strategies.
- (3) To describe potential initiatives for community engagement to increase support of citizens of the Town of Centreville-Wareham-Trinity.

The following signatories agree to work towards implementing the following *Habitat Conservation Plan* for the Town of Centreville-Wareham-Trinity:

  
\_\_\_\_\_  
Mayor

May 28, 2019  
Date

  
\_\_\_\_\_  
Witness

May 28<sup>th</sup> 2019  
Date

  
\_\_\_\_\_  
Department of Fisheries and Land Resources  
Government of Newfoundland and Labrador

Oct 7 / 19  
Date

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# Section 1: Habitat Conservation in Newfoundland and Labrador

## Introduction

Human development has resulted in the destruction or alteration of many types of habitat all over the world. The number and diversity of North America's wildlife species has been declining over the latter half of the twentieth century. Natural habitats are regularly lost to urban, industrial, and agricultural expansion.

Recognizing the importance of habitat conservation to waterfowl populations, in 1986 Canada and the United States (later followed by Mexico) signed the North American Waterfowl Management Plan (NAWMP, [nawmp.wetlandnetwork.ca](http://nawmp.wetlandnetwork.ca)). This committed these countries to a long-term partnership to protect wetland habitats. Twenty-four 'joint ventures' have been established across North America to achieve the objectives of NAWMP. The province of Newfoundland and Labrador (NL) formally committed to its participation in the **Eastern Habitat Joint Venture (EHJV)** in 1989.

The **EHJV ([ehjv.ca](http://ehjv.ca))** conserves, enhances, and restores wildlife habitat for birds found across the six eastern Canadian provinces of Ontario, Quebec, New Brunswick, Nova Scotia, PEI, and NL. Each province implements the partnership slightly differently, with each provincial program coordinated by a separate program manager and involving the cooperation of international partners, including government agencies and non-governmental conservation groups. In NL, the program is administered by the provincial Department of Fisheries and Land Resources (Wildlife Division). Other NL partners include the Stewardship Association of Municipalities, Ducks Unlimited Canada, Canadian Wildlife Service (a branch of Environment and Climate Change Canada), and Nature Conservancy of Canada.

As its primary contribution to the EHJV in NL, the provincial Department of Fisheries and Land Resources created a municipal habitat stewardship program to help municipalities conserve important wildlife habitat found within planning boundaries. In this program, formal agreements are signed with municipalities so that when future land use decisions are made, wildlife habitat will not be forgotten. This Habitat Stewardship Agreement is a formal public commitment by a municipality and the province, to act together to:

- a) Maintain and/or increase wildlife use in important habitat areas (known as "Management Units").
- b) Increase Council and public awareness of the importance of 'their' habitat for conserving wildlife populations.
- c) Empower Council and municipal residents to conserve these habitats through informed development decision-making.

Since 1993, over forty municipalities have signed Habitat Stewardship Agreements in NL. Having now signed its own agreement the Town of Centreville-Wareham-Trinity joins an important link in a continental chain of conservation areas in NL and indeed, across North America.



**Figure 1. Map of Habitat Stewardship Agreements signed in Newfoundland and Labrador**

## Roles of Stewardship Agreement Signatories

**The Province:** The NL Department of Fisheries and Land Resources, through its Wildlife Division, are expected to:

- Write a Habitat Conservation Plan in consultation with the Town (this plan)
- Work with the town on the review of any proposed developments which are proposed to take place within the designated Management Units.
- Support Council and local groups in implementing the Stewardship Agreement and Habitat Conservation Plan (often with the partners of the NL Eastern Habitat Joint Venture). This includes assisting with carrying out wildlife and habitat conservation education, restoration or enhancement projects such as those discussed in Section 4.

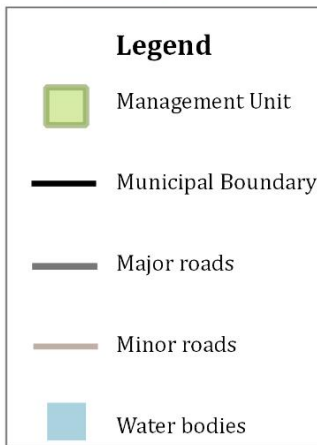
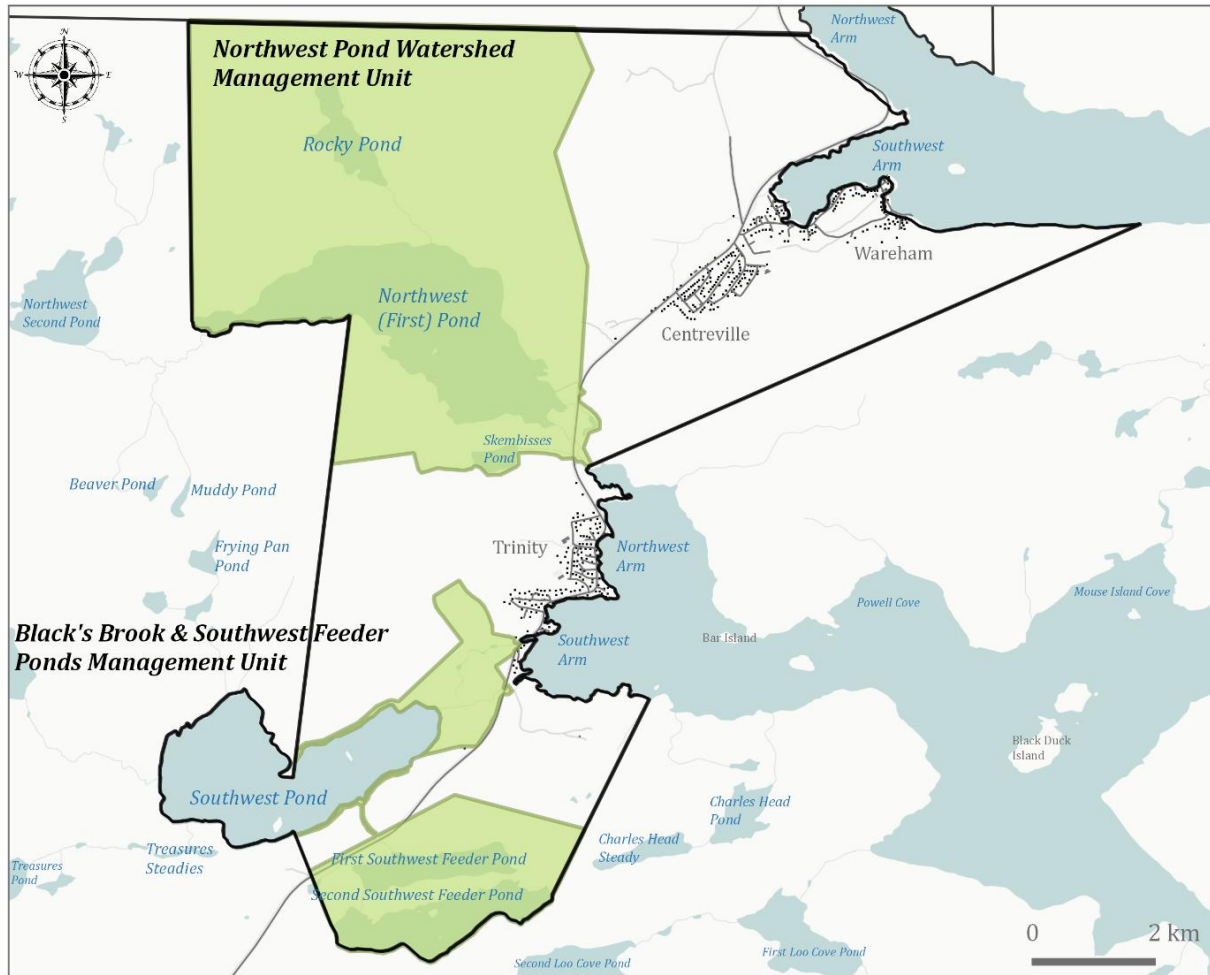
**The Town:** The Town of CWT and its Mayor and Council are expected to:

- Incorporate the Stewardship Agreement and Habitat Conservation Plan into the Town's next Municipal Plan draft or revision, through appropriate zoning and associated development regulations (**see Section 3a**)
- Ensure that the wildlife habitat areas ("Management Units") are protected from destruction or degradation. The town is to contact the EHJV Program Manager at the Wildlife Division (contact info on Page 2) in a timely manner to allow a 30 day written review of proposed development activities (**see Section 3b**)
- Implement, over time, the Habitat Conservation Plan in the community with the assistance of the NL EHJV partners (see **Section 3 b,d,e, and Section 4**)
- Educate residents, staff and development planners about the agreement, the Habitat Conservation Plan and their respective responsibilities in relation to it (**Section 3 b,d,e and Section 4**)
- Participate in the activities of SAM (Stewardship Association of Municipalities - see **Section 3f**)



# Section 2: Wildlife and Wildlife Habitat in the Town of CWT

Town of Centreville-Wareham-Trinity, NL, Canada



March 2018  
Projection Information  
WGS 84 EPSG: 3857

**Figure 2. Map of the CWT Management Units**  
Management Units are shown in transparent green



Centreville-Wareham-Trinity (CWT) is a municipality of nearly 1200 people, amalgamated in 1992. Many residents are from families that were resettled from offshore islands such as Fair Island and Silver Fox Island; their stories are told in the Resettler's Museum. Fishing and forestry have long been important to this area and that tradition continues today. Visitors from near and far enjoy hiking in Black's Brook Park, fishing, hunting, and winter activities. The town is home to Centreville Academy school; senior high school students attend Jane Collins Academy in Hare Bay.

In 2012, 2014 and 2015, staff visited CWT to conduct fieldwork and deliver introductory presentations to Council. In 2016, three potential Management Units were formally proposed in a presentation to Council. Municipal planner John Baird also recommended the program to the Town of CWT during his work with the town. CWT contains ideal habitat for songbirds, mammals, and fish within the town's planning area. There are also extensive nesting, feeding and staging habitats for ducks like American Black Duck and Green-winged Teal and other water birds.



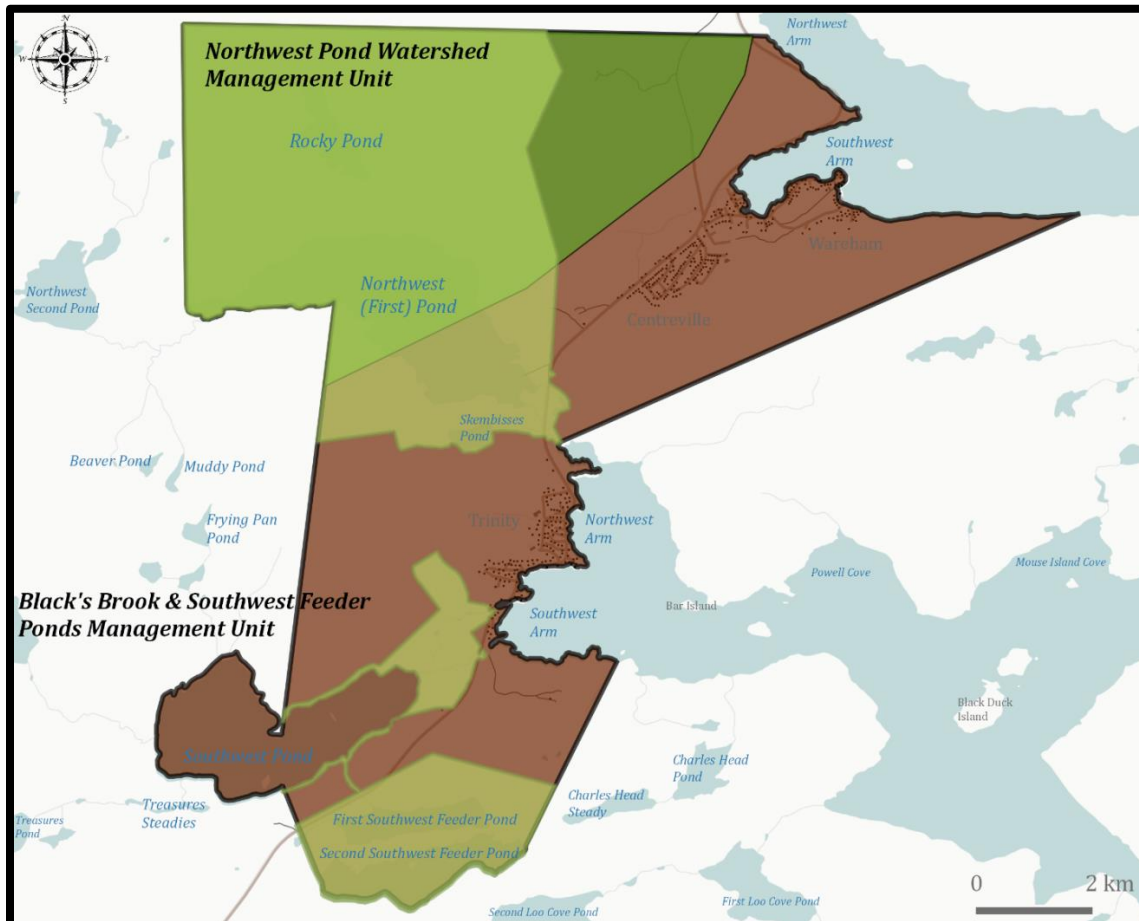
There are also birds of the Boreal forest and wetlands such as White-throated Sparrow, Fox Sparrow, Northern Waterthrush, and American Robin. Centreville-Wareham-Trinity is also home to rare birds like the Rusty Blackbird, Grey-cheeked Thrush, and Short-eared Owl. A full list of the birds documented in CWT has been compiled.



Both CWT Management Units include a mix of ponds, streams, wetlands, and forested areas; both are moderately hilly, with domed bogs in low-lying areas, and dominated by three freshwater lakes and their rivers systems. The upland areas are dominated by black spruce, white spruce, and balsam fir, with larch, birch, and aspen interspersed throughout.

Black's Brook and Southwest Feeder Ponds Management Unit is in the North Shore Forest Ecoregion (Figure 3). This ecoregion is known for having the warmest summers of any coastal area in Newfoundland, and less rainfall than the other regions. Forest fires occur more regularly here (compared to other ecoregions) and the vegetation is mostly balsam fire and black spruce forests with some white spruce.

Northwest Pond Management Unit occurs in the North Shore Forest Ecoregion and the Northcentral Subregion of the Central Newfoundland Forest. The Northcentral Subregion of the Central Newfoundland Forest is known for its warm summer temperatures (the highest of any ecoregion on the island) and the least wind and fog. Extensive firestands of black spruce and white birch can be found in this ecoregion.



**Figure 3. Ecoregions of the CWT planning area**

This figure shows the two distinct ecoregions found within the CWT planning area. The Central Newfoundland Forest is in dark green at the north end of the map, and the North Shore Forest is in brown. Management Units are in transparent green. Ecoregions do extend beyond the municipal planning area but have been shown only in CWT.

## **Existing Land Use and Its Potential Impact on Wetlands and Wildlife**

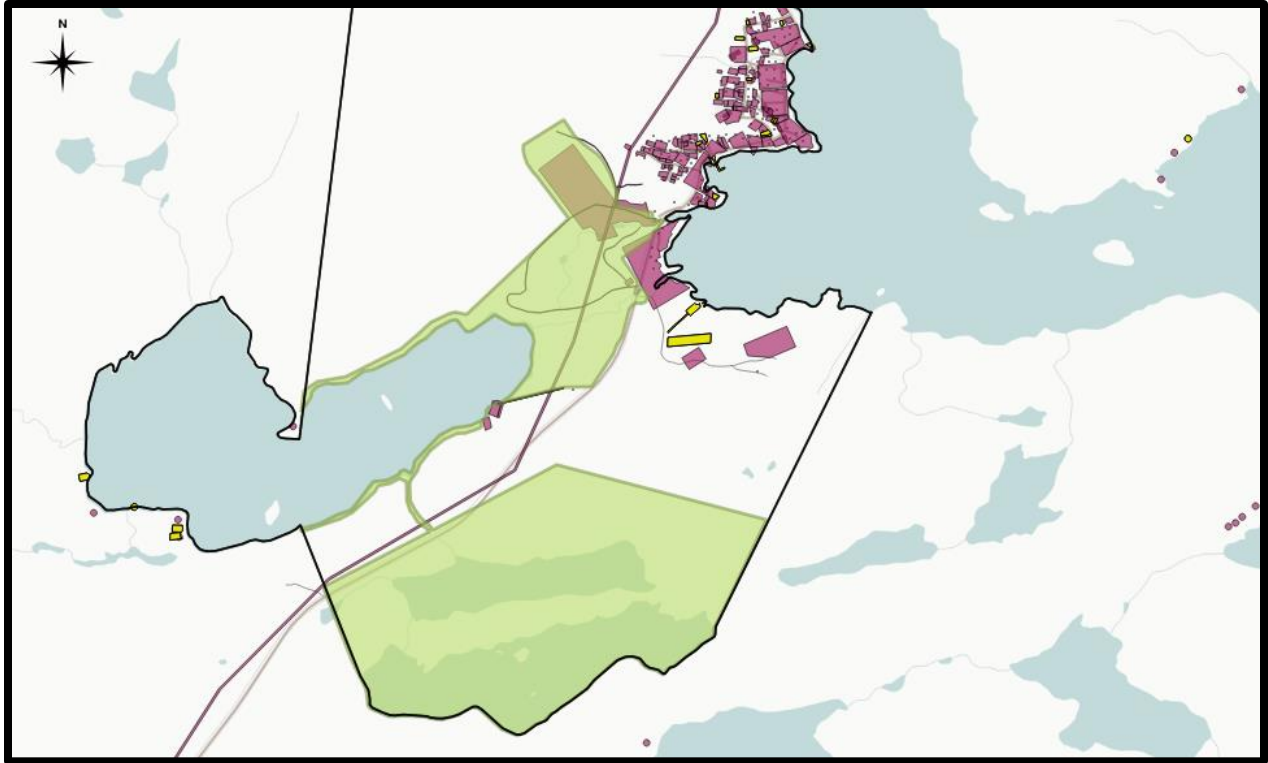
### **Water Supplies**

Almost all the Northwest Pond Watershed Management Unit (except part of the southern and southeastern boundary) overlaps with the “Northwest Pond” Protected Surfacewater Legal Boundary (a type of Public Water Supply area - see further information at [mae.gov.nl.ca/waterres/quality/drinkingwater/protectedareas.html](http://mae.gov.nl.ca/waterres/quality/drinkingwater/protectedareas.html)). For the Black’s Brook and Southwest Feeder Ponds Management Unit, the southern portion including the land surrounding the two feeder ponds also overlaps with the “Southwest Feeder Pond” Protected Surfacewater Legal Boundary.

### **Private land inside the Management Unit**

The northern portion of the Black’s Brook and Southwest Feeder Ponds Management Unit overlaps with Black’s Brook Park and trails (Figure 4). Three parcels of issued Crown land (Figure 4) inside this Management Unit make up Black’s Brook municipal park. The linear Southwest Pond Hiking Trail has been issued as a Licence, and the main parcel has been issued as a Lease. By signing this Habitat Stewardship Agreement, the Town committed to retaining these lands, so that they can continue to be appropriately zoned for conservation within your municipal planning documents.

Four parcels of private land (issued Crown land) near Southwest Pond which overlapped with the Black’s Brook and Southwest Feeder Ponds Management Unit have been removed from the Management Unit. Two are on the southern shore of Southwest Pond, issued (granted) to Kenneth J Beanlands (Volume 229, Folio 68) and Philip A Townsend (Volume 248, Folio 139). Also removed from the Management Unit was a narrow parcel of land that is an Application for Crown Title (Applicant Number 119031, Property ID 10079765) that represents the right-of-way for the transmission line connecting to the two cabins and a parcel of land issued to Situa Brown (Volume 70, Folio 132), covering the Old Mill Road area in Trinity.



**Figure 4. Private land inside the Management Unit**

The parcels of land granted to the Town (for Black's Brook Park and Southwest Pond hiking trail) can be seen in purple inside the eastern edge of the Management Unit. Yellow parcels of land are Applications; burgundy parcels of land are Issued (title, lease, or licence).

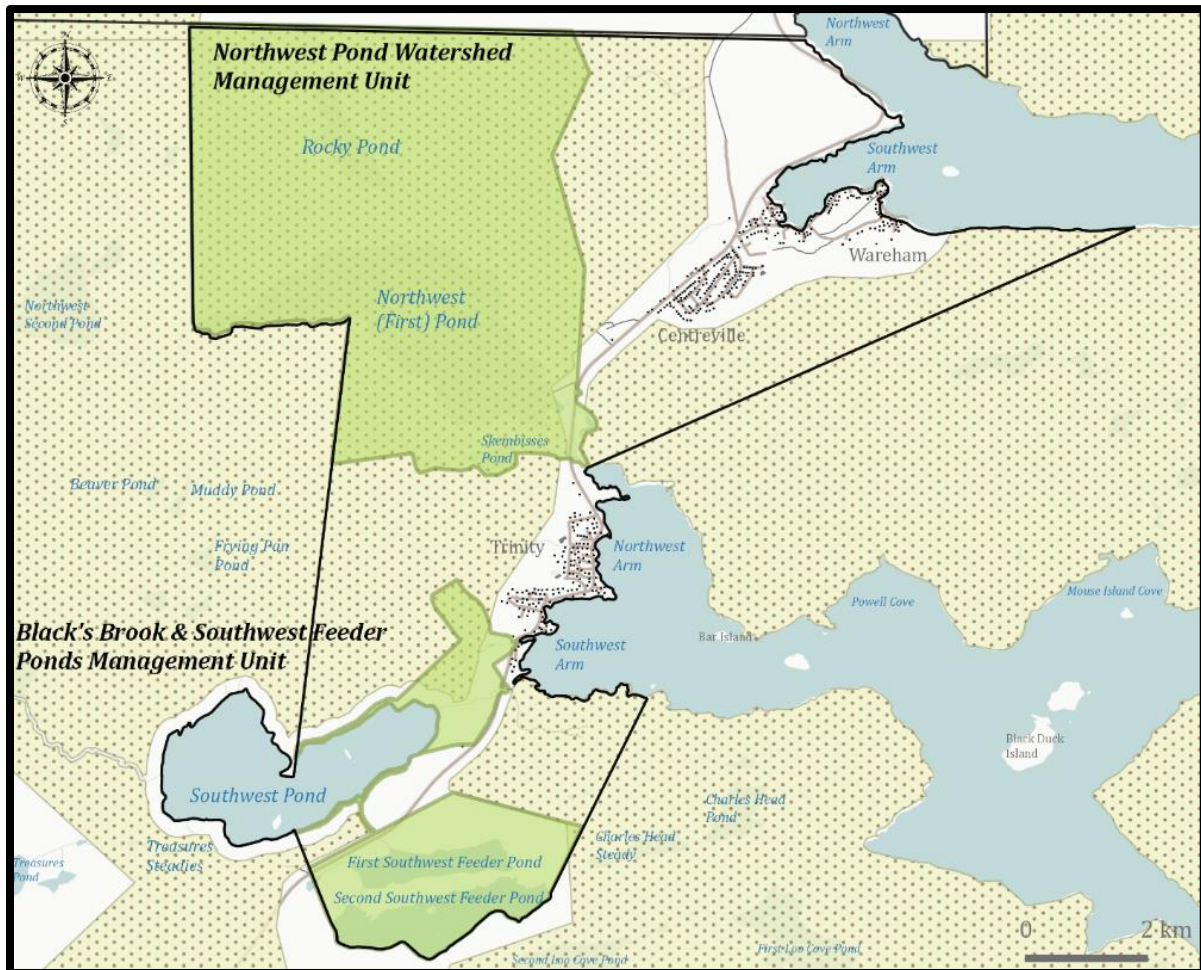
### **Domestic Wood Cutting**

Nearly the entirety of the Northwest Pond Management Unit is overlapped by part of a Domestic Cutting Area (Block 7, Trinity) established by the Department of Fisheries and Land Resources (Gambo District Office, 709 674 4625). However, as it is also a Public Water Supply area, special conditions apply, including (but not limited to):

- 300 metre no cutting/ground disturbance buffer zone around Northwest (First) Pond
- 50 metre no cutting/ground disturbance buffer zone around all streams and tributaries of Northwest Pond
- All equipment in good working order with no leaking fuel or oil
- All waste material to be collected and disposed of at an approved site
- All operations carried out in a manner that prevents damage to land, vegetation, and watercourses, and which prevent pollution of water bodies
- Felling or disposing of trees, part of trees, sawdust, bark, logging debris, or slash into a water body or onto the frozen surface of a water body is prohibited
- Use of heavy equipment is prohibited



For a full description of these special conditions that help protect your watershed, see the “Additional cutting permit conditions” for Domestic Cutting Area 7 from the Department of Fisheries and Land Resources – Forestry – Gambo District Office.



**Figure 5. Map of domestic cutting areas overlapping the Management Units**  
 Domestic Cutting Area 7 (Trinity) and Domestic Cutting Area 17 (Locker's Bay) overlap with Management Units and can be seen in beige with brown dots. Domestic Cutting Area 16 (Indian Bay) can also be seen east of Northwest Pond Watershed Management Unit but does not overlap with a Management Unit.

### Fishing and Hunting

Both Management Units support healthy populations of game wildlife and fish; as discussed in Section 3d and e, sustainable fishing and hunting can continue in both Management Units. Both resident and visiting anglers and hunters have a responsibility to protect waterfowl, as they are easily disturbed during the nesting and brood rearing period (May to mid-June). Broods are very susceptible to predation when left unattended and during the nesting period adult waterfowl will often abandon their nest if disturbed. Anglers and hunters should use low impact practices such as not littering (the 'leave no trace'

principles), reducing unnecessary ATV use, and hunting using non-lead shot such as steel, tungsten, copper, or bismuth.

## **Tourism & Recreation**

Low impact recreational and tourism opportunities can help raise awareness and educate visitors and residents about waterfowl within the community and the importance of wetlands. Hiking, walking, birdwatching, cross-country skiing, canoeing, kayaking, snowshoeing, photography, and geocaching are popular activities in many Management Units across the province and could be further encouraged in Centreville-Wareham-Trinity as low-impact, healthy recreation opportunities for both residents and visitors.

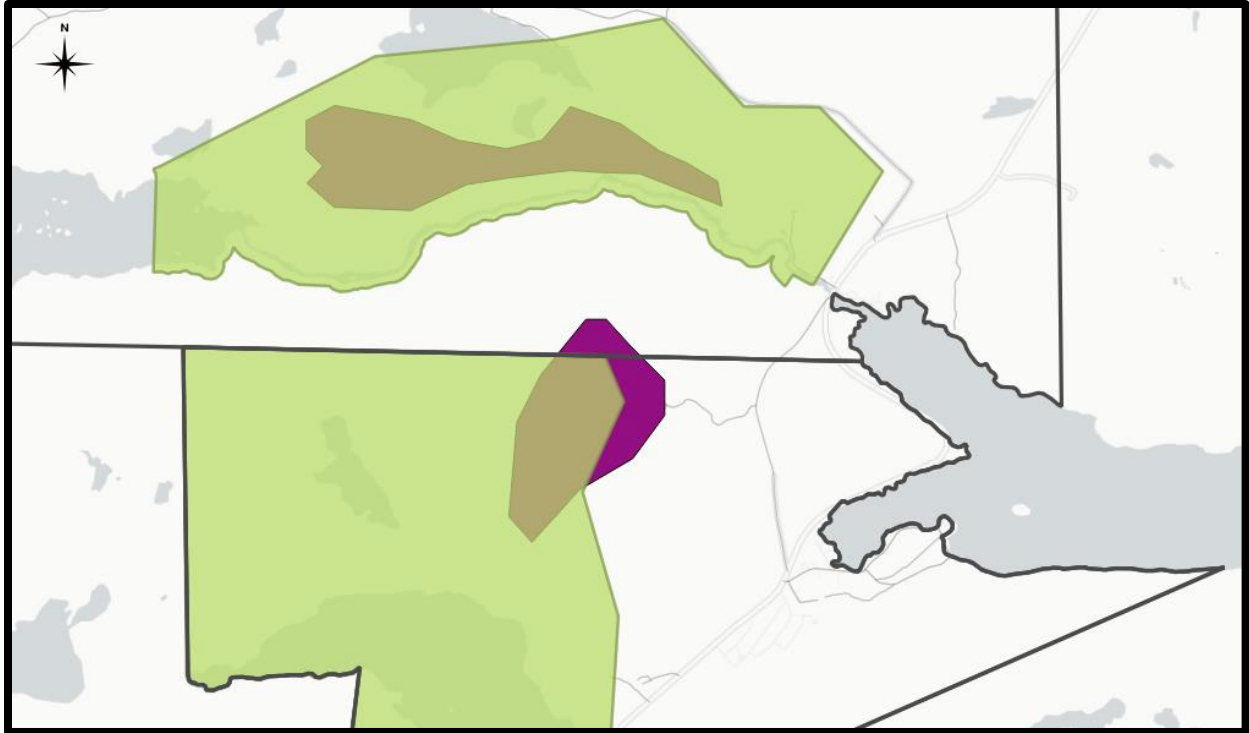
## **Restoration Projects**

The Northwest Pond Watershed Management Unit in CWT has been home to an IBEC (Indian Bay Ecosystem Corporation) restoration project funded through the federal NWCF (National Wetland Conservation Fund) and supported by the NL Wildlife Division. This project restored habitat in seven sub-project areas which had been degraded by human and natural causes. In the Centreville wetland area (Figure 6), IBEC reported that this bog was damaged by ATV use and field protocols showed that the area was stressed. The ATV use has caused compaction of the substrate and vegetation removal – essentially, areas that were healthy wetland are now large areas of mud and ruts. This means that the wetland needs help to recover and rebuild its capacities to hold excess water, support wildlife, and filter water.

IBEC replanted some of this area in 2016 and 2017. They planted pitcher plants, blueberry bushes, dogberry, white birch, marsh marigold, highbush cranberry, black currant, bay berry, and blue fox. For the full project details, see the “Bonavista North Wetland Inventory and Enhancement Workplans, 2017-8” by IBEC.

This is a unique restoration project that will hopefully help to show us how restoration can be done here in Newfoundland and Labrador. With time, the bog in Centreville can recover with this type of community effort, and replanting.





**Figure 6. Map of the IBEC wetland restoration sub-project area**

Two IBEC restoration projects (sub-project areas) are shown as purple shapes inside these two Management Units. The one to the north is in Indian Bay Brook Management Unit of the Town of Indian Bay; to the south, the second sub-project area overlaps with CWT's Northwest Pond Watershed Management Unit.

## **Section 3: Conserving your wildlife habitat**

### **a. Incorporate your Management Units into your Municipal Plan**

During the preparation of any draft Municipal Plan, or during the process of a future Municipal Plan Review, the Town Council will incorporate the Stewardship Agreement into any resulting Municipal Plan or related Master Plan. Management Units shall be zoned **Open Space Conservation, Environmental Conservation, Open Space Recreation**, or some similar zoning designation within any future municipal planning documents as governed by the Urban and Rural Planning Act (2000).

### **b. Refer all proposed developments to the Wildlife Division**

Before approving proposed development permits, making amendments to regulations or by-laws, which could affect the Management Units, Council will consult in writing with the Wildlife Division, NL Department of Fisheries and Land Resource, allowing for a 30 day period in terms of response time. Permitted activities within the Management Units should not result in the loss of wildlife habitat or wildlife populations. Conservation will be at the forefront of all management decisions.

### **c. Keep your riparian buffer areas natural**

Riparian buffers are strips of untouched land occurring between upland areas and wetlands, lakes, rivers, ponds, and streams. They are composed of trees, shrubs, grasses, cattails, and sedges and provide for a high level of wildlife use, as corridors for travel, for protection from predators, and against inclement weather. These areas filter and reduce surface water runoff from upland areas, trapping sediment and filtering out excess nutrients, pesticides and bacteria. Vegetation in riparian areas also affects how readily water enters soil and has a positive effect over the replenishing of local groundwater. They also serve to anchor soil with roots, helping to build stream banks and prevent erosion and help control flood levels.

Riparian buffers keep fish habitat healthy. Treed buffers provide shade and serve to keep water temperatures down, impact water quality, provide spawning and rearing areas for fish species, and serve as nesting areas for waterfowl. They also provide food for wildlife when leaves, insects, and larvae drop into the water body off surrounding trees and shrubs.

The province, via the provincial Lands Act – Section 7(1), requires a crown land reserve or easement of 15 metres along all water bodies greater than 1 metre in width and the maintenance of permanent riparian areas next to all watercourses. These buffers can be

greater than this when the subject of Environmental Assessment or when associated with significant habitat such as salmon rivers.

It is important that the town works with the province to ensure awareness and adherence to this crown land reserve designation by all residents and businesses. The vegetated (untouched) buffer exists as the *minimum* protection around all waterbodies and marsh areas and is critical within the Management Units. Agriculture, ATVs, and cabin development can cause disturbance to riparian vegetation.

#### **d. Minimize Improper All-Terrain Vehicle (ATV) Use**

ATV users want to enjoy beautiful landscapes and a healthy outdoors. Increasingly, ATV riders know they play an important role in maintaining these landscapes so everyone can enjoy them. Many riders take care to avoid unnecessarily damaging the outdoors. ATV use which is minimized to conform to the terms of the All-Terrain Vehicle Use Regulations (1994) will help to keep the important habitats in CWT intact, healthy, and productive. This includes using established trails, not crossing over wetlands and bogs unnecessarily, and crossing streams at designated points. SAM can provide to you free brochures called “Fish Habitat and All-Terrain Vehicles, Newfoundland and Labrador” which can help explain best practices to reduce habitat damage. These could be provided to local community groups, at festivals, and kept at the town hall as a free resource for all.

In cases where ATV use which is damaging habitat, provincial Department of Fisheries and Land Resources Conservation Officers can enforce the Motorized Snow Vehicles and All-Terrain Vehicles Act/Regulations and can charge ATV users for habitat damage under this Act.

#### **e. Understand Fish and Wildlife Enforcement**

Management Units do not affect hunting, trapping, or fishing rights. Where hunting, trapping, and/or fishing are safe and legal in a certain area, they will remain that way after a Management Unit is designated. However, many municipalities are (rightly) concerned about hunting and fishing activities that fall outside what is safe or legal (whether or not they are within a Management Unit).

Fish and Wildlife Enforcement Officers can also enforce the above regulations and can be contacted 24/7 at 1 877- 820- 0999. However, they are also able to deal with a wide variety of other wildlife-related enforcement issues and are a good contact for poaching issues, hunting in inappropriate areas, and all types of illegal hunting. For more information, your closest office in Gander (50 McCurdy Drive) can be contacted at 709 256 1293.

For enforcement officers to fully understand the problem and to be able to pursue a case, it is helpful to provide a complete picture of the problem, with specific details. Without these details, it can be difficult for enforcement officers to properly follow up. **Appendix 1** provides a form that can serve as a template for reporting possible wildlife enforcement issues. It can be used by Council or by residents, provided in printed copies to residents at meetings and events, or kept at the Town Hall for easy access. Developed with provincial wildlife enforcement officers, this form may help your Council or your residents to record information about possible problems with wildlife or habitat.

Enforcing regulations such as these can be complicated, especially where federal/provincial jurisdiction overlaps, and different species are covered by different laws. Partnering with provincial enforcement officers to ensure accuracy, SAM has produced a guide about conservation enforcement issues which can be found at [samnl.org/enforcement](http://samnl.org/enforcement).

## **f. Participate in SAM**

When the Town of CWT signed your Stewardship Agreement, it became a member of SAM (Stewardship Association of Municipalities; [samnl.org](http://samnl.org)). SAM is an incorporated non-profit organization whose Board of Directors consists of representatives of Newfoundland and Labrador municipalities who have formally committed to the conservation and enhancement of wildlife habitat via the signing of municipal habitat stewardship agreements with the province. A special membership has also been granted to the communities of the Codroy Valley surrounding the provinces only Ramsar recognized wetland of international significance, the Grand Codroy Estuary. SAM works with its member municipalities to conserve, enhance, and restore wildlife habitat and represents its members on central conservation issues. SAM maintains a public page about your agreement at [samnl.org/cwt](http://samnl.org/cwt) featuring maps, photos, facts, and information on local attractions. Please link to this page from your town's website; this will help increase residents' understanding of your agreement.

SAM meets each spring (May or June) and fall (September or October) with host municipalities rotating among members and regions. A representative of your town (mayor, councillor, staff, or involved resident) should seek to attend these meetings (at least one meeting per year). This will connect your town to like-minded municipalities and make sure you hear about resources and projects. You may also be interested in co-hosting a SAM meeting in the Town of CWT in conjunction with other SAM municipalities; this provides great exposure for your wildlife habitat and any associated projects.

## Section 4: Habitat Conservation and Education Strategies

Here are some ideas for community education, engagement, and habitat enhancement that could be implemented in and around your Management Units and provide recreational benefits. Community engagement and partnerships are the true strengths of any stewardship agreement. The Town of CWT is fortunate to already have IBEC (Indian Bay Ecosystem Corporation; [indianbayecosystem.com](http://indianbayecosystem.com)) working in your area. IBEC is “a non-profit community organization with the goal of protecting the Indian Bay watershed through research, community engagement, and sound stewardship”. These goals align well with the aims of your Stewardship Agreement, and your Management Unit is already within their work area. IBEC is already engaged in important habitat restoration work as well as land use planning activities, as well as reaching hundreds of residents and students through their educational programs and workshops. We encourage council to continue to engage with IBEC as well as other organizations.

Wetland habitats can provide recreational activities, including fishing, hiking, canoeing, photography and bird-watching. The Town of CWT may wish to use these opportunities to increase tourism to the region; interpretive signs can help both residents and tourists connect with the area. In developing employment, recreational and tourism opportunities, careful consideration for wildlife must be included in the planning process. Otherwise, human activities may result in negative impacts to the wildlife resources.

One important benefit that people receive from stewardship is the opportunity to increase their knowledge of nature. Many of these projects can be easily conducted by local groups, allowing hands-on involvement in conservation efforts. Many municipalities across the province who have signed stewardship agreements have had great success becoming involved in exactly these types of projects and will also be resources for you to connect with, especially at SAM meetings.

### Grants and Funding

Many activities and programs can be implemented for very little or can be funded through small community grants and via partnerships. SAM maintains a regularly updated listing of many relevant grants at [samnl.org/funding-opportunities](http://samnl.org/funding-opportunities).

Large grant applications may take several months to prepare if committees are involved. Allow enough time to apply for these grants and to obtain the letters of support that local partners such as SAM or the Department of Fisheries and Land Resources may provide; keep an eye on deadlines as they approach.

## Local partnerships

IBEC might be an appropriate partner on projects discussed in this Habitat Conservation Plan. Sharing a CCNL Green Team with neighbouring towns might be something to discuss as well, especially if other towns are beginning environmental projects as well. The nearby Towns of Indian Bay and New-Wes-Valley are active SAM members as well; they are familiar with your agreement and might be interested in future regional collaborations. There is also a local Ducks Unlimited Canada chapter covering Bonavista North. As one of the EHJV partners, Ducks Unlimited Canada is often an excellent partner for education and restoration projects in towns with habitat stewardship agreements; they can be contacted at [du\\_newfoundland@ducks.ca](mailto:du_newfoundland@ducks.ca) or **709 237 DUCK**. The Coastal Restoration Fund ([dfo-mpo.gc.ca/oceans/crf-frc/index-eng.html](http://dfo-mpo.gc.ca/oceans/crf-frc/index-eng.html)) might be a suitable grant to be explored in partnership with IBEC and/or SAM and could be discussed with the Conservation Biologist at SAM ([samconservation@gmail.com](mailto:samconservation@gmail.com)).

## Trails, Interpretive Signage and geocaches

Many communities, including SAM members, have found that trails increase recreation and health for residents and improve tourism possibilities. Trails in Management Units, when planned and constructed carefully, can increase a sense of stewardship by allowing people to discover new areas. They can help residents and visitors strengthen their connection to nature, especially where interpretive signage is used to help point out interesting landscape and wildlife.

Geocaches (small containers found via GPS; **geocaching.com and various mobile apps such as c:geo**) can be added alongside trails as well to provide a fun and inexpensive activity for walkers, hikers, and groups. It is a great idea to place geocaches near or at where you want people to go – to help them discover a new trail, a beautiful lookout, or an interpretive spot, for example.



**Figure 7. An example of a geocache**

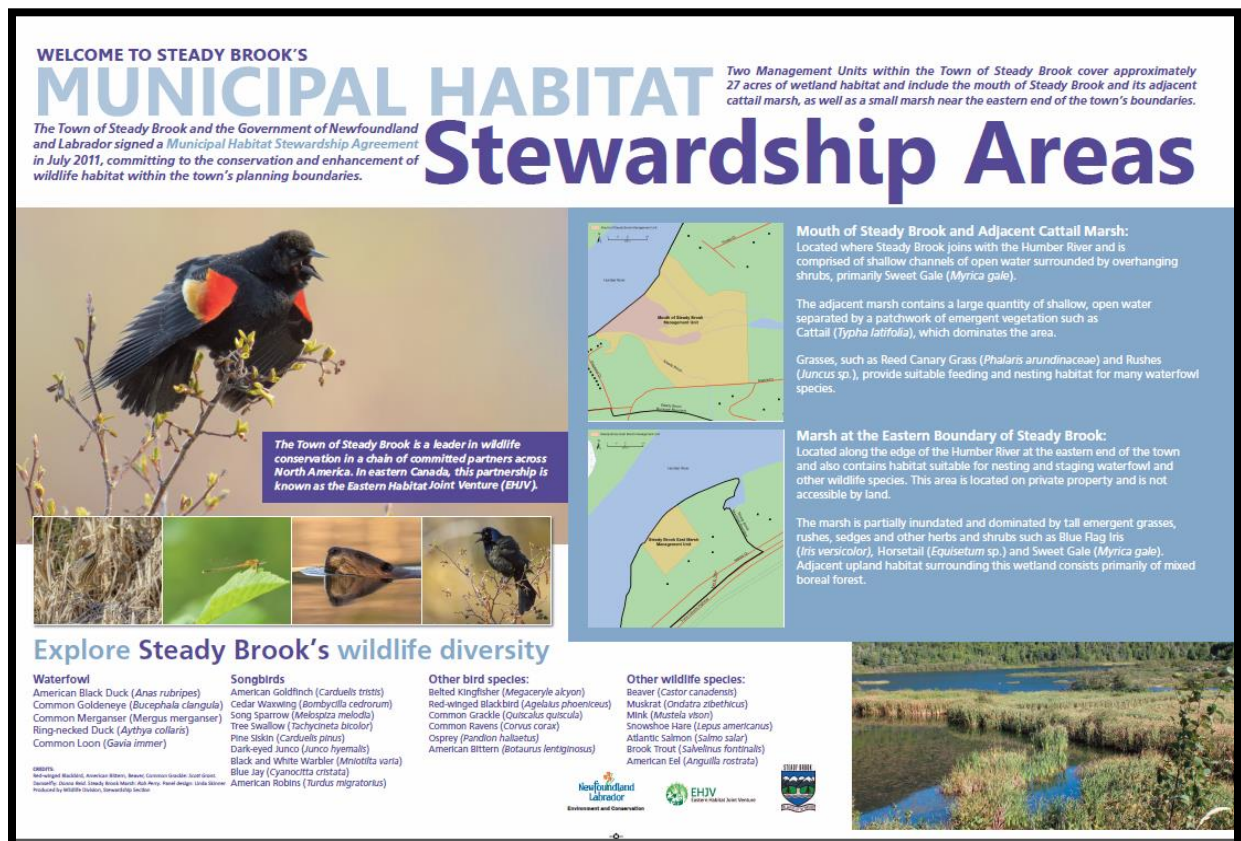
This is a ‘nanocache’ style geocache. A small log book is rolled up inside the waterproof metal case. House key for scale.



Approximately 35 geocaches already exist in the Town of CWT with another several hundred in the surrounding region, making this area an active one for geocachers. SAM and the EHJV partnership (username EHJV\_Stewardship) currently maintain 32 geocaches in SAM municipalities across the province. After creating a geocaching account (or logging in first), the full list can be found at [geocaching.com/seek/nearest.aspx?u=EHJV\\_Stewardship](http://geocaching.com/seek/nearest.aspx?u=EHJV_Stewardship).

A geocache has also been given to the Town, to be placed on your road sign when it is installed.

As part of the stewardship agreement, the Town of CWT has been provided with one large highway road sign, and smaller interpretive signs are possible in the future (Figure 5). These can be placed at locations of your choosing, and could be chosen to highlight trail locations. Additional interpretive signage could possibly be funded through grants to the Town of CWT; for example the TD Friends of the Environment Foundation and the Newfoundland Power Envirofest funds trail and park projects (see funding opportunities link above for other possibilities)



**Figure 8. Example of the SAM interpretive sign**  
 This sign measures 2 x 3 feet and can be provided to interested SAM municipalities as time and funding allow.

## Wildlife Watching

Local groups and interested volunteers can watch and monitor birds, plants, and wildlife in all areas of the Town but, particularly, within Management Units. By involving residents, the profile of the area is enhanced. A variety of programs and apps are available for wildlife monitoring; iNaturalist and eBird are two of the best.

When entering data, there is no need to guess the species - it is acceptable to record a species as unknown. Birding workshops and lots of practice in your local area will make you proficient at identifying species common to your area.

**iNaturalist** is an especially good smartphone app for those interested in learning to identify plants, butterflies and other insects, other invertebrates, birds, fungi, and mammals. It has a neat feature where other experts will identify your sightings for you! You can snap a quick photo and it will often be identified within 24 hours. This can be used to build plant and wildlife lists of your Management Unit, as a learning tool, for school students, and for fun. Make sure to turn your location services on so that your sighting can be found on the map and so others can help with your identifications.

**ebird.org** is a free, easy-to-use website and app to record your sightings and provide valuable information to help us gain a better understanding about our birds. It is used to record the birds across NL and is popular with visitors; about 13 000 bird lists were submitted in 2018 in NL alone! It is already being used in CWT by birders.

Explore all bird sightings in Newfoundland and Labrador (click map to zoom to your area) at [ebird.org/ebird/canada/subnational1/CA-NL?yr=all](http://ebird.org/ebird/canada/subnational1/CA-NL?yr=all)

Start contributing to eBird at [secure.birds.cornell.edu/cassso/account/create](http://secure.birds.cornell.edu/cassso/account/create)

You'll need:

- Field notebook & pencil (and/or app)
- Phone (for safety, recording start and end times, and/or using an app)
- Bird field guide
- Binoculars and/or a spotting scope
- Appropriate outdoor clothing

Be mindful of tides and wetland (damp, soft, slippery) habitat, making safety your top priority. Common sense is important; aim to cause as little stress and disturbance as possible to birds and other animals.

## **Conservation Corps Green Teams**

Conservation Corps Newfoundland and Labrador ([ccnl.ca](http://ccnl.ca)) has a variety of interesting program for staffing, some of which can be funded by corporations and be of no cost to you. Summer Green Teams and Interns, which are post-secondary and high school students or recent graduates, can work within communities on environmental projects. Communities with Stewardship Agreements have often applied for and received Green Teams. Examples of potential projects could include nest boxes, bird houses, bird monitoring, trail maintenance, community outreach, wildlife surveys, and developing field guides. Green Team members could help train local high school students or community members in monitoring and could develop educational material designed to raise awareness for conservation and stewardship initiatives. Interns can work on a wide variety of environmental education, project coordination, and outreach initiatives.

## **Artificial Nesting and Loafing Structures**

### **Island Construction**

Many wildlife species, such as terns and waterfowl, nest and loaf on islands due to a reduced risk of predation from land-based predators. Many species in wetlands benefit from the construction of artificial islands. These structures can be constructed simply from wooden cribs (e.g. Tamarack / Larch), measuring approximately 4 m<sup>2</sup> that have been filled with rock and soil.

The islands must be positioned so that they are higher than the highest water mark. Hardy shrubs and herbaceous plants (e.g. alder, willow) must be planted on the islands to provide cover and to prevent occupancy from gulls. Take care to prevent the use of toxic construction materials (e.g. treated wood, contaminated soils) and disturbance to plant and animal communities.

Other forms of artificial islands involve planting native marine plant species into landscaping fabric, which is then fixed to floating structures made of plastic piping or empty gabion baskets (metal mesh cages). This type of floating island requires careful placement in areas that do not have widely fluctuating salinity levels and require placement such that disturbance would be minimal when roots are establishing. Floating islands may be beneficial in terms of oxygenating the water column, as algal blooms would not smother the highly perched plants. The floating plants should, ideally, continue photosynthesizing despite the presence of algae, and may be of benefit in absorbing excess nutrients to deter algae growth. Annual removal and reinstallation of islands may be necessary in response to ice conditions in tidal areas.

## Cavity Nesting Waterfowl

Cavity nesters such as the Common Goldeneye (also known as pie duck or whistler, *Bucephala clangula*) use abandoned woodpecker holes or natural tree cavities caused by disease, fire or lightning. In the absence of these natural cavities, they will also use constructed nest boxes; Centreville-Wareham-Trinity and the surrounding area are already home to many of these boxes. The guide at [samnl.org/nest-boxes](http://samnl.org/nest-boxes) and booklets from Ducks Unlimited Canada will help you place your boxes correctly; contact [du\\_newfoundland@ducks.ca](mailto:du_newfoundland@ducks.ca) to get started.

## Roosting and nesting structures for other species

There are a variety of roosting and nest structures (**Appendix 2**) which can be built, installed and monitored/maintained for other bird species such as Tree Swallows (*Tachycineta bicolor*), Northern Flicker (*Colaptes auratus*), Great Horned Owl (*Bubo virginianus*) and for bats (Figure 6). Tree swallows and many other bird species (as well as bats) feed on insects and may serve as natural pest control. In addition, providing structures for predatory birds may also help reduce (or keep in check) populations of birds that may not be desirable (such as crows and starlings) and rodents while increasing biodiversity.

Installing nest boxes and roosting structures is a very exciting but it does take time and commitment for the annual maintenance.



**Figure 9. Bat Box in Pynn's Brook, Western Newfoundland**

Photo by Wildlife Division

## Educational Programs

Public education can help foster a greater sense of habitat stewardship among town residents. Even interpretive signs (including the ones provided by SAM, Figure 5) can contribute to an increased understanding and appreciation of local wildlife. Newfoundland and Labrador Environmental Educators (NLEE) hosts a list of environmental education programming that is searchable by subject and grade level at [nlee.ca/programs-and-lessons.html](http://nlee.ca/programs-and-lessons.html)

There are several excellent wetland education programs that span every season and age group including *Wetlands in Winter* (Tantramar Wetlands Centre, [weted.com](http://weted.com)), *Marsh Bingo* and *Creatures of the Night* (Oak Hammock Marsh Interpretive Centre, [oakhammockmarsh.ca](http://oakhammockmarsh.ca)), *Junior Naturalists* (Wye Marsh Wildlife Centre, [wyemarsh.com](http://wyemarsh.com)), and *Project Webfoot* (Ducks Unlimited Canada, [ducks.ca](http://ducks.ca)). Canadian Wildlife Federation's *Project Wild* can foster an increased environmental ethic in youth and adults alike.

## Nature and Art

Some stewardship communities have used the wetlands and associated wildlife as a natural location to bring together nature and art. This can be simpler if a central building or interpretation area is present on site. Local art classes and drama groups use the freedom afforded by an outdoor theatre for educational exercises. This could involve field trips whereby students could interpret natural beauty through various mediums (chalk, paint, etc.) or a day of sketching to the sound of nature or music. Being innovative in efforts to assemble art supplies might include visiting sites like [crayola.com](http://crayola.com) which offer special resource grants to educators.

Similarly, drama classes could develop a play or a series of dramatic readings based upon wetlands or nature with evening delivery within a lighted amphitheatre. Several amphitheatres in Eastern Canada use the open-air concept to show nature-related programs outdoors in the evenings. Content could be tailored to various ages and could include nature-related craft projects as a follow up. Good starting points for nature projects for children include [hookedonnature.org](http://hookedonnature.org), [planetpals.com](http://planetpals.com), and [hctfeducation.ca/resource-room](http://hctfeducation.ca/resource-room)

## Outdoor Skills Workshops

A municipality may be able to partner with a local rod and gun club, the Department of Fisheries and Land Resources (Wildlife Division) and other partners to participate in hosting a *Youth Hunter Skills Workshop*. Perhaps the Gander Rod and Gun Club ([ganderrodandgun.org](http://ganderrodandgun.org)) would be willing to partner for some of these events. These events are usually co-sponsored by the Wildlife Division and require volunteer commitment, organization, and expertise. However, they can be very rewarding for

participants and foster a sense of stewardship among youth and teenagers. These workshops have taken place in communities such as Goose Bay, Gander, Lewisporte, and St. John's which have active rod and gun clubs or hunting associations nearby.

Similarly, the *Becoming an Outdoorswoman* program can help introduce women in the community to sustainable, legal, hunting and fishing and is offered twice per year in locations on both the east and west of the Island of Newfoundland. It is administered by the NL Wildlife Division's Salmonier Nature Park (contact **709 229 7888** or [salmoniernaturepark@gov.nl.ca](mailto:salmoniernaturepark@gov.nl.ca)). Salmonier Nature Park also administers **Backyard Habitat for Canada's Wildlife**, an initiative from the Canadian Wildlife Federation ([cwf-fcf.org](http://cwf-fcf.org)) that enables you to help wildlife by offering workshops on how to make life better for wildlife near you.

### **Ducks Unlimited Canada's Youth Programs**

Ducks Unlimited Canada helps educate youth about wetlands and waterfowl. IBEC is already a partner on the Wetland Field Trips (*Project Webfoot*). ([ducks.ca/resources/educators](http://ducks.ca/resources/educators)). Many of these resources for Grade 4 through high school provide great links with the school curriculum. Contact [du\\_newfoundland@ducks.ca](mailto:du_newfoundland@ducks.ca) or **709 237 DUCK** for more information.

**Wetland Heroes** ([ducks.ca/initiatives/wetland-heroes](http://ducks.ca/initiatives/wetland-heroes)) can get ideas through Action Guides and register at [ducks.ca](http://ducks.ca) and describe the great conservation work that is being done to help protect wetlands in your community. Wetland Heroes receive a certificate and a special token of appreciation from Ducks Unlimited Canada. With permission, selected Wetland Heroes may be featured in publications, and some receive \$500 Awards of Merit.

### **Engagement for adults**

It's not just kids that enjoy the outdoors – adults and seniors benefit greatly from spending time in nature as well. Birdwatching workshops have been successful in many SAM communities (such as Spaniard's Bay), and snowshoe trips or hikes are enjoyed by adults as well.

Themes can be used, such as tracking hikes, edible plant hikes, or winter ecology hikes, to increase interest. These can be inexpensive ways for adults in your community to discover the natural areas of the town, socialize, and learn something new. Ducks Unlimited Canada, an EHJV partner, can in some cases partner on trail projects in important wildlife areas if time and funding allows, and CCNL Green Teams are required to give interpretive presentations as a part of their summer work programs.

SAM provides six different interpretive field guides at [samnl.org/interpretive-walking-tour-guides](http://samnl.org/interpretive-walking-tour-guides) that could help Green Teams or summer recreational staff lead hikes for



residents and/or visitors to CWT. On that page, we also have a **Guide to delivering interpretive hikes**. Your list of birds could be used to create a small brochure that represents a 'bird checklist' or wildlife list of the CWT area, or used as the basis for field guides for the area which could be developed by a Green Team, high school, IBEC, or a relevant committee.

Adults often enjoy using birdwatching towers or blinds as well; these could be fun community building projects or completed with the help of a Green Team, committee, or volunteers. Corduroy Brook Enhancement Association ([corduroybrook.org](http://corduroybrook.org)) in the Town of Grand Falls-Windsor has experience with these kinds of projects and would be a good contact as would the Town of Winterland, whose projects are featured below.



**Figure 10. Wooden bird viewing tower and enclosed bird blind**  
Sackville, New Brunswick and Winterland, NL



**Figure 11. Viewing deck in Winterland, NL**

## **Habitat Enhancement**

In some wetland areas, habitat has been degraded or lost and could benefit from plantings. Some aquatic plant species improve water condition by absorbing excessive amounts of nitrogen, phosphorous, and carbon – substances associated with the occurrence of algal blooms. Many beneficial plant species have limited distribution on the Island of Newfoundland, and should not be introduced into the environment without considering potential consequences, including the possibility of invasive plants out-competing native plant species.

For example, some species of Willow (*Salix* sp.) and Alder (e.g. Green Alder, *Alnus viridis crispa*) are native to the island of Newfoundland and are renowned for their hardiness, ability to withstand tidal inundation, and extensive networks of roots. Joe-pye weed (*Eutrochium maculatum*) is highly attractive to pollinators such as butterflies, honeybees, and bumblebees and can grow in a wide variety of wetlands, meadows, marshes, and fens. Our free full guide to plant species for restoration projects can be found at [samnl.org/restore-habitat](http://samnl.org/restore-habitat) (click on ‘SAM Planting Guide for Ecological Restoration’).

The natural balance within an ecosystem can be changed when new species are introduced; restoration projects should use native plants whenever possible. Retailers throughout the province have expertise in selecting, planting, and caring for native plants or experience with restoration projects. Timothy Murray, a landscape architect at Murray’s Garden Centre and Horticultural Services in Portugal Cove is experienced with ecological

restoration and can be contacted at [timothymurray@murraysgardens.com](mailto:timothymurray@murraysgardens.com) or 709 895 2800 for potential projects. Nuthatch Nursery in Lethbridge NL (709 467 1309) also specializes in native plants. A wetland restoration project is in progress in the SAM community of Bonavista and lessons learned from this project will be shared with SAM members in newsletters and at meetings. The NWCF bog restoration project through IBEC is also of interest to SAM members and could perhaps be showcased at a future SAM meeting as well.

## Litter Removal

Community groups and residents can work cooperatively to remove litter in and around the community on a regular basis. It is important to avoid locations where waterfowl may be disturbed during breeding, staging or brood rearing periods (generally May to August). Programs such as the Marine Institute's Ocean Net ([mi.mun.ca](http://mi.mun.ca)) and the Great Canadian Shoreline Cleanup ([shorelinecleanup.ca](http://shorelinecleanup.ca)) assist communities in organizing litter cleanups, and a full comprehensive guide to how to host your first litter cleanup is at [shorelinecleanup.ca/sites/default/files/gcscstaff/SC\\_Guide\\_EN.pdf](http://shorelinecleanup.ca/sites/default/files/gcscstaff/SC_Guide_EN.pdf)

To increase public participation in your cleanup, try directly inviting other local groups like your 50+ club, trail clubs, local business owners, your closest Ducks Unlimited Canada chapter, or the snowmobile federation. You can also list it for free with NLEN ([nlenvironmentnetwork.org](http://nlenvironmentnetwork.org), then go to Events > Submit an Event). NLEN will advertise environmental events from municipal governments. Many radio stations will also read announcements on air for free (many just require a quick online submission of your event); [communitysector.nl.ca/mediaroom](http://communitysector.nl.ca/mediaroom) has a list of media contacts which can be searched by area. MMSB also provides community grants to municipalities to help with waste reduction and illegal dumping; see [mmsb.nl.ca/partners/municipalities](http://mmsb.nl.ca/partners/municipalities)

A WWF Go Wild Grant might be able to fund a cleanup in the Town of CWT; more info is at [wwf.ca/takeaction/gowild](http://wwf.ca/takeaction/gowild). Other possible sources of funding for cleanup projects could be Newfoundland Power's Environmental Commitment Program or their Envirofest ([newfoundlandpower.com/About-Us/Environment/Community-Initiatives](http://newfoundlandpower.com/About-Us/Environment/Community-Initiatives)), or the TD Friends of the Environment grant ([fef.td.com/funding](http://fef.td.com/funding)). All of these grants support green space, park restoration, and/or cleanups. Newfoundland Power's Envirofest grant specifically mentions community cleanups and projects are encouraged to take place during Environment Week in June.

## Reducing Litter

It's hard to reduce litter, but there are some good ideas out there that might work in the Town of CWT. The following ideas are adapted from "A Guide to Reducing and Managing Litter, 2015" as well as research papers by Schultz et al. and Bator et al.

- Make garbage cans available, convenient, and easy to use. (More people will do the right thing when it is made easier)

**Reason:** *More people litter when garbage cans are farther away. Areas that have added enough garbage cans have seen reductions in litter in a short period of time.*

- Host, or pay for, consistent, ongoing cleanups. Stick to a consistent, written, well-known schedule, such as the 1<sup>st</sup> of every month (or the 1<sup>st</sup> of every week) in problem areas (because then you can stay on top of the problem and generate awareness)

**Reason:** *Obviously cleaned areas have lowering littering rates, because a clean setting sends the specific message that not littering is the expected, normal behaviour*

- Don't let litter accumulate. Have a plan in place for who will deal with unexpected litter that appears 'off-schedule' (see above). Do not rely on individual citizens to report litter; have staff or community groups scan areas frequently.

**Reason:** *Litter attracts more litter. People are more likely to litter in areas that already have litter*

- Use landscaping, gardening, and beautification in problem areas

**Reason:** *People litter less in areas that appear to be well taken care of*

- Use positive messages (such as "Do your part", "Help keep your town/CWT beautiful") rather than negative messages (such as "Don't litter").

**Reason:** *Positive messages have usually (but not always) been shown to be more effective than negative messages. One study conducted with university students even found that a sign saying "Please don't litter" actually increased litter!*

- Have a community campaign. Offer a small prize or a gift card to the school student who designs the best anti-litter poster. This could be use for a school art or English language project in local schools.

**Reason:** *Help young people (who often contribute to litter problems, see above) feel pride in their community and become directly involved in the problem.*

- Suggest a solution. If garbage cans can't be in every area, tell people directly how they can reduce litter (for example, "Take your garbage with you", "Put it in your pocket", "Take your garbage home" or "keep a garbage bag in your car...don't throw it out the window" etc.)

***Reason:** Many people will do the right thing when they understand it is strongly desirable and when presented with tips or options. Messaging such as this can suggest that the community is aware of the problem and monitoring it – they're watching out for litter!*

## **Conclusion**

We hope the ideas in this guide have started you thinking about possible ways your committee and your community could become involved in protecting and enhancing wildlife habitat in your area. Keep an eye on **samnl.org**, our newsletter, and our social media, where additional resources are added regularly – and we'll hopefully see you at the SAM conferences each year. Remember, community involvement is the true strength of a Stewardship Agreement!

## Appendix 1: Conservation enforcement form

### Complaint / information related to conservation, hunting, or wildlife enforcement issues

You can also report any issues online 24/7 by calling 1.877.820.0999 or at stoppoaching.ca  
You can stay anonymous, whether it's by phone, online, or on this form

Please fill in as much of the following information as you can. Even partial info can be helpful

<b>Date</b> When did it happen? Or is it an ongoing issue?	
<b>Time</b> Is there a specific time of day when it happens?	
<b>Suspects</b> Do you have an idea of who it might be?	
<b>Location</b> Where is it happening? Being as specific as possible will help	
<b>Vehicles</b> Description of vehicles (ATVs, cars, trucks, boats, etc.) being used and/or licence plates	

**Please fill in any other details you have regarding the complaint/information**

---

**Do you wish to remain anonymous (Circle one)**

**Yes      No**

If you choose to provide your name or number, you may be contacted for follow up. If you provide this info it will be kept confidential by enforcement, or you may remain completely anonymous by leaving both these spaces blank. Thank you – you've played an important role in protecting your natural resources.

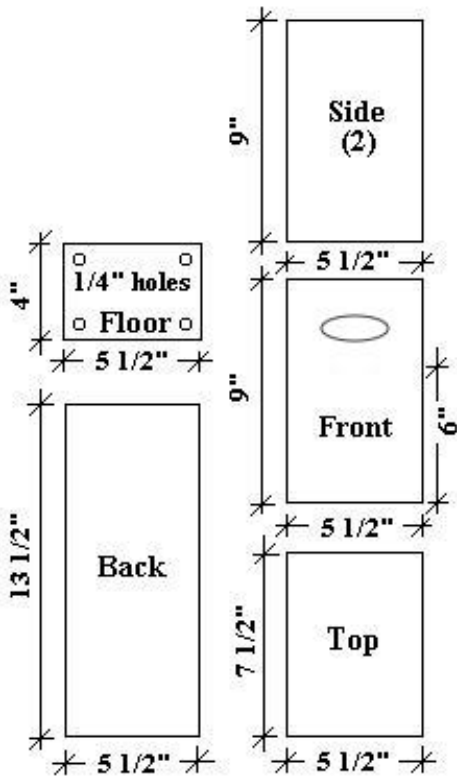
**Name  
(optional)**

**Phone  
(optional)**

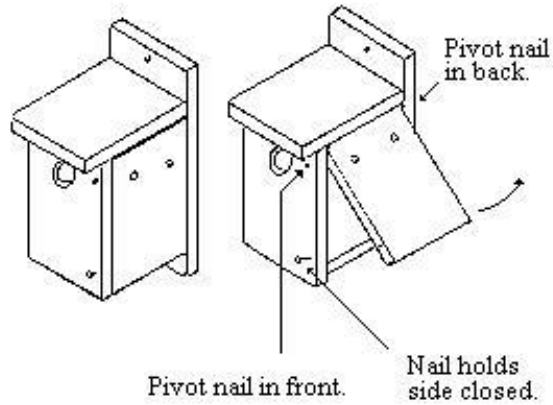
## Appendix 2: Bird & Bat Houses

### Tree Swallow Nest Box Plans

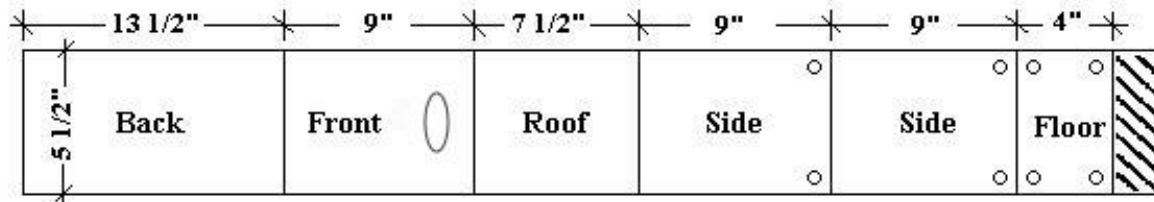
Entrance hole should be 1.5 inches high



Two "pivot" nails allow side to swing out for cleaning. Use one nail at bottom to keep door closed.



Lumber: One 1" x 6" x 6'





## Bat Roosting Box

