

Sandy Lake Conservation Association



Holly Richardson [richarh@halifax.ca](mailto:richarh@halifax.ca)

Richard Harvey [harveyr@halifax.ca](mailto:harveyr@halifax.ca)

And the Halifax Green Network Planning Team

June 12, 2017

**Re: Sandy Lake Conservation Association and Sackville Rivers Association submission to the Halifax Green Network Plan implementation public process**

Dear Green Network Planners:

First, on behalf of the Sandy Lake Conservation Association (SLCA ) and Sackville Rivers Association (SRA) we want to thank you for your hard work to make the Halifax Green Network all that it can be, and also for recognizing the Sandy Lake /Jack Lake/Marsh Lake and Sackville River area on your Primer's Map 6 as an important open space opportunity for the Green Network, and during this public process, as an important link to the Chebucto Peninsula.

Since SLCA wrote to you (February, 2016, letter to Mr. Olsen of O2) our group has done extensive research into the area's history. We have learned that the area's importance is deeper and broader than even we thought. This new information is relevant to the Green Network planning process, so we will outline it here as concisely as possible. We have copies of these documents, plus much more, and can make them available to you.

Also since our previous letter, our associations drafted a proposal that we plan to use as the basis of joint efforts to increase awareness of the value of creating a larger regional park and protecting this long-recognized ecologically valuable area (Sandy Lake, Jack Lake, Marsh Lake, and the Sackville River Corridor) and preferably make it available to the public. A large part of today's letter is based on the information in that proposal. Our local Councillor is currently reviewing that formal draft request, but we felt it important to make its Green Network-relevant information available to the Green network Team. See the attached Map A showing that proposed park/protected area. (Appendix A)

While we are very grateful indeed to be seeing increased support for protecting this area, in each of the stages of the Green Network plan development to date, we have noticed that the

Sandy/Jack/Marsh Lakes and Sackville River Corridor area is not increasing in value according to the various value maps. Therefore, we are providing some of what we have learned and some of what may have been missed. Some can add value particularly to the Cultural Landscape, but some add to the Recreation and Mobility Landscape and to the Ecology Landscape.

Overall, this area of Sandy/Marsh/Jack Lakes and the Sackville River Corridor has been recognized for nearly five decades, provincially, municipally and locally, and in multiple reports and studies, to be a special landscape worth protecting. Community efforts plus some twists of fate have allowed them to remain largely in good condition, and other twists of fate have caused the past protective processes to fall short. With development coming ever nearer, this may be our last opportunity.

\* \* \*

#### **Synopsis:**

- In 1971 the original MAPC plan accepted the P.B. Dean Report of 1971 which identified a park encompassing lands around Sandy Lake, Marsh Lake, portions of the Sackville River and a portion of Jack Lake. It was one of seven regional parks identified. (Appendix B)
- This concept was enlarged in the 1979 MAPC plan to include more area on all sides, from the Sackville River to the Hammonds Plains Road and from the Bedford Rifle Range west toward the Lucasville Road. (Including buffers and flood plains) (Appendix C)
- In the intervening years the municipality acquired several abutting properties to enlarge the park. (Appendix D)
- In 2006 HRM designated 1000 acres to be the Jack Lake Regional Park, starting at the Bedford Rifle Range to the north east, Sackville River to the north, Sandy Lake to the west, 102 to the south. (Appendix E)
- In 2015 Halifax acquired 160 acres west of Marsh Lake to expand the park. In that **Off-site Parkland Dedication Request – Marsh Lake Lands, Bedford**, city park staff produced a conceptual map of an enlarged Jack Lake Regional Park similar to the 1971 MAPC and Dean reports, and to the 1979 MAPC report. (Appendix F)

**Layers of added value to the Green Network Landscapes Maps can be found in these and other reports and studies. Some significant examples are broken out at the end of this letter. However,**

**the following information is important to digest first. Please read it with an eye to applying it to the value maps:**

Staff's reasons for acquiring the 160 acres, contained in that August, 2015 **Off-site Parkland Dedication Request – Marsh Lake Lands, Bedford** report, can be applied directly to the importance of protecting the lands being proposed by the SLCA and SRA.

**From that August 2015 staff report:**

*"Staff has been assembling lands at Marsh Lake since 1999, first following direction set out in the former Town of Bedford's MPS policy and then in the 2006 Regional Plan. If these lands were currently available for sale on the open market, staff would be recommending to Regional Council, independent of this request, that they be purchased using the funding from the Park Land Reserve account.*

*...Conclusion*

*In keeping with the policies of the Regional Plan, the Marsh Lake lands are highly desired for regional park purposes.*

*...COMMUNITY ENGAGEMENT*

*At the September 15, 2014 meeting of North West Community Council, a petition was received from the Sandy Lake Conservation Association supporting that the Municipality expand the park lands surrounding Marsh Lake and Sandy Lake to create a regional park and wilderness area. Staff responded with an Information Report to Community Council indicating that planning and land acquisitions for the Regional Park were continuing."*

*"The subject lands at Marsh Lake are immediately adjacent to municipal lands being assembled for Jacks Lake Regional Park. The Jacks Lake Regional Park is identified in the Halifax Regional Plan as one of six (6) regional parks to be created over the life of the plan. The park's focus is to:*

- 1) provide a Regional Near Urban Wilderness Park adjacent to the Bedford /Sackville Area;*
- 2) protect representational Acadian Inland forest habitats;*
- 3) provide water quality protection of Sandy Lake, Jacks Lake and Marsh Lake;*
- 4) provide access to and protect the ecology of the Sackville River; and*
- 5) provide continuity of a wilderness corridor along the Sackville River stretching from the 102 highway at Bedford to the Pockwock Municipal Watershed.*

*Staff have conducted field work on the Armco Marsh Lake lands and assessed them in terms of the above objectives. The Armco lands:*

- *add 160 acres of desirable forested recreation lands to the Jacks Lake Regional Park land assembly. The lands help create a loop trail around Marsh Lake and have the potential to provide low impact access to undeveloped sections of the Sackville River with desirable aesthetic value;*
- *host a variety of successional Acadian forest types including complexes and ages which are near to being classed as rare old growth forest as well as former industrial forest;*
- *offer a buffer to Marsh Lake from future development, helping to protect water quality and habitat within the Sackville River watershed;*
- *extend from Marsh Lake to the banks of the Sackville River and add another ½ km of shoreline protection for the watercourse;*
- *protect habitat presently functioning as an un-official wildlife corridor extending from the Bicentennial Highway at Bedford along the Sackville River to Hants County. This corridor's viability is presently ensured by public ownership of the lands associated with Jacks Lake Regional Park, the Dept. of National Defence Rifle Range, the former Sackville Landfill and the Pockwock/Tomahawk Watershed lands. The Halifax Green Network Plan, currently underway, will be recommending that this corridor be one of several key wilderness corridors penetrating into the urban area to be incorporated into land use and park planning.*

#### **ENVIRONMENTAL IMPLICATIONS**

*This land will serve as a positive move to protect and preserve high value ecological lands associated with the Sackville River Corridor."*

\* \* \*

The Sandy Lake area has been identified in numerous reports and studies as a unique natural area worth protecting:

- **1971, April, P.B. Dean, Natural Environment Survey: A Description of the Intrinsic Values in the Natural Environment Around Greater Halifax –Dartmouth**, classified the Sackville River as a Category 4 area, *"of high recreational or environmental value."* Sandy Lake and Marsh Lake were classified as a Category 1 area: *"...consists of natural assets that are unique in the Halifax-Dartmouth area or important on a regional or provincial scale. This category includes important wildlife habitats and ecologically rich or fragile areas."*p.6 Dean Report

*"Since this lake and its surroundings comprise one of the finest landscape units in the metro area, a large parcel of land has been suggested to protect the lake from adverse development and so that public access and use may be assured. This lake was designated Class 3 for*



*recreation in Canada Land Inventory Recreation Capability Survey and as such received the highest rating of any inland site around the metro area.” P. 49 Dean Report*

*“This area should be reserved immediately for public use before it is irreparably damaged by adverse developments ...” Since the land need not be developed (for park) immediately, considerable flexibility is available in bargaining with owners. It should be emphasised that this is a prime park land – nature reserve site in an excellent landscape setting.” P. 50 Dean Report*

- **1971 MAPC Re-creation Report:**

*“...to preserve for urban use and enjoyment an unusually clear fresh water lake as well as a productive marsh habitat for wildlife.” P 57-58*

- **1994: Towards the Identification of Environmentally Sensitive Areas for Environmental Management: A case Study in the Sackville River Watershed, Rhea D. Mahar:**

Sandy Lake rated second out of forty environmentally sensitive sites in the Sackville River Watershed, between Mount Uniacke and the Bedford Basin, and the Old Quarry Corridor section of the Sackville River Corridor was rated third.

*“Sandy Lake, nearest Bedford is probably the one of the finest lakes in the study area. Rolling hills with mature white pine, hemlock, spruce, maple, birch, and beech overlook the sandy beaches.” p. 44*

- **2002 DalTech and NSCAD Environmental Planning Departments**

**Six reports studied environmental attributes of Sandy Lake related to potential development pressures:**

*“Years of minimal development have allowed the lake to maintain its natural quality and most of its wildlife species.” P. 33, Sandy Lake Community Profile*

*“Because the outflow from this watershed joins the Sackville River, which is currently being restored as a spawning area for Atlantic Salmon, water quality in this watershed has an influence beyond its boundaries. The wetlands in this watershed help buffer the Sackville River from flooding, and the Jack Lake bog helps maintain water quality and water levels in Paper mill Lake in Bedford.” P.1*

*“Sandy Lake is a source of drinking water and a recreational area for swimming and fishing.” The mature tree stands are aesthetically pleasing and “may be a seed source to expand forest diversity.” p. 1, Environmental Inventory*

\* \* \*

All Regional Plans since the 1970s state the intent to create a regional park at Sandy Lake and to acquire lands for that park. Examples:

- **1975, Halifax-Dartmouth Regional Development Plan** defines and separates regional parks and development areas and has a map of the region, including the 7 proposed regional parks: Hemlock Ravine, Schubencadie Canal system, McNab's island, Admirals Cove, Cole Harbour/Lawrencetown Beach, Long Lake/Chain Lake, and **the Marsh and Sandy Lakes, Sackville Flood Plain.**
- **1982, Halifax-Dartmouth Regional Development Plan** states concerns about urban sprawl, and a shift from "development at any cost" toward quality of life. That Metro has not been harmed by the industrial revolution, has clean lakes and clean air. Page 20-21 describes regional parks using similar descriptive words as found in the 2014 RP. The seven proposed regional parks are again listed.
- **2004, Town of Bedford Municipal Planning Strategy Environmental Policies:**  
*"Policy E-18:*  
*It shall be the intention of Town Council to identify the Sackville River as a conservation corridor because of its importance as a salmon fish habitat and its significance as a natural amenity to the community, and to work towards improving the quality of water in the Sackville River, in cooperation with appropriate agencies."*  
*"Policy E-20:*  
*It shall be the intention of Town Council upon the adoption of this plan to undertake an in-depth environmental study of the Sandy Lake watershed which will include input from the N.S. Department of Environment as well as area residents, and shall examine present water quality, watershed land use practices increased rates of sedimentation, and the development of a recovery and protection program for Sandy Lake if warranted by the study."*
- **2011, Halifax Regional municipality MPS for Bedford:**  
*"Town Council shall continue working towards the establishment of major parks at Admiral's Cove, Sandy Lake, and within the Waterfront Development Area (Policy P-6)" ...Policies P-8 and P-9 indicate Town Council's intentions to designate future parkland within the Jack Lake assembly..."p.126*  
*..." the future development of existing open space is now seen as a higher priority than the acquisition of additional open space. Exceptions to this would be land acquired in relation to*

*subdivision development, land for neighbourhood parks, specialized land for linkages or unique sites, and Sandy Lake.” P.128*

- **2014 Regional Plan (RP+5):**

*“Regional Parks: The primary objective of a Regional Park is to preserve and protect significant natural or cultural resources. The essential feature of a Regional Park may include, but not be limited to, open space, wilderness, scenic beauty, flora, fauna, and recreational, archaeological, historical, cultural and/or geological resources.”p.26*

*Sandy, Marsh, Jack Lakes and the Sackville River have been identified repeatedly as having these features.*

- **2015 January, Halifax Municipal Strategy for Bedford.** The wording is exactly the same as in 2011 version, but the pages are 122-125.

However, at the same time, since 1982 there has been a parallel path towards housing development of the lands around Sandy Lake and along parts of the Sackville River in particular. The area should be protected now in order to protect the area from further losses.

\* \* \*

The SLCA and SRA believe that the entire Sandy/Marsh/Jack Lakes and Sackville River Regional Park area needs the protection of the Green Network now due to:

- Development pressures around Sandy Lake. Currently, a developer owns about 7 acres of prime lakefront on the Hammonds Plains Road (PID 40098097), beside the Sandy Lake Academy property, and over six hundred acres (Kingswood North area, west of Sandy and Marsh Lakes, just outside the current conceptual boundary) are slated for development.
- Sandy Lake, Marsh Lake, and most of the Jack Lake lands are part of the Sackville River Watershed. The proposed expanded area has been seen as one complete logical unit since the beginning.
- Sackville, Hammonds Plains, Kingswood, Bedford, and all of Halifax would benefit from such a park.
- To protect ecosystems and water quality of Sandy Lake, Marsh Lake, Jack Lake, Sackville River watershed, and their unique topography while providing parkland for the benefit of the community.

- Increasing the park size would help reduce risk of flooding in Bedford through the retention of naturalized areas, groundwater recharge, and wetland protection.
- By increasing the park, much of the Sackville River flood plain would also be protected.
- Marsh Lake is the most important water body (a marshland lake) in the Sandy Lake sub watershed, and enlarging the park will protect Marsh Lake.
- By protecting Sandy Lake's watershed, we protect both Marsh Lake and the Sackville River.
- **The 2016 Bedford Land Use Bylaw identifies multiple archaeological locations within the expanded footprint of the park, and these must be acquired and protected. (Appendix G)**
- Due to the ongoing damage from unregulated usage, including from ATV's and illegal trails, the park should be expanded and put under the control of Halifax.
- Sandy Lake and the Sackville River area are under intense development pressure.
- Increasing the park size will increase tourism in Hammonds Plains, Bedford, Sackville, and the municipality in general.
- As most of the councillors know, there is an ongoing Nature Deficit among our children. With so many schools nearby, this park would be an ideal area for increased exposure to nature. "In the case of schools such a location would facilitate outdoor science and field trips." P.23 Dean Report
- Sandy Lake is a known source of drinking water for local residents. Increasing the park would help to maintain water quality.
- Much of the required property could be acquired through land trades.
- The expanded park will also allow for easier access to the park from Sackville to the north.
- Acquiring the ~7 acres of lakefront on the Hammonds Plains Road, beside the Sandy Lake Academy property, (PID 40098097) would protect the natural quality of the entire lake from more housing and possible motor boat launches, but would also provide ideal access to the park for the nearby schools.

- Acquiring the Clayton lands (PID 41127945) west of Sandy Lake is important because it:
  - Will protect the 3 tributaries to Sandy Lake which cross that land
  - Will leave over 600 acres of important drumlins undisturbed (see HRM's watershed study)
  - Will help maintain the water quality of Sandy Lake and water bodies downstream
  - Will provide connectivity to the newly acquired 160 acres beside Marsh Lake
  - Will add to the Green Network goals listed above
  - Will provide access to the lakes and the regional park from the west, including the 10,000 people from Bedford West and CP Allen High School
- The Sackville River Conservation Corridor was identified in the Halifax Active Transportation Plan as a priority link to connect Fort Sackville, Bedford, along the Sackville River Valley to Uniacke House in Mount Uniacke and connecting to Hammonds Plains and the Regional Park.
- Lions Club Beach, already within the park boundary, will be enhanced by the expansion by maintaining water quality and view plains. The development proposed for the west side of the lake includes a drumlin (hill) that if built upon would ruin the lake's forested view plane from everywhere on the shore of the larger part of Sandy lake, and notably, is directly visible across the lake from the Lions Club Beach.
- Limited development around Sandy Lake has preserved for many decades the beautiful old growth forest and view planes, and thus these lands are still uniquely worth acquiring.
- Presently, diverse wildlife live in the waters and around the lakes, including nesting Osprey and Barred owls, loon families, barn swallows, wood turtles, deer, ermine, mink, beaver and endangered flora including the wavy leaved aster (*Symphytotrichum*) and the Greenland stitchwort (*Minuartia groenlandica*), Orchids and ladyslippers. There is a snapping turtle nesting area, and many varieties of fish, including both wild Atlantic Salmon and speckled sea trout in Sandy lake.

\* \* \*

### **Community Support for the SLCA's efforts to Support Protection of the Area:**

- The SRA is in receipt of a letter from DND offering to move their fence next to the 102 highway to allow for access to the regional park from the Bedford-Sackville Connector Greenway. Increasing the park size will increase park usage by the public. The letter indicates DND support.
- OUR HRM Alliance lists Sandy Lake (Jack Lake) Regional Park as one of 3 prime natural areas close to Halifax proper needing protective action now.
- The Sandy/Marsh/Jack Lakes and Sackville River Park Proposal is supported by a broad cross section of residents, as indicated in the petition presented to North West Regional Council on November 4, 2014.
- North West Community Council directed the community petition organizers to work within the Green Network Plan to protect this area.

From the Green Network Primer, page 28, protecting the requested lands around Sandy/Marsh/Jack Lakes and the Sackville River will meet these listed objectives:

- To maintain existing landscape patterns, including large natural vegetation patches, well-vegetated riparian areas, regional corridors and habitat stepping stones
- To minimize conflicts between wildlife and human uses of open space
- To sustain habitats for rare species and at-risk species
- To reconnect landscapes fragmented by development by identifying and maintaining the remaining green corridors and open space links and also by filling in critical gaps through remediation measures, if necessary
- To preserve large vegetated patches from development encroachment, including remnant patches where continuous corridors no longer exist
- To maintain important habitat connections
- To facilitate wildlife movement throughout the region
- To ensure HRM has a healthy and abundant forest
- To protect the quality and quantity of HRM's drinking water supply and quality
- To preserve lake water quality for recreational activity
- To tailor riparian buffer setbacks to local conditions (wildlife corridors, headwater areas, slopes, ecological features etc.) based on their function, vulnerability, and importance
- To restore connectivity by strategically reclaiming disturbed riparian areas and managing these areas as open spaces



- To maintain the functional value of wetlands using the management principles of avoidance, minimization and replacement
- To protect riparian areas and their ecological function from land loss, nutrient loading, harm to plant and animal life, and other threats.

Re: personal communication, March, 2016, O2 public meeting to unveil Green Network study: Halifax parks staff showed SLCA on map 23 that Sandy Lake has a high value now as one of few natural links for connectivity for the Chebucto Peninsula to the rest of NS, in particular to the Pockwock region. Staff said connectivity of the Chebucto Peninsula is a priority in the Green Network plan.

The Sandy, Marsh, Jack lakes and Sackville River are identified in the Green network Primer as a “Major Open Space Opportunity”. Map 6, p. 31

\* \* \*

#### **Value Added to the Green Network Landscapes Maps:**

##### **For the Ecology Landscapes:**

- Flora/Fauna studies of the Sandy/Marsh/Jack lakes and Sackville River. (Appendix H)

We are in the process of commissioning current flora and fauna surveys to add to the data listed in the appendix.

- Map of Mahar’s ESA’s in the Sackville River Watershed from Mt. Uniacke to the Bedford Basin. The area meets all of the criteria in the ESA definition, including use for scientific studies, such as the study of the effects of liming lakes to reduce phosphorus from acid rain. The area is near several public and private schools of all grade levels, in Sackville, Bedford, on the Hammonds Plains Road, so the opportunity to use the area for environmental education is great. (Appendix I)

##### **For the Recreational and Mobility Landscapes, but also the Ecology Landscapes:**

- Map from the 1971 P.B. Dean Natural Environment Survey. Sandy Lake is designated “Category 1, “Unique” or “Important”. The Sackville River is Category 4, “High Recreational or Environmental value” (Appendix J)

- Map and text from the 1971 MAPC “Recreation” Report. In the Canada Land Inventory Recreation Capability Survey “Sandy Lake received the highest rating of any inland site around the Metropolitan area.” (Appendix K)

- The conceptual map of the 1979 MAPC recreation plan for the Sackville River Regional Park that lays the park out for such activities as hiking, swimming, and nature trails. (Appendix L)

**For the Cultural Landscapes and Ecology Landscapes:**

- List of some of the scientific studies that have been conducted in the area. We did not include watershed studies and the like, nor have we done an exhaustive search for scientific studies. These are the studies we found during our recent historical search. They do indicate the interest of the scientific community, the value already served, and the potential for more. (Appendix M)

**For the Cultural Landscapes:**

- Excerpts from R.D. Mahar's study summarizing the early human history in the area.(Appendix N)
- Petroglyphs in the Barrens (Appendix O)
- Areas of Elevated Archaeological potential (Appendix G)
- The SLCA petition of September, 2014 (250 signatures) (Appendix P)
- The directive from North West Community Council for SLCA to work within the budding Green Network process (Appendix Q)
- History of Sandy Lake Bedford (Appendix R)
- List of groups that worked over the decades to protect the Sandy Lake area (Appendix S)
- We believe the investment of communities or individuals is an often overlooked value that would fit well in the Cultural Landscapes map. Individuals and community groups across the region have cared about, and put large amounts of time and resources into areas that they value. This is a "value" measure shown by the demonstration of citizens' work, sweat, worry, time, and funds to take care of a special place.

**For the Cultural, Ecology and Recreational Landscapes:**

- Mahar's reflections on human connection to environmental landscapes.
- The communities around Sandy/Marsh/Jack Lakes and Sackville River have protected these lands, lakes, and waterways from many, many serious threats to their continuation as naturally rich and healthy areas. The Sackville Rivers Association has reclaimed the once severely damaged Sackville River and made it available to the people, repaired much of Peverill's Brook, advocated for and improved other areas of the watershed. The short History of Sandy Lake found on [www.sandylake.org](http://www.sandylake.org) recounts only a few of the situations (yet another occurred as recently as this past fall) where the lake was put at risk and where local residents stepped in to protect the lake and adjacent watershed. (Appendix T)

\* \* \*

**In Closing:**

For nearly 50 years a park has been identified. This is indeed unfinished business. We are very grateful for this Green Network overall and also for the opportunity to protect this beautiful area. We

appreciate that the park has remained as a goal over the years, and that more acreage was acquired in 2015. So far we have not lost the area's potential. However, time is running out, because development has been on a parallel path and is close to overtaking the park goals. The Green Network is in a position to protect these lands and waters, as intended for so long, for the residents of Halifax, Bedford, Hammonds Plains, Sackville... for the good of all.

Most Sincerely,



Mike Crosby, Bruce Sarty  
SLCA (Sandy Lake Conservation Association)  
115 Farmers Dairy Lane  
Bedford, B4B 2C9  
mikercrosby@gmail.com  
BKSarty@eastlink.ca



Walter N. Regan  
Sackville Rivers Association  
PO Box 45071  
Lower Sackville, B4E 2Z6  
sackvillerivers@ns.sympatico.ca

cc Councillor Tim Outhit  
O2, Mr. Olsen  
Our HRM Alliance

## **APPENDIX A**

### **Request from Sandy Lake Conservation Association and Sackville Rivers Association**

Date: April 24, 2017

The following information outlines the request.

|                       |  |
|-----------------------|--|
| <b>Title:</b>         | Sandy Lake (Jack Lake) Regional Park Expansion   |
| <b>Purpose:</b>       | <p>The goal is to create clear intent and to chart a path toward acquiring abutting lands to Sandy Lake (Jack Lake) Regional Park.</p> <p>Unifying this long-recognized unique natural area that includes Sandy Lake, Marsh Lake, Jack Lake and the Sackville River, will help conserve the Sackville River watershed, maintain the natural ecosystems, and provide natural recreational opportunities for residents of greater Halifax.</p>                                       |
| <b>Remedy Sought:</b> | <ol style="list-style-type: none"><li>1. That the overall area on the attached Map A become the new park boundary for the Sandy Lake (Jack Lake) Regional Park;</li><li>2. That the yellow areas in Map A be acquired and then be added to Sandy Lake (Jack Lake) Regional Park;</li><li>3. That Halifax immediately begin to acquire lands within this boundary, starting with PID 41127945 to the west and PID 40098097 to the south, that border Sandy Lake, Bedford.</li></ol> |
| <b>Start Date:</b>    | Immediate start  |

### **Organizer Information**

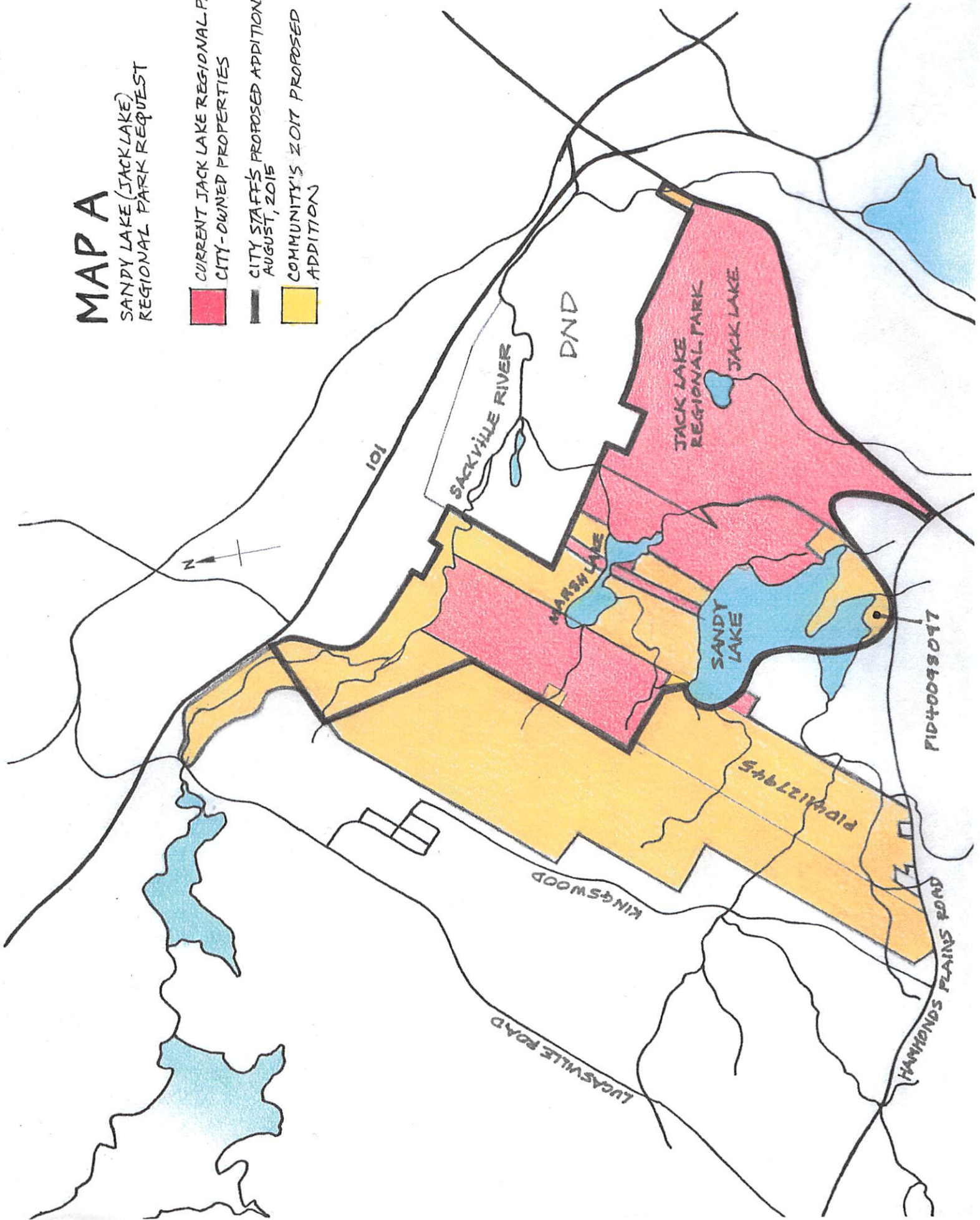
Information that uniquely identifies the organizer(s).

|                           |  |  |
|---------------------------|--|--|
| <b>Full Name(s):</b>      | Mike Crosby, Bruce Sarty   | Walter N. Regan  |
| <b>Civic Address(es):</b> | Sandy Lake Conservation Association<br>115 Farmers Dairy Lane<br>Bedford, NS<br>B4B 2C9  | Sackville Rivers Association<br>PO Box 45071<br>Lr. Sackville, B4E 2Z6               |
| <b>Phone or Email:</b>    | <a href="mailto:mikercrosby@gmail.com">mikercrosby@gmail.com</a><br><a href="mailto:BKSarty@eastlink.ca">BKSarty@eastlink.ca</a> | <a href="mailto:sackvillerivers@ns.sympatico.ca">sackvillerivers@ns.sympatico.ca</a> |

# MAP A

SANDY LAKE (JACK LAKE)  
REGIONAL PARK REQUEST

- CURRENT JACK LAKE REGIONAL PARK/  
CITY-OWNED PROPERTIES
- CITY STAFF'S PROPOSED ADDITION  
AUGUST, 2015
- COMMUNITY'S 2017 PROPOSED  
ADDITION







PROPOSED PARKS



PROPOSED TRAILS



PROPOSED NICHES  
MUNICIPAL PARKS  
& PLAYGROUND  
PROPOSALS

NOTE: SYMBOLS NOT TO SCALE

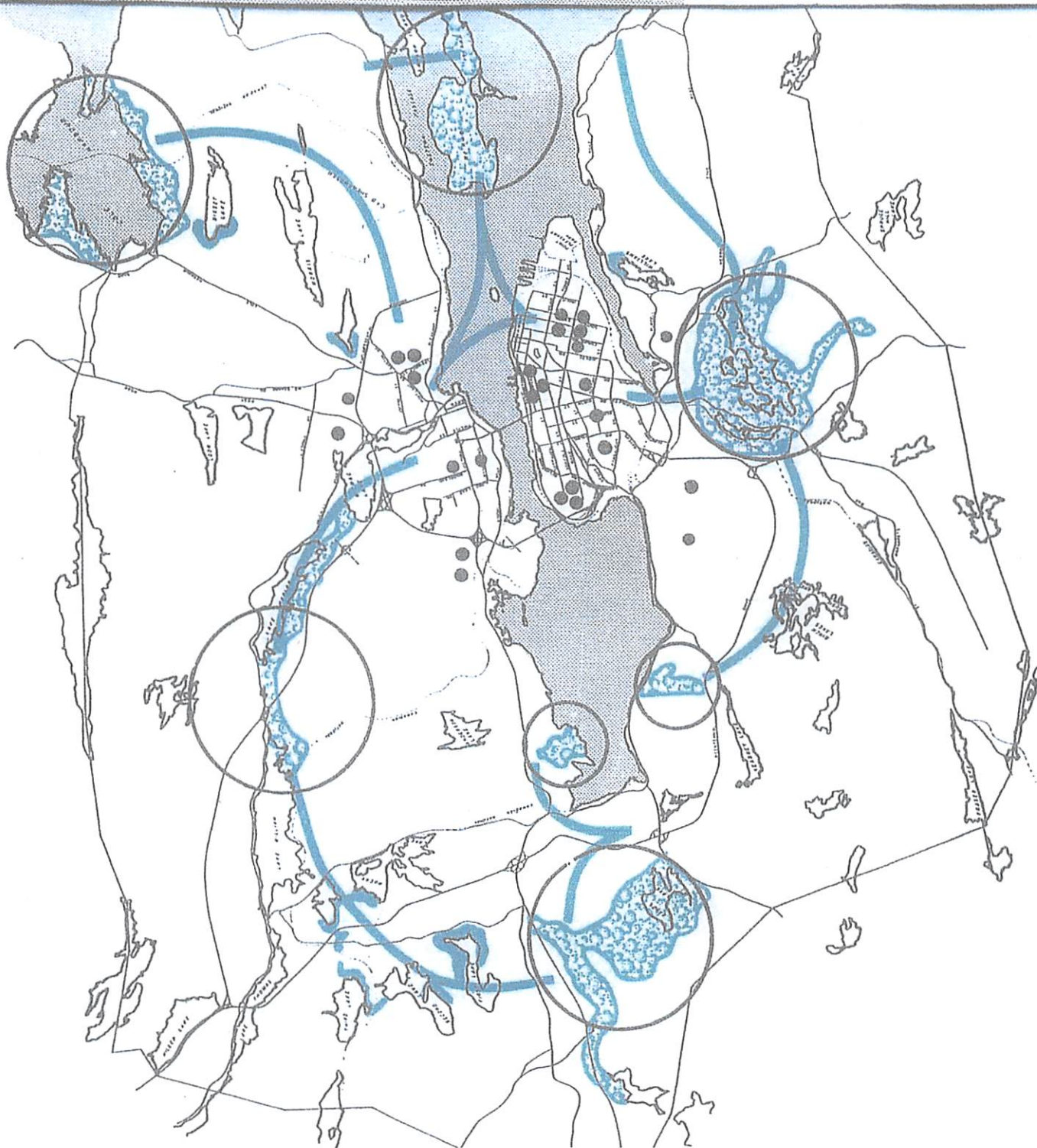


RECREATION WORK GROUP  
REPORT (DECEMBER 1971)

PETER JACOBS: CONSULTANT

RECREATION  
PROPOSALS

SUMMARY OF FOLIO'S  
1, 4-12



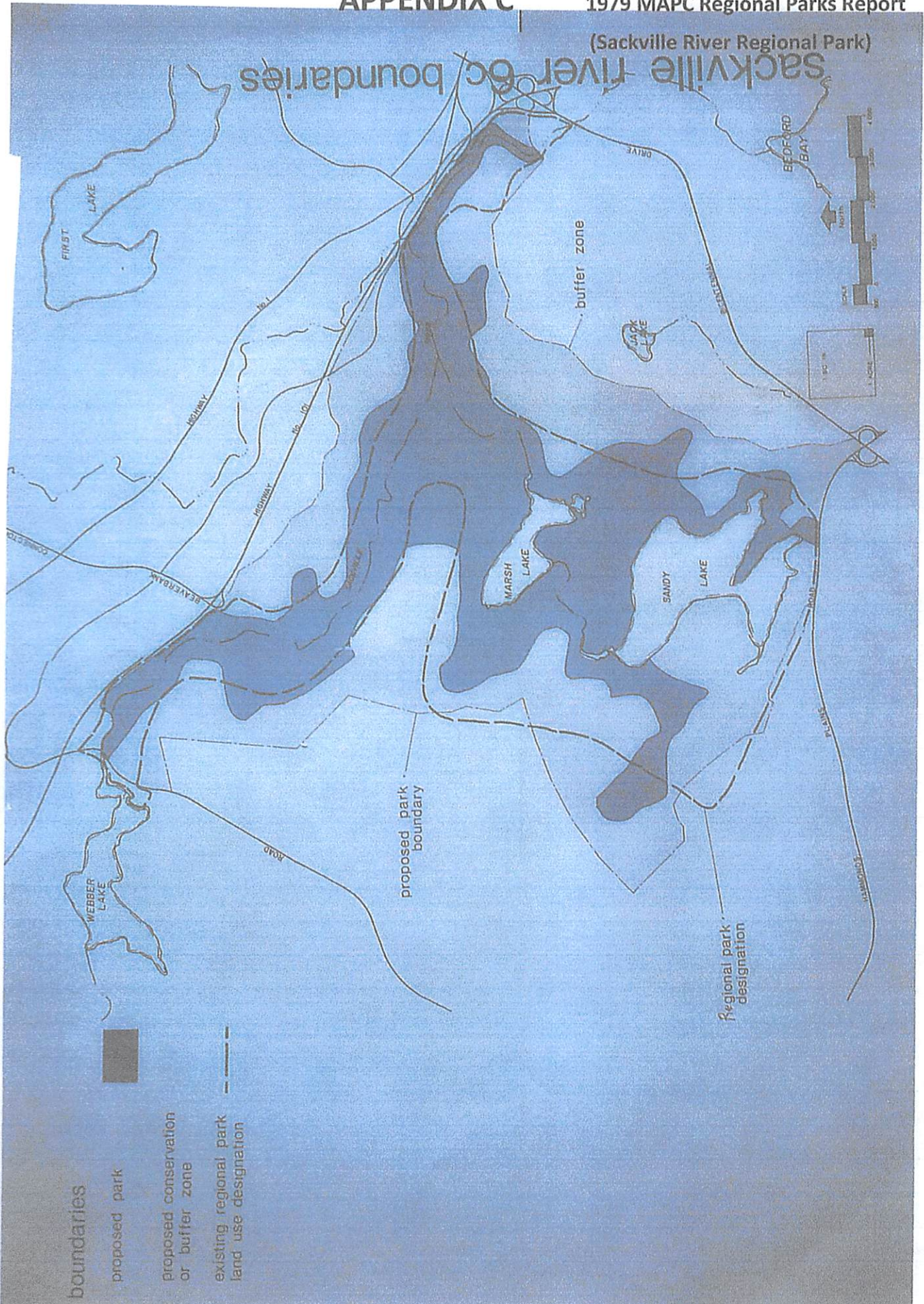


# APPENDIX C

1979 MAPC Regional Parks Report

(Sackville River Regional Park)

Sackville River Regional Park boundaries





## APPENDIX D

Green areas city acquired by 2005





## APPENDIX E City-owned lands after 2006 Jack lake acquisition

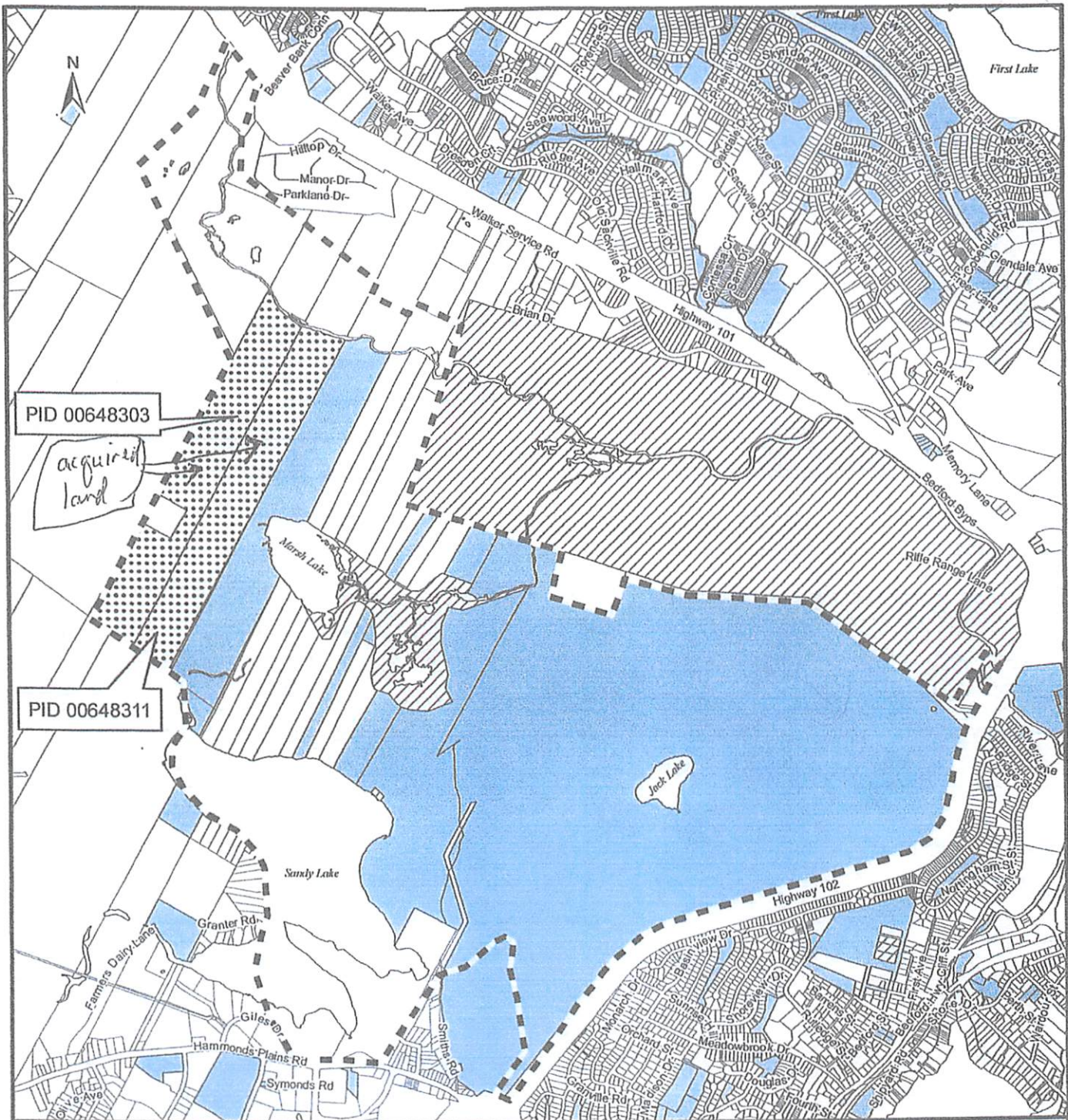




# APPENDIX F





Conceptual Jack Lake Regional Park,

Aug 2015, 160-acre acquisition



Map 1 - Marsh Lake Lands, Bedford

HALIFAX

-  Subject Properties
-  HRM Owned Parcels
-  Federal Government Owned Parcels
-  Conceptual Boundary of the Jack's Lake Regional Park

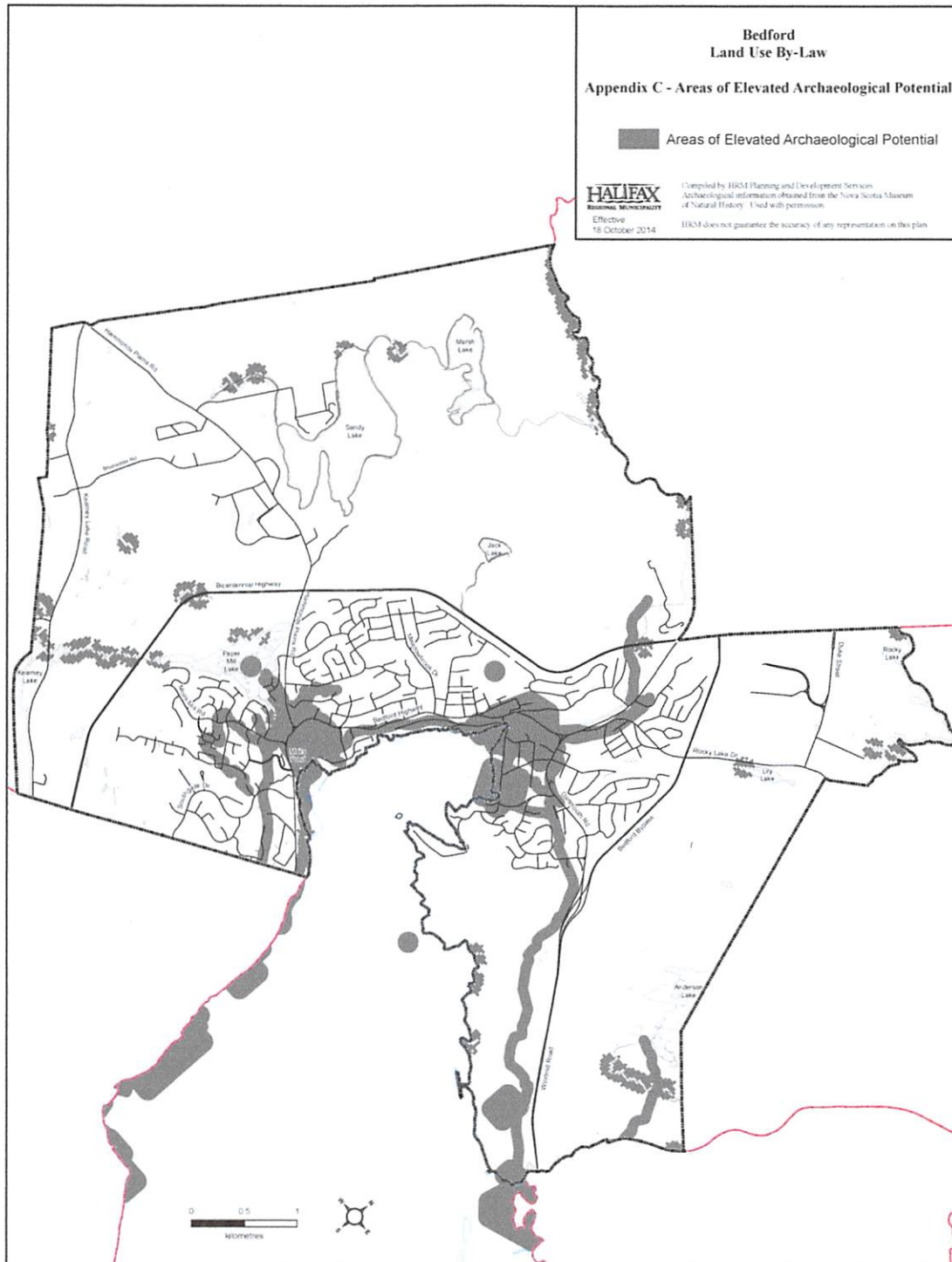
Bedford  
Plan Area

0 200 400 600 800 m

The accuracy of any representation on this plan is not guaranteed.



## APPENDIX G From the 2016 Bedford Land Use By-Law



## APPENDIX H

# Wildlife in the Sandy Lake (Jack Lake) Regional Park

Summary to April 2017

## Introduction

**How our Health Depends on Biodiversity**, *Eric Chivian M.D. and Aaron Bernstein M.D., M.P.H.*

<http://www.chgeharvard.org/sites/default/files/resources/182945%20HMS%20Biodiversity%20booklet.pdf>

“The eminent Harvard biology Professor Edward O. Wilson once said about ants, “We need them to survive, but they don’t need us at all.” The same, in fact, could be said about countless other insects, bacteria, fungi, plankton, plants, and other organisms. This fundamental truth, however, is largely lost to many of us. Rather, we humans often act as if we are totally independent of Nature, as if our driving thousands of other species to extinction and disrupting the life-giving services they provide will have no effect on us whatsoever.

This summary, using concrete examples from our award-winning Oxford University Press book, *Sustaining Life: How Human Health Depends on Biodiversity*, co-sponsored by the U.N. (CBD Secretariat, UNEP, and UNDP) and the International Union for the Conservation of Nature (IUCN), has been prepared to demonstrate that human beings are an integral, inseparable part of the natural world, and that our health depends ultimately on the health of its species and on the natural functioning of its ecosystems. We have written this summary because human health is generally not part of discussions about biodiversity loss, by policy-makers or by the general public, and because most people, as a result, do not understand the full magnitude of the biodiversity crisis and do not develop a sense of urgency about addressing it. We believe that once people really grasp what is at stake for their health and their lives, and for the health and lives of their children, they will do everything in their power to protect the living world.”

## Wildlife Summary

The following summary is a mixture of formal surveys and less formal observations. Most have to do with plants, animals, fish and birds. Further surveys that include records of lichens, mushrooms and smaller plants need to be done.

Changes over time affect the wildlife that inhabits natural areas. First we will look at the most recent observations and then some historical surveys of the area.

### **Observed in Sandy Lake Regional Park lands by Clarence Stevens between 2005 and 2015:**

American Beaver, *Castor canadensis*

American Mink

American Red Squirrel, *Tamiasciurus hudsonicus*

Little Brown Bat

Black Bear -American Black Bear, *Ursus americanus*

Bobcat, *Lynx rufus*

Coyote, *Canis latrans*

Deer Mouse, *Peromyscus maniculatus*

Eastern Chipmunk, *Tamias striatus*

House Mouse, *Mus domesticus*



Meadow Vole, *Microtus pennsylvanicus*  
Muskrat, *Ondatra zibethicus*  
Northern Flying Squirrel, *Glaucomys sabrinus*  
Porcupine - American Porcupine, *Erethizon dorsatum*  
Raccoon, *Procyon lotor*  
Red Fox, *Vulpes vulpes*  
River Otter, *Lontra canadensis*  
Short-tailed Shrew, *Blarina brevicauda*  
Short-tailed Weasel, *Mustela erminea*  
Smoky Shrew, *Sorex fumeus*  
Snowshoe Hare, *Lepus americanus*  
White-tailed Deer, *Odocoileus virginianus*  
Woodchuck (Groundhog), *Marmota monax*  
Woodland Jumping Mouse, *Napaeozapus insignis*

Alder Flycatcher  
American Black Duck  
American Goldfinch  
American Crow  
American Redstart  
American Robin  
American Tree Sparrow  
American Woodcock  
Bald Eagle  
Barn Swallow  
Barred Owl  
Belted Kingfisher  
Black-and-White Warbler  
Black-backed Woodpecker  
Black-capped Chickadee  
Black-throated Blue Warbler  
Black-throated Green Warbler  
Blackburnian Warbler  
Blue Jay  
Blue-headed Vireo  
Boreal Chickadee  
Brown-headed Cowbird  
Broad-winged Hawk  
Brown Creeper  
Canada Warbler  
Cedar Waxwing  
Chestnut-sided Warbler

Chimney Swift

Chipping Sparrow

Common Loon ----

Common Merganser

Common Raven

Common Yellowthroat

Dark-eyed Junco

Double-crested Cormorant

Downy Woodpecker

Eastern Wood Pewee

European Starling

Evening Grosbeak

Fox Sparrow

Golden-crowned Kinglet

Great Black-backed Gull

Gray Jay

Gray Catbird

Great Blue Heron

Green Heron

Green-winged Teal

Hairy Woodpecker

Hermit Thrush

Herring Gull

Hooded Merganser

Least Flycatcher

Little Blue Heron

Long-eared Owl

Magnolia Warbler

Mallard

Merlin

Mourning Dove

Nashville Warbler

Northern Flicker

Northern Goshawk

Northern Harrier

Northern Parula

Northern Saw-whet Owl

Northern Waterthrush

Olive-sided Flycatcher

Osprey

Ovenbird

Palm Warbler

Pied-billed Grebe  
Pileated Woodpecker  
Pine Grosbeak  
Pine Siskin  
Purple Finch  
Red Crossbill  
Red-breasted Nuthatch  
Red-eyed Vireo  
Red-winged Blackbird  
Ring-billed Gull  
Ring-necked Duck  
Ring-necked Pheasant  
Rock Dove  
Ruby-crowned Kinglet  
Ruby-throated Hummingbird  
Ruffed Grouse  
Rusty Blackbird  
Sharp-shinned Hawk  
Solitary Sandpiper  
Song Sparrow  
Sora  
Spotted Sandpiper  
Spruce Grouse  
Swainson's Thrush  
Swamp Sparrow  
Tennessee Warbler  
Tree Swallow  
Veery  
White-breasted Nuthatch  
White-crowned Sparrow  
White-throated Sparrow  
White-winged Crossbill  
Wood Duck  
Yellow-bellied Flycatcher  
Yellow-bellied Sapsucker  
Yellow-rumped Warbler  
Yellow Warbler

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**Wildlife recorded by Sandy Lake residents since 2010:**

Breeding loon family

Barred owl pair

Cormorant

Osprey nesting pair

Eagles

pheasants

Chickadees

Juncos

Robins

Crows

Blue jays

Black ducks

purple and goldfinches

evening grosbeaks

hummingbirds

nuthatches

Canada Geese

Mink

Ground hogs

Otters

Ermine

Beavers

Squirrels

Moles

Voles

Coyotes

Foxes (also silver fox)

Canada goose

White-tail deer

Snowshoe Hare

Porcupines

Skunks

Raccoons

Black bear

Tadpoles

Bullfrogs

Leopard frogs and others

Various toads

Peepers  
Salamanders  
Spotted salamanders  
Garter snakes and others

Snapping turtles (large, laying eggs on shore and swimming)

A large puddling of tiger swallowtail butterflies on the west beach +50

Various water bugs,

large water spiders

Various dragonflies

Freshwater clams and mussels

Bass

Wild Atlantic Salmon

Speckled Trout

Eels

Suckers

Catfish

Gaspereaux

Leeches

Around 2000 a moose was killed near Tomahawk Lake.

---

### 2015 AECOM watershed Study of Sandy Lake:

“...the sandy Lake watershed is an historical spawning ground for Atlantic Salmon... salmon spawning habitat has been identified along Peverills Brook between Marsh Lake and Sackville River and between Marsh Lake and Sandy Lake.”p.11

“Sandy Lake is used for sport fishing and contains (*speckled and sea run speckled*) trout, bass, perch, Atlantic salmon, gaspereaux, American eel, chub, bullnose trout, brown stickleback, shiner, shad, sea trout, catfish (Dalhousie 2002).

A comprehensive assessment of the fish species and populations has not been completed for sandy Lake. However, historical and anecdotal evidence suggests Sandy Lake, Marsh Lake and Peverill’s Brook support healthy fish populations.

Beavers are reported in the area, along with the Eastern Wood Turtle (Dalhousie 2002). Loons, osprey, eagles and kingfishers have been observed on Sandy Lake.” P.11



“wetlands perform a variety of ecological functions. They provide important habitat for flora and fauna, improve water quality, mitigate flooding and are valued for educational and aesthetic purposes by the public. ...The Sandy Lake watershed wet areas were assessed in 2010 by the Sackville Rivers Association to evaluate areas for future wetland compensation potential (SRA 2011). Twenty six (26) wet areas were identified using GIS and eight of the 26 sites were further evaluated and found to be suitable for development into wetlands.” p.12

A mature hemlock stand is reported on the peninsula in the southern half of Sandy Lake and may be remnants of older forests in the area.

Shrub species: bunchberry, sphagnum moss in forested areas.

A variety of shrub species in open areas

Along the shoreline of Sandy and Marsh Lakes: stepplebush, leatherleaf, sheep laurel, blueberry, asters, golden rods, tickle-grass, deergrass.

Seven vascular plants of provincial concern have been recorded within five kilometres of the centre of the watershed; of these seven species, two – the wavy leaved aster (*Symphyotrichum*) and the Greenland stitchwort (*Minuartia groenlandica*) have been observed in the Marsh Lake area. Both plants are listed as S2 (Provincially rare); Orchids and ladyslippers have been reported near the shores of Sandy and Marsh Lakes.

p.13

Wildlife:

“The Dillon Consulting (2009) EA for proposed Highway 113 provides a description of wildlife that is generally applicable to the Sandy Lake area. The area generally has a low diversity of small mammals and a high concentration of white-tail deer (Washburn and Gillis 2000). Other than deer, which generally avoid barren and wetland habitats, species typical of the forest and lakeshore habitats within the watershed would include coyote, hare, bear, bobcat, bats, fox, porcupine, skunk and raccoon (Dillon Consulting 2009; Porter Dillon 1996). Other small mammals typical of disturbed and second growth habitats include shrews, mice, voles, red squirrels, and chipmunks (Porter Dillon 1996).

Previous studies have identified forest and shoreline birds including black duck, white-throated sparrow, chipping sparrow, song sparrow, yellow-rumped warbler, yellow warbler, common yellow-throat, sharp-shinned hawk, gray jay, American goldfinch, flycatcher, American robin, savannah sparrow, spotted sandpiper, and an active crow population. Bald eagles and great blue heron have also been reported as occasionally feeding immediately south of the watershed (Porter Dillon 1996). P.13

“The Atlantic Canada Conservation Data Centre records 25 species of conservation concern within the sandy Lake watershed. Although precise locations of species sightings are not recorded, most of these species appear to have been identified in the Marsh Lake area. Although most of these species are birds, there are two amphibians present: the snapping turtle and the wood turtle.” P. 14

Common Loon (not uncommon, but on watch list)

Killdeer



Spotted Sandpiper  
Wilson's Snipe  
Common Nighthawk  
Chimney Swift  
Olive-sided Flycatcher  
Eastern wood-Pewee  
Yellow-bellied Flycatcher  
Bank Swallow  
Barn Swallow  
Gray jay  
Boreal Chickadee  
Gray Catbird  
Northern Mockingbird  
Tennessee Warbler  
Bay-breasted Warbler  
Wilson's Warbler  
Canada Warbler  
Scarlet Tanager  
Rusty Blackbird  
Pine Siskin  
Snapping Turtle  
Wood Turtle  
Juvenal's Duskywing  
p.14

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#### **2002 Dalhousie/NSCAD studies:**

“Atlantic salmon, speckled and sea run speckled trout, gaspereaux, American eel, chub, bull nose trout, brown stickleback, shiner, perch, shad, sea trout, small mouth bass, and catfish. Sandy Lake cottager Mr. Thornton caught one of the largest trout at 19.5 inches. Species of mussels and freshwater clams were caught but not harvested as food. p.33

Beavers have been spotted at beaver dams in the lake area. Other animals of significance within the Sackville River system, of which Sandy Lake is a part, are the Eastern Wood Turtle, and a freshwater mussel - both species on the endangered list.

Waterfowl, in particular loons, are of interest to the Sandy Lake community. For years two pairs of loons have been observed as early as first ice break-up.

They fly between Marsh Lake and Sandy Lake where they nest and reside for the summer and fall. Other birds inhabiting the area include ospreys, eagles, and kingfisher. P. 34

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## **2001 Sandy Lake Park Environmental Review (Lion's Beach Park):**

"...typical of the Acadian Forest Region consisting of Sugar Maple, Yellow Birch, Beech and Spruce, and Eastern Hemlock in well drained areas and Black Spruce, Balsam Fir, White Pine and Larch in poor soils."  
Also, "White Ash, Red oak, Red Maple, Red Spruce"

Wood fern

Wood sorrel

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**1986 Jack Lake Environmental Evaluation Report 1986 Wildlife Study** focused on birds but also enumerated other wildlife:

In November 1984, and June 1985 two trained avifauna (bird) specialists surveyed the area.  
Jack Lake showed stress from acid, indicated by prevalence of an acid-tolerant variety of zooplankton.

"Generally, Sandy and Marsh Lakes were the most productive." P.4-12

"Since benthic invertebrates are also a main fish food, it would appear that Sandy Lake would contain better fish habitat in terms of food supply." P. 4-13

Fish caught in Sandy Lake 1980-1983: Brook trout, gaspereau, yellow perch, common white sucker, brown bullhead, American eel, Branded killfish.

1986: Fish were sampled in the outlet from Marsh Lake upstream of the Sackville River: brook trout, Atlantic salmon, American eel, banded killfish.

Two brook trout were caught in the inflow from Sandy Lake.

Jack Lake: 3 brook trout were caught.

Vegetation study, Jack Lake area

mountain sandwort (*Arenaria groenlandica*) somewhat rare

3 rare species:

Dwarf bilbury (*Vaccinium cespitosum*)

Broom crowberry (*Sporobolus gaviniflorus*)

*Sporobolus gaviniflorus* grass along northern boundary of Jack Lake lands.

Trees:

Hemlock

White pine

Red pine

Sugar Maple

Red Maple

Red oak

Beech

Yellow Birch

Trembling aspen  
White birch

Wildlife:

More than 75 bird species during the survey

Loon, palm warbler, olive-sided flycatcher, 2 or 3 species of wood warbler, scarlet tanager, owl (tentatively identified as the uncommon long-eared owl),

Mammals:

Squirrels, mice, voles, racoon, white tailed deer

“The areas around marsh Lake and along the Sackville River (outside the JLLA) boundary) provide exceptionally rich habitat conditions for wildlife. During one survey, numerous deer, waterfowl, small mammals were sighted in the Sackville river riparian zone just north of the JLLA boundary.” While the jack Lake (JLLA) in all probability does not have any rare or unusual mammals and does not contain any rare, unique or endangered wildlife habitat, the Marsh Lake area has an unusually large, seasonally inundated wetland which potentially could harbour uncommon wildlife. Of most significance though is the Sackville River Valley outside the JLLA study area.”

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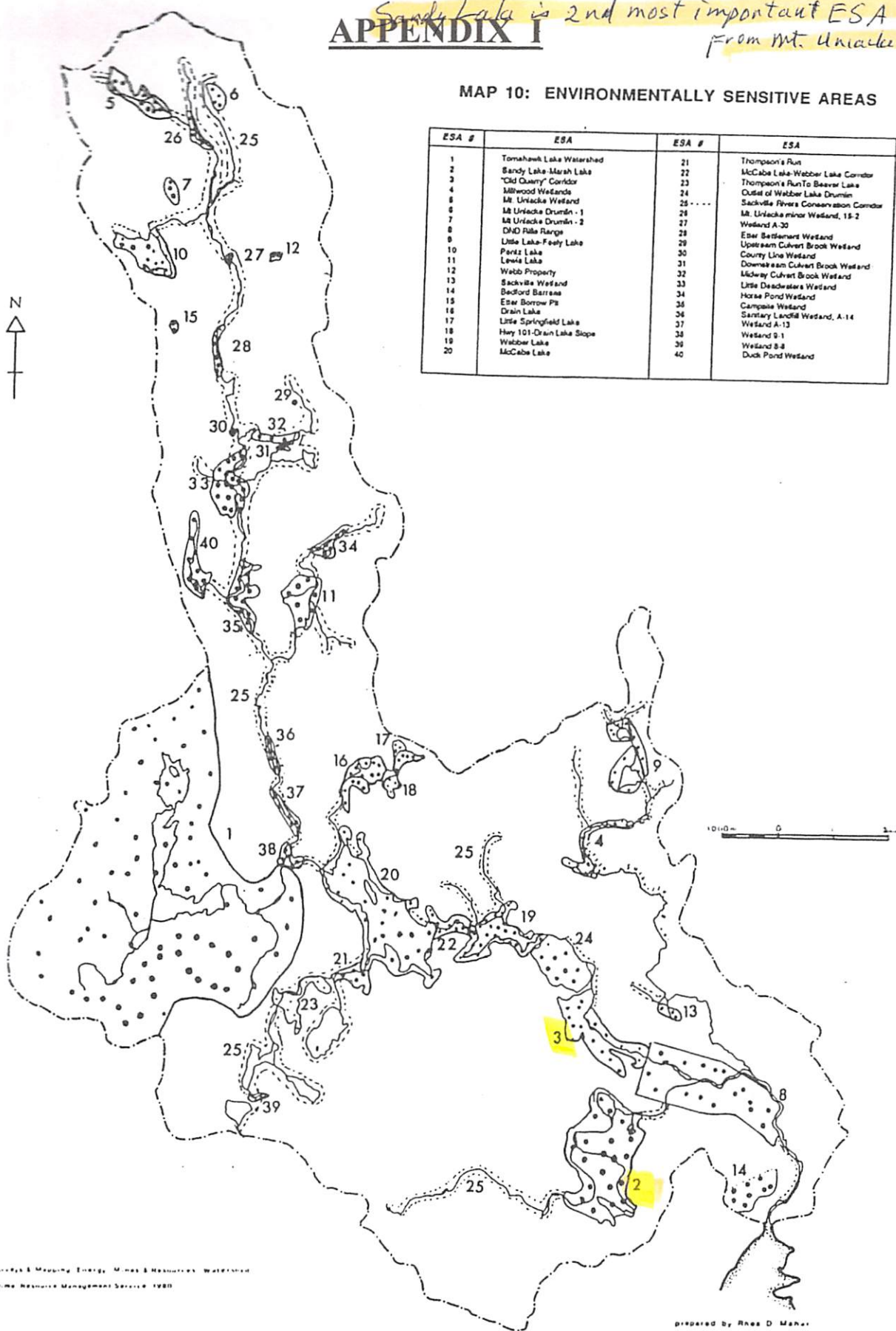
**2016 The Bedford Land Use Bylaw reports in Appendices, Areas of Elevated Archaeological Potential:**

3 areas on the Clayton lands just west of Sandy Lake  
1 on Peverell's brook northwest just off Sandy Lake  
3 areas of Jack Lake land (Bedford Barrens)  
Along most of the Sackville River

Sandy Lake is 2nd most important ESA identified from Mt. Uniacke to the Bedford Basin  
**APPENDIX I**

MAP 10: ENVIRONMENTALLY SENSITIVE AREAS

| ESA # | ESA                     | ESA # | ESA                                    |
|-------|-------------------------|-------|--|
| 1     | Tomahawk Lake Watershed | 21    | Thompson's Run                         |
| 2     | Sandy Lake Marsh Lake   | 22    | McCabe Lake-Webber Lake Corridor       |
| 3     | "Old Quarry" Corridor   | 23    | Thompson's Run To Beaver Lake          |
| 4     | Milwood Wetlands        | 24    | Outlet of Webber Lake Drumn            |
| 5     | Mt. Uniacke Wetland     | 25    | Sackville Rivers Conservation Corridor |
| 6     | Mt. Uniacke Drumn - 1   | 26    | Mt. Uniacke minor Wetland, 15-2        |
| 7     | Mt. Uniacke Drumn - 2   | 27    | Wetland A-30                           |
| 8     | DND Pike Range          | 28    | Esler Settlement Wetland               |
| 9     | Little Lake-Footy Lake  | 29    | Upstream Culvert Brook Wetland         |
| 10    | Park Lake               | 30    | County Line Wetland                    |
| 11    | Lewis Lake              | 31    | Downstream Culvert Brook Wetland       |
| 12    | Webb Property           | 32    | McWay Culvert Brook Wetland            |
| 13    | Sackville Wetland       | 33    | Little Deadwater Wetland               |
| 14    | Bedford Barrens         | 34    | Horse Pond Wetland                     |
| 15    | Esler Borrow Pit        | 35    | Campsite Wetland                       |
| 16    | Drain Lake              | 36    | Sanitary Landfill Wetland, A-14        |
| 17    | Little Springfield Lake | 37    | Wetland A-13                           |
| 18    | Hay 101-Drum Lake Slope | 38    | Wetland S-1                            |
| 19    | Webber Lake             | 39    | Wetland S-8                            |
| 20    | McCabe Lake             | 40    | Duck Pond Wetland                      |



# APPENDIX J

## NATURAL ENVIRONMENT SURVEY

A

### DESCRIPTION OF THE INTRINSIC VALUES IN THE NATURAL ENVIRONMENT AROUND GREATER HALIFAX-DARTMOUTH.

April, 1971

P.B. Dean, Wildlife Biologist\*  
Canadian Wildlife Service  
Dept. of Indian Affairs & Northern Dev.

Fishery Section by  
D.B. Lister, Fishery Biologist  
Resource Development Branch  
Dept. of Fisheries & Forestry

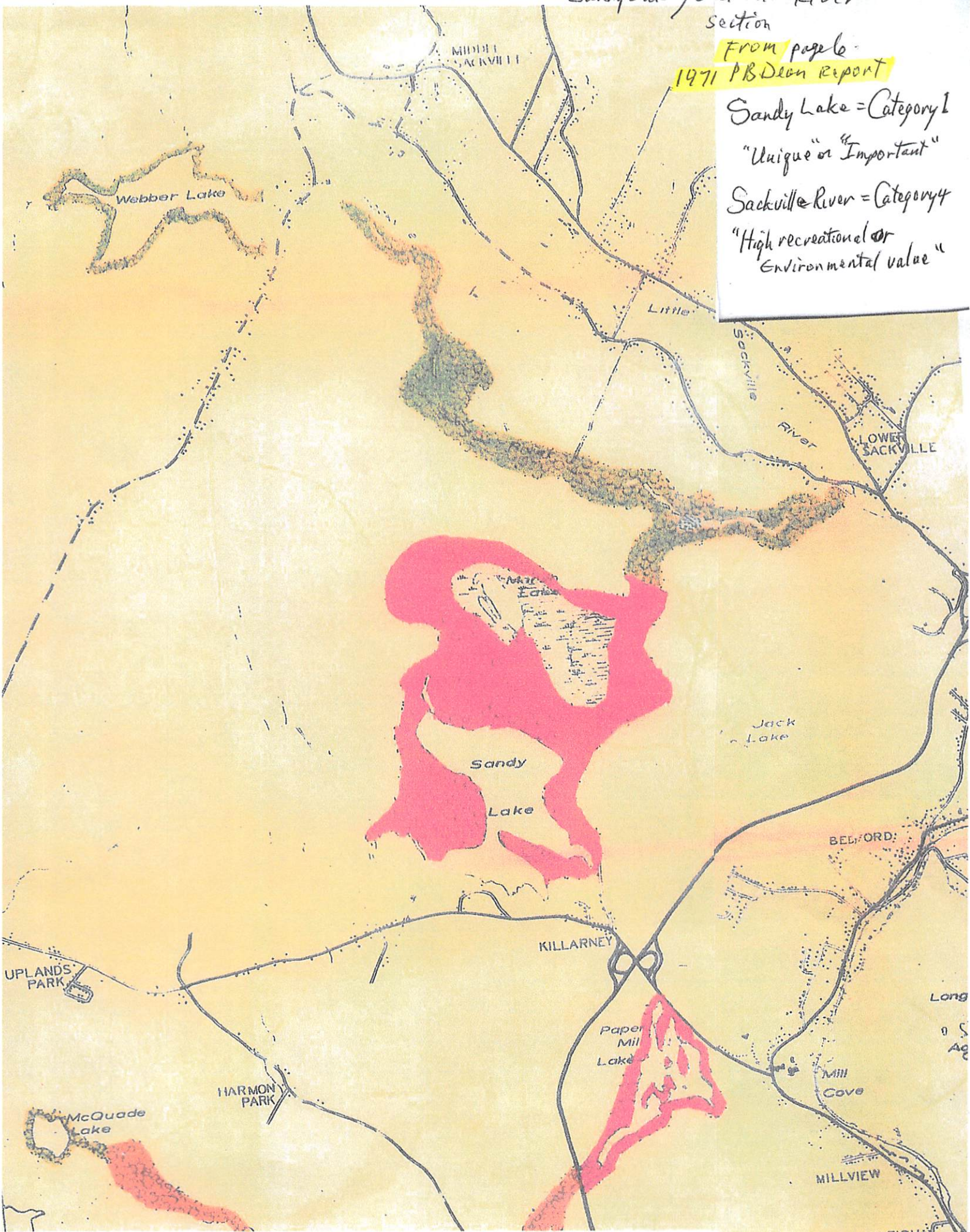


Sandy Lake / Sackville River  
section

From page 6  
1971 PB Deon report

Sandy Lake = Category 1  
"Unique" or "Important"

Sackville River = Category 4  
"High recreational or  
Environmental value"





FLOOD PLAIN COMPLEX

LOCATION: Sackville/Bedford  
FOLIO NO: 7  
ACREAGE: 1,528

DESCRIPTION:

A combination of clear water lake, marsh, tracts of open landscape and largely undeveloped flood plain at the border of a rapidly expanding sector of the Metropolitan area. The Flood Plain is unique in the area as a flat well-drained land area which is uniquely suited in the urban area for the development of outdoor sports complexes. Simultaneously, it has been identified as a development constraint because of its location in the flood plain. Damage to a sports field from flooding is negligible as compared to damage to a community from flooding.

Sandy Lake and its surroundings comprise one of the finest landscape units around the Metropolitan area. This lake was designated Class 3 for recreation on the Canada Land Inventory Recreation Capability Survey and as such received the highest rating of any inland site around the Metropolitan area.

OBJECTIVES:

- To optimize the use of natural resources in an urban context.
- To maintain and develop a prototype Metropolitan park system that simultaneously provides valuable open space, protects natural assets that are unique in the Metropolitan area, and that provides a unique site for an active outdoor sports program.

PROGRAM FOCUS:

To develop a multi-purpose recreation zone that takes advantage of rare level terrain in the region.

To develop a leisure information center and educational program concerning the use of leisure time.

To emphasize through the wise utilization of the flood plain the development of an intensive sport training center that would focus on the



[illegible]

**NOTE: AREAS INDICATED APPROXIMATE TO SCALE**



1 MILE

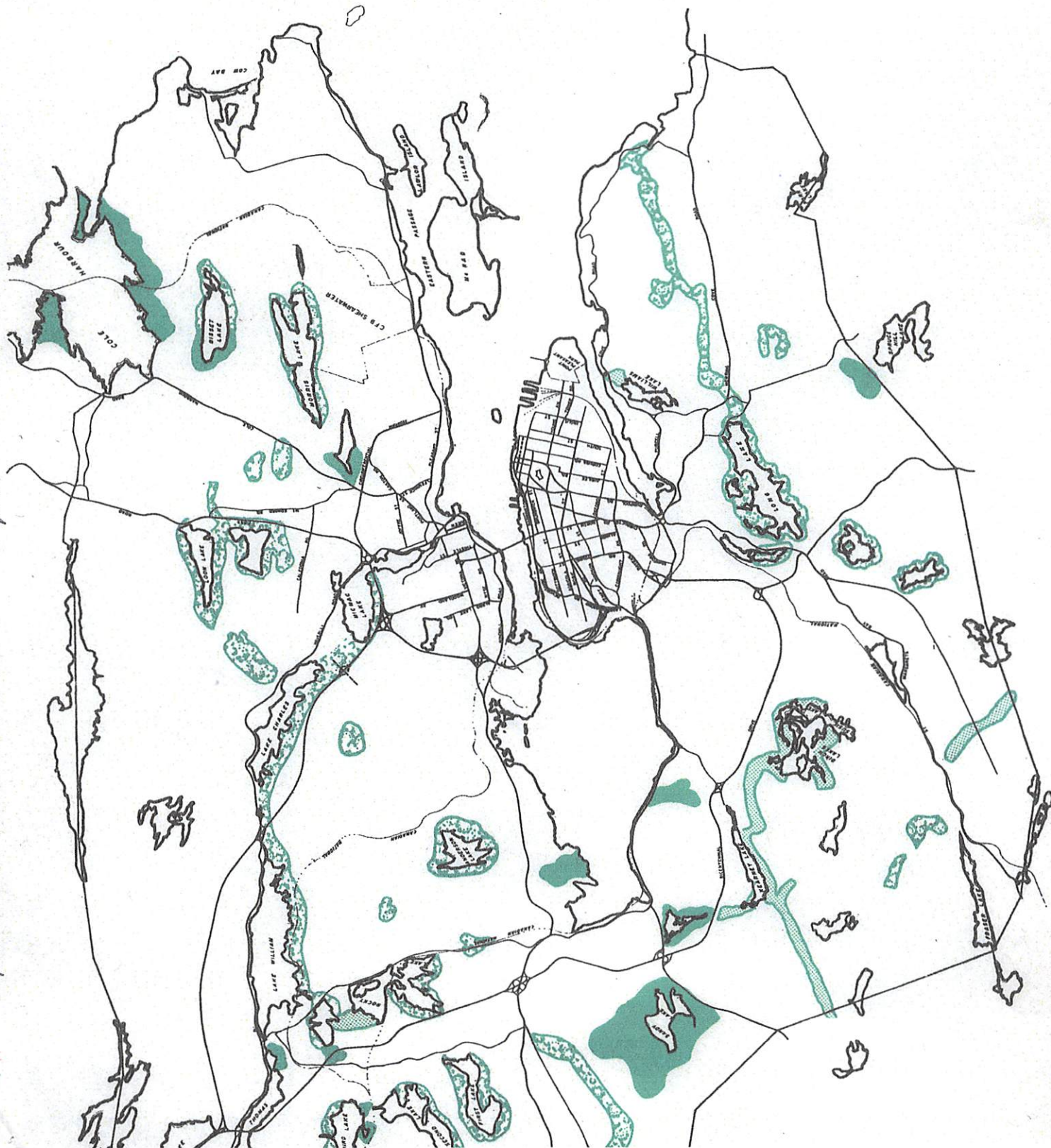
# RECREATION WORK GROUP REPORT (DECEMBER 1971)

**PETER JACOBS: CONSULTANT**

**NATURAL  
ENVIRONMENT  
SURVEY**

**PREPARED BY  
PAUL DEAN  
CANADIAN WILDLIFE**

4



From 1971 MAPC "Recreation" Report

# APPENDIX L

## HALIFAX-DARTMOUTH REGIONAL PARKS REPORT

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A REPORT PREPARED FOR THE METROPOLITAN AREA PLANNING COMMISSION  
(MAPC) THROUGH THE PARKS ADVISORY GROUP

### PARKS ADVISORY GROUP - REPRESENTATIVES FROM:

CITY OF DARTMOUTH  
CITY OF HALIFAX  
COUNTY OF HALIFAX  
DEPARTMENT OF ENVIRONMENT  
DEPARTMENT OF LANDS AND FORESTS  
DEPARTMENT OF MUNICIPAL AFFAIRS  
DEPARTMENT OF RECREATION  
NOVA SCOTIA HOUSING COMMISSION  
CENTRAL MORTGAGE AND HOUSING CORPORATION  
PARKS CANADA  
MAPC

TECHNICAL SUPPORT AND REPORT PREPARATION BY H.J. PORTER AND  
ASSOCIATES LIMITED, ENVIRONMENTAL CONSULTANTS

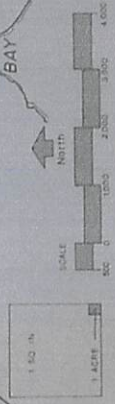
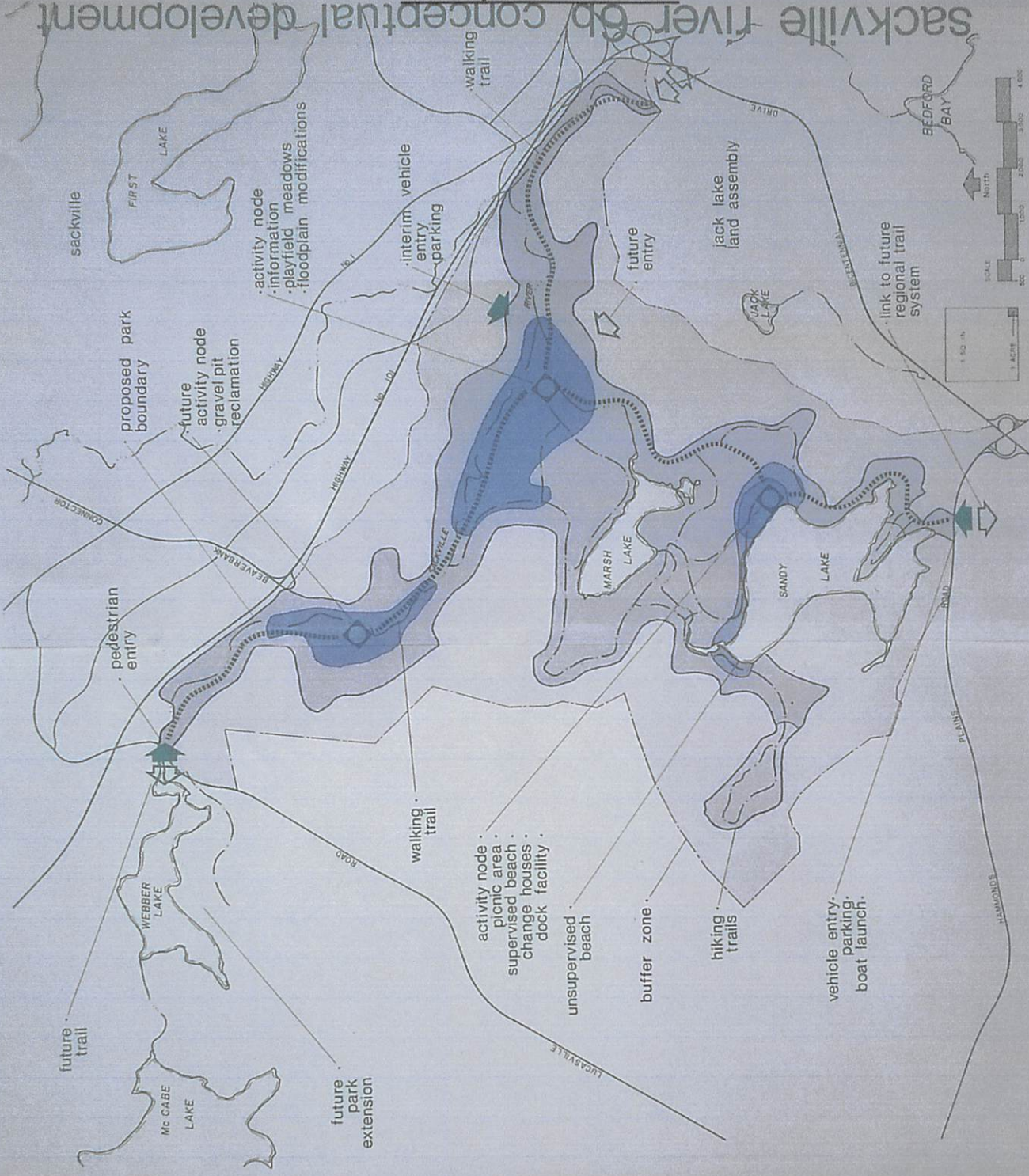
JULY, 1979

DR  
711  
MAPC  
1979



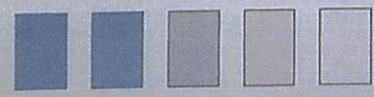
# Conceptual Park Plan

sackville river bb conceptual development



conceptual development

activity zones



degree of manipulation  
increasing

conservation or buffer zone

proposed park boundary

activity nodes

pedestrian trail

hiking trail

access

proposed screening

bicycle path

## **APPENDIX M**

### **A Collection of Studies done in the Sandy Lake, Bedford, Area**

The topics of the studies add value to the Ecology Landscapes, and some to the Recreational Landscapes. However, the number of studies, and the extent of effort and intent demonstrated through these reports, also add value to the Cultural Landscapes.

***Note: We did not do a complete search for articles. This list is compiled from information we had at hand.***

1971, *Natural Environment Survey: A Description of the Intrinsic Values in the Natural Environment Around Greater Halifax-Dartmouth*. Dean P. and D. Lister, Canadian Wildlife Service, Dept. of Indian Affairs and Northern Development, Dept. of Fisheries and Forestry. Identified 7 important natural areas to preserve in Greater Halifax-Dartmouth.

1971, MAPC (Metro Area Planning Committee) *Recreation Work Group Report*. Proposed 7 Regional Parks for Hfx-Dartmouth. (McNab Island, Long Lake, Chain Lake watershed, Hemlock Ravine, Marsh and Sandy Lakes, Sackville Flood Plain, Admiral Cove, Lake Williams & Lake Charles canal complex, Cole Harbour.

1972, MAPC *Water Quality Survey for Selected Metropolitan Lakes*. Description of lake and water quality.

1973, *Natural Land Capability: Halifax-Dartmouth Metro Area*. NS. Dept of Municipal Affairs.

1974, *Ecological Reserves in the Maritimes: Region 7: NS. NB. PEI. Halifax*. Canadian Committee for the International Biological Programme – Conservation Terrestrial Communities Subcommittee.

1975 Halifax-Dartmouth Regional Development Plan defines and separates regional parks and development areas, including the same 7 proposed regional parks.

1979, July, Hfx Dart MAPC *Regional Parks Report*, by Parks Advisory Group, identifies 7 proposed Regional Parks – the same as in 1971 but with more detail and Marsh and Sandy Lakes, Sackville Flood Plain park name changed to Sackville River Regional Park. It includes Sandy, Marsh and Sackville River corridor as before, but with a protective buffer around the area. The boundaries and conceptual maps contain half of Jack Lake as part of the buffer area.

1982 *Bedford Zoning Bylaws* created to protect land around lakes, particularly Sandy Lake, from development

1983, Water quality study of Sandy Lake and Bedford Town, with a Detailed Area Study of Sandy Lake area.

1984, *Natural History of Nova Scotia*. Simmons, L. et. al. NS Department of Education and Department of Natural Resources.

1984, *An Experiment On The Feasibility Of Rehabilitating Acidified Atlantic Salmon Habitat In Nova Scotia By The Addition Of Lime*. W.J. White, W.D. Watt, C.D.Scott, Department of Fisheries and Oceans. (At a time when the entire southern end of the province was losing fish because of acid rain from the US northeast, the scientists dumped industrial levels of limestone into the lake to learn about adjusting pH.)

1986, *Jack Lake Environmental Evaluation Final Report*. CMHC and NS Dept. of Housing. Contains a detailed environmental assessment.

1986, *Canadian Wildlife Service, NS Wetlands Atlas*. Environment Canada.

1988, *Sackville River Historical Research- Environmental Planning V*, NS. Coakley, M., College of Art and Design, Halifax.

1988, *Main Sackville River Watershed Project*. Koenig, M., Environmental Planning, NSCAD.

1989, *A Draft inter-Municipal Planning Strategy for the management of the Sackville River Basin*. Environment Planning Studio IV, NS College of Art and Design, Halifax.

1989, *The Scenic resources of Nova Scotia: A Macro-Scale Landscape Assessment*. Millward, H. and Dawn Allen, Dept. of Geography, Halifax.

1990, April 23, Reconvened session Bedford Town Council minutes: Recreation Advisory Commission requests "environmental study of the sandy Lake watershed area" before use of the Bluewater Lot is developed.

1990, *Assessment of Atlantic Salmon (Salmo salar L.)Habitat in the Sackville River, NS, 1986, Canadian Manuscript Report of Fisheries and Aquatic Sciences No. 2059*. Cameron, J.D., Fisheries and oceans Canada, Halifax.

1990, *Correspondence and reports from the Sandy Lake Area Residents association with the Bedford Water Advisory Committee*, Feb. 25.

1992, *A Quiet Place in the white Man's world*. Edwards, T., Bedford Magazine, October, p.6.

1993, *Hammonds Plains the First 100 Years*. Evans, Dorothy Bezanson, Bounty Print Ltd.

1993, *Summary: Parks and Protected Areas Systems Planning*. Lynds, A., Nova Scotia Dept. of Natural Resources.

1994, *Towards the Identification of Environmentally Sensitive Areas for Environmental Management: A Case Study in the Sackville River Watershed, Nova Scotia*. Rhea D. Mahar thesis. Sandy Lake is rated as the second most valuable Environmentally Sensitive Area between Bedford Basin and Mt Uniacke. Old Quarry Corridor of the Sackville River is third.

1994, *Field Surveys*. Mahar, RD.

1995, *Sandy Lake Vegetation Survey and Trail Design*, for the Town of Bedford to aid in and complete the trail design and layout for the area. Basic Elements Ecological Enterprises.

2000, *A Mi'kmag Learning resource: Bedford Barrens Petroglyphs*. (Online). Martin, Catherine. [www.booth.k12nf.ca/projects?Mi%27kmaq/bedford.htm](http://www.booth.k12nf.ca/projects?Mi%27kmaq/bedford.htm).

2001, *Environmental Inventory of Sandy Lake, Marsh Lake and Jack Lake*. DalTech and NSCAD Environmental Planning: This was a study of the environmental attributes of the Sandy Lake, Marsh Lake, Jack Lake area "that impact water quality, to analyze the information, and to develop a synthesis of this knowledge to understand how to maintain water quality in the valued habitats of wetlands and watercourses." p.ii

2001, *Sandy Lake Park Environmental Review*. EDM Consultation Report (February, 2001)

2002, *Issues of Urban and Rural Fringe*. DalTech and NSCAD Environmental Planning: This study based on Sandy Lake, Bedford, had three objectives: "1. To review and document the pressures for growth in the urban/rural fringe locally and nationally, and to consider the key approaches being used to respond. 2) To examine demographic and economic trends in the urban/rural fringe of HRM. 3) To examine land use and transportation patterns on the urban/rural fringe of HRM." P.1

2002, *Sandy Lake Community Profile*. DalTech and NSCAD Environmental Planning: This study explored the impacts of development on a community located on the urban fringe. It researched urban growth pressures, demographics, land use patterns (both historical and current), transportation patterns, and community perceptions of the landscape of Sandy Lake, Jack Lake, and Marsh Lake area.

2002, *A Water Quality Analysis*. DalTech and NSCAD Environmental Planning: This report, created by senior Environmental Engineering students from Dalhousie University in 2001-02, involves the examination of Sandy Lake and surrounding area creation of baseline data including dissolved oxygen, pH, total suspended solids, a bathymetric map of the lake, total and fecal coliform, as well as other water quality parameters.



*2002, Suggestions for managing Development.* DalTech and NSCAD Environmental Planning: This study integrates the information found in the Urban Fringe document and examines the outcomes of different types of development and the consequences of each on the Sandy Lake area.

*2002, Policy Review and Recommendations.* DalTech and NSCAD Environmental Planning. (This document is missing.)

*2016, Bedford Land Use Bylaw-* 5 acres on public road is an ongoing bylaw. Also, archaeological sites identified on west Sandy Lake lands (Clayton lands).

For over two decades, minutes of Halifax County Council and later the Bedford Town Council show efforts toward creating a regional park at Sandy, Marsh, Jack lakes and the Sackville River. Since 1982, the park goals and land acquisition goals are still in the Regional Plans, however development is a parallel option.

Ongoing:

- Sandy Lake Conservation Association and the Sackville Rivers Association continue to work to raise awareness with communications and submissions and within the Green Network process.
- Sandy Lake is championed by Our HRM Alliance along with Purcell's Cove Backlands and Blue Mountain Birch Cove Lakes for protection within the Green Network Plan.

## APPENDIX N

Excerpts from *TOWARDS THE IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS FOR ENVIRONMENTAL MANAGEMENT: A CASE STUDY IN THE SACKVILLE RIVER WATERSHED, NOVA SCOTIA*  
By Rhea D. Mahar, Department of Geography, Saint Mary's University, 1994

Pages 34 to 36:

### **"(ii) History of Human Settlement**

This section is sourced from Simmons et al. (1984) and Coakley (1988).

Although the first Paleo-Indian campsite remains have been discovered at Debert, N.S., dated at 11,000 years ago, between 10,000-5,000 years ago there is a lack of evidence of human occupation of the province. Dramatic fluctuations in sea level and a minor local glacial period are thought to be explanations. People would have settled on shorelines which are now under the sea. Igneous rock axes of the period between 5,000-3,500 years ago provide evidence of Native populations in Halifax and Hants counties, among others (Simmons et al., 1984).

For at least 5,000 years Mi'kmaq paddled down the Sackville River in spring, to the Bedford Basin. Fish were caught and dried for winter storage. Salmon, gaspereaux, lobster and other seafood were also caught. Seasonal gathering of berries, nuts, and roots altered the landscape very little (Coakley, 1988).

The "Contact Period" began around 1500 A.D. when Portuguese and Basque fishers would spend summers on the shores of Bedford Basin curing fish and trading with Mi'kmaq (Simmons et al., 1984).

**1604-1755 AD, The Acadian Period:** Since the Acadians dyked marshland and did little to disturb Mi'kmaq forest lands, the two groups lived quite harmoniously. French farmers settled near the mouth of the Sackville River in the area now occupied by Bedford Place Mall. The marsh had been dyked for hay and crops. The pasture nearby was for grazing livestock; cattle, hogs and poultry. The Acadians built two trails in the 1600's; one to the Minas settlements and one to present-day Truro, then on to New Brunswick. With the expulsion of the Acadians in 1755 and the subsequent colonization of the now British colony, pressure ensued on the land between settlers and Mi'kmaq, the first people. In 1783, hunting reserves were established for Mi'kmaq. These were inadequate for their needs.

Bridges, mills, Fort Sackville, churches, farms and estates were soon erected in the watershed. The stagecoach era from 1800-1858 sported several Inns along the road to Windsor.

**1851 AD - Today, Industrialization and Urbanization Period:** This era has been condensed together since we are essentially still proceeding in the same fashion but equipped with more progressive technology. At the turn of the century, the Sackville River was used extensively for moving logs to booms on the Bedford Basin (Figure 9). Sawmills used the River to turn waterwheels and to transport logs. The discovery of gold at Mount Uniacke in 1865 fostered the building of a town. The open pit mines there operated sporadically until the 1930's. A fish hatchery was established at the river's mouth in 1873. Not only did it stock the Sackville River, but it stocked all of Nova Scotia at one time (Figure 4). The Sackville River once was teeming with fish which were "packed like sardines" (Coakley, 1988, p.21), but two

hundred years of increasing urban development have caused a steady decline in returning runs almost to the point of extinction. Erosion, siltation, nutrient enrichment from domestic and industrial effluents, fluctuating water levels, increased water temperature, and lower pH have adversely affected the river system's ability to sustain Atlantic Salmon (Cameron, 1990).

Urbanization in the Bedford-Sackville area began with the development of pastureland in 1929 on the east bank of the River for the building of Sunnyside place (Figure 6). This was the first in a development pattern which was to see a linear strip of malls, stores, gas stations and other services along Hwy 1.

Suburban residential housing, beginning in the 1960's (Coakely, 1988), caused an increase in sedimentation to the river, destroying fish habitat. As a result of this, the fish hatchery at the mouth of the river closed down in 1961 (Figure 10).

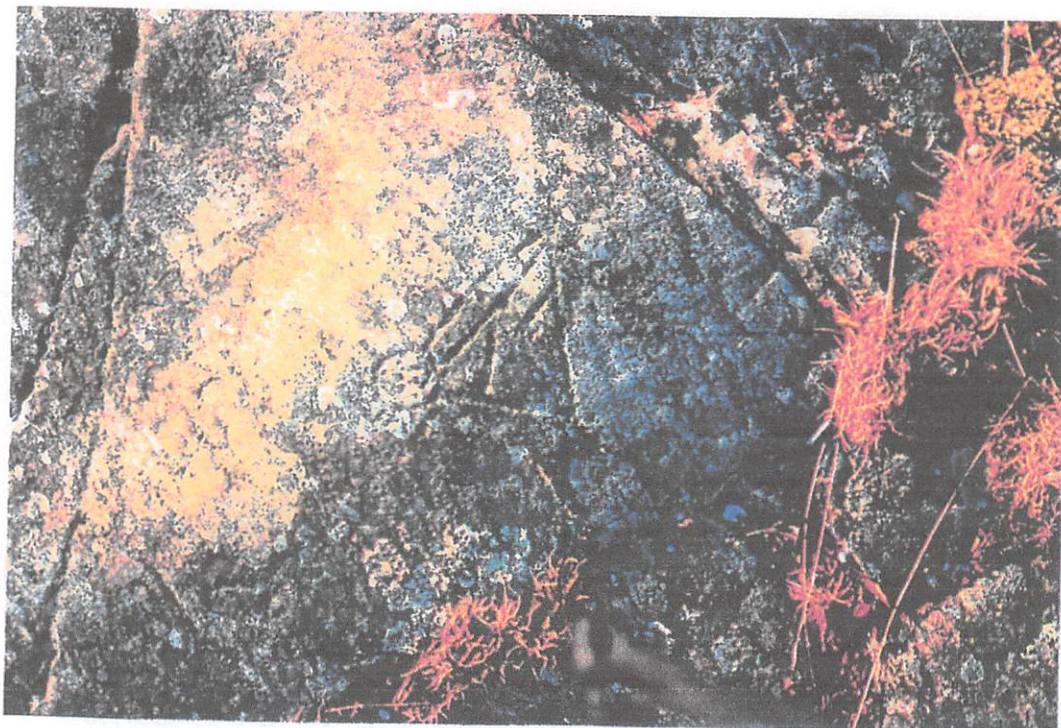
The watershed hosted several quarries. The river itself was readily utilized as a source of aggregate sand and gravel. Gravel washings were poured back into the river. Animal manure from the Sackville Downs race track also caused contaminated runoff to flow into the Little Sackville River.

More recently, some fairly aggressive development projects have further manipulated the river. In 1971, the river was moved aside for the construction of the 101 highway. Bedford Place Mall was built over a saltmarsh near the river's mouth in 1977. In that same year the Halifax-Dartmouth Metropolitan Authority began the Sanitary Landfill operation near the river, two-and-a-half kms north of McCabe Lake. The pattern of urban residential development sprawl continues.





*Figure 2: "The Sun" Mi'kmaq petroglyph, Bedford Barrens, 1986. Source: Joseph Foy; Courtesy Bedford Heritage '80.*



*Figure 3: Mi'kmaq petroglyph, Bedford Barrens, 1986. Source: Joseph Foy; Courtesy Bedford Heritage '80.*



## APPENDIX P



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Sandy Lake Conservation Association

September 6, 2014

Halifax Regional Council  
c/o Tim Outhit  
PO Box 1749  
Halifax, NS  
B3J 3A5

**re: Jack Lake, Marsh Lake, Sandy Lake Park Proposal**

Dear Council Members

We are submitting this letter and the attached petition on behalf of your concerned citizens. We trust that you will see, as we all do, the importance and long term benefits of this proposal. We look forward to your consideration of this proposal.

**Synopsis:**

Jack Lake, Marsh Lake and Sandy Lake are part of the Sackville River Watershed. All three lakes have some level of protection. Jack Lake exists within a regional park zone. One shore of Marsh Lake has a municipal park designation. Sandy Lake is touched by three municipal park lands including the Bedford Lions Sandy Lake Park which has an HRM supervised beach and a popular off leash dog area. Of the three lakes, Sandy Lake is the only one with public access.

The Sandy Lake Conservation Association (<http://sandylake.org/>), SLCA, is proposing that HRM expand the park lands surrounding Marsh Lake and Sandy Lake, and thus create an enlarged park/wilderness area (Jack Lake, Marsh Lake, Sandy Lake) within the Sackville River Watershed. Such an undertaking will improve access to park lands for current residents of HRM, and ensure these lands are available for enjoyment by future generations.

**Background:**

Jack Lake, Marsh Lake and Sandy Lake have been the subject of many past initiatives to create parks within Halifax County, the Town of Bedford, and more recently the Halifax Regional Municipality.

Sandy Lake has been subject to development pressure for many years beginning with the adjacent development of Farmers Dairy. Development pressure continued in the summer of 2013, when a large parcel of land owned by a private developer at the west end of the lake was clear cut. This action surprised members of the Sandy Lake Conservation Association as it was previously understood that said lands were part of a park proposal.

As Sandy Lake is a major water body within the Sackville River Watershed, its health is vital to the ecology of the area. Like most urban lakes, anthropogenic (human) activity impact water quality negatively. Sandy Lake is no different, with the tropic status trending towards worsening water quality. Development pressure is placing the lake and associated wildlife further at risk of accelerating the current negative trend. It is imperative that environmental stewardship is championed to slow and possibly reverse this trend.

**Benefits:**

An expanded Jack Lake, Marsh Lake, Sandy Lake Park will deliver many benefits. We believe the key ones are as follows:

- **Legacy:** An expanded park would protect the fragile ecosystem of Sandy Lake and Marsh Lake, and would ensure future generations have access to a wilderness oasis within HRM. Park planning would ensure that current mixed use (in particular ATV use) would be accommodated in a controlled manner, and that fragile ecosystems would not be damaged.
- **Access:** Jack Lake and Marsh Lake are surrounded by woodland, with limited access for recreational purposes. Sandy Lake has some access through the Bedford Lions Sandy Lake Park. An expanded park presents opportunities for new access points to be developed, improving the recreational infrastructure for the growing populations in Sackville, Bedford, Hammonds Plains, and Kingswood.
- **Healthy Living:** An expanded park presents opportunities to develop an active trail corridor from Sackville through Bedford and Hammonds Plains, and linking up the trail developments at Kearney Lake.



**Support:**

The Jack Lake, Marsh Lake, Sandy Lake Park Proposal is supported by a broad cross section of residents, as indicated in the attached signed petition.

**Next Steps:**

The SLCA has developed detailed thinking regarding this proposal which we are happy to share. We are hopeful that HRM will allocate the funds to review our proposal in detail. We believe that ongoing development pressure in the Sandy Lake area makes this an urgent matter.

A handwritten signature in black ink, appearing to read "Mike Crosby", is written over a horizontal line.

Mike Crosby

On Behalf of the Sandy Lake Conservation Association

## Petition Information

The following information outlines the purpose of the petition.

|                       |   |
|-----------------------|---|
| <b>Title:</b>         | Sandy Lake Regional Park  |
| <b>Purpose:</b>       | The goal is to develop and expand the Jack Lake Park to encompass the area that includes Sandy Lake as part of a larger park area in a sustainable manner which will conserve the watershed, maintain the natural ecosystems and provide natural recreational opportunities for residents of HRM. |
| <b>Remedy Sought:</b> | The goal is to have HRM fund the study, development and expansion of the existing Sandy Lake Park with and for the community.   |
| <b>Start Date:</b>    | As soon as the study is approved and authorized.  |

## Organizer Information

Information that uniquely identifies the petition organizer(s).

|                           |   |
|---------------------------|---|
| <b>Full Name(s):</b>      | Mike Crosby (on behalf of Sandy Lake Conservation Assoc.) |
| <b>Civic Address(es):</b> | 107 Farmers Dairy Lane<br>Bedford, NS B4B 2C9             |
| <b>Phone or Email:</b>    | MikeCrosby@eastlink.ca                                    |

## APPENDIX Q

# HALIFAX

P.O. Box 1749  
Halifax, Nova Scotia  
B3J 3A5 Canada

**Item No.**  
**North West Community Council**  
**November 17, 2014**

**TO:** Chair and Members of North West Community Council

**SUBMITTED BY:** Original signed  
\_\_\_\_\_  
Brad Anguish, Director, Parks & Recreation

**DATE:** November 4, 2014

**SUBJECT:** Jack Lake, Marsh Lake Sandy Lake Park Proposal  
\_\_\_\_\_

### INFORMATION REPORT

#### ORIGIN

**MOVED by Councillor Outhit, seconded by Councillor Whitman that North West Community Council request a staff report in response to the Sandy Lake Park petition that was received on September 15, 2014 and include an update on all previous studies in the area.**

#### LEGISLATIVE AUTHORITY

*Halifax Charter*. Part VIII, Planning & Development

61 (1) The Municipality may acquire and own property granted or conveyed to the Municipality either absolutely or in trust for a public or charitable purpose.

*Halifax Regional Plan*;

Pg 28; HRM intends to create additional Regional Parks at various locations throughout HRM including the Blue Mountain - Birch Cove Lakes, Feely Lake, Jacks Lake, Second Lake, and Porters Lake.

Policy E-12 - HRM shall prepare a Greenbelting and Public Open Space Priorities Plan to protect and preserve connectivity between natural areas and open space land, to enable their integration into sustainable community design, to help define communities, to benefit the municipality's economy and physical health of its people and to reflect and support the overall purposes of this plan.



## **BACKGROUND**

The petition and accompanying letter from the Sandy Lake Conservation Association (SLCA) requests the Municipality to consider expanding the park lands at Sandy, Marsh and Jack Lake to create an enlarged park/wilderness area within the Sackville River Watershed.

The Regional Plan calls for the development of a Regional Park at Jacks Lake. The park would be based on the 1000 acres that HRM currently has assembled around Jack, Marsh and Sandy Lake.

The Regional Plan also calls for a Greenbelting and Open Space Plan which will, among other objectives, examine requirements for public open space and the protection of key wildlife and environmental corridors within the municipality.

A watershed study for the Sandy Lake area was initiated by Regional Council. The study has been drafted and has been reviewed by the Regional Watershed Advisory Board. It is expected to be brought forward to North West Community Council in the coming months.

## **DISCUSSION**

As per Council's direction under the approved Regional Plan Five Year Review, staff is currently undertaking the Greenbelting and Open Space Plan. The results, if approved by Regional Council, will guide the municipality as to the direction for the parks and open space system through development regulations, land acquisitions and park development. The Sackville River corridor, which includes the Sandy Lake/Jack Lake/Marsh Lake regional park lands, has been identified as one of several major corridors for examination within that exercise. The possibility may exist to create a recreation and environmental linkage from Bedford Basin to the Pockwork Watershed. Jacks Lake Regional Park is a key element along the potential corridor. Therefore, the request by the SLCA to initiate exploration of the ideas contained in the petition is already underway. The completed plan will be subject to the approval of Regional Council.

As the McCabe Lake area is currently an active rural development area with a number of pre-regional plan development approvals, staff will also be continuing to acquire high value lands in this area through the development process. These will be aimed at contributing to Council's open space objectives of recreation service provision, protection of valued cultural/natural heritage assets and shaping and connecting communities.

## **FINANCIAL IMPLICATIONS**

There are no financial implications at this time related to this petition. The Greenbelting and Open Space Plan is being conducted through capital funding approved by Regional Council as part of the 14/15 Capital budget under account CDG01283.

## **COMMUNITY ENGAGEMENT**

The Greenbelting and Open Space Plan affords the general public and stakeholders the opportunity to be part of the process through public meetings, submissions and focus groups. The letter from the Sandy Lake Conservation Association which accompanied the petition offers to share their thinking on the matter. Staff will ensure that the SLCA will have an opportunity along with other stakeholders to generally engage on the broad matters pertaining to the open space plan but also on this particular corridor early on in the process.

## **ENVIRONMENTAL IMPLICATIONS**

The Greenbelting and Open Space Plan is aimed at contributing to Regional Council's environmental protection objectives.

**ALTERNATIVES**

None

**ATTACHMENTS**

Attachment 1 – General Map of Sandy Lake area with HRM holdings indicated.

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A copy of this report can be obtained online at <http://www.halifax.ca/commcoun/index.php> then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Peter Bigelow, Manager, Parks Planning, 902-490-6047

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## APPENDIX R



### **HISTORY OF SANDY LAKE (BEDFORD)**

**February 2016**

There are two Sandy Lakes on Hammonds Plains Road, HRM. The one in Glen Arbor is sometimes called “Little Sandy Lake”, but this website is about the one nearer the basin that is sometimes called either “Big Sandy Lake” or “Sandy Lake, Bedford”. It is a part of the Sackville River watershed and is a headwater for Peverill’s Brook and ultimately the Bedford Basin.

The current organization that is working to protect Sandy Lake is the Sandy Lake Conservation Association, or SLCA. In the past, the Sandy Lake Watershed Association protected the lake, and prior to that there was the Sandy Lake Resident's Association, itself preceded by the Sandy Lake Ratepayers Association. These groups handled multiple threats to Sandy Lake’s fragile ecosystem including the Farmer’s Dairy effluent risk and the evolution of the Bedford Lions Beach on the eastern shore of the lake. Residents of the area have been looking out for Sandy Lake’s welfare for at least 40 years.

Some 30 years ago Sandy Lake was one of 7 proposed regional parks. However, for the lake region to become a regional park the County, Bedford, Dartmouth and Halifax all had to agree on that designation. This was prior to Amalgamation and Sandy Lake was in the County of Halifax not part of Bedford. Farmers Dairy was looking for a site to build a dairy near the city and a large property along the western shore of Sandy Lake which suited their needs (proximity to the city plus lake water) came up for sale. At the same time, a local resident offered to give 500 acres at the end of the lake to the municipality for the park, if the park were named after her deceased husband. We understand that the County Warden chose to approve the dairy to increase county taxes and declined the land offer for the park.

There were even fewer regulations to protect lakes and waterways back then, and people in general were unaware of the consequences of some of their activities. The dairy clear cut 50 acres and in-filled a roadway over the main lake feeder stream (you drive over it going to the gate) which caused such runoff that the lake was muddy brown for two years. They planned on dumping their milk effluent into the lake as well. So the Sandy Lake Ratepayers Association was formed, hired consultants and worked with the press and politicians to finally get the plan to pump milk effluent into the lake dropped in favour of the holding ponds you see on your left as you drive to the dairy gate. Those gave off a terrible smell for years until the dairy was required to deal with it.

The dairy impact on the lake was such a shock that the Association began to work with the Town of Bedford (by then the lake area was part of Bedford) to ensure that such an action could never happen again. The Bedford Mayor, Francine Cossman, was marvellous and totally onside. After much wrangling to no avail with the Province about parks, waterways and preservation, Mayor Cossman and the Association hit upon a device for protecting the lake—no new development unless one owned 5 acres on a publically serviced road. Of course land assembly started up as developers eyed the lake, but nobody put a road in. This regulation is still protecting the lake. Over the next few years a move began to preserve the lakeshore that remained protected by this bylaw, and eventually negotiations with the city and the Province resulted in parts of the shore being bought for the proposed park.

The next issue arose from a Lions Club desire to mark the millennium with a public project. The original proposed park plan (from decades previously) had included a small beach park where the Lions beach park now exists. The Lions proposed a roadway into that area, a parking lot and a facilities building. Surveys of the Bedford and Hammonds Plains communities for recreational preferences all suggested that people wanted an indoor year-round "swimming opportunity" and hiking trails. There was \$500,000 donated by the city and province and the Lions for the recreational development and, despite the community's and the Association's efforts to establish trails for walking, the beach plan was chosen. There were numerous struggles over that design - grades, drainage and backfilling plans had to be adjusted so that there would be no washouts and flooding. The plan to remove the trees and the natural shore berm and add tons of sand to make a bigger beach, which would have destroyed a protected fish breeding area, was quashed. Planners proposed flush toilets which would have required a football-sized disposal field, and they suggested cutting down much of the old growth Acadian forest along the shore to install the field. The Association was able to make the case for the "Trailhead" peat toilets used by Parks Canada and the US National Parks Service which were installed and have always worked well. The trees were saved, the ecosystem and the beauty of the area were preserved.

Somewhere in the midst of all the meetings and activities around the beach project some in the Association realized that there would always be plans afoot that could threaten the lake, and that, in the end, it was the quality of the water that had to be protected. So the Sandy Lake Watershed Association was started, and for several years there was regular water testing carried out by the Bedford Water Advisory Committee...that was eventually cut from the city's budget. We understand the will to continue to spend the ~\$3,500.00 a year for testing all lakes in HRM was lost somehow, so not only Sandy Lake suffered from that cut.

Sandy Lake is a small lake with a more fragile ecosystem than most. It takes 4 to 6 months for the lake to "flush" itself, for example, (depending on the research study referenced) so it is vulnerable to pollutant build-up. It also has nesting loons (loons are on the bottom rung, so to speak, of the endangered species list) which are very vulnerable to speed boat travel and to changes in water acidity. Old growth forest can be found in areas around the lake. Wildlife such as deer, mink, ermine, beavers and more live along its banks. Nesting pairs of Osprey and Barred Owls live near the lake, and it is alive with aquatic life.

As the Lion's Park Beach progressed, the organization managed to eliminate a planned boat launch facility, and that helped to reduce the number of motorized water craft using the lake and thereby protected the sensitive wildlife. There was a year-long series of presentations and public meetings with the Coast Guard to try and have Sandy Lake stipulated as a motorized water craft-free lake. Sandy Lake, Kearney Lake and Mic Mac Lake were part of the presentation roster to create protected lakes for paddlers use. At the end of the year, the Coast Guard was to make a recommendation to Provincial cabinet. Their cabinet recommendation would then go to the federal cabinet for consideration. The Association was advised that there was no guarantee that a provincial approval would pass at the federal level. When the Coast Guard recommendations finally came out it was a shock to find that Sandy Lake wasn't mentioned at all. The response to questioning was that they could not recommend banning motorized watercraft on a waterway that didn't have a problem yet. When the park plan went on the back burner, Sandy Lake remained vulnerable.



There was once a Department of Fisheries and Oceans study on the lake to test methods for balancing Ph—at a time when the entire southern end of the province was losing fish because of acid rain from the US northeast. Scientists dumped industrial levels of limestone into the lake to adjust the Ph, but it had no effect. The lake was balanced naturally because large springs filling the lake from the bottom flow through limestone deposits and naturally balance the Ph, so after a year and a half the study was halted. Sandy Lake is unique in this way, and thanks to this and to the efforts over the years to ward off threats to the lake's health, Sandy Lake's water quality is very good. Thus allowing for the abundance of natural life in and around it.

To protect this water and its watershed is why we established the Sandy Lake Conservation Association. We had believed that a Regional Park was still the long term plan. We were unaware of the 2006 change at City Hall to designate this area as a potential Urban Settlement area. Apparently councillors in City Hall were also unaware of the history and fragility of Sandy Lake, or of the long term plan to create a regional park there. These facts came to light when we heard tree cutting machines stripping the 200 acre plot that includes the far tip of the lake. We learned a lot. There are huge loopholes in the land development system that allow developers to clear cut huge properties without having either a forestry permit or a HRM application for housing approved.

On August 22, 2013, with no options left, we engaged the media to try to stop the cutting of trees nearest the lake because that area had the most potential to be included in or linked to a regional park around Sandy Lake. HRM's development process requires that 10% of the value of developed lands must go to parkland, and this area had prime park land potential. On Friday August 23, 2013 the developers agreed to stop cutting at least temporarily. The painful irony is that these 200 acres were once part of the 500 acre gift that had been offered for the park.



**Sandy Lake clear-cut in progress 2013, as seen from Lions' Club Beach**



Since then we have worked hard to raise awareness so that Sandy Lake, Jack Lake and Marsh Lake, this beautiful trio of lakes so close to Bedford, Sackville and Hammonds Plains, can be protected and serve the many important functions of such a beautiful natural area so close to the city's major growth areas. The city has reopened this consideration and has purchased from this same developer 160 uncleared acres near Marsh Lake and Sandy Lake. We are very encouraged by this and we respectfully request further acquisitions of land around Sandy Lake before future development can threaten the recreational possibilities and the natural lake. Once an area is paved it can never go back.

With development coming ever nearer to the lakes, we have reached a crossroads. We welcome the city's sharing in the long term vision that the residents have worked so hard and long to bring to fruition, for the benefit of the lakes and accompanying wildlife, to protect the Sackville River's watershed, to become part of the RP+5's goal for a Green Network, and to provide a substantial park for public access to nature and recreation for this growing part of the city.

Check our website [www.sandylake.org](http://www.sandylake.org) for developments as they unfold.

To support our efforts to protect this lake please also sign up on our SLCA website comments section.

## APPENDIX S

### **Groups that Worked to Protect the Sandy Lake Area's Natural Assets**

The natural assets of Sandy Lake, Marsh Lake, Jack Lake and the Sackville River have been protected over decades by various community groups.

- SANDY LAKE CONSERVATION ASSOCIATION (Since 2014)
- SACKVILLE RIVERS ASSOCIATION (for decades)

#### **Earlier Groups:**

- SANDY LAKE AREA RATEPAYERS ASSOCIATION (SLARA)
- SANDY LAKE WATERSHED CONSERVATION MANAGEMENT ASSOCIATION
- SANDY LAKE AREA RESIDENTS' ASSOCIATION
- BEDFORD LIONS CLUB

*Note: There may be others, but NS Registry of Joint Stocks lists these. Several variations of these names can be found in various reports and documents, but it is likely the variations are rooted in the group names above.*

## APPENDIX T

**Excerpted from *TOWARDS THE IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS FOR ENVIRONMENTAL MANAGEMENT: A CASE STUDY IN THE SACKVILLE RIVER WATERSHED, NOVA SCOTIA* by Rhea D. Mahar, Department of Geography, Saint Mary's University, 1994**

This study by Rhea D. Mahar identifies 40 Environmentally Sensitive Areas in the Sackville River Watershed between Mt. Uniacke and the Bedford Basin. The top ranked ESLs are #1, Tomahawk Lake (largely because it is a water reserve for the city), #2, Sandy Lake, and #3, the Old Quarry Corridor along the Sackville River.

Mahar's thesis introduces a new criterion for Environmentally Sensitive Areas (ESAs). Previously, an Environmentally Sensitive Area (ESA) "contains features such as: headwaters, unusual plants, wildlife or landforms, breeding or overwintering animal habitats, rare or endangered species, or combinations of habitat and landform which could be valuable for scientific or conservation education." (P. 15) Mahar's new criterion is based on social significance of local natural areas. Mahar comments on the distress that is caused to people when local natural areas are destroyed. "There could be a link between the presence of natural areas for their own sake and the presence of natural areas as a "balm to the spirit". (P.10) In 2017, we know this to be so, and the Green Network itself is a result of that knowledge as much as for other important reasons.

However, the polarity between the market ethic approach and the ecological ethic is still strong. As Mahar states, "the *real* (sic) world is not simply an economic world. Should land adjacent to the periphery of urban areas be given over to development simply because the criteria for determining the value of that land is based on dollars and not necessarily on who or what resides or utilizes the land? There is a holistic quality to life that is often disregarded in arguments for preserving natural areas.

Stamps (1992, 1989, 1991) has been monitoring a trend in public expression of the importance of: the presence of trees in an urban setting, environmental aesthetics and public involvement in planning decisions. Perhaps this interest in planning decisions is from the experiences of destruction of sentimentally-valuable areas near settlements. A case in point in the Sackville River watershed is the Bedford Barrens issue. Petroglyphs were 'discovered' on prime land zoned for development (Figs. 2 & 3). Without having legislation in place to respect the intrinsic value of the Barrens to the Mi'kmaq and the local residents, an incredible amount of confusion has ensued and matters are still unsettled (Jones, 1994). Local residents who are not Mi'kmaq refer to the Barrens as "the centre of our sanity", and as a retreat where one's spirit may be refreshed (Mangalam, J. in Edwards, 1993, p.6).

On a very personal level, there is often an almost religious experience for people in natural areas (Soule, 1986). For others describing the remorse with the destruction of a natural area is like trying to describe the feeling with an old friend; it is valuable and when it is gone there is a deep sense of loss."