



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

**Information Item No. 4**  
**Environment & Sustainability Standing Committee**  
**January 14, 2016**

**TO:** Chair and Members of Environment & Sustainability Standing Committee

ORIGINAL SIGNED

**SUBMITTED BY:**

Bob Bjerke, Chief Planner and Director, Planning & Development

**DATE:** November 10, 2015

**SUBJECT:** Weed Harvesting in Lake Banook & Lake Micmac

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**INFORMATION REPORT**

**ORIGIN**

This report originated by motion of Regional Council, Item 11.3.1, February 24, 2015

**LEGISLATIVE AUTHORITY**

Section 3.5.1 and 3.5.3 of the Environment and Sustainability Standing Committee's Terms of Reference describes as responsibility under Water Management:

- *Involvement in policy development and oversight of policies appropriate to promote and protect water resources in HRM.*
- *Other related activities in the area of Water Resource management as identified by the Standing Committee and approved by Regional Council*

## **BACKGROUND**

On July 29, 2014, Regional Council requested staff to provide a report outlining short-term and long-term options discussed in a Stantec study on weed growth in Lake Banook and Lake Micmac. Staff presented the report to the Environment and Sustainability Standing Committee on January 8, 2015, and subsequently to Regional Council on February 24, 2015. Regional Council directed staff to:

1. Seek approval from the Province to manage the weeds in Lakes Banook and MicMac;
2. Implement the short-term control of weed management on Lake Banook and Lake MicMac through contracted mechanical harvesting services;
3. Prepare recommendations for long-term options for weed control on Lake Banook and Lake Micmac; and,
4. Pending provincial approval, to include contracted mechanical weed control in Lakes Banook and MicMac as a new service in the 2015/16 Operating Budget and directing staff to prepare the 2015/16 Planning and Development Budget and Business Plan incorporating the direction from Council and the applicable costs associated with the program as outlined in the December 17, 2014 staff report estimated at \$182,000.

Staff have accomplished items 1, 2, and 4 identified by Regional Council, and here provide a summary of activities and results to date, along with next steps for weed harvesting in Lake Banook and Lake Micmac.

## **DISCUSSION**

### Summary of Developments 2015

In February 2015, municipal staff contacted Nova Scotia Environment (NSE) and Fisheries and Oceans Canada (DFO) to seek provincial and federal approval, respectively, to conduct mechanical weed harvesting. In April, NSE advised HRM that no authorization was required to proceed with the proposed harvesting project (see Attachment A) In June, DFO advised HRM that no authorization was required to proceed with the proposed harvesting project (see Attachment B).

In May 2015, staff issued an RFP (15-055) for mechanical weed harvesting services. Two proposals were received in response to the RFP, but neither achieved the minimum technical requirements. Staff re-issued the RFP (15-055R, see Attachment C) in June, and again two proposals were received. One of the two proposals met the technical requirements, and a contract was awarded to the proponent in mid-August.

Some residents with properties located on the shoreline of Lake Banook reported weeds washing ashore on and before August 5. These weeds were collected by residents and by staff of Atlantic Division Canoe Kayak Canada, as they were unrelated to harvesting activities and beyond the scope of the approved harvesting program.

Harvesting operations began on August 18, and continued on weekdays through August 27. During this period, five target locations were harvested throughout Lake Banook and Lake Micmac. Operators reported 100% recovery of weeds cut, no equipment impact on the lake bottom, low and stable turbidity levels, and no fish killed due to harvesting activities. Operators estimated 82,500 pounds of weeds were harvested throughout the course of the harvesting event. Harvested weeds were disposed of into a designated bin located at the shoreline of Graham's Grove Park, and were subsequently relocated offsite for ultimate disposal by Miller Composting. The final report is presented as Attachment D.

Municipal staff secured monitoring services for weed harvesting in August to assess the effectiveness of the program. The consultants work (see Attachment E), based on acoustic data collection, resulted in a new bathymetric map for Lake Micmac<sup>1</sup> and documented:

- Percent cover of submerged weeds for Lake Banook and Lake Micmac
  - Canopy height of submerged weeds for Lake Banook and Lake Micmac
  - Distribution of weeds for Lake Banook and Lake Micmac as identified through a field botany survey.
- Twelve (12) species were identified along with their respective distribution throughout the lakes. Two species were found in both lakes (Clasping Leaf Pondweed and Canada Waterweed), with three species found only in Lake Micmac and seven species found only in Lake Banook.
- Distribution of sediment types throughout Lake Banook and Lake Micmac.

The monitoring work attempted to assess the performance of mechanical weed harvesting services by analyzing data that was to have been recorded on a GPS plotter device by the harvesting vessel operators. The operators were to have recorded the locations of harvesting activities by starting recording when the harvesting began and ending recordings when the harvesting ended, resulting in a series of lines ("tracks") on the map for every day on the water. Unfortunately, despite their best efforts, harvesting contractors were unsuccessful in recording most of their movements. Several lessons were learned from this experience that will be applied to the operations of both monitoring and harvesting contractors in the seasons to come.

Although available data suggests that the lake bottom was undisturbed by harvesting activities, the location and efficacy of harvesting activities could not be confirmed.

Municipal staff also developed a communication strategy for the weed harvesting program of 2015. Local Councillors, user groups, and surrounding residents were provided with regular updates on program development through the spring and summer. In addition, municipal staff issued a news release on August 18 to inform the media of the start of harvesting services.

#### Next steps

Staff issued an RFP (15-347) to secure monitoring services for the next three years (2016-2018) – see Attachment F. This solicitation is intended to:

1. Secure regulatory approvals from Nova Scotia Environment and Fisheries and Oceans Canada for the three years, and ensure that the municipality meets the terms of those approvals during the period.
2. Develop a monitoring strategy and implement that strategy over the period 2016-2018, in concert with the regulatory approvals. This work will include but is not limited to:
  - a. Determining locations to be targeted for harvest during each harvesting event
  - b. Directing harvesters to target locations and monitoring harvester performance for each event
  - c. Conducting acoustic surveys before and after harvesting events to enable monitoring
  - d. Analyzing changes in the abundance (cover area) and distribution of weeds over time,
  - e. Monitoring additional performance indicators.

Early in 2016, staff will issue another RFP to secure weed harvesting services for 2016-2018. Harvesting services will be integrated with monitoring services, such that the consultants monitoring weed growth will direct the focus of harvesting activities on the basis of pre-harvest weed surveys. This approach is taken to maximize the ability of municipal staff to determine if weed harvesting is having the desired effects (reduction in their extent and of their impact on recreational and competitive boating).

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<sup>1</sup> A new bathymetric map of Lake Banook was recently generated through an independent contract earlier in 2015.

Municipal staff will develop a long-term communications strategy for the period 2016-2018 and implement the strategy through a series of annual plans. In concert with monitoring and harvesting contractors, staff will also engage in continuous program assessment and adaptation, as required, with annual post-season (fall) updates to the Environment and Sustainability Standing Committee.

### **FINANCIAL IMPLICATIONS**

There are no financial implications to this report. Funding for monitoring and harvesting services is approved in principle for the length of the proposed contracts pending the approval of annual operating budgets.

### **COMMUNITY ENGAGEMENT**

No community engagement was conducted in support of this report.

### **ATTACHMENTS**

Attachment A. NSE Correspondence for weed harvest project authorization

Attachment B. DFO Correspondence for weed harvest project authorization

Attachment C. RFP 15-055R, Mechanical Weed Harvesting Services, Lake Banook & Lake Micmac

Attachment D. Final Report, Weed Harvesting 2015. Natural Ocean Products, Sept. 25, 2015

Attachment E. Final Report, Lake Banook and Lake Micmac 2015 Aquatic Vegetation Monitoring.  
Stantec, Oct. 30, 2015


Attachment F. RFP 15-347, Weed Harvest Monitoring Services

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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 902.490.4210, or Fax 902.490.4208.

Report Prepared by: Cameron Deacoff, Environmental Performance Officer, 902.490.1926

 ORIGINAL SIGNED

Report Approved by:   
Shannon Miedema, Acting Manager, Energy & Environment, 902.490.3665

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## Deacoff, Cameron

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**From:** Bennett, Norma J <Norma.Bennett@novascotia.ca>  
**Sent:** April-21-15 11:29 AM  
**To:** Deacoff, Cameron  
**Cc:** Burns, Jamie R  
**Subject:** RE: Request for direction: NSE approvals required to mechanically harvest weeds at Lake Banook & Lake MicMac, Dartmouth

Hi Cameron,

I have reviewed the information you provided on the method of weed removal from Lake Banook and based on the information you will not require an authorization from NSE to remove the weeds using this methodology. As per your information, the removal involves the actual cutting of plant material and will not involve the removal of material from the lake bed itself. The disturbance to the lake bed would be the trigger requiring an approval.

Should your methodology change, please contact NSE for determination on whether an approval will be required. Please note that this email does not take into consideration impacts this may have on fish species in the lake and you are therefore advised to contact DFO for their comments in this regard.

Regards,

Norma

Norma Bennett  
District Manager  
NS Environment  
30 Damascus Road, Suite 115  
Bedford, NS B4A 0C1

Tel: (902) 424-3852  
Fax: (902) 424-0597  
Email: [bennetnj@gov.ns.ca](mailto:bennetnj@gov.ns.ca)



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**From:** Deacoff, Cameron [mailto:[deacofc@halifax.ca](mailto:deacofc@halifax.ca)]  
**Sent:** Monday, April 13, 2015 1:07 PM  
**To:** Bennett, Norma J  
**Cc:** Burns, Jamie R  
**Subject:** RE: Request for direction: NSE approvals required to mechanically harvest weeds at Lake Banook & Lake MicMac, Dartmouth

Hi Norma,

I am writing in support of a recent voice message left for you earlier today. We eagerly await hearing from you, on behalf of NSE, regarding the municipality's requirements for harvesting weeds in Lake Banook and Lake MicMac. To facilitate your review, I have attached here the municipality's responses to your questions, sent to you by email on March 13.

Best regards,  
Cameron

**CAMERON DEACOFF**  
ENVIRONMENTAL PERFORMANCE OFFICER  
PLANNING & DEVELOPMENT

**HALIFAX**

T. 902.490.1926  
C. 902.476.0363  
[halifax.ca](http://halifax.ca)

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**From:** Bennett, Norma J [<mailto:Norma.Bennett@novascotia.ca>]  
**Sent:** March-06-15 2:26 PM  
**To:** Deacoff, Cameron  
**Cc:** Burns, Jamie R  
**Subject:** RE: Request for direction: NSE approvals required to mechanically harvest weeds at Lake Banook & Lake MicMac, Dartmouth

Great, look forward to hearing from you next week.

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**From:** Deacoff, Cameron [<mailto:deacofc@halifax.ca>]  
**Sent:** Friday, March 06, 2015 2:14 PM  
**To:** Bennett, Norma J  
**Cc:** Burns, Jamie R  
**Subject:** RE: Request for direction: NSE approvals required to mechanically harvest weeds at Lake Banook & Lake MicMac, Dartmouth

Hi Norma,

Thanks for the follow-up on this request. The municipality is working to confirm the harvesting plan so that we may provide details as requested in your email, and I anticipate providing them to you before end of day March 13<sup>th</sup> to enable your review and response. It remains to be seen, at our end, if a meeting is warranted, but we'll ask right away if we think it is.

Best regards,  
Cameron

**CAMERON DEACOFF**  
ENVIRONMENTAL PERFORMANCE OFFICER  
PLANNING & DEVELOPMENT

**HALIFAX**

T. 902.490.1926  
C. 902.476.0363  
[halifax.ca](http://halifax.ca)

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**From:** Bennett, Norma J [<mailto:Norma.Bennett@novascotia.ca>]  
**Sent:** March-05-15 4:05 PM  
**To:** Deacoff, Cameron  
**Cc:** Burns, Jamie R  
**Subject:** Request for direction: NSE approvals required to mechanically harvest weeds at Lake Banook & Lake MicMac, Dartmouth

Hi Cameron,

Thank you for your email. Could you please provide information on how you plan to mechanically harvest the weeds from the lake? Wondering what the technology involves with respect to entering the watercourse; how it traverses the watercourse; weed removal at the lake bed or actual mowing, leaving the root intact; how the material removed will be collected and what the disposal plans are.

If you could send along this information we can review and provide you an answer as to approval requirements. If we need more we can set up a time to meet.

Thanks,

Norma

Norma Bennett  
District Manager  
NS Environment  
30 Damascus Road, Suite 115  
Bedford, NS B4A 0C1

Tel: (902) 424-3852  
Fax: (902) 424-0597  
Email: [bennetnj@gov.ns.ca](mailto:bennetnj@gov.ns.ca)



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**From:** Deacoff, Cameron [<mailto:deacofc@halifax.ca>]  
**Sent:** Thursday, February 26, 2015 3:53 PM  
**To:** Burns, Jamie R  
**Subject:** Request for direction: NSE approvals required to mechanically harvest weeds at Lake Banook & Lake MicMac, Dartmouth

Hi Jamie,

As you may have heard, Halifax Regional Council has recently directed staff to harvest weeds in Lake Banook and Lake MicMac, subject to receiving advance approval from Nova Scotia Environment.

The staff report that led to this direction is available online [here](#); it incorporates a report commissioned by the municipality to identify the source of the problem and both short-term and long-term solutions, and a presentation delivered to the community to share the results as documented in the report.

This issue was originally reported to the Environment & Sustainability Standing Committee (ESSC) through three separate reports in 2011. Those early reports are available for review as follows:

- [ESSC March 3, 2011: Lake Water Quality](#)
- [ESSC February 3, 2011: Lake Banook & MicMac Plant Growth](#)
- [ESSC May 7, 2011: Update on Lakes Banook & MicMac](#)

I am writing to ask what is required for approval for the municipality to mechanically harvest weeds in these lakes – authorizations, approvals, permits, exemptions, etc.

Thank you for your assistance,  
Cameron

**CAMERON DEACOFF**  
ENVIRONMENTAL PERFORMANCE OFFICER  
PLANNING & DEVELOPMENT

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Bedford Institute of Oceanography  
1 Challenger Drive,  
P.O. Box 1006  
Station B610  
Dartmouth, N.S.  
B2Y 4A2

June 2, 2015

*Your file                  Votre référence*

*Our file    Notre référence*  
15-HMAR-00151

Mr. Cameron Deacoff  
Halifax Regional Municipality  
P.O. Box 1749  
Halifax, N.S. B3J 3A5

Dear Mr. Deacoff:

**Subject:    Serious harm to fish can be avoided or mitigated**

The Fisheries Protection Program (the Program) of Fisheries and Oceans Canada received a proposal on May 19, 2015.

Based on the information provided, the proposal has been identified as a project where a *Fisheries Act* authorization is not required given that serious harm to fish can be avoided by following standard measures. Proposals in this category are not considered to need an authorization from the Program under the *Fisheries Act* in order to proceed. In order to comply with the Act, it is recommended that the guidance tools, which can be found at the website (<http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/index-eng.html>), be followed.

Should the plans change or if there is omitted information in the proposal such that the proposal meets the criteria for a site specific review, as described on our website (<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>), the request for review form that is also available on the website should be completed and submitted.

Should you have any questions or concerns about the compliance of the proposal with the *Fisheries Act* (and/or those prohibitions of the *Species at Risk Act* that apply to listed aquatic species)\* you may wish to engage an environmental professional familiar with measures to avoid impacts to fish and fish habitat (<http://www.dfo-mpo.gc.ca/pnw-ppe/env-pro-eng.html>).

\*Those sections most relevant to the review of development proposals include 20 and 35 of the *Fisheries Act* and sections 32, 33 and 58 of the *Species at Risk Act*. For more information please visit [www.dfo-mpo.gc.ca](http://www.dfo-mpo.gc.ca).

Yours sincerely,

ORIGINAL SIGNED

∟

Craig Hominick, Regulatory Reviews  
A/Team Leader  
Fisheries Protection Program

REQUEST FOR PROPOSAL

Mechanical Weed Harvesting Services, Lake Banook & Lake Micmac

RFP #15-055R

Closing: Friday, July 24 at 2:00 pm local time.

Halifax Regional Municipality  
Procurement Section  
Suite 103, 1<sup>st</sup> Floor,  
40 Alderney Dr. (Alderney Gate),  
Dartmouth Nova Scotia  
B2Y 2N5

June 24, 2015

NOTICE

REQUEST FOR PROPOSAL #15-055R

\*\*\*\*\*

The Halifax Regional Municipality (“the Municipality”) is seeking proposals from qualified individuals/ firms to provide mechanical weed harvesting services for Lake Banook and Lake Micmac during August 2015.

Members of the public first began reporting complaints regarding excessive weed growth interfering with recreation in Lake Banook and Lake Micmac to the Halifax Regional Municipality (HRM) in the summer of 2009. Further complaints regarding weed growth in both lakes were reported to the municipality in summer 2010. Weed specimens were obtained by municipal staff in the summers of 2009 and 2010 for identification by local authorities. Four separate weed species were identified:

- *Potamogeton filiformis* - (Common Name: Slender-leaved pondweed) – 2009 only
- *Potamogeton perfoliatus* (Common Name: Clasping-leaf pondweed) – 2010 only
- *Potamogeton foliosus* (Common Name: Leafy pondweed) – 2010 only
- *Elodea Canadensis* (Common Name: Canada waterweed) – 2010 only

All four plants are native to Nova Scotia and are non-invasive. Anecdotal reports suggest that the abundance (amount) and extent (area of lakes affected) by plant growth far exceeded that of previous years, with more observed in 2010 than 2009. By 2010, the excessive plant growth was reportedly affecting motorized boating, non-motorized boating and swimming on the lakes.

Two staff reports were presented to the Environment and Sustainability Standing Committee documenting the status of weeds in these lakes in 2011. These reports are available online at <http://www.halifax.ca/boardscom/swrac/documents/7.2.3.pdf> and <http://www.halifax.ca/boardscom/swrac/documents/UpdateonLakesBanookandMicMac.pdf>, respectively.

In fall 2013, Halifax staff contracted Stantec Consulting Ltd. (hereafter, “Stantec”) to assess the causes and possible solutions to excessive growth of submerged aquatic vegetation in Lake Banook, and to present the results of the study in a final report and subsequent public presentation. The report is available at: <http://www.halifax.ca/council/agendasc/documents/150224ca1131.PDF> (It should be noted that the study documented the biomass in Lake Banook, but the intent of this solicitation is to harvest both Lakes Banook and Micmac)

Regional Council has provided direction for staff to implement the short term control of weed management on Lake Banook and Lake Mic Mac through contracted mechanical harvesting services. The intent of this solicitation is to obtain those services for 2015.

Sealed Proposals, two (2) copies, zero (0) bound, *one (1) in digital format on USB flash drive,* and one (1) unbound and duly signed for #15-055R, Weed Harvesting Services, Halifax Regional Municipality, Halifax, Nova Scotia shall be delivered to Halifax Regional Municipality Procurement Section, Suite 103, 1<sup>st</sup> Floor, 40 Alderney Dr. (Alderney Gate), Dartmouth Nova Scotia, B2Y 2N5, by 2:00 P.M. local time, Friday, July 24, 2015. Proponents are advised that Canada Post and its’ affiliates do not deliver to the Procurement Office.

All questions concerning the procurement process shall be directed to Erin MacDonald, Senior Procurement Consultant, at (902) 490-6476, Monday through Friday, 8:30 A.M. to 4:30 P.M. or E-mail to [macdoner@Halifax.ca](mailto:macdoner@Halifax.ca) and those of a technical nature to Cameron Deacoff, Environmental Performance Officer, Planning & Development, Phone (902) 490-1926, or E-mail to [deacofc@halifax.ca](mailto:deacofc@halifax.ca).

The Municipality reserves the right to reject any or all proposals and to award the contract in its entirety, or in part, whichever in its opinion best serves the interest of the Municipality.

Anne Feist, Manager  
Procurement

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## SECTION 1. INSTRUCTIONS TO PROPONENTS

### 1. General Instructions

This Request for Proposal (“RFP”) document and any addenda may be obtained in person or by mail from, Halifax Regional Municipality Procurement Section, Suite 103, 1<sup>st</sup> Floor, 40 Alderney Dr. (Alderney Gate), Dartmouth Nova Scotia, B2Y 2N5, or via download at <http://www.novascotia.ca/tenders/tenders/ns-tenders.aspx>.

- a. All proposals are to be submitted in accordance with this RFP document.
- b. All proposals are to be submitted in sealed, plainly marked envelopes. Proposals sent by facsimile or e-mail will not be accepted.
- c. Additional information or clarifications of any of the instructions or information contained herein may be obtained from the Halifax Procurement Office.
- d. Any proponent finding any discrepancy in or omission from this RFP, in doubt as to the meaning of any provision(s) herein, or feeling that the RFP is discriminatory, shall notify the Halifax Procurement Office in writing within five (5) days of the scheduled opening of proposals. Inquiries and exceptions taken by proponents in no way obligate the Municipality to change the RFP; however any interpretations given by the Halifax Procurement Office and any changes made to the RFP will be reflected in addenda duly issued by the Halifax Procurement Office.
- e. The Municipality will assume no responsibility or liability for oral instructions or suggestions. All official correspondence in regard to the RFP should be directed to the Halifax Procurement Office.
- f. All proposals must be signed by an authorized signatory of the proponent.
- g. The Municipality reserves the right to make additional copies of all or part of each proponent’s proposal for internal use or for any other purpose required by law.
- h. Proposals may be publicly acknowledged but cost proposals will NOT be publicly opened. Proponents will be advised of the results after an evaluation of all proposals has been completed and a successful proponent has been determined.

### 2. Eligibility

Prospective proponents are not eligible to submit a proposal if current or past corporate and/or other interests may in the opinion of the Municipality, give rise to conflict of interest in connection with this RFP or the Services. Proponents are to submit with their proposal documents a description of any issue that may constitute a conflict of interest violation for review by the Municipality. The Municipality’s decision on this matter will be final. Individuals and entities engaged by the Municipality to draft any component of this RFP (and anyone affiliated with such individuals and/or entities) are not eligible to submit proposals for this RFP.

### 3. Proponent’s Qualifications

- a. No contract will be awarded except to responsible proponents capable of providing the Services.
- b. No contract will be awarded to any proponent who is currently disqualified from bidding (or to a proponent whose owner/principal is or was the owner/principal of a vendor who is disqualified from bidding) on the scope of services outlined in this RFP per Administrative Order #35, Procurement Policy, Section 11 – Vendor Performance.
- c. Proponents must be primarily engaged in providing the Services as outlined in this RFP.
- d. Proponents must have an extremely comprehensive understanding of the subject matter in this RFP. Such understanding and previous experience in all aspects of similar projects are essential criteria in the qualifying process. The Municipality reserves the right to consider past performance on Municipal contracts in the evaluation of a proponent’s qualifications.
- e. Proponents must have a proven record of having provided similar services. The

Municipality reserves the right to check all client contacts furnished and to consider the responses received in evaluating proposals.

- f. Proponents must use personnel and management knowledgeable in their areas of expertise. The Municipality reserves the right to perform investigations as may be deemed necessary to ensure that competent persons will be used in the performance of the Services.
4. Reservations

The Municipality reserves the right to reject or accept any or all proposals or parts of proposals, when in its reasoned judgment; the public interest will be served thereby. The Municipality may waive formalities or technicalities in proposals as the interest of the Municipality may require. The Municipality may waive or correct minor errors, omissions and inconsistencies in proposals provided they do not violate the proposal intent.

Under no circumstances shall the Municipality be liable for any losses or damages arising from the Municipality's rejection or acceptance of any proposal for any reason whatsoever. Notwithstanding the foregoing, the Municipality's liability for any losses or damages resulting from the Municipality's failure to fulfill any of its explicit or implied obligations under the RFP, including the Municipality's acceptance of a non-compliant proposal, or the Municipality's awarding of a contract to a non-compliant proponent shall in all circumstances be limited to the lesser of actual damages suffered or \$1,000.00

5. Proponents Expenses

Proponents are solely responsible for their own expenses in preparing, delivering or presenting a proposal.

6. Exceptions

The submission of a proposal shall be considered an agreement to all the terms and conditions provided herein. Any proposal containing exceptions to the terms and conditions of the RFP or the resulting contract may be rejected by the Municipality for non-compliance. Any request for changes to the terms and conditions of the RFP or the resulting contract must be made in writing to the Halifax Procurement Office prior to the date of closing. Only if the Municipality issues a formal addendum to the RFP will any changes to the RFP or resulting contract be effective.

7. RFP Administration

All questions concerning the procurement process shall be directed to Erin MacDonald, Senior Procurement Consultant, at (902) 490-6476, Monday through Friday, 8:30 A.M. to 4:30 P.M. or E-mail to [macdoner@halifax.ca](mailto:macdoner@halifax.ca) and those of a technical nature to Cameron Deacoff, Environmental Performance Officer, Planning and Development, Phone (902) 490-1926, or E-mail to [deacofc@halifax.ca](mailto:deacofc@halifax.ca) .

8. Existing Conditions

Each proponent must completely satisfy themselves as to the exact nature and existing conditions of the requirements and for the extent and quality of the Services to be performed. Failure to do so will not relieve the successful proponent of their obligation to perform the Services in accordance with the provisions of the contract.

9. Information Session

None



## 10. Questions

- a. The proponent is responsible for obtaining any needed clarification of the RFP requirements, while the RFP is open. Questions should be directed in writing to the contacts identified in this document. **Email is the preferred method of contact.** Verbal questions and responses that are not later confirmed in writing will not be considered an official response.
- b. Questions and responses that are deemed to materially affect the RFP requirements, project scope, time lines, etc. or to be of interest to all prospective proponents **may** be made available via Addenda at the sole discretion of the Municipality.

## 11. Addenda

- a. Any addenda issued by the Municipality shall be posted on the Nova Scotia Public Tenders website at <http://novascotia.ca/tenders/tenders/ns-tenders.aspx>.
- b. The proponent must monitor the Nova Scotia Public Tenders Website for any addenda that may be issued during the full open period of the RFP.
- c. The submission of a proposal shall be deemed to indicate that the proponent has read, understood and considered all addenda posted to the Nova Scotia Public Tenders Website prior to the closing date and time.

## 12. Currency and Taxes

Prices are to be quoted in Canadian dollars, inclusive of duty (where applicable) and exclusive of HST.

## 13. Public Information/Proprietary Information

- a. The Municipality is subject to the Freedom of Information and Protection of Privacy provisions contained within the *Municipal Government Act* at Part XX. Any document submitted to the Municipality in response to this RFP is subject to this legislation and proponents should be aware that any member of the public is entitled to request a copy of the document. In response to such a request, the Municipality may be required to disclose some or all of the information in accordance with the criteria set out in the legislation, including sections 462, 480 and 481(1).
- b. The Municipality is also subject to the *Personal Information International Disclosure Protection Act*. The Act creates obligations for the Municipality and its service providers when personal information is collected, used or disclosed. Requirements include limiting storage, access and disclosure of personal information to Canada, except as necessary or otherwise required by law.
- c. By submitting a proposal, the proponent agrees that the Municipality may disclose the following sections of the proposal without notification to the proponent:
  1. Form of Proposal
  2. Executive Summary
  3. Proponent's fixed total cost (if applicable)

## 14. Period of Submission Validity

Unless otherwise specified, all proposals submitted shall be irrevocable for ninety (90) calendar days following the closing date.

15. Surety

Bid Surety, Performance Surety and/or Labour and Materials Surety may be required in relation to this RFP and the resulting Contract.

16. Disputes

In cases of dispute as to whether or not an item or service proposed meets the RFP requirements, the decision of the Municipality shall be final and binding.

17. Disqualification for Inappropriate Contact

Any attempt on the part of a proponent or any of its employees, agent, contractors or representatives to contact any of the following persons with respect to this RFP or the Services prior to contract award may lead to disqualification:

1. any member of the evaluation team (except those mentioned in this RFP) or any expert advisor to them;
2. any member of Council; and
3. any other member of the Municipal staff
4. any staff or volunteer of the Atlantic Division, Canoe Kayak Canada

18. Proposal Submission

The submission of a proposal will be considered as a representation that the proponent has carefully investigated all conditions which may affect or may, at some future date, affect the proponent's performance of the Services as described in this RFP and that the proponent is fully informed concerning the conditions to be encountered, quality and quantity of work to be performed and materials to be furnished; also, that the proponent is familiar with and will abide by all Federal and Provincial laws and regulations and all by-laws, codes and ordinances of the Municipality which in any way affect the performance of the Services or persons engaged or employed in the performance of the Services.

## SECTION 2: REQUEST FOR PROPOSALS

### 2. Project Background

Members of the public first began reporting complaints regarding excessive weed growth interfering with recreation in Lake Banook and Lake Micmac to the Halifax Regional Municipality (HRM) in the summer of 2009. Further complaints regarding weed growth in both lakes were reported to the municipality in summer 2010. Weed specimens were obtained by municipal staff in the summers of 2009 and 2010 for identification by local authorities. Four separate weed species were identified:

- *Potamogeton filiformis* - (Common Name: Slender-leaved pondweed) – 2009 only
- *Potamogeton perfoliatus* (Common Name: Claspingleaf pondweed) – 2010 only
- *Potamogeton foliosus* (Common Name: Leafy pondweed) – 2010 only
- *Elodea Canadensis* (Common Name: Canada waterweed) – 2010 only

All four plants are native to Nova Scotia and are non-invasive. Anecdotal reports suggest that the abundance (amount) and extent (area of lakes affected) by plant growth far exceeded that of previous years, with more observed in 2010 than 2009. By 2010, the excessive plant growth was reportedly affecting motorized boating, non-motorized boating and swimming on the lakes.

Two staff reports were presented to the Environment and Sustainability Standing Committee documenting the status of weeds in these lakes in 2011. These reports are available online at <http://www.halifax.ca/boardscom/swrac/documents/7.2.3.pdf> and <http://www.halifax.ca/boardscom/swrac/documents/UpdateonLakesBanookandMicMac.pdf>, respectively.

In fall 2013, Halifax staff contracted Stantec Consulting Ltd. (hereafter, “Stantec”) to assess the causes and possible solutions to excessive growth of submerged aquatic vegetation in Lake Banook, and to present the results of the study in a final report and subsequent public presentation. The report is available at: <http://www.halifax.ca/council/agendasc/documents/150224ca1131.PDF> Although Stantec’s study documented only plant biomass in Lake Banook, the intent of this solicitation is to harvest plants in both Lake Banook and Lake Micmac.

Regional Council has provided direction for staff to implement the short term control of weed management on Lake Banook and Lake Mic Mac through contracted mechanical harvesting services. The intent of this solicitation is to obtain those services for 2015.

### 3. Goal

The goal of this solicitation is to secure a contract for mechanical weed harvesting services that removes aquatic plant biomass from Lake Banook and Lake Micmac in August 2015. Any contract ensuing from this solicitation is non-renewable.

### 4. Objectives/Critical Path

The contracted works will require the successful vendor to complete weed harvesting services, including vessel based weed cutting, weed collection, and transfer to equipment provided the municipality (bins, trucks, or trailers) for disposal.

#### 4.1 Performance Expectations

- The vessel will arrive at the ramp for lake access in a clean condition and is maintained free of fluid leaks, invasive species, and any weeds
- Priority removal of biomass from Lake Banook paddling, with operations performed in synchronicity with paddling activities to ensure minimization of recreation and sporting disruption;

- The vessel and all associated equipment is to be washed, refueled, serviced, and all fuel and any other materials must be stored in such a way as to prevent any detergent, fuels, oils, etc. from entering the lake.
- Removal of weed biomass from two or more identified high abundance areas in Lake Banook and Lake Micmac, including:
  - A. Northern third of Lake Micmac
  - B. Cove surrounding Graham's Grove Park
  - C. Cove south of Lakeview Point Road
  - D. Southwest corner located in front of Banook Canoe Club and North Star Rowing Club
  - E. Nearshore at Birch Cove Park & Beach

A map depicting the target harvesting areas is provided in Appendix E. The areas lie on the landward side of lines labelled A-E on the map given in Appendix E

- Clean shore logistics ensuring that other users of the boat ramp are not impeded and that weed harvesting logistics do not create a smell or other nuisance.
- All harvested material is to be deposited into the equipment provided. The successful proponent is required to immediately contact the municipality's project manager in the event that the volume of harvested weeds exceeds, or is projected to exceed, the available storage volume.

## 5. Requirements

All requirements described below are mandatory criteria, to ensure compliance with federal and provincial legislation.

Proponents must confirm their ability to provide the required equipment, services, etc. during August 2015.

All work must comply with Federal and Provincial legislation.

All vehicles used in the performance of the work – including land-based vehicles (trucks) and water-based vessels (boats, barges, etc.), must be duly registered and/or licensed by the applicable agency (Nova Scotia Registry of Motor Vehicles, Transport Canada, or otherwise). Satisfactory evidence of licensing/registration for water-based vessels shall be provided to the municipality prior to the start of harvesting operations.

All operators of vehicles used in the performance of the work must be duly licensed for their operations. Evidence of such licensing shall be provided to the municipality prior to the start of harvesting operations.

Work will occur at both Lakes Banook and Micmac.

The harvesting equipment and operation must not touch or otherwise alter the lake bottom. Watercourse alterations require further environmental permitting. It is intended that this harvesting solution will cut the weeds and not alter the watercourse in their removal.

Proponents are required to identify in their proposal project-specific health, safety, and environmental risks associated with the proposed work, and means by which they anticipate addressing them. The selected proponent will be required to submit an acceptable Health, Safety, and Environmental (HSE) Plan to the municipality prior to the municipality authorizing mobilization to the site and the start of weed cutting operations. The required Plan must include but is not limited to, the following risks:

- Vehicle/vessel fuelling. If the vessel is to be refueled while in the watercourse, a spill kit must be provided. An emergency response plan must be documented and implemented immediately in the event of a spill of gasoline, oil-based products, or any other deleterious substance that may contact the water surface directly or indirectly.

- Impact of vehicle exhaust, noise, and other aspects of its operation on the vessel operator and persons nearby
- Handling weeds and direct/indirect water contact
- Disposal of contaminated products
- Working near water at the shore and on a boat, and with specialized gear
- Not collecting cuttings (which may contribute to additional weed growth and fish mortality)
- Blades, other equipment, or the vessel itself contacting the bottom of the watercourse, disturbing the sediment

Harvesting operations shall be conducted during a three-week period in August 2015, but shall not exceed a maximum (total) of ten (10) working days during this three-week period. Operations shall only occur during weekdays (Monday through Friday), shall not interfere with scheduled events on the lakes, and shall begin after dawn and conclude before dusk.

#### 5.1 Insurance and Indemnification.

The following insurance coverage requirements are the responsibility of the Contractor (and applicable Sub Contractors) to purchase and keep in force for the duration of the project. Halifax Regional Municipality reserves the right to require additional insurance coverage including an increase in limits as the scope of the Mechanical Weed Harvesting Services RFP is known.

*Commercial General Liability Insurance* (CGL) of not less than Two Million Dollars (\$2,000,000) inclusive per occurrence for bodily injury, incident, death and damages to property including loss of use thereof, and include endorsements for Products and Complete Operations; Owner's and Contractor's contingent liability; Sudden and Accidental Pollution, Blanket Contractual liability; Cross liability/Severability of Interests; Non-Owned licensed vehicles;

*Automobile Liability* Insurance with respect to owned vehicles subject to limits of not less than Two Million Dollars (\$2,000,000) inclusive and must include Permission to use attached equipment and Sudden and Accidental Pollution endorsements.

*Environmental Impairment Liability* insurance coverage of not less than Two Million Dollars (\$2,000,000.)

*Contractors Equipment* insurance coverage for the full replacement value of owned, rented or leased equipment.

*Watercraft insurance* coverage with respect to owned and non-owned watercraft may be required dependent on the scope of the proposed work.

Halifax Regional Municipality is to be added to insurance policies as Additional Insured with a Certificate of Insurance evidencing proof of valid and in force insurance coverage provided at time of award of RFP.

All insurance shall be maintained continuously while this contract is in force. The Contractor and Subcontractors, as applicable, shall be responsible for all deductible amounts under any policies purchased with respect to this Contract. Each policy required to be placed by the Contractor or Subcontractor will be with Insurers licensed to do business in Nova Scotia and will contain a thirty (30) day notice of material change clause. All insurance policies required by this contract shall be in a form and with an Insurer satisfactory to HRM.

#### **Indemnification**

The Contractor shall indemnify and hold harmless, Halifax Regional Municipality, it's Mayor, Council, Employees and Agents from and against all liabilities, suits, actions, claims, demands, damages, penalties, fines, costs (including Solicitor fees) and expenses of whatsoever kind arising out of or by reason of any liability or obligation in any manner caused or occasioned or claimed to be caused or occasioned by, any act, omission, fault or negligence of the Contractor or anyone acting on their behalf,

including but not limited to, Sub Contractors and sub-vendors and the Employees and Agents of any of the foregoing, in connection with or incidental to, the contract or work to be performed hereunder.

This indemnification extends to any costs, fines or penalties imposed by Regulators on the Contractors, their Sub Contractors or imposed on Halifax Regional Municipality as a result of the Contractor or Sub Contractors completion of work associated with this RFP.

## 6. Constraints

The successful proponent shall be permitted to use the boat launch at 177 Braemar Drive for launching, loading, and logistics. The proponent is required to ensure that the ramp kept clean. The transfer of weeds from harvester to equipment provided shall not be designated complete until no weeds remain on the ramp surface.

The municipality is not liable for any damages to the harvester or associated equipment, or injuries to the vessel operator, that may arise due to the performance of work described in this RFP.

The municipality is not liable for any damages to any properties that may arise due to the performance of work described in this RFP. The successful proponent will be solely liable for any property damage or personal injuries incurred pursuant to the performance of work described in this RFP.

The areas with abundant weed growth may not be the same during August 2015 as they were in previous years, and as identified in Appendix E. The successful proponent is responsible for consulting with designated representatives of the Atlantic Division, Canoe Kayak Canada to identify areas of abundant weed growth in August 2015, and to receive approval from the municipality's project manager for proposed changes to target harvesting areas before initiating harvesting activities.

## 7. Assumptions

The municipality has secured the permission for the contractor's use of the boat launch at 177 Braemar Drive from its registered owner for the period of August 2015.

The maximum annual biomass of excess weed in Lake Banook (only) is estimated at 200 tonnes, based on a consultant's report on Lake Banook and anecdotal evidence. The municipality does not expect the contractor to harvest and remove this biomass during the period of work identified in this RFP.

The removal of weeds from Lake Banook and Lake Micmac are of significant public interest. The municipality is solely responsible for all communications and marketing regarding the harvesting project. No media interviews shall be granted without advance approval from HRM's project manager.

The municipality will arrange for the use of a satisfactory property for the transfer of harvested weeds to shore and the placement of trucks/trailers/bins that will move harvested materials to the selected disposal facility.

Weeds will be abundant in areas identified as target harvesting areas in Section 4 and on Appendix E.

## 8. Project Framework

The municipality will arrange the following for the operation:

- Access to the ramp on 177 Braemar Drive
- Required authorizations for weed removal from Nova Scotia Department of Environment and/or Government of Canada.
- Provision of equipment (bins, trucks, and/or trailers), and daily removal of harvested materials deposited into the provided equipment for disposal at a designated facility.

The contractor will be responsible for all other goods, services, equipment and materials required to complete operations.

The municipality will also provide to the successful proponent:

- A current list of scheduled events that will occur within Lake Banook and/or Lake Micmac in August 2015. A draft list of scheduled events is presented in this RFP as Appendix F.
- A new bathymetric map of Lake Banook, based on survey work conducted during Fall 2014
- A map of the distribution of submerged aquatic vegetation based on a field survey conducted during Fall 2014

#### 9. Detailed Scope of Consulting Services

The Municipality requires consulting services along the following themes: weed harvesting and boat/vessel operation.

The Proponent will be required to undertake the following tasks:

- a. Weed harvesting
  - b. Document observed fish kills.
  - c. Monitor water turbidity
  - d. Transfer weeds from harvesting vessel to land-based equipment (bins, trailers, trucks, etc.) for transport to disposal facility
  - e. Submit a summary report to the municipality following the conclusion of harvesting activities.
- a. Mechanical harvesting involves the use of a vessel equipped with submersed reciprocating blades and a collection system to mow and collect aquatic biomass for disposal. When on-vessel storage of the biomass is at capacity, it is transported to land-based equipment located at the shoreline via a shoreline conveyor or other mechanism as specified by proponents. Harvested material is to be deposited by the selected proponent into trucks, trailers, or other equipment provided by the municipality. The municipality or its agents will transport harvested material, once it has been satisfactorily loaded into the equipment provided, to a designated disposal facility.
  - b. Document observed fish kills. If bodies of fish are observed at the water surface in an area that has recently been harvested for weeds, the vessel operator shall document the date, time, approximate location, number, and type (if known) of fish that are observed.
  - c. Water turbidity monitoring shall be undertaken a minimum of three times daily on days when harvesting operations are underway. Monitoring shall be performed using a standard turbidity probe. Requirements and conditions of monitoring are as follows:
    - The probe shall be calibrated, and the calibration shall be validated, prior to first use
    - All turbidity measurements shall be obtained by the vessel (harvester) operator, from aboard the vessel, when the vessel is in the water.
    - Measurements will be performed at locations where harvesting operations will occur, are occurring, or have just concluded. They must not be taken away from the location where harvesting operations are operating.
    - The first turbidity measurement shall occur within 10 minutes of the start of harvesting operations.
    - The second turbidity measurement shall occur between 11am and 1pm,
    - The third turbidity measurement shall occur within one hour of the end of harvesting operations
    - In the event the harvester's blades or other equipment has contacted the lake bottom, or the operator has reason to believe that any part of the equipment has touched the lake bottom, the vessel operator must perform an additional turbidity measurement.
    - All monitoring results must be recorded on a log sheet. One log sheet shall be used per day, and the log sheet must be removed from the vessel and safely stored at a location of the vendor's choosing for subsequent reporting purposes.

- During harvesting operations, the turbidity probe must be safely stowed onboard the harvesting vessel in a hard-sided case, and in accordance with manufacturer's and/or retailers specifications to protect the equipment from harm.
  - Turbidity measurement log sheets must adequately document the following information:
    - Page Specific Information: Date, vessel operator name, datum and projection of GPS unit (mandatory only if a GPS unit is deployed).
    - Event Specific Information: Time of turbidity measurement, turbidity measurement result, apparent water clarity, observation triggering measurement event (if measurement is performed after equipment hits bottom), location of measurement event (At minimum: Lake name, and approximate lake area. Latitude and Longitude are required (if GPS unit used)
  - If the turbidity probe fails, for any reason, during the period of harvesting operations, it must be replaced by an identical unit or satisfactory alternative, which has been adequately calibrated, for use the next day.
- d. Transfer harvested weeds to equipment provided. The means of transferring weeds from the harvester to the equipment provided is at the proponent's discretion. The proponent is solely responsible for the complete transfer of harvested weeds to the equipment, leaving no cuttings on the surface of the ramp, dock, or other surface on which the equipment will be placed, and allowing no cuttings to re-enter the water or otherwise leave the transfer site (i.e., by wind).
- e. The summary report must document the process and result of harvesting operations, results of turbidity monitoring, fish kill observations, and the transfer of harvested materials.
10. Project Management
- a. The Municipality recognizes that project management is an essential part of this project. The contractor shall designate in their proposal, a project manager. All coordination for services with the Municipality and the contractor shall be the responsibility of the project manager. The project manager shall ensure that any substitutions in proponent team personnel are approved by the Municipality's project manager prior to the substitution taking effect.
- b. One invoice is to be submitted to the municipality following the municipality's notice of acceptance of the proponent's final report. The invoice must document the proponent's expenses in accordance with the cost proposal, and shall distinguish between labour, materials, fees, and business expenses, at a minimum. The municipality reserves the right to hold back 10% of the contract value until it has received a report documenting acceptable contract performance by a third-party monitoring service provider.
- c. Report to the Municipality through a review process and meetings at various stages of the work program. Meetings will be required as follows:
- i Meeting 1. Project kick-off meeting. Within one week of project award and not later than August 14, at the offices of the municipality. The municipality reserves the right to invite third-party participants (significant stakeholders) to this meeting.
  - ii Meeting 2. Project closure meeting. Within two weeks after the end of harvesting activities, but not later than September 15, 2015.
  - iii Additional meetings will be held, as required, between the vendor and municipality regarding harvesting operations. Meetings may be held via telephone, in person, or in the field, as required.
- The work progress shall be measured against a defined budget and work schedule.
- d. A written final report is required to be submitted after the conclusion of the harvesting period. The report shall consist of the actual schedule achieved overlaid on the original base schedule submitted by the proponent at the start up meeting. For instances where the schedule has not been achieved a written explanation as to why shall be included. The report shall be submitted as a PDF attachment to an electronic e-mail. Images submitted within a final report shall also be submitted independently in EPS, TIFF, PNG, or JPG formats.
- e. The project manager and/or their designate must prepare to meet, liaise with regulatory bodies, utilities, stakeholder groups (in particular, the Atlantic Division, Canoe Kayak Canada), other levels of government, and members of the community, as required.



- f. The proponent must provide copies to the Municipality of all correspondence related to the project including agreements reached on behalf of the Municipality.

11. Reporting and Deliverables

The successful proponent will be responsible for the following deliverables:

- Harvesting of weed biomass from each specified priority area
  - Complete collection of harvested weeds from all areas harvested, and complete transfer of harvested weeds to supplied truck/trailers/bins
  - Summary Report delivered within three (3) weeks after the conclusion of the field season. The report shall include:
    - Documentation of the areas harvested;
    - A summary of the approximate volumes harvested from each area;
    - A summary of all observed fish kills;
    - A summary table documenting all turbidity measurement results;
    - A description of any challenges to the compatibility of harvesting operations with other lake recreational users/uses;
    - A description of any conditions that harvester operations, including but not limited to: bottom depth, bottom type (i.e., sandy, silty, rocky), bottom shape (i.e., flat, shallow or steep gradient, other); and
    - An appendix containing the data recorded in daily turbidity measurement log sheets.
- a. Electronic copies of all information (reports, drawings, etc.) shall be provided to the Municipality on a USB flash drive. All reports are to be provided electronically, each as a single PDF file that includes the report text and all figures, diagrams, and drawings presented. Reports shall be also be provided in Word format (product version Word 2010 or later).
- b. The proponent shall provide a label for the project flash drives with the following information:
- |            |               |
|------------|---------------|
| Headline:  | Project Drive |
| Title:     | *****         |
| RFP Ref:   | 15-055R       |
| Date:      |               |
| Proponent: |               |
- c. All material produced and information collected by the proponent in performance of these terms of reference shall become the property of the Municipality. All material shall be kept confidential by the Proponent unless authorized in writing by the Municipality.
- d. Where included in the scope of work, cost estimates are required and are to exclude HST.

### SECTION 3 - SUBMISSION REQUIREMENTS

The submission of a proposal on this service will be considered as a representation that the proponent has carefully investigated all conditions which may affect or may, at some future date, affect the performance of the services covered by the proposal, the entire area to be services as described in the attached specifications and other contract documents and that the proponent is fully informed concerning the conditions to be encountered, quality and quantity of work to be performed and materials to be furnished; also, that the proponent is familiar with all Federal and Provincial laws, all codes and ordinances of the Municipality which in any way affects the prosecution of the work or persons engaged or employed in the work.

In responding to this proposal, each proponent shall, include, as a minimum, a Business/Technical Proposal and a Cost Proposal. The proposal is not complete unless it contains a Business/Technical Proposal which addresses the requirements described herein, and a separate Cost Proposal that details all costs for the proposed services. Both the Business/Technical Proposal, which shall be identified as envelope #1, and the separate Cost Proposal, which shall be identified as envelope #2, shall be submitted simultaneously. Both Technical and Cost Proposal must be signed by an authorized representative of the firm submitting.

Sealed Proposals will be received by Halifax Procurement Section, Suite 103, 1<sup>st</sup> Floor, 40 Alderney Dr. (Alderney Gate), Dartmouth Nova Scotia, B2Y 2N5

The Business/Technical Proposal shall be evaluated in step 1. No details of costs or rates are to be included in this part of the Proposal.

- a) The Business/Technical Proposal shall include the Form of Proposal and a transmittal letter. Proposals are limited to 25 pages, excluding forms, schedule, person-hours matrix, transmittal letter, addendums and appendices. A page is defined as a single-sided sheet of 8.5" by 11" paper. The only exceptions to this will be the project schedules, flowcharts and/or person-hours matrix, which may be submitted on 11" by 17" paper.
- b) One (1) unbound and duly signed copy and one (1) in digital format on flash drive of each proposal both technical and price components are to be submitted. Technical and price components must be submitted in separate envelopes and as separate digital files on separated drives.
- c) Elaborate brochures or voluminous examples are neither required nor desired.
- d) Two (2) copies, one (1) unbound and duly signed and one (1) in digital format on flash drive of each proposal both technical and price components are to be submitted. Technical and price components must be submitted in separate envelopes and as separate digital files on separated drives.
- e) No project data sheets or company brochures are to be submitted. Resumes may be referred to in an appendix.
- f) Digital copies of the Proposal must not be larger than 10Mb.
- g) Proposals are to be typed using a font size no smaller than 11 point (with the exception of footnotes and endnotes) and using a portrait page layout. Column format is not to be used.
- h) In the case of a joint venture or for sub-contractors, commitment letters shall be appended in the Proposal. Letters of commitment from member firms on their own letterhead and signed by an officer of the company affirming their commitment to this assignment and their role. Substitutions, deletions or altering of roles of key personnel will not be allowed without written authorization from the Municipality.

#### 1. Business Technical Solution Submission Requirements

Submissions should include, but not necessarily be limited to, the following:

- a) **Mandatory Requirements** – The proponent must demonstrate that they meet or will meet upon award the following mandatory requirements:

**EQUIPMENT AVAILABILITY:** Prior to award, the successful proponent shall commit to ensuring the proposed equipment is available to harvest weeds for two consecutive weeks during August 2015, beginning Saturday August 1 at the earliest, and concluding Monday August 31 at the latest.

- b) Evaluation Criteria #1 – Communication Skills: The proposal should be clear and readable. Information should be easy to find and should be in the order presented hereunder.
- c) Evaluation Criteria #2 – Team Composition and Experience
- Sector Specific Experience: The proposal should clearly state the proponent firms overall experience in the field of expertise required by the scope of work. The Proposal shall include at least three (3) examples of recent projects as well as three (3) letters of reference or relevant client contact information. Proponents must be able to demonstrate that the firm has an in depth knowledge of the scope of this assignment. The purpose of this information is to demonstrate the Proponent's experience and ability to complete similar projects, develop creative solutions, resolve complex issues and communicate effectively with various parties and audiences.
  - Experience of Project Lead with projects of similar scope and size: The Proposal shall include a summary of the relevant experience as it relates to their role in this assignment. A brief description (years in business, services provided, number of employees, etc.). Additionally, the Proposal shall include a brief description of each of the member firms, their role in this undertaking and the office from which their work will be conducted. A summary table format is acceptable.
  - Key Team Members appropriate skills and education: The Proposal shall include, as appendices a CV detailing their experience, skills and education in relation to this assignment.
  - Demonstrated history of proposed Team: The Proposal shall include a brief description of each of the member firms, their role in this undertaking and the office from which their work will be conducted. A summary table format is acceptable. Additionally the Proposal shall demonstrate the history of the member firms and individuals successfully delivering assignments of similar size and scope as a team.
  - Balance of level of effort: The proponent shall provide a proposed schedule to complete the tasks in the proposed work plan as well as a person-hours matrix (WBS) *without fees* outlining the hours each team member has allocated to each of the tasks in the proposed work plan. No hourly rates, dollar figures or costs shall be shown on this person/hours matrix breakdown; inclusion of any pricing information may result in disqualification of your Proposal.
- d) Evaluation Criteria #3 – Understanding of the Municipality's Needs
- Understanding of the Requirements of the Scope of Work: Proponents shall provide a demonstrated understanding of the subject matter, including, but not limited to, the scope of work as well as the approach that will be taken to accomplish the Services related to this RFP document, as well as an indication of possible challenges and solutions not directly referenced in the Request of Proposals.
  - Acceptable Proposed Schedule and Work-plan: Proponents shall provide a work plan with which clearly outlines milestones and timelines to demonstrate how the work will progress to the desired completion date. Proponents must present a realistic timeline of the proposed Project schedule. The schedule shall reflect the tasks in the work plan and will be updated on a monthly basis to reflect project progress and shall be submitted to the Municipality's Project Lead with the contractor's status report.
  - Value added propositions and recommendations: Proponents shall demonstrate an innovative approach to the completion of the assignment, utilizing all potential resources available to them.
  - Attention to Relevant Challenges: Proponents shall describe and attempt to address any challenges to the assignment which they have identified but may not be spoken to in the Request.
- e) Evaluation Criteria #4 – Business/Technical Solution

This criterion is evaluated based on a global view of the proposal and further analyses the entire proposal in relation to achieving a complete and comprehensive solution from the Successful Proponent.

- Business/Technical Solution: The proposal must address all of the business aspects of the engagement as identified in the RFP.

- Methodology: The proposal must combine proven project methodology and include innovative approaches and ideas in the delivery of the project. Proponents should keep this in mind when submitting similar successful projects for review under Criteria 1.
- Flexible and Scalable Solution: The proposal shall offer all of the services required to successfully deliver the project but should present a schedule that allows for adjustment, addition and/or deletion of specific activities as necessary to reflect budget availability, Regional Council direction or the evolution of the engagement.
- Cost and Time Effectiveness: The proposal shall indicate how the successful proponent will effectively use the Municipality's internal resources.

f) Evaluation Criteria 5 – Project Management Methodology

- Management Structure: the Proposal shall include an organizational chart indicating a clear reporting structure and escalation methodology.
- Proposed Communication Methods: The proposal shall also indicate the number and frequency and method (i.e. /in person, web-conference, tele-conference, etc.) of the anticipated meetings. Meeting dates should also be included in schedule per requirements of section.
- Quality Assurance Standards: A description of Proponents Quality Assurance methods and practices should be included.

g) Business/Technical Response – Other information

The following information shall be included in your Business/Technical response but is not an evaluated as a stand-alone criterion.

- Sustainability: the Municipality is committed to purchasing sustainable goods, services, and construction. To aid the evaluation committee in better understanding the sustainable attributes for this purchase the proponent should prepare the following:
  - A brief statement, to maximum of (2) pages, that outlines the proponent's commitment to the sustainable operations of the Municipality
  - Given the requirements in this RFP, describe how the service that you are proposing will be provided in a sustainable manner (e.g. considering greenhouse gas reduction, waste reduction, toxicity reduction, worker health and safety).
  - If the requirement includes a good as part of the RFP, also include the following question:

Considering the manufacture, uses, and end-of-life disposal of the product proposed, describe the sustainable attributes of the product (e.g. considering greenhouse gas reduction, waste reduction, toxicity reduction, worker health and safety).

2. Evaluation of the Business/Technical Proposal

a) Stage 1 – Mandatory Criteria

- i) The proposal must meet any and all of the mandatory criteria as referenced in the Scope of Work and clearly demonstrate that these are met in a substantially unaltered form. If the proposal fails to meet any one of these criteria, it will receive no further consideration during the evaluation process and be deemed non-compliant.
- ii) The proposal must clearly demonstrate the proponent's experience and ability to fulfill the Service Requirements.

b) Stage 2 – Proposal Evaluation Criteria

- i) All proposals which pass Stage 1 – Mandatory Criteria will be evaluated and ranked against the weighted Proposal Evaluation Criteria Proponents are reminded that the proposal is the main document used in the evaluation and to include all required and pertinent information in their proposal. Proposals not achieving a minimum of 75% of the total available technical points will no longer be considered and the Cost Proposal will be returned unopened.
- ii) To assist in the evaluation of proposals, the Evaluation Committee may, but is not required to:

1. contact any or all of the client/customer contacts cited in a proposal to verify any and all information regarding a proponent and rely on and consider any relevant information obtained from such references in the evaluation of proposals;
2. conduct any background investigations that it considers necessary and consider any relevant information obtained from such investigations in the evaluation of proposals;
3. Seek clarification from a proponent only if certain information in their proposal is ambiguous or missing and such clarification does not offer the proponent the opportunity to improve the competitive position of its proposal.

### 3. Cost Proposal Requirements

- a) The cost proposal shall be submitted at the same time as the technical proposal as a separate document in a separate sealed envelope
- b) The Cost Proposal shall include a single page duly signed stating the proponent's firm fixed total price for this service as outlined in the Request for Proposal.
- c) Proponents should include within the Cost Proposal on a separate page or pages, a detailed listing of the tasks and activities with a breakdown into work packages, details of all individual costs of the proposed services, and total costs (Fixed firm). The cost proposal is to be a separate document.
- d) The total cost shall represent the maximum payment for the project. Price data should include fixed price, estimated hours of work by key staff and individual hourly cost for staff. Include and identify expenses and HST separately. Price may not be the determining factor for award.

### 4. Evaluation of the Cost Proposal

The proposal with the lowest cost shall receive the maximum points allocated for cost in the Evaluation Scoresheet. All other proposals will be prorated using the lowest cost bid and the following formula:

Max Available Pts. – [Max Available Pts. X (total cost – lowest total cost) / lowest total cost]

Note: If the result is a negative number, the score assigned will be 0

Example: Two technically compliant bids are received and the maximum available points for cost equal 30:

Bid 1: \$100,000

Bid 2: \$130,000

Bid 1 being the lowest, would achieve a score of 30 points

Bid 2 would achieve a score of 21 points, calculated as follows:

$30 - [30 \times (\$130,000 - \$100,000) / \$100,000] = 21$

### 5. Award of Contract

- a) The Municipality reserves the right to modify the terms, or cancel, or reissue the RFP at any time at its sole discretion.
- b) The RFP should not be construed as an offer or a contract to purchase goods or services. Although proposals will be assessed in light of the evaluation criteria, the Municipality is not bound to accept the lowest priced or highest scoring proposal or any proposal. The Municipality reserves the right to reject any or all proposals and to award the contract in its entirety, or in part, whichever, in its opinion, best serves the interests of the Municipality.
- c) Subsequent to the submissions of proposals, interviews may be conducted with some of the proponents, but there will be no obligation to receive further information, whether written or oral from any proponent.
- d) The Municipality will not be obligated in any manner to any proponent until a written contract has been duly executed. Any damages arising out of a breach by the Municipality, including damages for any implied duty at law, are limited to the lesser of the proponent's actual costs of preparing their proposal and \$1,000. Neither acceptance of a proposal, nor execution of a contract, will constitute approval of any activity or development contemplated in any proposal that requires any approval, permit or license pursuant to any statute, regulation or by-law.
- e) The Municipality offers debriefings to unsuccessful proponents. An unsuccessful proponent must

request a debriefing in writing within 10 (ten) days from the date of the Municipality posting the award on the Nova Scotia Public Tenders website. Upon timely receipt, the Municipality will contact the interested proponent to arrange a date, time and place for the debrief, which normally will be conducted in person.

6. Method of Award

The evaluation process will be carried out by an evaluating committee who shall establish the ranking of all the proposals and may produce a short list. The short-listed proponents may be invited to make a brief presentation. The evaluating committee will make a recommendation based on the evaluation of the technical and cost proposals, the presentation if offered, and any clarifications made by the proponent during the evaluation process.

APPENDIX A  
 EVALUATION CRITERIA/SCORESHEET

Criteria	Summary (considerations may include but are not limited to the following)	Score
Communication Skills	Clarity and readability of written proposal	5
Team composition and experience	<ul style="list-style-type: none"> <li>• Sector specific experience of the Proponent Firm</li> <li>• Balance of level of effort vs. team roles (project mgmt., technical, etc.)</li> </ul>	20
Understanding of the Municipality's needs	<ul style="list-style-type: none"> <li>• Understanding of the requirements of the scope of work and the Municipality's organizational structure</li> <li>• Acceptable proposed schedule and work plan</li> <li>• Value added propositions and recommendations</li> <li>• Attention to relevant challenges that the committee has not considered</li> </ul>	20
Business/Technical Solution	<ul style="list-style-type: none"> <li>• Solution addresses all anticipated aspects of the project as identified in the RFP</li> <li>• Solution draws on proven methodology</li> <li>• Solution is flexible and scalable</li> <li>• Solution is cost and time effective in its use of the Municipality's resources</li> </ul>	20
Project Management Methodology	<ul style="list-style-type: none"> <li>• Management structure within Proponents organization/ project team</li> <li>• Proposed communication methods between proponent team and the Municipality</li> <li>• Quality Assurance standards and practices</li> </ul>	5
Subtotal (Business/Technical Proposal)		
Cost		30
Total		100

## **APPENDIX B General Terms and Conditions**

The following Terms and Conditions shall apply to any contract resulting from this RFP:

1. **Headings**  
The division of this Contract into articles and sections and the insertion of the recitals and headings are for convenience and reference only and shall not affect the construction or interpretation of the Contract.
2. **Currency**  
All transactions referred to in this Contract will be made in Canadian Dollars.
3. **Singular, plural, gender and person**  
Wherever in this Contract the context so requires, the singular number shall include the plural number and vice versa and any gender used shall be deemed to include the feminine, masculine or neuter gender and "person" shall mean an individual, partnership, consortium, corporation, joint venture or other entity or government or any agency, department or instrumentality thereof and vice versa.
4. **Time**  
Time is of the essence of the Contract.
5. **Expiry of Time Period**  
In the event that any date on which any action is required to be taken under this Contract is not a business day, such action shall be required to be taken on the next succeeding day which is a business day unless otherwise provided in this Contract.
6. **Accounting Terms**  
All accounting terms not specifically defined shall be construed in accordance with Canadian Generally Accepted Accounting Principles.
7. **Governing Law**  
This Contract is and will be deemed to be made in Nova Scotia and for all purposes will be governed exclusively by and construed and enforced in accordance with the laws prevailing in Nova Scotia and the laws of Canada applicable therein. Unless stated otherwise herein, the Contractor attorns to the exclusive jurisdiction of the courts of Nova Scotia to determine any dispute arising out of this Contract and the RFP.
8. **Precedence of Documents**  
In the event of any ambiguity, conflict or inconsistency among any of the provisions of the Contract then the provisions establishing the higher quality or level of goods and services, safety, reliability and durability shall govern.
9. **Advertisement**  
The Contractor will not use the name of the Municipality or any contents of this document in any advertising or publications without prior written consent from the Municipality.
10. **Adverse Material Changes**  
In the event of an adverse material change in the Municipality's Capital or Operating budgets, the Municipality reserves the right to cancel or reduce its contractual obligations without penalty.
11. **Amendment, Waiver or Modification**  
This Contract may not be amended except by a Change Order or by a written instrument



signed by the Municipality. No indulgence or forbearance by the Municipality shall be deemed to constitute a waiver of its rights to insist on performance in full and in a timely manner of all covenants of the Contractor, and any such waiver, in order to be binding upon the Municipality, must be expressed in writing and signed by the Municipality and then such waiver shall only be effective in the specific instance and for the specific purpose for which it is given.

12. Authority

The Contractor warrants it has full power and authority to enter into and perform its obligations under this Contract and the person signing this Contract on behalf of the Contractor has been properly authorized and empowered to enter into such Contract. The Contractor further acknowledges that it has read all of the terms, conditions and provisions of this Contract and understands all provisions thereof and agrees to be bound thereby.

13. Business Registration

Prior to award of the contract the successful RFP proponent is required to be registered to conduct business in the Province of Nova Scotia. The Contractor shall remain so registered for the duration of the Contract.

14. Clear Title

The Contractor warrants clear title to materials and equipment supplied by them and will indemnify and hold the Municipality harmless against any or all lawsuits, claims, demands and/or expenses, patent litigation, intellectual property infringement, materialman's or labourer's liens, or any claims by third parties in or to the goods and services mentioned and supplied by the Contractor.

15. Conflict of Interest

The Contractor and its employees shall take all reasonable steps to ensure avoidance of all direct or indirect conflicts of interest between any of their individual interests and those of the Municipality. If the Contractor or any one of its personnel becomes aware of any reasonable possibility of any such conflicts, then the Contractor shall promptly disclose to the Municipality the facts and circumstances pertaining to same.

16. Contractor's Personnel

The Contractor is solely responsible for all aspects of employment and labour relations in connection with its workforce. The Contractor is the employer of its workforce and such employees are not employees or agents of the Municipality. All such employees shall be under the direct management and sole supervision of the Contractor. No employment relationship is created between the Contractor or any of the employees and the Municipality. The Contractor shall be responsible for all payroll functions and shall pay in a timely manner all salaries and benefits, taxes, employment insurance premiums, Canada Pension Plan premiums or contributions, *Workers Compensation Act* assessments and any other assessments or contributions of any kind or nature whatsoever that are payable to any governmental authority in respect of the Contractor's employees. It is the express mutual understanding and intention of the Contractor and the Municipality that the Contractor is not a successor to, or common employer with the Municipality and nothing in the Contract shall be construed, interpreted, understood or implied contrary to that mutual intention and understanding.

17. Contractor's Taxes

The Contractor shall pay when due all taxes, rates, duties, assessments and license fees that may be payable by the Contractor under applicable law or levied, rated, charged or assessed by any governmental authority in respect of the provisions of the Services to the Municipality

18. Costs

The Contractor shall be responsible for paying its own costs and expenses incurred in connection with the negotiation, preparation and execution and delivery of this Contract.

19. Criminal Records Check

- a. If requested by the Municipality at any time, the Contractor shall ensure that their workers or subcontractors have security clearance, obtained from the Halifax Regional Police Services, to work in any of the Municipality's buildings and properties.
- b. If requested by the Municipality at any time, the Contractor shall ensure that their workers or sub-contractors have a Criminal Record Check and Vulnerable Sector Check. If this security clearance is not available, the reason for unavailability must be clearly stated, and may be ground for non-inclusion at the discretion of the Municipality.

20. Employee Qualifications

The Contractor shall ensure its employees are competent to perform the Services and are properly qualified, trained and supervised in keeping with the qualification, training and supervision provided by a reasonably prudent Contractor of similar services in a public environment.

21. Employee Conduct

The Contractor shall require all of its employees performing Services to adhere to all existing and future the Municipality's policies with regard to harassment, workplace conduct and other policies of a like nature. The Contractor shall ensure its employees do not have any contact with staff other than in the normal course of providing Services and at no time shall such contact be inappropriate. The Contractor shall ensure that any employees who do not meet the standards required by this Contract do not provide Services at any facilities and are promptly removed from the work site. Failure to comply with these provisions constitutes a material breach of the Contract entitling the Municipality to immediately terminate the Contract.

22. Entire Agreement

These terms and conditions, together with the RFP, the Contractor's proposal and subsequent purchase orders constitutes the entire agreement between the parties and supersedes all prior negotiations and discussions. The parties confirm and acknowledge that there are no collateral agreements, representations or terms affecting or forming part of this Contract other than as set forth herein. Any additions or modifications to the Contract may only be made in writing, executed by both parties.

23. Exchanges

No exchanges will be made without authority from the Municipality.

24. Extension of Services

the Municipality may, at their option, upon not less than thirty-days (30-days calendar) written notice to the Contractor, extend the scope of the Contract to any other agency, board or commission governed by or affiliated with the Municipality on the same terms contained in the Contract.

25. Firm Pricing

Pricing shall be fixed for the duration of the Contract and shall not be subject to adjustment unless expressly provided for in the Contract.

26. Term of Contract

The Contract commences on the date that it is awarded to the Contractor, and continues in force until the Services are acceptably completed (as determined by the Municipality, acting reasonably) or until the earlier termination of the Contract in accordance with these Terms and Conditions

27. Continuous Services

The Contractor shall provide continuous and uninterrupted Services to the highest standard of care, skill and diligence maintained by persons providing similar services. Should any work or materials be required for the proper performance of the Contract which are not expressly or completely described in the Contract and are reasonably associated with or necessary for the proper and timely performance and provision of the Services, then such work or materials shall be deemed to be implied and required by the Contract and the Contractor shall furnish them as if they were specifically described in the Contract as part of the Services.

28. Changes to Scope of Service

The Municipality shall have the right to change the scope of Services provided by the Contractor by Change Order including changes in Service standards, increasing or reducing the frequency, level or quality of Services, adding, reducing or deleting Services at any facility and adding, deleting or changing facilities, sites or locations of Services provided. The Contract Price will be adjusted to reflect any change in the scope of Services. The amount of any reduction or increase in the Contract Price shall be determined by the Municipality and the Contractor by taking into account any reduction or increase in capital or labour costs based on the pricing methodology, rates, and costs for the Services set forth in the Contractor's proposal. If the Municipality and the Contractor are unable to agree on the appropriate reduction or increase in the Contract Price the matter shall be referred for resolution pursuant to binding arbitration in accordance with the *Commercial Arbitration Act*. The Municipality shall not be liable to the Contractor for any loss (including loss of anticipated profit) or damage of any nature arising out of any reduction or deletion in Services. The Contractor shall not be entitled to be paid for any Services not expressly provided for within the scope of the Services or not covered by a duly authorized Change Order.

29. Delays, Substitute Services, and Liquidated Damages

Except when due to an Event of Force Majeure, if the Contractor fails to complete the Services or any part of the Services by any date or deadline specified in the Contract or approved change orders (the "Period of Delay"), the Municipality may elect to:

- (a) Obtain substitute services from a third party, in which case the Contractor must reimburse the Municipality for the difference, if any, between the charges incurred by the Municipality for the substitute services and the charges specified in the Contract that the Municipality would owe to the Contractor if not for the Period of Delay. If the Municipality decides to permanently use the substitute service from a third party the Contract Price will be adjusted accordingly.
- (b) Recover from the Contractor any damages or losses suffered by the Owner as result of a Period of Delay ("Actual Damages").
- (c) Recover from the Contractor \$500 per day for each day that the Period of Delay continues ("Liquidated Damages"). The Contractor agrees that such Liquidated Damages represent a fair, reasonable and appropriate estimate of the Municipality's Actual Damages and that such Liquidated Damages may be assessed and recovered by the Municipality as against the Contractor without the Municipality being required to present any evidence of the amount or character of Actual Damages sustained by reason thereof. Such Liquidated Damages are intended to represent estimated Actual Damages and are not intended as a penalty, and the Contractor shall pay them to the Municipality without limiting the Municipality's right to terminate this Contract for default as provided elsewhere herein.

30. Suspension of Services

In any circumstance where the Municipality is of the view that the Services as performed by

the Contractor are either not in accordance with the requirements of the Contract or pose any unacceptable risks to the safety of the Municipality staff or the public, the Municipality may without incurring any liability to the Contractor immediately suspend, in whole or in part, performance of further services on written notice to the Contractor for such a period of time as the Municipality may determine, in which case the Contractor agrees it will vacate the subject Municipal facilities and sites along with its employees and equipment until such period of time as the Municipality may determine.

31. Force Majeure

“Event of Force Majeure” means any cause beyond the control of the Municipality or the Contractor which prevents the performance by either party of any of its duties, liabilities and obligations under this Contract not caused by its default or act of commission or omission and not avoidable by the exercise of reasonable effort or foresight by that party including explosion, fire, casualty or accidents, epidemics, cyclones, earthquakes, floods, droughts, war, civil commotion, acts of Queen’s enemies, blockade or embargo, and acts of God but excluding lack of or insufficient financial resources to discharge and pay any monetary obligations and excluding increases in commodity prices, inability to obtain labour, equipment or materials, strikes, lockouts or other labour disputes.

If the Municipality or the Contractor fails to perform any term of the Contract and such failure is due to an Event of Force Majeure, that failure will not be deemed to be a default under the Contract. The party affected by an Event of Force Majeure will immediately notify the other party and will take all reasonable steps to minimize the extent and duration of the Event of Force Majeure and the period of all delays resulting from the Event of Force Majeure will be excluded in computing the time within which anything is required or permitted by such party to be done under this Contract, it being understood and agreed that the time within which anything is to be done under this Contract will be extended by the total period of all such delays. During the Event of Force Majeure requiring suspension or curtailment of a party’s obligation under this Contract, that party will suspend or curtail its operations in a safe and orderly manner.

32. Limit of Force Majeure

If an Event of Force Majeure prevents the Contractor from providing Services at any facility for a period of one or more days, the Municipality may thereafter, at its option, and without incurring any liability to the Contractor, on notice to the Contractor, either suspend in whole or in part the performance of further Services on a site by site basis or for all sites or terminate this Contract with respect to the affected Services, or if all Services are prevented, the entire Contract. In the event of such suspension, the Contractor agrees it will vacate the affected site(s) along with all of its employees and equipment until such period of time as the Municipality may determine and the Municipality shall have the right to obtain substitute Services from a third party or through its own forces at its sole discretion for the duration of such period of suspension. In the event of such termination, the Municipality shall be entitled to a refund of all prepaid costs related to the Services prevented by the Event of Force Majeure.

33. Termination for Convenience

The Municipality may terminate the Contract, in whole or in part, if determined by the Municipality in its sole discretion that such a termination is in its best interest, without showing cause, upon giving written notice to the Contractor.

34. Termination for Default:

If the Contractor has breached any material term of this Contract and/or has not performed or has unsatisfactorily performed the Contract as determined by the Municipality acting reasonably, the Municipality may terminate the Contract for default. Upon termination for default, payment may be withheld at the discretion of the Municipality. The Contractor will be

paid for work satisfactorily performed prior to termination, less any excess costs incurred by the Municipality in re-procuring and completing the work.

35. Liability Following Termination

In the event of early termination of the Contract by the Municipality in accordance with the terms of the Contract, the Contractor agrees that the Municipality shall not be liable to the Contractor for any loss (including loss of anticipated profit) or damage of any nature including any special, incidental, direct, indirect or consequential damages arising out of such early termination. The Municipality shall not be under any obligation to the Contractor save and except for the payment for such goods as may have been delivered to the Municipality and such Services as may have been performed in accordance with the terms of the Contract up to the date of termination. Notwithstanding the foregoing, the Municipality's maximum liability to the Contractor shall not in any circumstances or for any purpose exceed the Contract Price.

36. Further Assurances

The parties shall, with reasonable diligence, hold all meetings, perform all acts, execute and deliver all documents and instruments, do all such things and provide all such reasonable assurances as may be reasonably necessary or desirable to give effect to the provisions of this Contract.

37. Improvements and Efficiencies

The Contractor shall at its cost continuously develop and implement improvements and efficiencies in the performance of its Services through improved familiarity with the environment, redeployment of resources, workload balancing, lowering unit costs through utilization of shared equipment, simplified and streamlined processes, lower carrying and delivering charges and other strategies. The Contractor will identify all potential performance improvements and efficiencies to the Municipality and shall at the same time provide the Municipality with a calculation of the corresponding savings to the Contractor and the costs of providing such Services. The Municipality will assess whether the proposed performance improvements and efficiencies may be carried out without compromising the service standards and if the Municipality approves same, the Contractor will implement such improvements and efficiencies for the benefit of the Municipality.

38. Independent Contractor

The parties are independent contractors. The Contract does not create or establish any relationship as partners, joint venturers, employer and employee, master and servant or principal and agent.

39. Independent Legal Counsel

The Contractor confirms it has obtained independent legal advice in entering into this Contract.

40. Insurance

- a. If requested at any time by the Municipality, the Contractor will be required to provide proof of General Liability Insurance in a form acceptable to the Municipality, with the Halifax Regional Municipality as a named party, subject to limits no less than \$2,000,000.
- b. If requested at any time by the Municipality, the Contractor shall provide proof of Professional Errors and Omissions Insurance for all design professionals (such as architects, landscape architects or engineers) who provide the Contractor with signed stamped drawing or calculations. Such insurance shall have limits not less than \$2,000,000 for each claim with respect to negligent acts, errors and omissions, and any deductible may not exceed \$50,000 for each claim. The Contractor shall obtain such insurance when the Contractor subcontracts for any work from such a design

professional, and prior to the submittal of construction documents. Any design professional required to obtain professional liability insurance must maintain proof of insurance for the term of this Contract.

- c. If requested at any time by the Municipality, the Contractor shall provide automobile liability insurance in respect to owned and non-owned licensed vehicles subject to limits of not less than Two Million Dollars (\$2,000,000) inclusive.
- d. If the Contractor is legally obliged to be covered by Workers' Compensation and Health and Safety regulations, the Contractor shall provide evidence of coverage and evidence that the premiums have been paid and are up-to-date. Contractor shall also be responsible for obtaining and providing evidence that any subcontractor is also covered as required by law.

#### 41. Intellectual Property Infringement and Royalties

- a. The Contractor represents and warrants that, to the best of its knowledge, neither it nor the Municipality will infringe any third party's intellectual property rights (including patent, copyright or industrial design) as a result of the performance of the Services or through the use of any work delivered by the Contractor in connection with the Services (the "Work"), and the Contractor shall, at its own expense, defend any suit that may arise in respect thereto and hold harmless and indemnify the Municipality against all claims, demands, costs, charges and expenses arising from or incurred by any such infringement.
- b. If anyone makes a claim against the Municipality or the Contractor concerning intellectual property infringement or royalties related to the Work, that Party agrees to notify the other Party in writing immediately. If anyone brings a claim against the Municipality, the Contractor agrees to participate fully in the defence and any settlement negotiations and to pay all costs, damages and legal costs incurred or payable as a result of the claim, including the amount of any settlement. Both Parties agree not to settle any claim unless the other Party first approves the settlement in writing.
- c. The Contractor has no obligation regarding claims that were only made because:
  - i. the Municipality modified the Work or part of the Work without the Contractor's consent or used the Work or part of the Work without following a requirement of the Contract; or
  - ii. the Municipality used the Work or part of the Work with a product that the Contractor did not supply under the Contract (unless that use is described in the Contract or the manufacturer's specifications); or
  - iii. the Contractor used equipment, drawings, specifications or other information supplied to the Contractor by the Municipality (or by someone authorized by the Municipality); or
  - iv. The Contractor used a specific item of equipment or software that it obtained because of specific instructions from the Municipality; however, this exception only applies if the Contractor has included the following language in its own contract with the supplier of that equipment or software: "[Supplier name] acknowledges that the purchased items will be used by the Municipality. If a third party claims that equipment or software supplied under this contract infringes any intellectual property right, [Supplier name], if requested to do so by either [Contractor name] or the Municipality, will defend both [Contractor name] and the Municipality against that claim at its own expense and will pay all costs, damages and legal fees payable as a result of that infringement." Obtaining this protection from the supplier is the Contractor's responsibility and, if the Contractor does not do so, the Contractor will be responsible to the Municipality for the claim.
- d. If anyone claims that, as a result of the Work, the Contractor or the Municipality is infringing its intellectual property rights, the Contractor must immediately do one of the following:
  - i. take whatever steps are necessary to allow the Municipality to continue to use the allegedly infringing part of the Work; or

- ii. modify or replace the Work to avoid intellectual property infringement, while ensuring that the Work continues to meet all the requirements of the Contract; or
- iii. take back the Work and refund any part of the Contract Price that the Municipality has already paid for the Work.

#### 42. Invoices

- a. Payments for this Contract will be administered via the Municipality's electronic payment process. Upon award, the Contractor must send payables information to [hmaplink@Halifax.ca](mailto:hmaplink@Halifax.ca)
- b. Invoices shall match the Purchase Order sequence of items listed. Contractors are to send invoices in duplicate, at the following address:
  - Halifax Regional Municipality
  - P.O. Box 1749, Halifax, Nova Scotia
  - B3J 3A5
  - Attn: Accounts Payable
- c. The invoice must show the authorized purchase order number, itemized list of services being invoiced for and a Contractor contact name and phone number for invoice problem resolution should the need arise. Agreed charges for freight, postage, insurance, crating or packaging, etc. must be shown as separate line item on the invoice(s). HST must also be shown as separate line items on the invoice. The Municipality will not be considered in default of payment terms if the payment process is delayed due to incorrect pricing. The Municipality is interested in taking advantage of any discounts allowed for prompt payment of invoices.

#### 43. Liability and Indemnity

- a. The Contractor will hold harmless, indemnify and defend the Municipality, its officers, officials, employees, agents and volunteers from and against any claim or loss howsoever caused, including, actions, suits, liability, loss, expenses, damages and judgments of any nature, including reasonable costs and attorneys' fees in defense thereof, for injury, sickness, disability or death to persons or damage to property or business, caused by or arising out of the Contractor's negligent acts or those of their subcontractor (s), licensee (s), anyone directly or indirectly employed by any one of them or anyone for whose acts any of them is liable and for any of their negligent errors or omissions in the performance of the Contract.
- b. The Contractor's obligation under this section will not extend to injury, sickness, disability, death or damage caused by or arising out of the sole negligence of the Municipality, its officers, officials, employees, agents or volunteers.
- c. The Contractor's obligations include, but are not limited to, investigating, adjusting and defending all claims alleging loss from negligent action, error or omission, or breach of any common law, statutory or other delegated duty by the Contractor, their employees, agents or subcontractors.
- d. Any property or work to be provided by the Contractor under this Contract will remain at their risk until they are provided with written acceptance by the Municipality. The Contractor will replace at their expense, all property or work damaged or destroyed by any cause whatsoever.
- e. The Contractor's obligations under this section will survive the expiry or early termination of this Contract.

#### 44. Monitoring Service Standards

The Contractor's adherence to the required service standards may be monitored by the Municipality through a number of means including without limitation, observation, monitoring of progress towards targets, periodic audits including joint audits and audits by an independent third party acceptable to the Municipality and the Contractor. Deficiencies in

service standards, depending upon their severity and frequency, may result in the application of predefined and pre-agreed financial penalties if same are agreed upon by the Municipality and the Contractor prior to commencement of the term. The Contractor acknowledges that the Municipality requires that Services be provided at continuous levels in accordance with the service standards notwithstanding any work stoppage by the Contractor's employees or any labour dispute and that the rights of suspension and termination under this Contract are reflective of this requirement.

45. Notices

All notices, consents or other communications other than day-to-day communications, provided for under this Contract shall be in writing and shall be deemed to have been duly given and to be effective, (i) if mailed, three (3) business days after being deposited in the post as registered, postage prepaid, return receipt requested, and (ii) if delivered or sent by facsimile communication, on the date of delivery, to the parties at the respective addresses specified in the RFP and proposal or at such other address as the party to whom the notice is sent shall have designated in accordance with the provisions of this Section.

46. Parking

The Contractor and its employees will be required to make their own parking arrangements. Where parking is available at any of the Municipality's facilities the Contractor and its employees will be required to pay for parking if necessary at the normal rates established for members of the public parking at such facilities.

47. Permits and Licensing

The Contractor covenants and agrees to be responsible, at its sole cost and expense, for obtaining and maintaining throughout the term of the Contract all required permits, approvals and licenses which are or may be required by law in connection with the provision of the goods or services and shall comply and shall require all of its employees, agents and sub-Contractors to comply with all applicable laws, regulations and by-laws of any governmental authority having jurisdiction.

48. Freedom of Information and Protection of Privacy

The Municipality is subject to the Freedom of Information and Protection of Privacy provisions contained within the *Municipal Government Act* at Part XX. Any document submitted to the Municipality is subject to this legislation and the Contractor should be aware that any member of the public is entitled to request a copy of the document. In response to such a request, the Municipality may be required to disclose some or all of the information in accordance with the criteria set out in the legislation, including sections 462, 480 and 481(1).

49. Protection of Personal Information

- a. The Municipality is subject to the *Personal Information International Disclosure Protection Act*. The Act creates obligations for the Municipality and its service providers when personal information is collected, used or disclosed. Requirements include limiting storage, access and disclosure of personal information to Canada, except as necessary or otherwise required by law.
- b. In compliance with section 5(1) of the *Personal Information International Disclosure Protection Act* (PIIDPA), the Municipality is required to ensure that any personal information in its custody or control, which includes personal information that may be held by any of its service providers (including the Contractor), is stored and accessed only within Canada, unless the storage of or access to the information outside of Canada is to meet the necessary requirements of its operations. Unless otherwise agreed to in writing by the Municipality, the Contractor shall ensure all personal information obtained by it in the course of performing the Contract is stored and accessible only within Canada.
- c. The Contractor must not permit the collection, use and/or disclosure of any personal



information (as defined by section 461(f) of the *Municipal Government Act*) without the consent of the individual.

- d. In the event that the Contractor is acquired by a non-Canadian company, the Contractor agrees, at no cost to the Municipality and upon reasonable notification from the Municipality, to provide to the Municipality all of the Municipality's data in electronic format, and to completely purge all of the Municipality's data, including backups, from the Contractor's possession prior to the completion of the acquisition. A certificate from an independent third party verifying that all data, including backups, has been purged shall be provided to the Municipality prior to the acquisition of the Contractor by a non-Canadian company. Acceptable third parties include professional accountants, certified auditors and IT professionals.

#### 50. Quality Assurance Plan

Where required by the Municipality the Contractor shall develop, provide to the Municipality and maintain in effect throughout the term a quality assurance plan acceptable to the Municipality which will provide a coordinated systematic approach to quality that will measure and assess the structure, process and performance of Services and will ensure deficiencies are corrected before the level of service becomes unacceptable to the Municipality. The Contractor will implement any changes in its quality assurance plan that may be required for the Contractor to meet or exceed the service standards and will make any adjustments to its quality assurance plan as may reasonably be required by the Municipality from time to time to ensure the Contractor's performance requirements are met.

#### 51. Quality Assurance Reports

Where required by the Municipality the Contractor shall provide the Municipality on a monthly basis or at other such times as the Municipality may require, a comprehensive report detailing adherence to the services standards, quality monitoring scores, quality assurance plan activity and other matters relating to the Contractor's performance as may be reasonably be requested by the Municipality from time to time.

#### 52. Security Requirements

Only employees of the Contractor specifically assigned to perform the Services will be allowed to enter the Municipality's facilities or sites. Where required by the Municipality, the Contractor shall ensure that all sub-Contractors and service representatives that enter the Municipality's facilities or sites are reported to the Municipality's representative so that the Municipality's representative will be aware of who is at the facility or site and the duration of that person's visit. The Contractor shall comply with all relevant the Municipality's policies relating to building security and card access systems and shall be held responsible for any damages or injuries resulting from the misuse or loss of keys and/or access cards.

#### 53. Set-off

the Municipality shall be entitled at all times to set-off any amount due or owing to the Contractor by the Municipality under the Contract against any amount or amounts for which the Contractor is or may be liable by virtue of the Contractor's failure to comply with any statutory or regulatory requirement, any duty, or any obligation arising out of or relating to the performance of the Contract. the Municipality shall also have the right to withhold any payment which relates to that portion of the Services which have not been provided by the Contractor in accordance with the terms of the Contract, or which relates to a dispute between the parties (until such time as the dispute is resolved).

#### 54. Subcontracting & Assignment

The Contractor will not assign this Contract or any part thereof or enter into any subcontract for any or all of the Services without the prior written consent of the Municipality, which consent may be arbitrarily and unreasonably withheld. The Contractor is required to provide to the Municipality the names of any proposed subcontractors and activities to be performed

by them. Approval by the Municipality of a subcontractor shall not relieve the Contractor of its obligations under the Contract except to the extent those obligations are in fact properly performed. In the event the Municipality approves a subcontractor the Contractor shall secure compliance and enforce at its own expense for the benefit of the Municipality, each of the Contractor's contracts with subcontractors. Nothing contained in this Contract shall create any contractual relationship between any subcontractor and the Municipality. The Contractor agrees to bind every subcontractor to the terms and conditions of the Contract which are appropriate and applicable to the work to be performed by the subcontractor and the Contractor shall be fully responsible to the Municipality for the acts and omissions and errors of all subcontractors and of persons directly or indirectly employed or contracted by them and for coordinating activities of the approved subcontractors. The Municipality, acting reasonably shall be entitled to impose any term or condition in connection with any approval of any proposed assignment or subcontract in order to ensure the continued and effective provision of goods or services to the Municipality. Subcontracting or assigning the Contract to any firm or individual whose current or past or other interests may, in the Municipality's opinion, give rise to a conflict of interest in connection with the Contract will not be permitted.

55. Supplies, Materials and Equipment

The Contractor shall at its expense provide all materials, supplies and equipment for the performance of the Services. No substitute or alternate products or equipment will be used unless agreed to by the Municipality. All equipment, supplies and materials used by the Contractor shall be in good working order and free from defects. All machinery and electrical devices used shall conform to CSA standards and bear CSA approval labels. All costs of approval to obtain the required certification will be the sole responsibility of the Contractor.

56. Survival

All obligations of the Contractor which by their terms are intended or are appropriate to survive the termination of the Contract shall survive the cancellation, termination or expiration of the Contract.

57. Taxes

The Municipality will pay any HST payable in respect of the various goods and services provided by the Contractor in accordance with the requirements under the *Excise Tax Act* (Canada).

58. Ownership of Deliverables

All deliverables, reports and supporting documents furnished by the Contractor in its performance of the Services will become the exclusive property of the Municipality.

59. Value Added Services

The Contractor shall provide the Municipality with any value added services described in its proposal. Such value added services shall be provided to the Municipality at no charge.

60. Waiver

A waiver by the Municipality of a breach or default of the Contractor under the Contract shall not be deemed a waiver of any subsequent or other breach or default by the Contractor. The failure of the Municipality to enforce compliance with any term or condition of the Contract shall not constitute a waiver of such term or condition.

61. Warranties

The Contractor warrants that all Services will be performed with reasonable care, diligence and skill and at least in accordance with the standards of care generally practiced by competing Contractors of similar services. The Contractor further warrants the goods or equipment supplied and work and/or services performed under this Contract will conform to the specifications herein, are free from defects and/or imperfections, are merchantable and fit

for the purposes for which they are ordinarily employed, and are available for delivery to the Municipality at the time of submission of the Contractor's proposal or at the time specified by the Municipality in the RFP. The Contractor shall be liable for all damages incurred by the Municipality and its officers, officials, employees, agents and volunteers as a result of any defect or breach of warranty contained in this Contract. The Contractor's warranty shall extend for no less than a period of twelve (12) months after the goods, equipment, or Services are delivered and accepted by the Municipality and applied to their intended use.

62. Post completion Review

The Municipality wants to ensure the Contractor provides high quality performance during the Contract period. Dependant on the scope of work, measurement factors may include but are not limited to; quoted on-time delivery of Services; response times; financial impact to support the required delivery dates; the acumen of Project Manager; the level of support; Contract management responsibilities; problem solving capabilities; respect for the Municipality's policies; ethical conduct and other attributes of leading organizations.

The Municipality will conduct a post-completion evaluation/review of all performance related issues. The results of this review will be communicated to the contractor and will be retained by the Municipality for future reference in accordance with the Vendor Performance Evaluation Scorecard Process.

**Appendix C**  
**Vendor Performance Evaluation Scorecard Process**

The purpose of the Vendor Performance Evaluation Scorecard is to define the process for monitoring vendors who impact the quality of products delivered to our customers. Going forward the Municipality will be responsible for collecting, managing and monitoring vendor performance evaluations. Following completion of a project, the Municipality will be responsible for evaluating the vendor using the attached Vendor Scorecard. Each Vendors scorecard will be kept on file and used to determine if the vendors are meeting expectations in the following areas: Safety, Project Management, Scheduling and Overall Quality of Work. The Municipality will treat all vendor information and documents in a confidential manner. The Municipality reserves the right to use the results of Vendor Scorecards in its evaluation of future solicitations.

If a vendor scores three (3) or less in any particular sub-category/category or produces an overall score between 0-60%, the vendor or the Municipality may request a meeting to discuss these particular areas of concern.

**Vendor Scorecard Rating**

Rating	Criteria
1	<b>Consistently falls far below expectations</b> - Performance jeopardized the achievement of Contract Requirements, despite additional oversight.
2	<b>Frequently misses expectations</b> - There are a number of performance issues that required the Municipality to provide an additional oversight to ensure that contract requirements were met.
3	<b>Mostly meets expectations</b> - There are very minor performance issues but vendor or service provider has otherwise met the contract requirements.
4	<b>Consistently meets expectations</b> - There are no performance issues and the vendor or service provider has met the contract requirements.
5	<b>Exceeds Expectations</b> - Vendor or service provider has demonstrated a performance level in measurable excess of Contract requirements.
N/A	<b>Not Applicable</b>

**Vendor Overall Score**

Score	Criteria
(0-20%)	<b>Consistently falls far below expectations</b> - Performance jeopardized the achievement of Contract Requirements, despite additional oversight.
(21-40%)	<b>Frequently misses expectations</b> - There are a number of performance issues that required the Municipality to provide an additional oversight to ensure that contract requirements were met.
(41-60%)	<b>Mostly meets expectations</b> - There are very minor performance issues but vendor or service provider has otherwise met the contract requirements.
(61-80%)	<b>Consistently meets expectations</b> - There are no performance issues and the vendor or service provider has met the contract requirements.
(81-100%)	<b>Exceeds Expectations</b> - Vendor or service provider has demonstrated a performance level in measurable excess of Contract requirements.

Vendor Performance Evaluation	Below Expectations	Frequently Misses Expectations	Mostly Meets Expectations	Consistently Meets Expectations	Exceeds Expectations	Not Applicable	OVERALL SCORE
	1	2	3	4	5		
<b>Quality and Safety</b>							<b>/15</b>
Proactive in its review of statutes, regulations, codes and by-laws affecting the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Implementation of appropriate safety practices throughout the duration of the contract/project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Performance with respect to quality, health, safety and environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Project/Account Management</b>							<b>/30</b>
Prompt and effective at addressing client requests and incorporating requested changes into the scope of work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Project Account Lead effectively managed and coordinated the project delivery.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Project Account Lead facilitated regular site meetings as per the requirements outlined at time of award.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Project Account Lead advised Client of required adjustments to budget and schedule as a result of changes in client requirements and market conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vendor rendered findings with a reasonable time on claims, disputes and other matters relating to execution or performance for the work outlined in the contact documents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vendor responded in a timely manner to all questions and issues pertaining to the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Schedule</b>							<b>/15</b>
Vendor was able to maintain stated project deadlines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Vendor was diligent at communicating progress on the project and providing updates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vendor was proactive at addressing and resolving project issues per the agreed schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>General</b>							<b>/15</b>
Vendor issued complete invoices in a clear, accurate and organized format per agreed timelines to facilitate timely payment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Quality of overall work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Overall experience with vendors service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Total Overall Score</b>	<b>/75</b>						

APPENDIX D – FORM OF PROPOSAL  
(Complete and Return with your Proposal)

**FORM OF PROPOSAL COVER PAGE**

Firm's Name \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Email: \_\_\_\_\_

HST Number: \_\_\_\_\_

Nova Scotia Joint Stocks Registry Number: \_\_\_\_\_

RFP Number: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

Proposal Due Date: \_\_\_\_\_

**FORM OF PROPOSAL SIGNATURE PAGE**

The undersigned duly authorized representative of the Proponent certifies personally and on the Proponent's behalf that all of the representations set forth above and in the Proponent's proposal are complete and accurate.

PROPONENT:

Signature \_\_\_\_\_

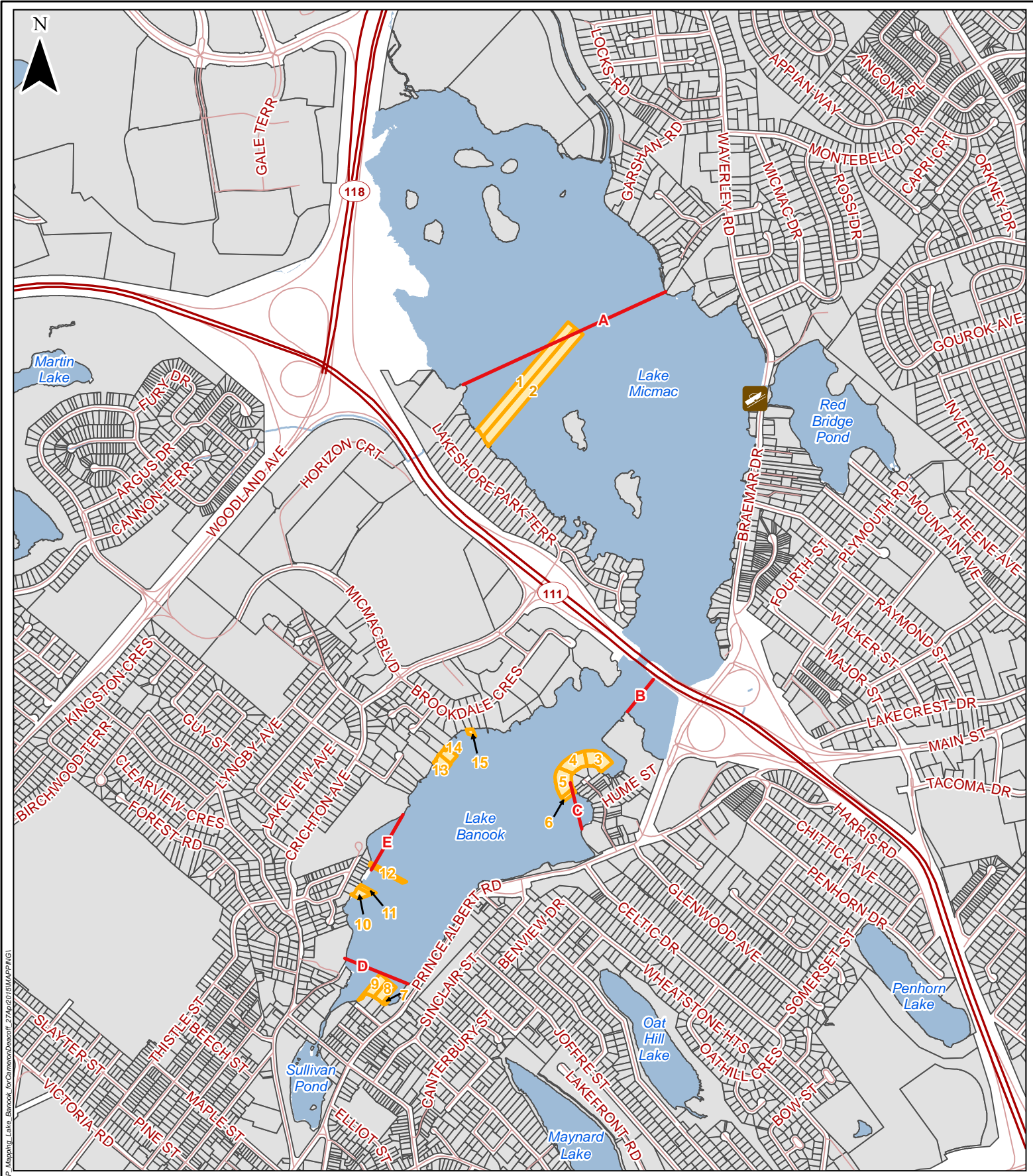
Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_




Date: \_\_\_\_\_

The signatory must have the legal capacity to bind the proponent. If the Proponent is a sole proprietorship, a partnership or a corporate body, the Proponent must provide, if requested by Halifax, a statement and any requested supporting documentation indicating the laws under which it is registered or incorporated together with the registered or corporate name and place of business. This also applies to bidders submitting a bid as a joint venture. Failure to properly execute submitted documents or to properly complete the Form of Proposal will result in rejection of your proposal.

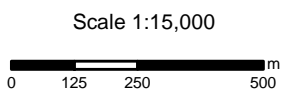




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-  Public Boat Ramp
-  Road
-  Priority Harvesting Area
-  Highway
-  Water Lot Parcel
-  Watercourse
-  Waterbody
-  Parcel

**HALIFAX**



**APPENDIX E:  
MAP OF LAKE BANOOK  
AND LAKE MICMAC**

Date: April 28, 2015

HRM does not guarantee the accuracy of the data represented in this figure.

## Appendix F. Scheduled Events at Lake Banook & Lake Micmac, August 2015\*

Event #	Event Name	Event Date(s)	Lake	Responsible Agency
1	CKC Nationals Qualifying Event	August 1-3 (Saturday-Monday)	Banook	ADCKC
2	Natal Day Knockout	August 3 (Monday)	Banook	ADCKC
3	Under 13 Regatta #2	August 8 (Saturday)	Banook	ADCKC
4	Under 15 Regatta #2	August 9 (Sunday)	Banook	ADCKC
5	Mic Mac Skills Rodeo	August 15 (Saturday)	Mic Mac, Banook	ADCKC
6	Under 13 – Under 15 Championships	August 20-22 (Thursday, Friday)	Banook	ADCKC

\*Additional events may have been scheduled since the compilation of this list. HRM will provide the successful proponent with an updated list of known, scheduled events at the lakes at the time of contract award.

### ADCKC Contact Information

Atlantic Division, Canoe Kayak Canada  
Tracy White  
General Manager  
34 Boathouse Lane  
Dartmouth, Nova Scotia  
902.466.9925  
[gm@adckc.ca](mailto:gm@adckc.ca)

## **Final Closing Report**

### *1. Harvesting Activities – Process*

On Monday, August 17, 2015, the Weed Harvester was safely launched in Lake Mic Mac (see photos in Appendix 1 attached). The Harvester was launched at the boat launch located at 177 Braemer Drive as per the instructions contained in the Request for Proposals. The Harvester was transported to the boat launch using a 30 Tonne Boom Truck which was pulling a Tag Trailer behind it. The Harvester was on the Tag Trailer and subsequently lifted off of it using the Boom Truck and deployed into Lake Mic Mac. Once launched the Harvester was boarded by the Operator and the Deckhand. The Harvester was inspected to ensure all equipment was in good working order. Once inspected the harvester was started and began its transit to Lake Banook to the mooring where it was to be secured. The mooring was located in Paddler's Cove in front of the residence at 12 Lake View Point Road with the permission of the owners. When the Harvester was not being operated this is where it would be secured for the duration of the project. When the Harvester was taken out of the lake it was removed using the same methodology at the same boat launch located at 177 Braemer Drive.

When the Harvester was harvesting weeds there were between two and three people onboard. Originally the intention was to operate the harvester using an operator and a deckhand/labourer. Due to the work load and the volume of weeds to be harvested every day that the harvester was operational we had three people onboard for different periods of time based on the requirements of the operation for which more detail will be provided later on in this report.

The Harvester crew were able to get from the shore to the Harvester on the mooring using a 12 foot aluminum boat. This boat was kept at the residence located at 12 Lake View Point Road (see photos in Appendix 1 attached). In the mornings the Harvester Crew would use it to transit to the Harvester on the mooring. Once onboard the Harvester the crew would then secure the boat to the mooring the Harvester had been secured on. At the end of the day the Harvester was returned to the mooring and the crew would take the aluminum boat to shore where it was secured for the night.

The crew shared a vehicle and parked it in the parking lot of the Need's store on Prince Albert Road, after receiving permission from the staff of the store to do so. The crew of the Harvester were usually able to bring all of their personal belongings on to the Harvester. If they chose not to do this, they were able to leave their belongings in the vehicle or inside the residence located at 12 Lake View Point Rd. It should be also noted that both the GPS

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unit and the Turbidity Probe were removed from the Harvester at the end of every day and stored inside the residence at 12 Lake View Point Road. Before departing in the mornings this equipment was retrieved and put back on the Harvester to be used for the operation.

## *2. Harvesting Activities – Results*

The Harvester was in operation for a total of 8 days on both Lake Mic Mac and Lake Banook. During this period of operation, a total of 55 bags of weeds were harvested. In previous operations where the Harvester was used to harvest seaweed, we were on average able to get roughly a thousand pounds of seaweed in each bag. The weeds harvested in Lakes Banook and Mic Mac were found to have less volume than seaweed. Based on the composition of the two different types of plants, we were able to get more weeds from the lake into each bag, hence reducing the number of total bags harvested. It is estimated that each bag weighed roughly 1500 pounds so over the course of 8 days we estimate that approximately 82,500 pounds of weeds were harvested.

The Harvester did an excellent job of cutting and retaining the weeds that were harvested. Weeds that were cut were easily retained and deposited in the bags (see photos in Appendix 1 attached). As such there was no requirement to catch weeds that were not immediately retained in the bags. In fact, when harvesting residents who had collected and piled weeds on their docks asked that we take these weeds and dispose of them. In order to accommodate them the fastest and easiest way was to have them throw the weeds back in the water. The harvester has a suction pump on the cutter head that sucks the weeds into the housing that contains the blades used to cut the weeds. When residents threw the weeds they had back into the lake we were able to maneuver the harvester into position to suck up, cut and contain the weeds in the bag. It should be noted that the Deckhand did have a rake with a long handle that assisted with moving the weeds toward the cutter head so they could be sucked up, cut and contained within the bag.

During the entire operation we transferred the harvested weeds from the lake to the shore-based disposal receptacle a total of three times. This operation went very smoothly and we did not encounter any difficulties. Bags of harvested weeds remained in the lake tied off to the same mooring the harvester was secured to at nights. When it was determined that we had enough bags of harvested weeds to justify ordering a Boom Truck we did just that (see photos in Appendix 1 attached). One thing that was noted was that when the weeds were initially harvested and contained in a bag these bags would float. Over time it would seem that the weeds in these bags would

start to die and deteriorate and would then lose their buoyancy. So, we kept a close eye on the bags to ensure that they remained buoyant and if they started to lose their buoyancy arrangements were made to get them ashore and transferred to the disposal receptacle. The bags of harvested weeds were towed using the harvester to Grahams Grove where the disposal receptacle was located. The Boom Truck was set up alongside the receptacle and within reach of the lake itself. Using the Boom Truck, the bags of weeds were lifted out of the water and suspended over the disposal receptacle (see photos in Appendix 1 attached). The bottoms of the bags were tied shut using a rope. When this rope was untied the bottom of the bag opened up dumping the harvested weeds in the disposal receptacle. The first time we transferred harvested weeds from the lake to the disposal receptacle we dumped a total of 19 bags. The second time we dumped 15 bags. The third time we dumped 19 bags again. The disposal receptacle was dumped and returned after the first week of operations and then again at the end of the second week of operations but not returned. Both times the disposal receptacle was full. Please refer to Appendix 1 for photos detailing what's described above.

### 3. *Turbidity Monitoring*

A Turbidity Probe was rented from Maxim Environmental located in Mississauga, Ontario for the purposes of this contract. The Turbidity Probe rented was a Hach 2100 P/Q Turbidity Meter. This Turbidity Meter came with a Calibration Certificate confirming that it was calibrated prior to being sent to us. There was a button on the Turbidity Probe that indicated as to whether or not the Turbidity Probe remained calibrated. This button was pushed prior to each use to ensure the Turbidity Probe remained calibrated. The Turbidity Probe remained calibrated for the duration of the contract. Had it not remained calibrated there was a manual and instructions with respect to recalibrating the Turbidity Probe if required.

By comparison of all turbidity results there were only three that appeared to be high. The dates of these results as indicated in the summary table provided below were August 19<sup>th</sup>, 21<sup>st</sup> and 25<sup>th</sup>, 2015. The only observation made when these higher than normal turbidity results were recorded was that we were operating the harvester in areas of very dense and heavy weed growth perhaps contributing to the higher result. At no time did the cutter head on the harvester come in contact with the lake bottom so there was never a need to take a sample as a result of this occurrence.

<i>Date</i>	<i>Time</i>	<i>Measurement Result (NTU)</i>	<i>Approx. Location</i>	<i>Apparent Water Clarity</i>
<i>18-August</i>	<i>0830 hrs</i>	<i>1.04</i>	<i>Area C</i>	<i>Clear</i>
	<i>1120 hrs</i>	<i>1.30</i>	<i>Area C</i>	<i>Clear</i>
	<i>1515 hrs</i>	<i>0.97</i>	<i>Area B</i>	<i>Clear</i>
<i>19-August</i>	<i>0950 hrs</i>	<i>3.19</i>	<i>Area C</i>	<i>Clear</i>
	<i>1108 hrs</i>	<i>0.99</i>	<i>Area B</i>	<i>Clear</i>
	<i>1545 hrs</i>	<i>1.66</i>	<i>Area C</i>	<i>Clear</i>
<i>20-August</i>	<i>1230 hrs</i>	<i>1.13</i>	<i>Area B</i>	<i>Clear</i>
	<i>1430 hrs</i>	<i>1.09</i>	<i>Area A</i>	<i>Clear</i>
	<i>1600 hrs</i>	<i>0.99</i>	<i>Area C</i>	<i>Clear</i>
<i>21-August</i>	<i>0859 hrs</i>	<i>0.73</i>	<i>Area B</i>	<i>Clear</i>
	<i>1105 hrs</i>	<i>1.87</i>	<i>Area A</i>	<i>Clear</i>
	<i>1430 hrs</i>	<i>4.67</i>	<i>Area A</i>	<i>Clear</i>
<i>24-August</i>	<i>0838 hrs</i>	<i>1.24</i>	<i>Area C</i>	<i>Clear</i>
	<i>1152 hrs</i>	<i>2.84</i>	<i>Area A</i>	<i>Clear</i>
	<i>1452 hrs</i>	<i>1.04</i>	<i>Area A</i>	<i>Clear</i>
<i>25-August</i>	<i>0851 hrs</i>	<i>1.57</i>	<i>Area D</i>	<i>Clear</i>
	<i>1041 hrs</i>	<i>3.37</i>	<i>Area B</i>	<i>Clear</i>
	<i>1447 hrs</i>	<i>2.99</i>	<i>Area A</i>	<i>Clear</i>
<i>26-August</i>	<i>0900 hrs</i>	<i>1.28</i>	<i>Area A</i>	<i>Clear</i>
	<i>1106 hrs</i>	<i>1.27</i>	<i>Area A</i>	<i>Clear</i>
	<i>1400 hrs</i>	<i>1.63</i>	<i>Area B</i>	<i>Clear</i>
<i>27-August</i>	<i>0943 hrs</i>	<i>1.78</i>	<i>Area B</i>	<i>Clear</i>
	<i>1144 hrs</i>	<i>1.43</i>	<i>Area C</i>	<i>Clear</i>
	<i>1456 hrs</i>	<i>1.42</i>	<i>Area A</i>	<i>Clear</i>

*4. Fish Kill Observations*

At no time were any fish kill observations made throughout the course of the operation. This include during water operations as well when collection bags were emptied in disposal bins. One of the responsibilities of the Deckhand/Labour was to keep a look out for fish kills and record those that happened. As mentioned earlier, no fish kills were observed. Given the nature of the job the operator of the Harvester was also well positioned to observe fish kills. He too did not observe any fish kills. Please see below for sample Daily Log.

<b>Mechanical Weed Harvesting Daily Log</b>						
	<u>Date</u>	<u>Time</u>	<u>Measurement Result</u>	<u>Location</u>	<u>Apparent Water Clarity</u>	<u>Observation Triggering Measurement Event</u>
<b><u>Turbidity Sample 1*</u></b>						
<b><u>Turbidity Sample 2**</u></b>						
<b><u>Turbidity Sample 3***</u></b>						
<b><u>Turbidity Sample</u></b>						
<b><u>Turbidity Sample</u></b>						
<b><u>Turbidity Sample</u></b>						

\* Taken 10 Minutes after the start of harvesting operations  
 \*\* Taken between 11 am and 1 pm  
 \*\*\* Taken within 1 hour of the end of harvesting operations for the day

<b><u>Fish Kill Observation</u></b>				
<u>Date</u>	<u>Time</u>	<u>Approximate Location</u>	<u>Number of Fish Killed</u>	<u>Type of Fish</u>

*5. Schedule Comparison – Proposed vs. Actual*

The Proposed Schedule versus the Actual Schedule mirrored one another with the exception of the dates for which the work commenced. In the proposed schedule we had anticipated launching the Harvester on August 10/15. In actuality we launched the Harvester one week later on August 17/15 and commenced harvesting operations the very next day as per the proposed schedule. We did not conduct a Project kick-off meeting until

August 18/15 prior to starting harvesting operations that day. Outside of that, the Proposed Schedule mirrored the Actual Schedule.

Weather was very favorable throughout the execution of the schedule and as a result the harvester was able to operate every day. The only other variation of note is that due to the fact that we were a week later with respect to starting the harvesting operation as per the Proposed Schedule, we did not have a closing meeting on August 27/15 and the Submission of this Final Report will be done on Sept. 25/15.

## 6. *Reporting and Deliverables*

### a. *Document areas harvested (Include areas reported to NOP by ADCKC Facilities Manager Peter Lombardi);*

- All areas harvested were documented on the Daily Log Sheets. The areas harvested were as indicated on the map that was provided. On several occasions we did speak with Facilities Manager Peter Lombardi who confirmed that he was in agreement with the areas that we were harvesting and that we were not interfering with any of the other activities taking place on the lake.

### b. *Description of any challenges to the compatibility of harvesting activities to other lake users/uses;*

- As stated above at no time did the harvesting activities present any challenges to other lake users/uses.

### c. *Description of any conditions that impacted harvester operations (bottom type, water depth, bottom shape etc.);*

- There were no conditions that impacted harvester operations. It is our opinion that the harvester was perfect for this application. The harvester was easy to maneuver, had a shallow draft and with the ability to adjust the depth of the cutter head was perfect for working both shallow and deeper water up to a depth of 6 to 8'. This combined with the fact that the harvested weeds were easily contained in sacks made it a very efficient and safe operation.

### d. *Summarize turbidity results*

- We would draw your attention to the table included in our response to item 3.



**Lake Banook and Lake  
Micmac 2015 Aquatic  
Vegetation Monitoring**



Prepared for:  
Halifax Regional Municipality

Prepared by:  
Stantec Consulting Ltd.

October 30, 2015

## Sign-off Sheet

This document entitled Lake Banook and Lake Micmac 2015 Aquatic Vegetation Monitoring was prepared by Stantec Consulting Ltd. ("Stantec") for the account of Halifax Regional Municipality (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

ORIGINAL SIGNED



Prepared by \_\_\_\_\_  
(signature)

**Sean Wilson**

ORIGINAL SIGNED



Reviewed by \_\_\_\_\_  
(signature)

**Marc Skinner**

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## 1.0 INTRODUCTION

In fall 2013, Stantec provided an assessment of the overgrowth of submerged aquatic vegetation (SAV) in Lake Banook and evaluated possible solutions for the overgrowth of vegetation based on cost, feasibility, effectiveness and risk. Three options for short term SAV management were presented in detail (Stantec 2014) and in later studies the options for long-term management of sediment delivery to the lake were evaluated (Stantec 2015a).

On October 7<sup>th</sup>, 2014, Stantec collected remote sensing acoustic and underwater video data from Lake Banook, Dartmouth, Nova Scotia. This work was in support of an ongoing Stantec Research & Development project evaluating multiple remote sensing technologies used in mapping aquatic habitat across a range of environmental gradients (Stantec 2015b). These data were analyzed to produce maps of the current bathymetry, distribution of sediment types, as well as the distribution, percent cover, and canopy height of aquatic vegetation.

Based upon the results of the above-mentioned Stantec reports, the Regional Council of the Halifax Regional Municipality (HRM) directed staff to implement the short-term control of weed management on Lake Banook and Lake Micmac through contracted mechanical weed harvesting services that were undertaken for the lakes from August 18<sup>th</sup> to 28<sup>th</sup>, 2015. During this period, the mechanical weed harvesting contractor was instructed by HRM to focus their harvesting activities within target harvest areas (Figure 1, Areas of Focused Survey B-D). Additionally, the mechanical weed harvesting contractor was instructed to opportunistically harvest in any locations outside of these target harvest areas, which they observed to have dense weed coverage while conducting harvesting. Opportunistic harvesting occurred in Locations M1 and M2 in Lake Micmac as well as Water Lots 3-6 in Lake Banook (Figure 1).

From September 7<sup>th</sup> to 11<sup>th</sup>, 2015, Stantec collected acoustic and underwater video data from Lake Banook and Lake Micmac, Dartmouth, Nova Scotia to replicate the 2014 acoustic survey. Focused acoustic surveys were also collected within the high vegetation abundance areas in Lake Banook and Lake Micmac that were targeted by the weed harvesting contractor (Figure 1). These surveys were used to assess the performance of the 2015 mechanical harvesting services conducted in Lake Banook and to provide baseline data for Lake Micmac.

## 2.0 ACOUSTIC DATA

### 2.1 ACOUSTIC DATA ACQUISITION

On September 7<sup>th</sup> to 11<sup>th</sup>, 2015, data were collected using a vessel-mounted, single beam sonar echosounder (Habitat MX Echosounder, BioSonics, Seattle Washington, USA). The primary acoustic survey equipment included the BioSonics transducer (204.8 kHz transducer, 8.6 degree conical beam angle, range accuracy 1.7 cm ± 0.2% of depth), BioSonics deck unit with

## LAKE BANOOK AND LAKE MICMAC 2015 AQUATIC VEGETATION MONITORING

October 30, 2015

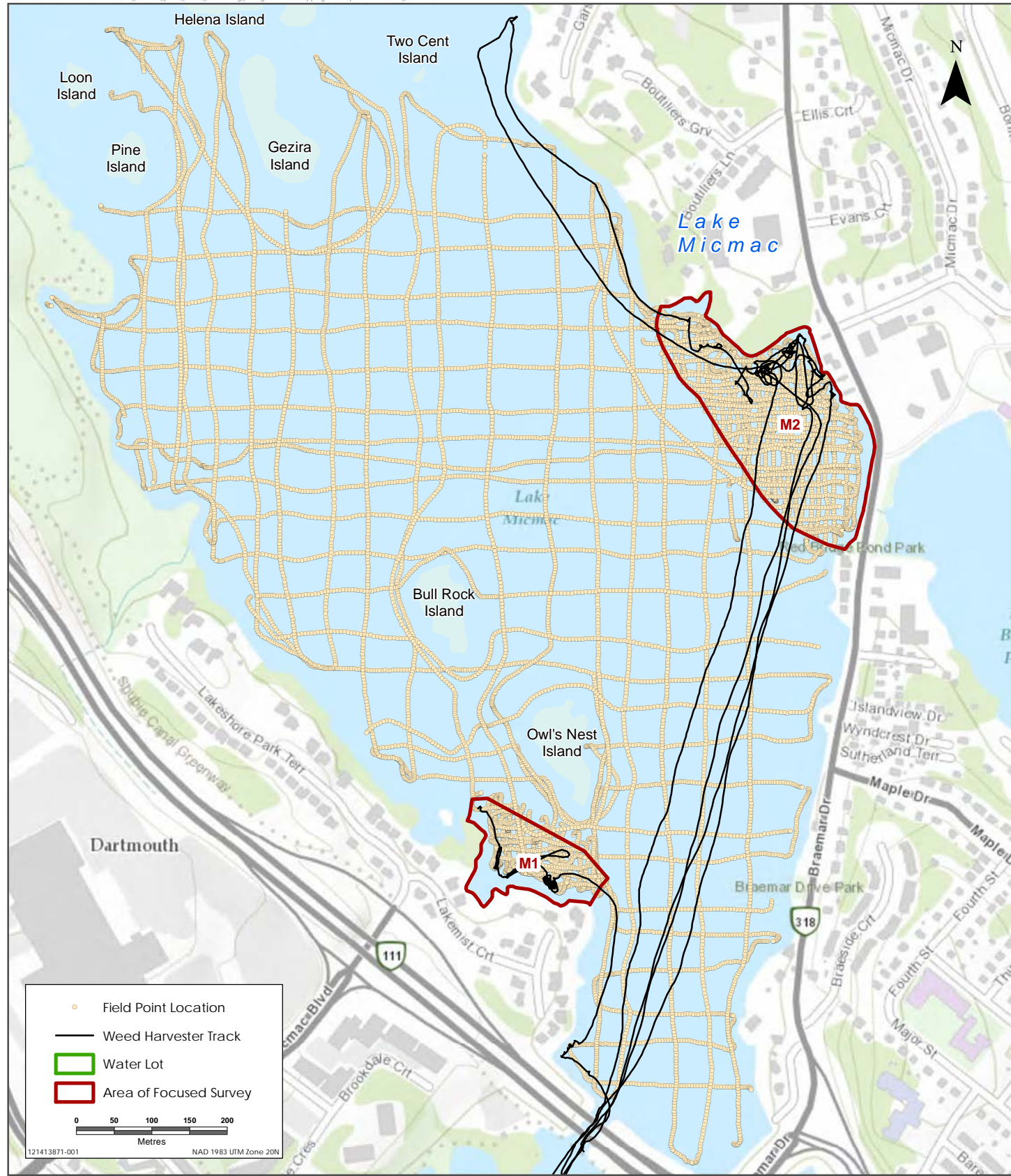
integrated differential GPS (positional accuracy < 3 m, 95% typical), a field laptop (Toughbook 31, Panasonic Corporation of North America, Newark, NJ, USA), and an underwater video camera (Offshore 2550, Seaviewer, Tampa, USA).

A generalized acoustic survey was carried out by conducting vessel-based transects spaced approximately 50 m apart in a north-south and east-west direction of both Lake Banook and Lake Micmac. These surveys were planned to capture data from the entirety of the safely navigable portions of each waterbody. The northernmost portions of Lake Micmac were very shallow with many submerged rocks and this precluded safe operation of the acoustic transducer which sits exposed in the water column.

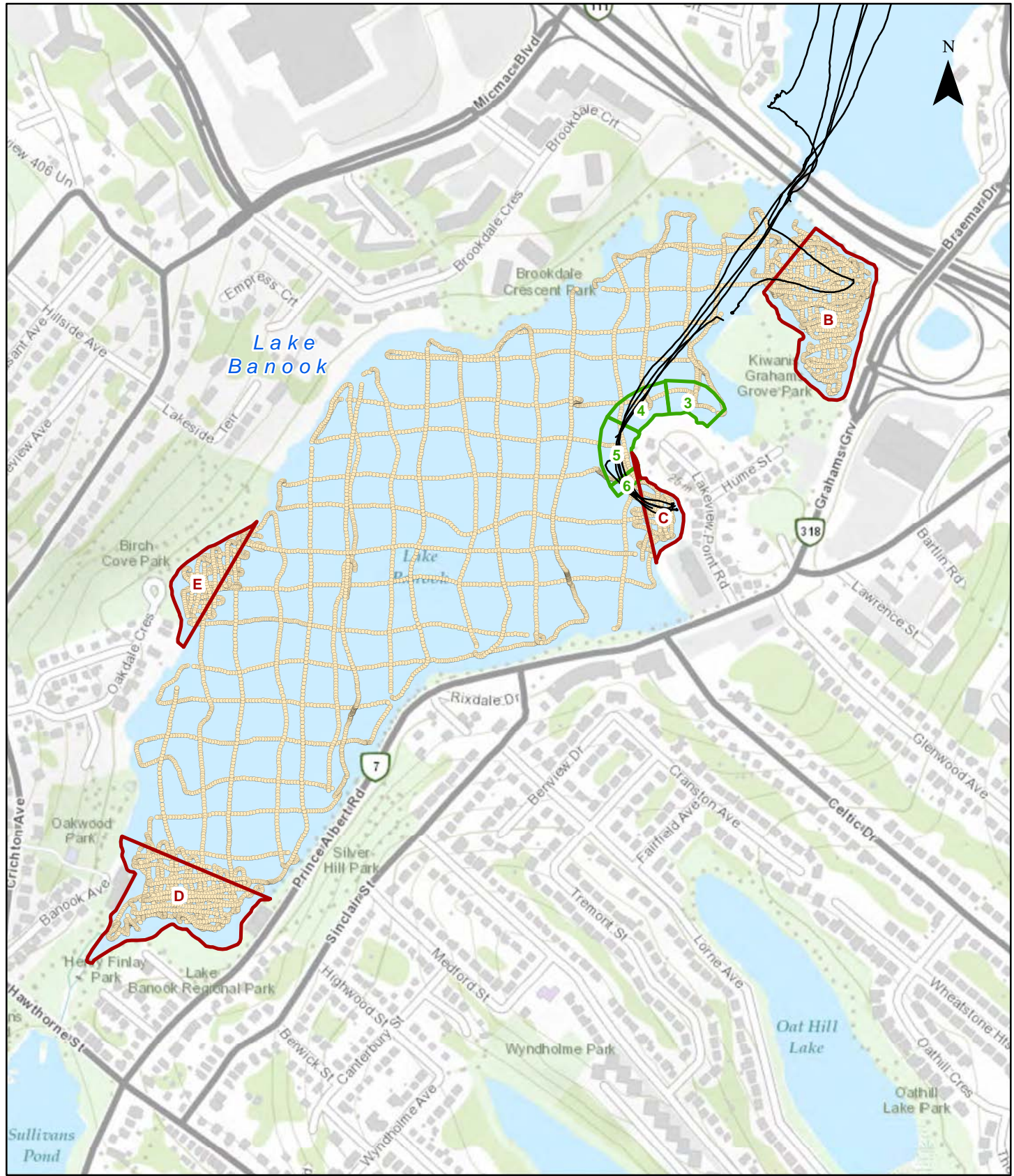
Using the integrated differential GPS, the survey vessel navigated along each transect at approximately 4 to 5 km/h (approximately 2.5 knots; speed-over-ground). In addition to the generalized survey, a focused acoustic survey was carried out by conducting vessel-based transects spaced approximately 10 m apart in a north-south and east-west direction within the high weed abundance areas targeted by the weed harvesting contractor in both Lake Banook and Lake Micmac (Figure 1). In Figure 1, "Field Points" denote locations of continuous sonar data collection.

Along select transects, underwater video was collected to ground-truth the sonar data for bottom type and vegetation presence and absence. Point samples were also collected to secure type specimens of aquatic weeds from the actual and targeted harvest areas for the purposes of taxonomic identification to species level using an appropriate aquatic botany dichotomous key (Gleason and Cronquist 1991; Munro *et al.* 2014). Refer to Figure 1 for sample transect locations.

Days after initiation of SAV harvesting activities, the crew of the mechanical harvester was provided a GPS plotter to record their tracks while transiting Lakes Banook and Micmac; however, contrary to the advice provided by Stantec scientists they failed to accurately record the exact positions of when harvesting started and stopped at each discrete location. The position of these tracks is also highlighted in Figure 1.



Sources: Base Data - Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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Sample Point Locations - Lake Micmac

Sample Point Locations - Lake Banook

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## 2.2 ACOUSTIC DATA ANALYSIS

The following outputs were produced from the acoustic data using the Visual Habitat software package (BioSonics, Seattle Washington, USA):

- bathymetric mapping
- submerged aquatic vegetation percent cover mapping
- submerged aquatic vegetation canopy height mapping
- sediment type mapping

The acoustic transducer provides two-dimensional information (linear distance vs. depth) in the form of an echogram on echo intensity returns along each transect. In Figure 2, Panel A, this sample echogram presents a vegetated bottom (red arrow) clearly differentiated from an unvegetated bottom (yellow arrow). An unvegetated bottom is characterized by the steepest rise in amplitude of signal intensity (Figure 2, Panel E, black arrow) relative to background noise (blue arrow). This finding is confirmed by a simultaneously acquired ground-truth video image showing a sand bottom with sparse vegetation (Figure 2, Panel D). In contrast, Figure 2, Panel C presents the typical oscilloscope signature of a bottom vegetated with vascular plants indicating a more gradual rise in signal intensity (green arrow) immediately above the bottom signal (black arrow). The plant signal (green arrow) has a weaker intensity than the harder bottom signal (black arrow; Figure 2, Panel C). The thickness of the plant signal above the bottom signal is used by the BioSonics algorithm to calculate the canopy height of the vascular plants (Figure 2, Panel C). This finding is also confirmed by a simultaneously acquired ground-truth video image showing dense vegetation on a relatively softer substrate (Figure 2, Panel B). Similarly, signal intensity and metrics of bottom thickness are exploited via a principal components analysis to derive and classify distinct sediment types.

The BioSonics algorithm exploits changes in acoustic signatures from each echo return ("ping") to characterize the substrate condition and characteristics of any vegetation encountered. Percent cover of vegetation is calculated by aggregating data over pre-determined ping cycles ( $n = 10$ ). For example, in a 10-ping cycle, if 4 of 10 echo returns indicate the presence of vegetation, the algorithm calculates the vegetation percent cover as 40% ( $4/10 \times 100 = 40\%$ ). Similarly, the canopy heights of these four individual pings would be averaged to produce a mean canopy height for this same 10-ping cycle. For detailed specifics on the technical aspects of these data processing methods, please refer to Sabol et al. (2002, 2009).



# LAKE BANOOK AND LAKE MICMAC 2015 AQUATIC VEGETATION MONITORING

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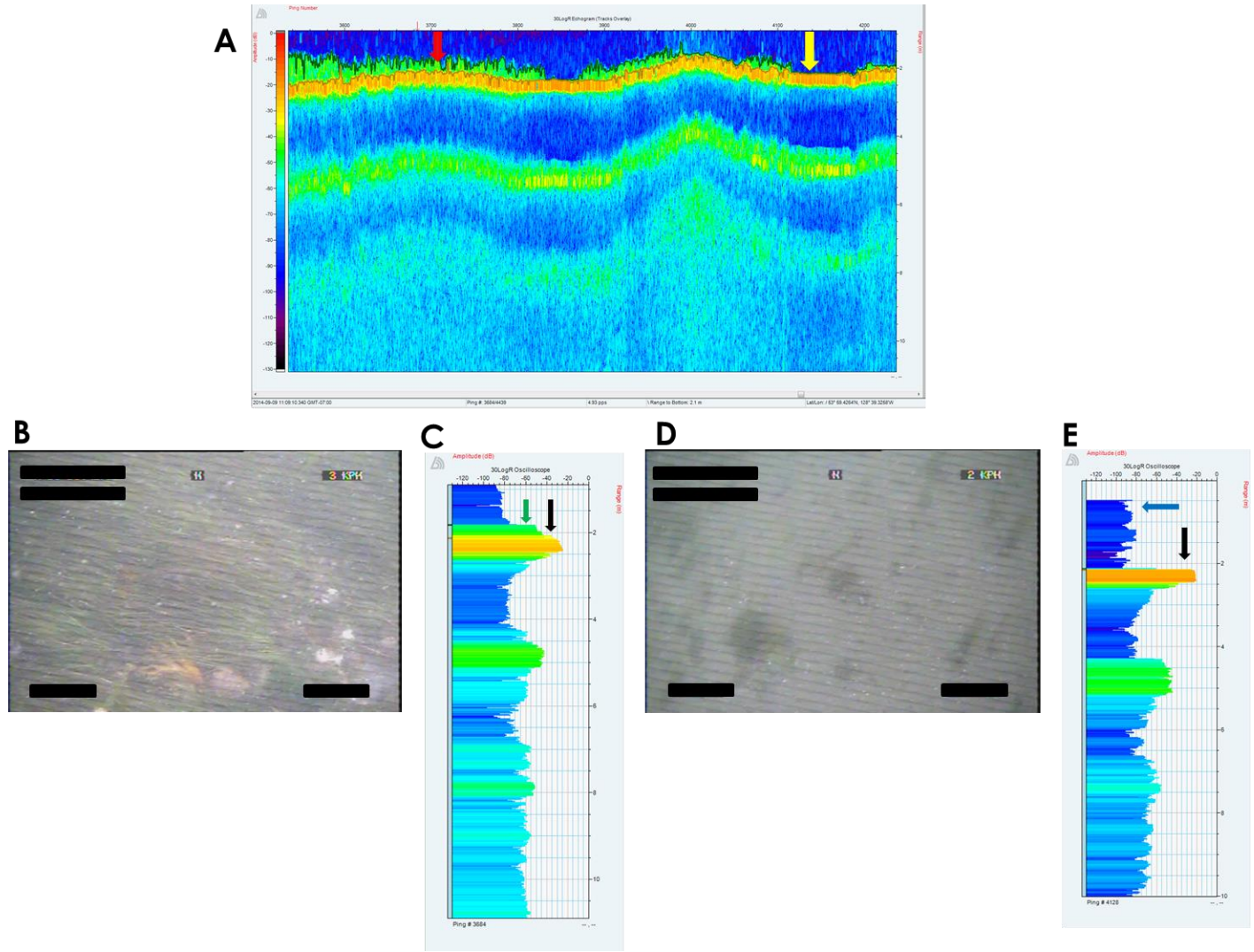


Figure 2 Generic Echogram, Oscilloscope, and Ground-Truth Video Data (not collected from Lake Banook)

October 30, 2015

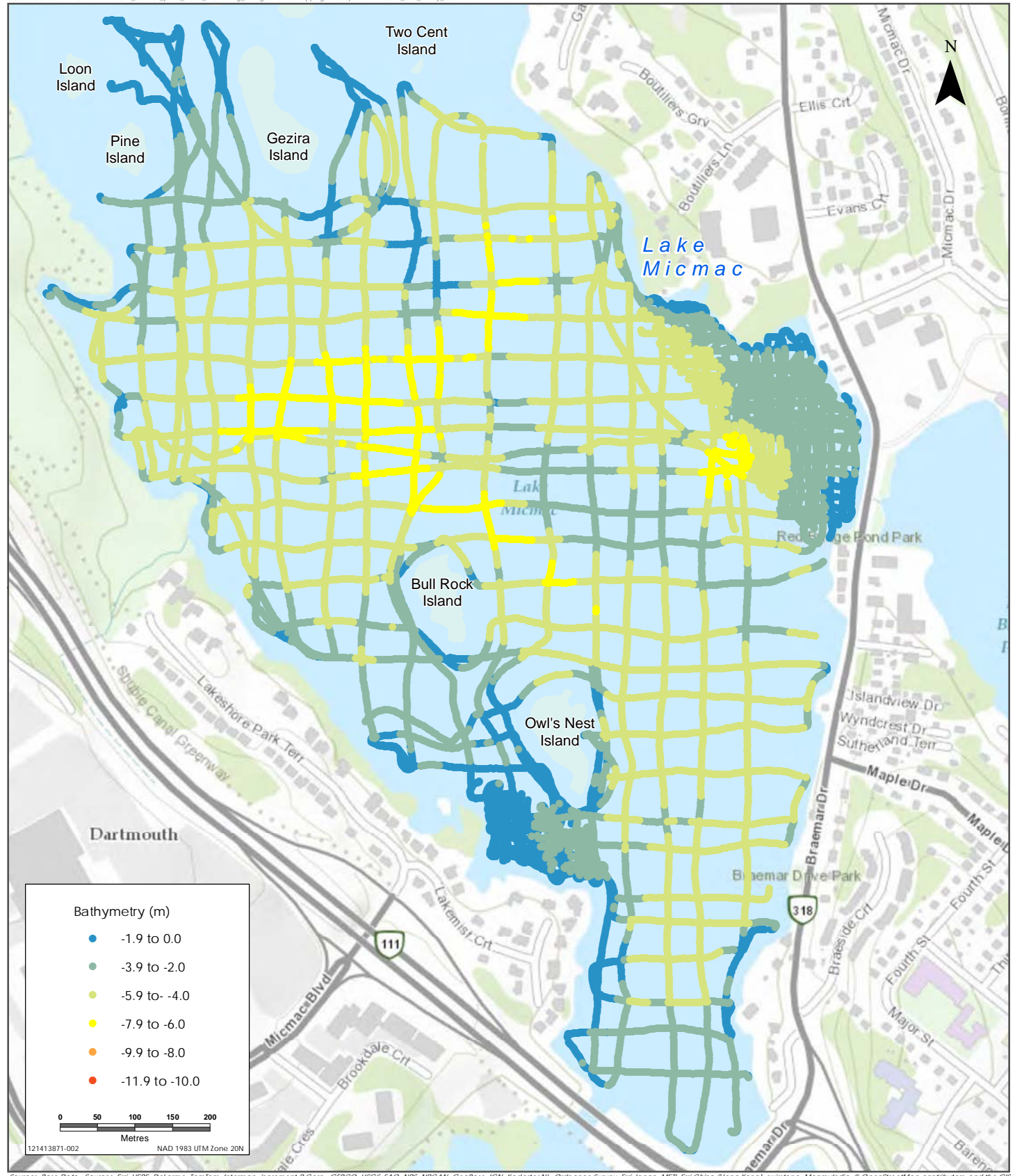
## 3.0 RESULTS OF ACOUSTIC DATA ACQUISITION/ANALYSIS

### 3.1 BATHYMETRY

Acoustic data collected from the September 7<sup>th</sup> to 11<sup>th</sup>, 2015 survey were used to create bathymetric maps. Figure 3 illustrates the raw bathymetry data collected by conducting transects using the echosounder unit. Figure 4 is an interpolated bathymetric map of Lake Banook and Lake Micmac, in which the raw data were used to statistically derive data values between sample points to create a smooth bathymetric map of the lake.

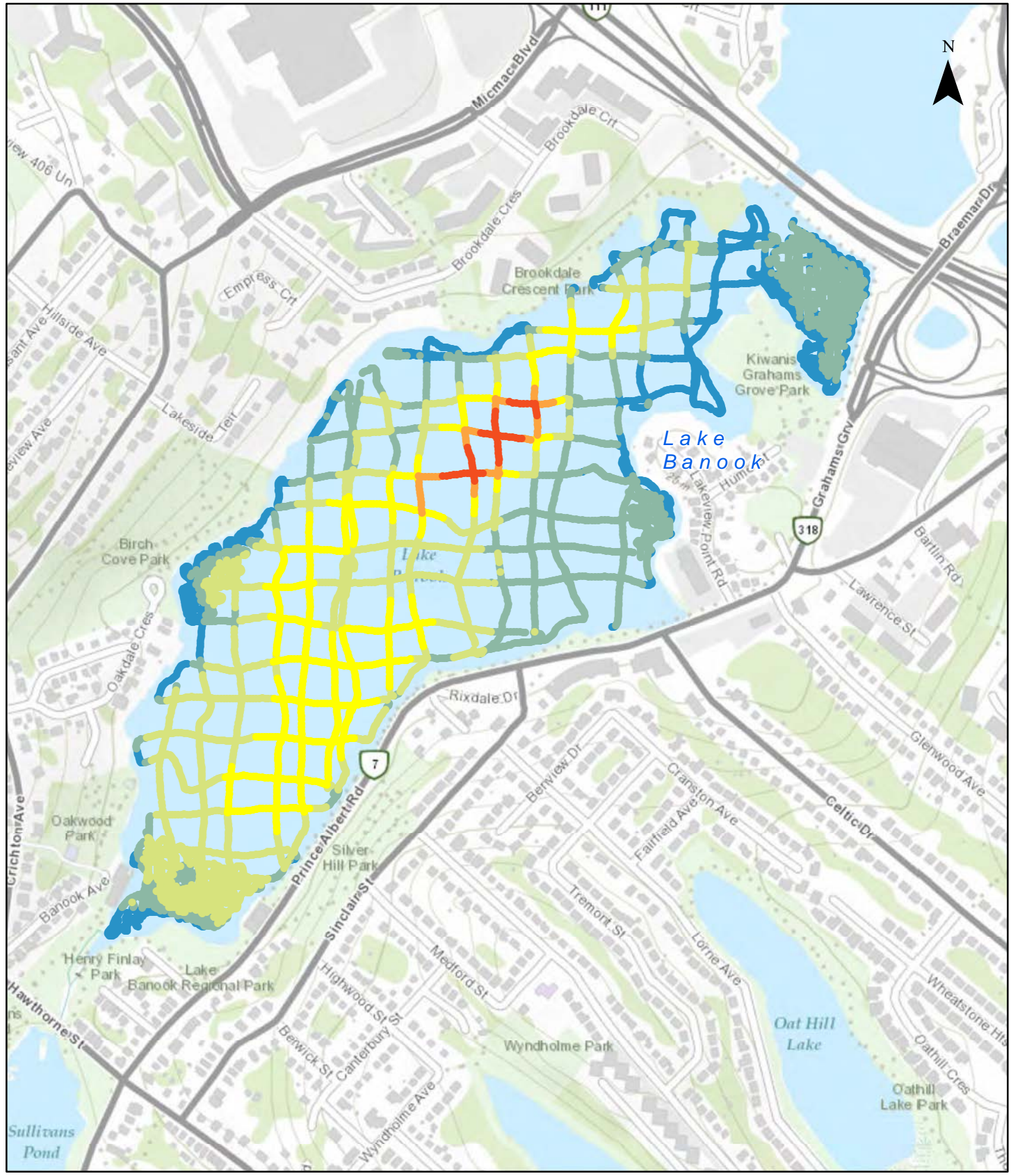
The water depth in Lake Banook ranges from 0 m to 11.6 m. The deepest section of the lake is located in the middle of the lake where there is a steep drop-off to a deep basin from relatively shallow depths. The shoreline of the lake is relatively shallow with average depths ranging from 0 m to 3 m with a gradual drop-off to deeper water. The northeast section of the lake has relatively low water depths with a shallow inlet (1 to 2 m), connecting Lake Banook to Lake Micmac, as well as other shallow bays. The southwest portion of the lake is relatively deep with an average depth of 5 m to 8 m, with water depths rapidly increasing closer to shore as compared to the northern section of the lake. In general, the bathymetric data collected during the current survey are in agreement with the bathymetric mapping survey completed in 2014 (Stantec 2015b).

The water depth in Lake Micmac ranges from 0 m to 7.5 m with the deepest sections of the lake being found in the central portion of the lake, north of Bull Island Rock and Owl's Nest Island. The shallowest sections of the lake are found in the north and southwest sections with water depths ranging from 0 m to 2 m. The shoreline of Lake Micmac is fairly shallow with a gradual drop-off in the majority of the lake with exceptions being found on the east side of the lake near Braemar Drive and the northeast and northwest sections, where steep drop-offs from 0 m to 5 m can be found.



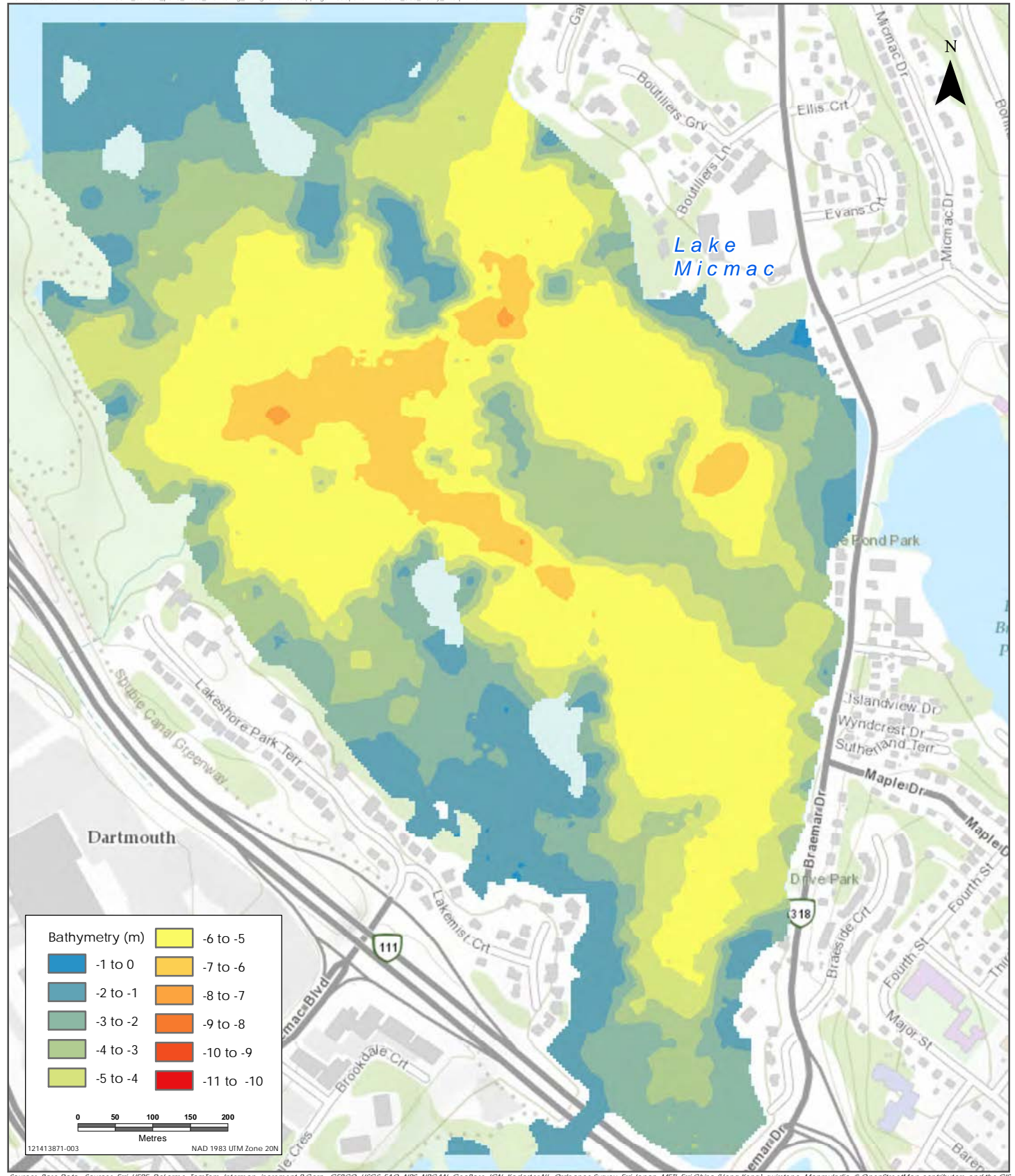
Sources: Base Data - Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Bathymetry of Lake Micmac - Field Points

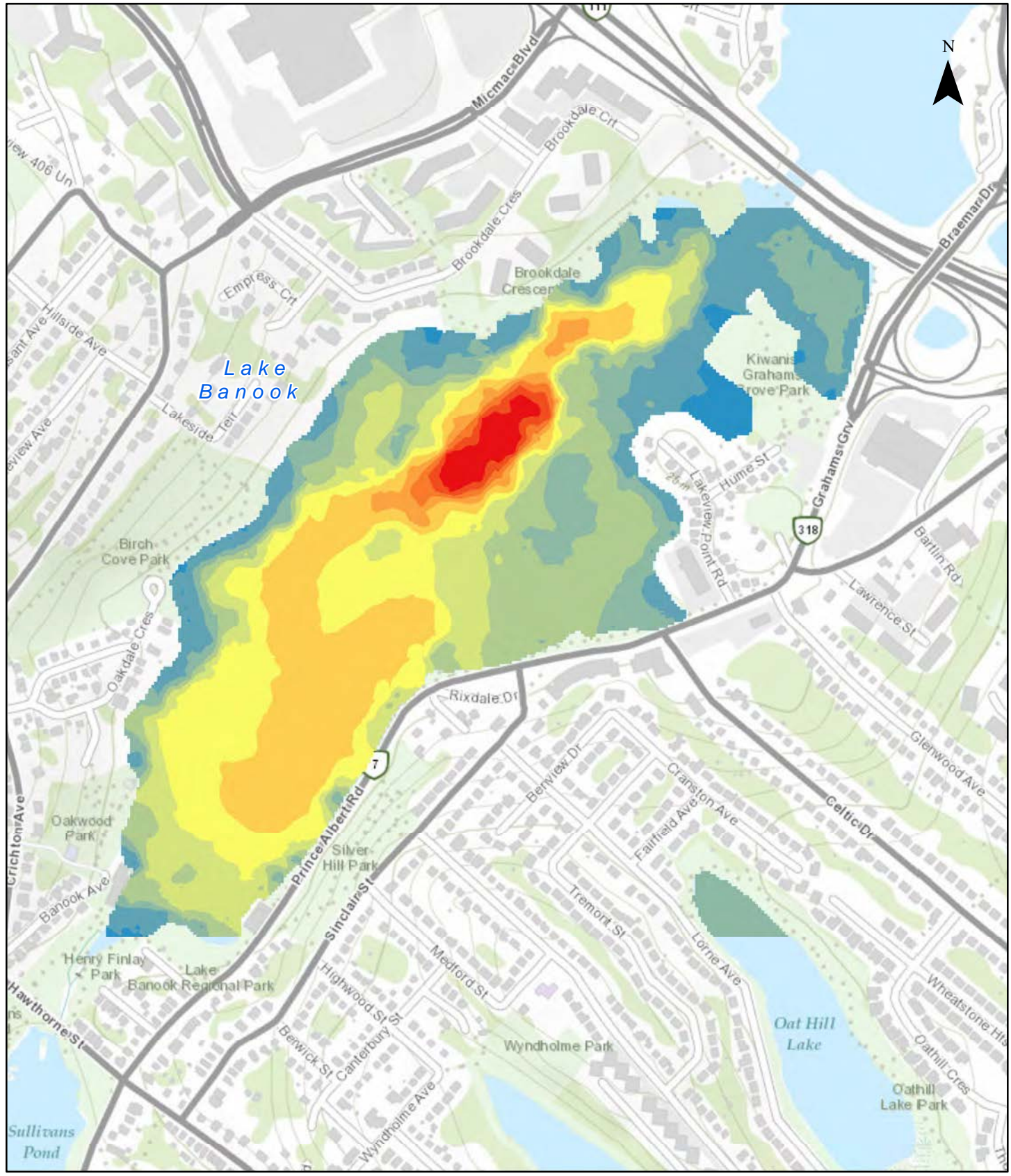


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Bathymetry of Lake Banook - Field Points



Sources: Base Data - Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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Bathymetry of Lake Micmac - Interpolated

Bathymetry of Lake Banook - Interpolated

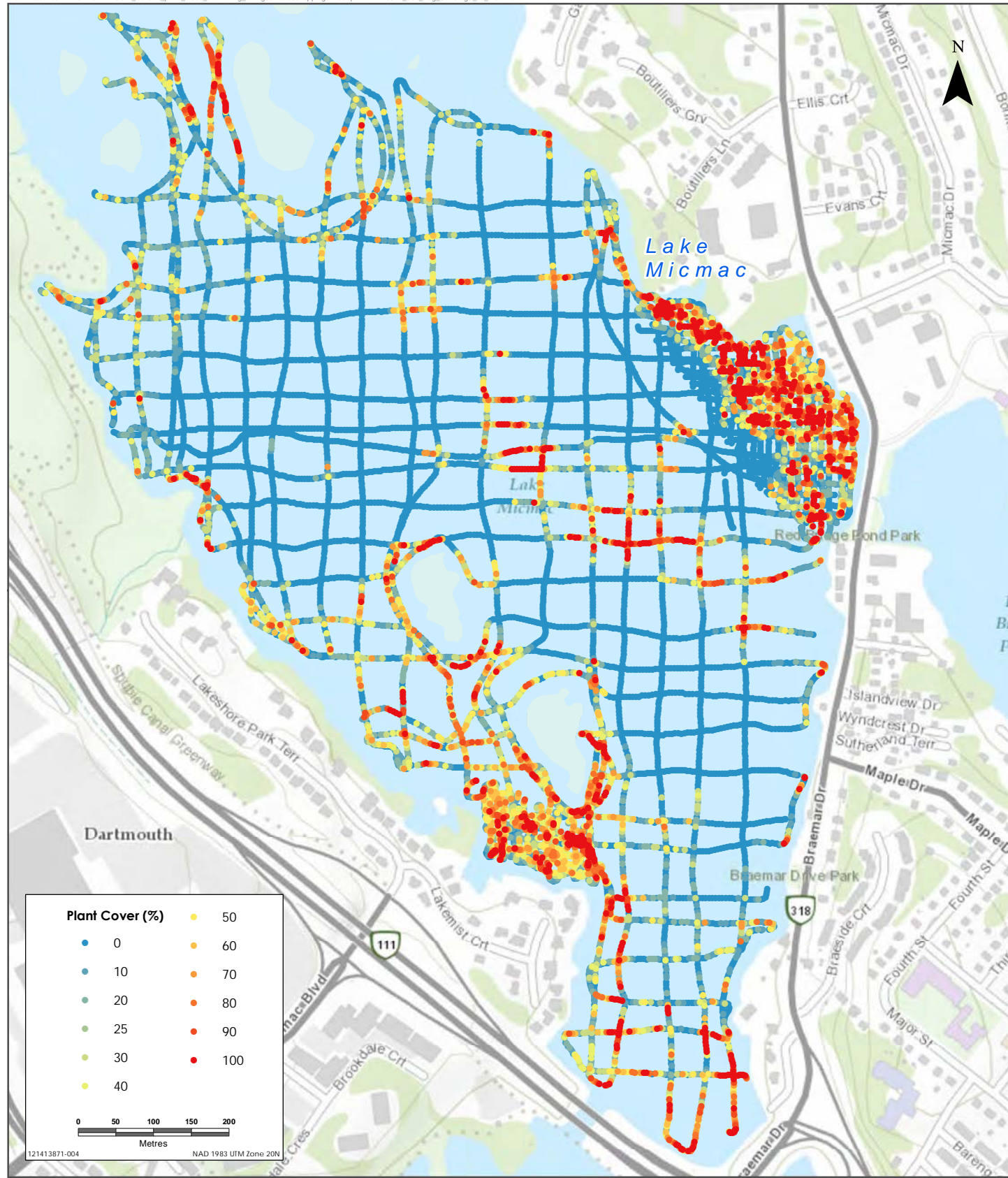
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### 3.2 SUBMERGED AQUATIC VEGETATION COVERAGE

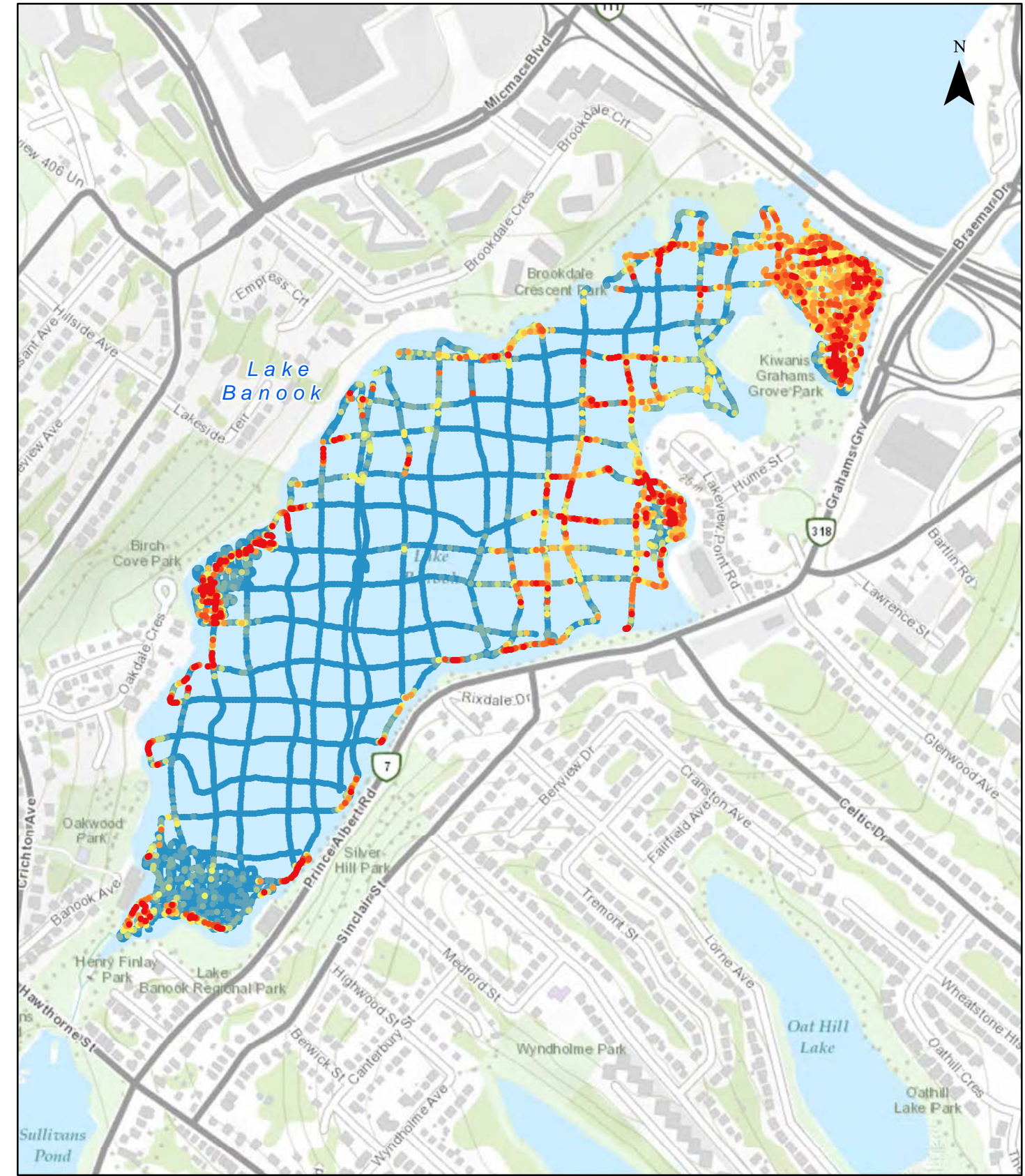
SAV data were used to create vegetation mapping for Lake Banook and Lake Micmac. Figure 5 depicts the SAV coverage as data points along the transects sampled on September 7<sup>th</sup> to 11<sup>th</sup>, 2015. Figures 6 and 7 are interpolated maps of the percent cover of SAV for Lake Micmac and Lake Banook, respectively, in which the raw data were used to create a coverage map for the entire waterbody. Figures 6 and 7 also display select sample photo and video locations used to relate the ground-truth points to the interpolation.

Aquatic vegetation can be found in depths ranging from 0 m to 5 m in Lake Banook. Beyond this depth, vegetation was not observed on echograms or through ground-truth video samples. Dense vegetation cover was identified along the majority of the nearshore environment of the lake (Figure 7), except for a few areas (*i.e.*, adjacent to Birch Cove Park). Large areas of high density cover can also be found in the shallow areas of the northern and eastern sections of the lake (*i.e.*, adjacent to Grahams Grove Park and along the shore parallel to Prince Albert Road). Discrete areas of dense vegetation cover can also be found along the shallower sections of the northwest and western sections of Lake Banook. There are sporadic patches of vegetation in the southern portion of the lake near the paddling clubs, although to a lesser extent than found elsewhere (Figure 7),

Aquatic vegetation can also be found in similar depths in Lake Micmac. Dense vegetation cover was identified in high concentrations in discrete locations of the northern section of the lake as well as in the northeastern portion of the lake adjacent to Red Bridge Pond and Braemar Drive (Figure 6). High concentrations of vegetation were also found to the south and surrounding both Bull Rock and Owls Nest Islands as well as in the southern portion of the lake in close proximity to the outlet connecting Lake Micmac to Lake Banook.



Sources: Base Data - Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



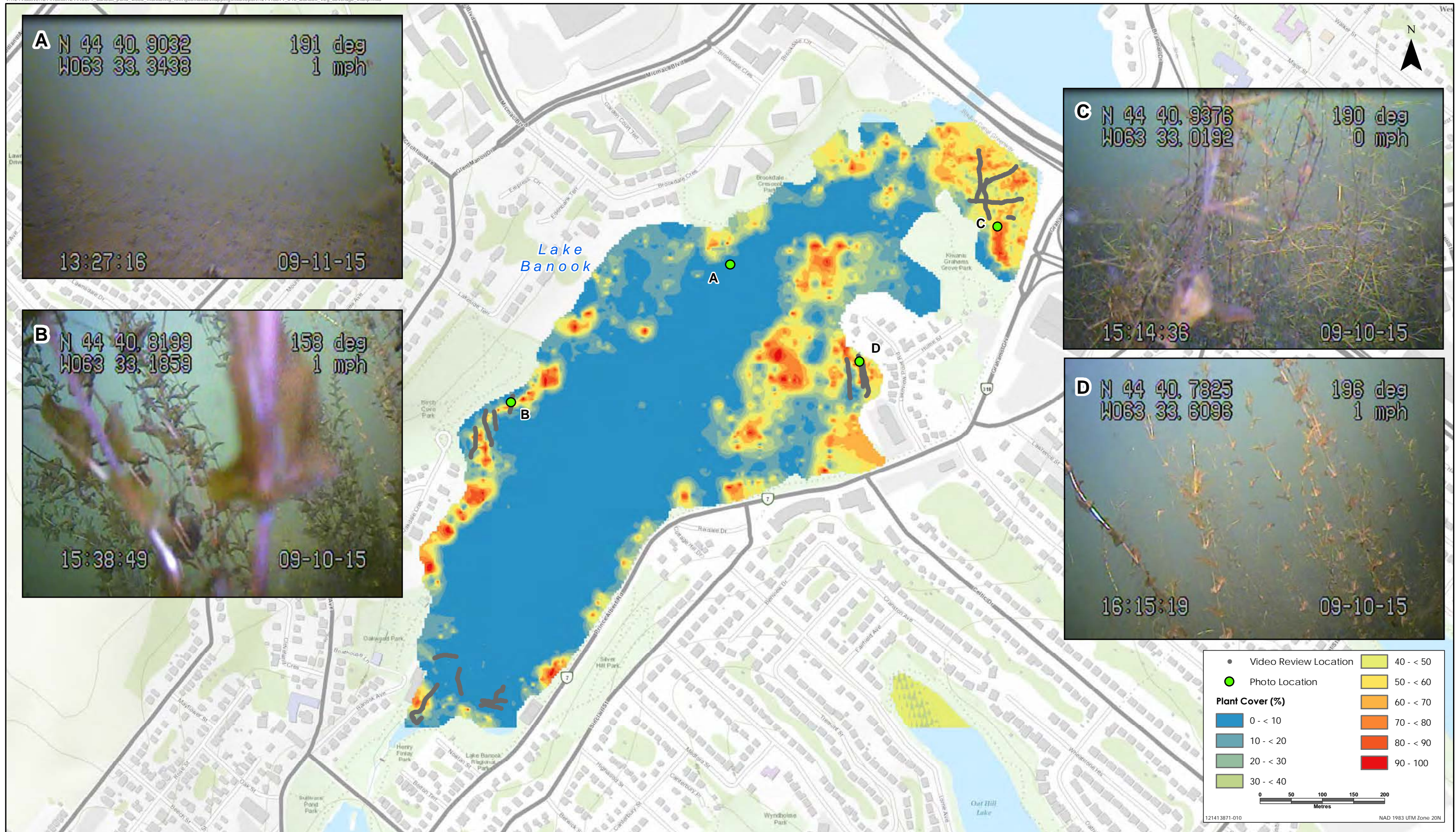
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**Submerged Aquatic Vegetation Coverage of Lake Micmac – Field Points**

**Submerged Aquatic Vegetation Coverage of Lake Banook – Field Points**





Sources: Base Data -- Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri, Japan, MEI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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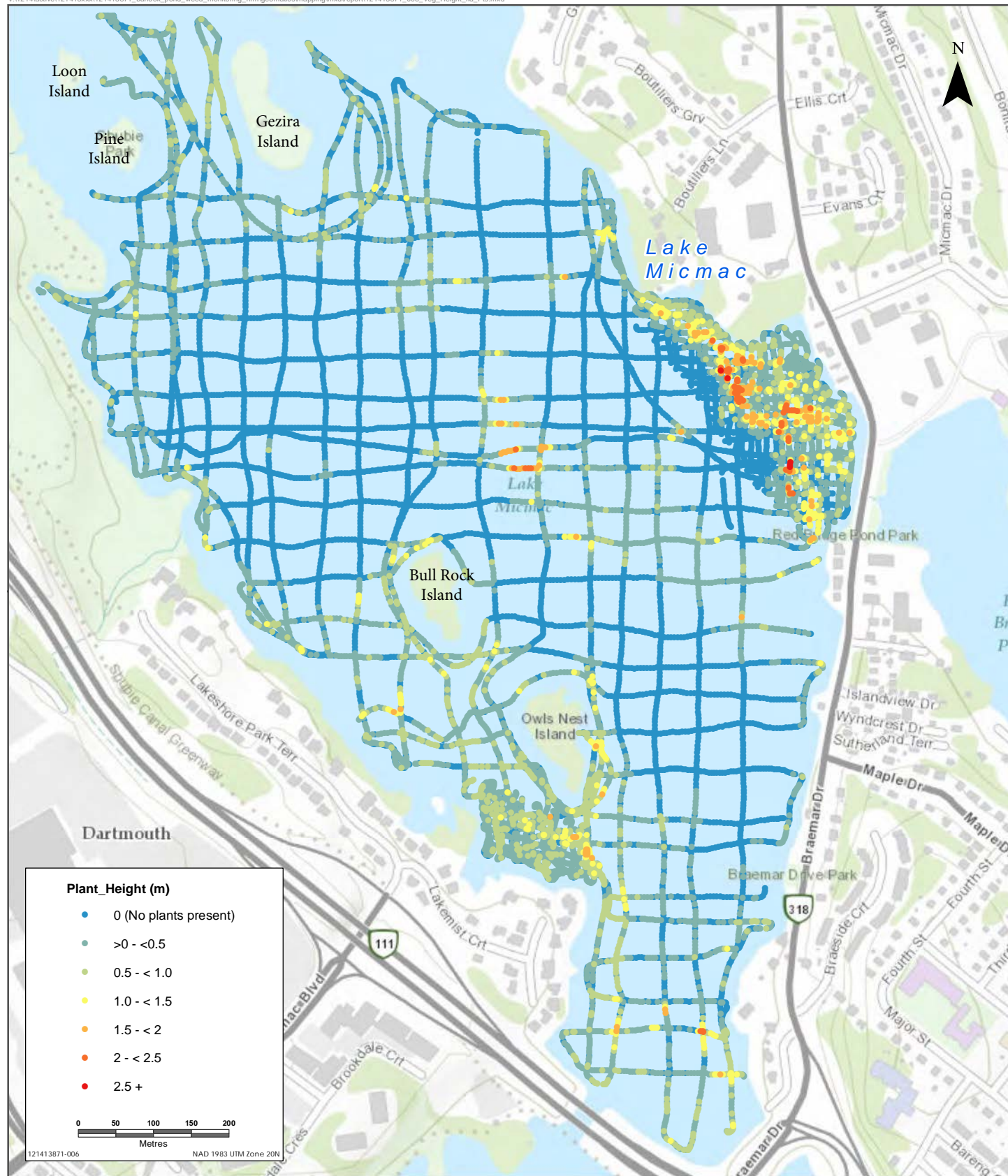
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### 3.3 SUMBERGED AQUATIC VEGETATION CANOPY HEIGHT

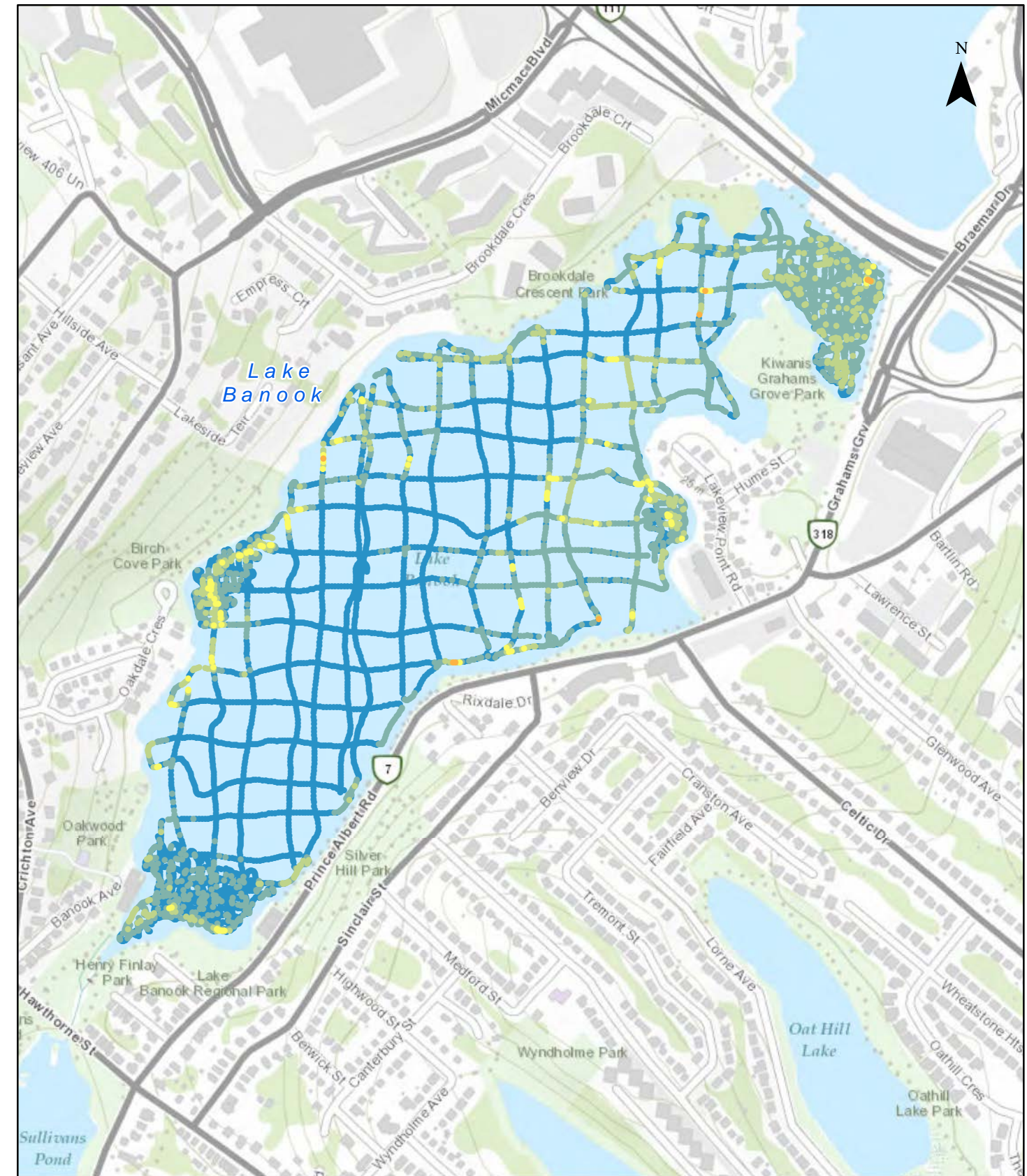
Aquatic canopy height was calculated for vegetation encountered in each lake, which can be seen in Figure 8.

Due to the presence of false positive plant identification for short plants, as a result of a thick layer of silts in the lakes, a plant height cutoff of 0.25 m was applied to the Biosonics software for height identification. As a result, from our analysis at the time of sampling, vegetation heights ranged from 0.25 m to greater than 2.5 m across both lakes (Figure 8). The majority of vegetation in Lake Banook fell within the height range of 0.25 to 0.5 m. Discrete areas of vegetation with tall canopy height (> 1 m) are identified throughout the lake, with the majority being found in the northeastern extent and western shores (*i.e.*, Birch Cove Park) of the lake.

Vegetation heights in Lake Micmac ranged from 0.25 m to 2.8 m, with the majority of the vegetation canopy heights falling within the 0.25 m to 0.5 m. Canopy heights were higher in Lake Micmac when compared to Lake Banook with concentrations of vegetation > 1 m in height found in the eastern section of the lake adjacent to Red Bridge Pond. There are also discrete areas of vegetation with canopy heights > 1 m in areas northeast and south of the Bulls Rock and Owl's Head Islands as well as in the southern portion of the lake near the outlet to Lake Banook.



Sources: Base Data - Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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Submerged Aquatic Vegetation Canopy Height of Lake MicMac – Field Points

Submerged Aquatic Vegetation Canopy Height of Lake Banook – Field Points

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### 3.4 DISTRIBUTION OF VEGETATION TYPES

Point vegetation samples were collected to secure the type of aquatic vegetation in targeted harvest areas of Lake Banook and Lake Micmac. Refer to Figures 9 to 17 for the distribution of vegetation types along select transects within each targeted harvest area.

The following species were collected from the targeted harvest areas in Lake Banook:

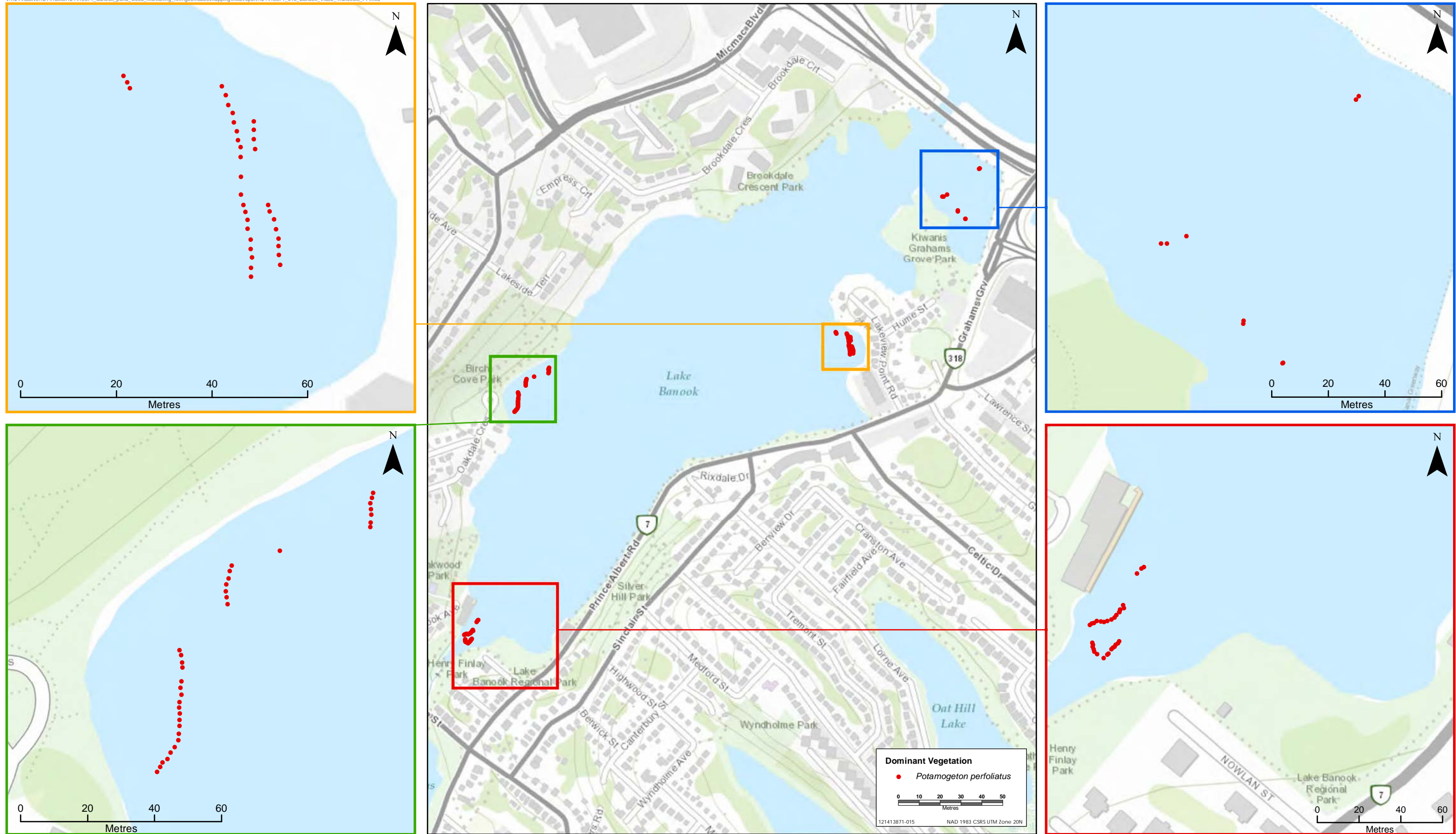
- *Chara* sp.
- Canada Waterweed (*Elodea canadensis*)
- White Buttons (*Eriocaulon aquaticum*)
- Alga Pondweed (*Potamogeton confervoides*)
- Clasping Leaf Pondweed (*Potamogeton perfoliatus*)

The following species were collected from the targeted harvest areas in Lake Micmac:

- Canada Waterweed (*Elodea canadensis*)
- Water Shield (*Brasenia schreberi*)
- Fragrant Water Lilly (*Nymphaea odorata*)
- Pickerelweed (*Pontederia cordata*)
- Narrow-leaved Burreed (*Sparganium angustifolium*)
- Floating-leaved Pondweed (*Potamogeton natans*)
- Clasping Leaf Pondweed (*Potamogeton perfoliatus*)
- Leafy Pondweed (*Potamogeton foliosus*)
- Wild Celery (*Vallisneria americana*)

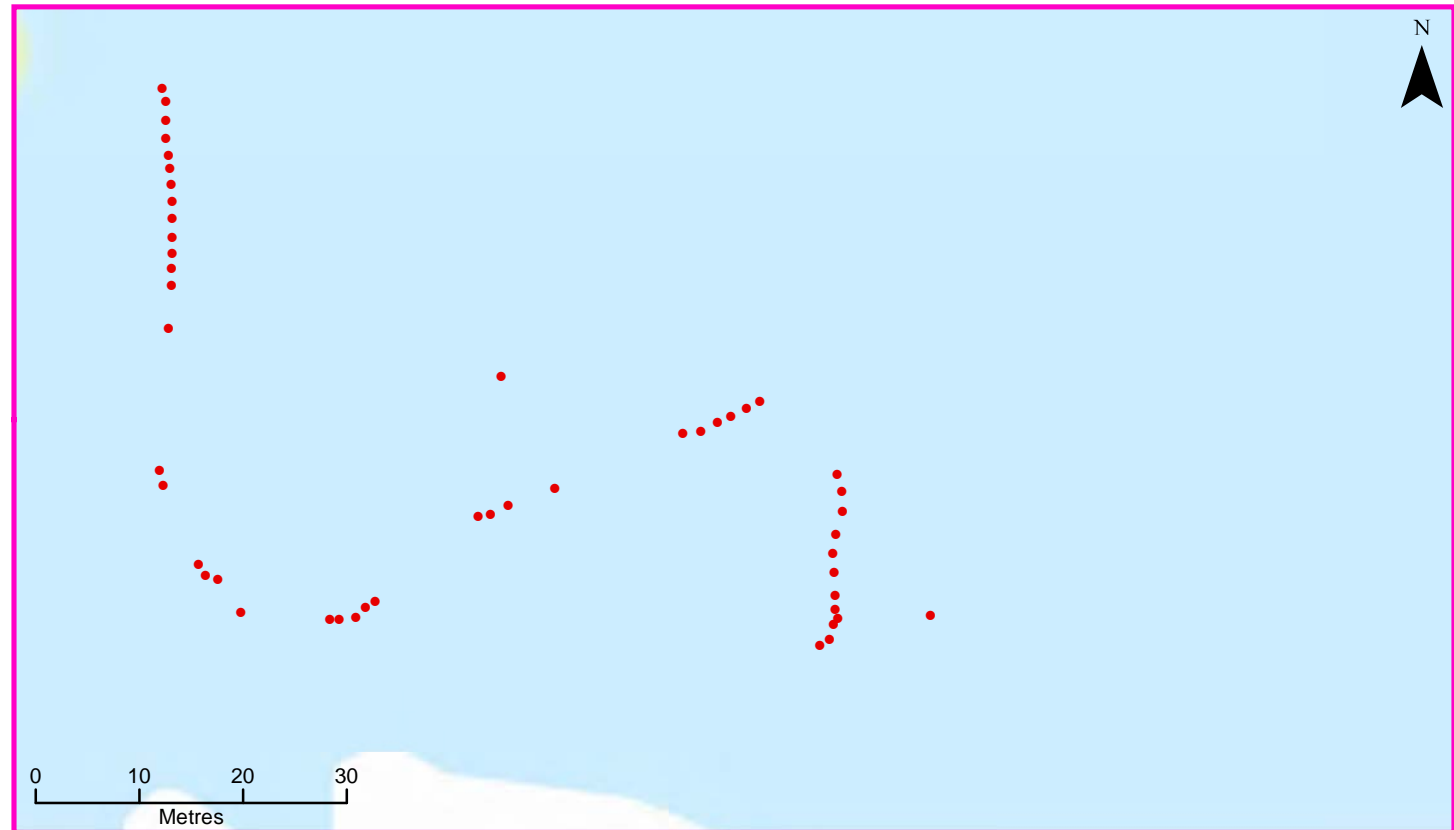
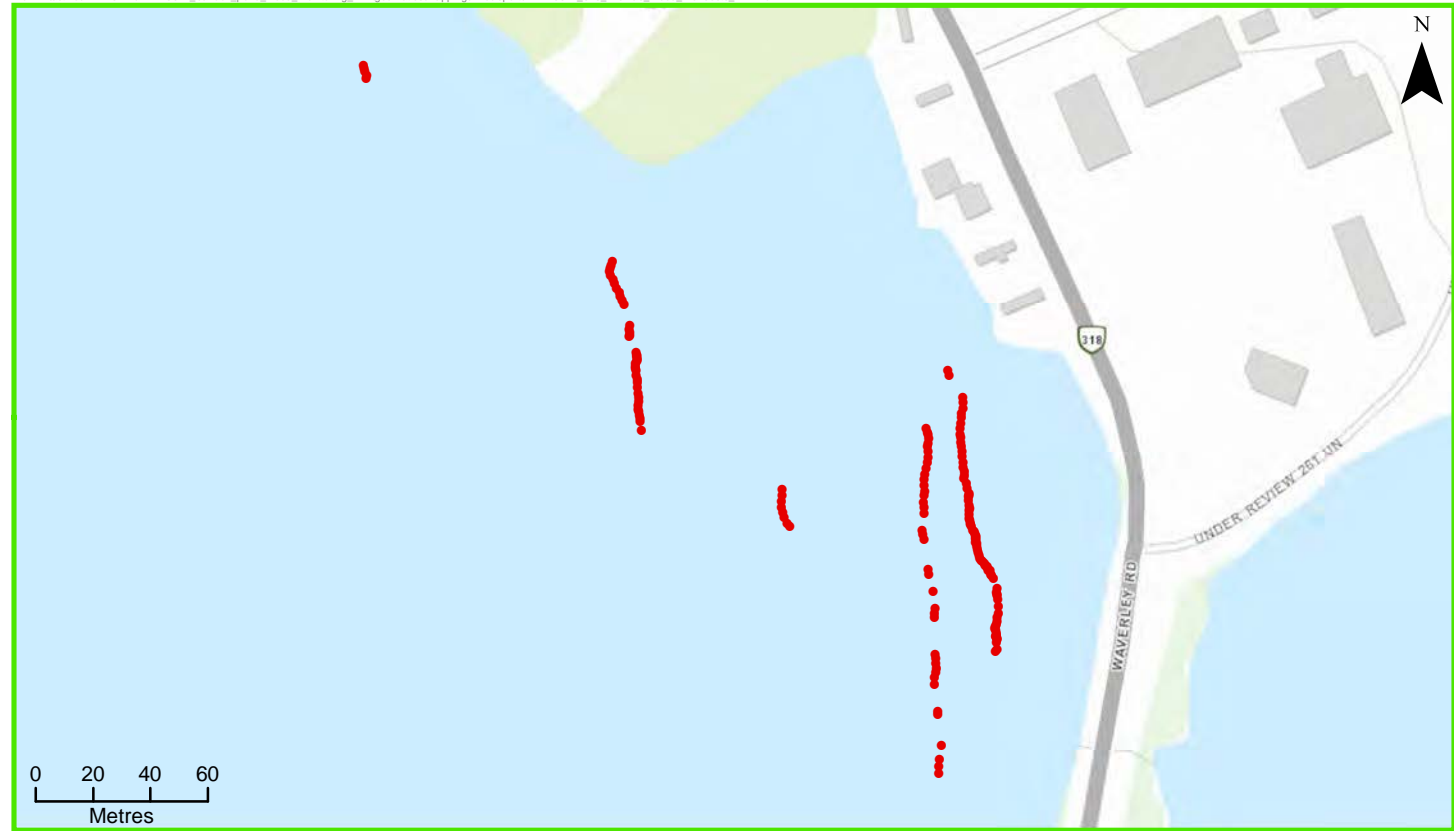
It is important to note that these species listed are only those identified from benthic grabs in each of these lakes. As Figures 9 to 14 demonstrate, abundant species such as *P. perfoliatus*, *P. foliosus*, and *E. canadensis* were common to both lakes. In contrast, *B. schreberi*, *N. odorata*, *P. cordata*, *S. angustifolium*, and *P. natans* were rare and only noted in a localized region within the M1 area (Figure 15). The remaining species, *Chara* sp., *E. aquaticum*, and *V. americana* are species common to temperate lake habitats and were found in very low densities in isolated locations in each lake.

The distribution and percent cover of the common species *P. perfoliatus*, *P. foliosus*, and *E. canadensis* observed in 2015 validate the assumptions of previous studies (Stantec 2014, 2015) regarding the distribution and identity of the excessive growth of these submerged aquatic vegetation species. As such, these findings do not suggest the need to alter the current HRM plan to conduct targeted harvesting of these three species.

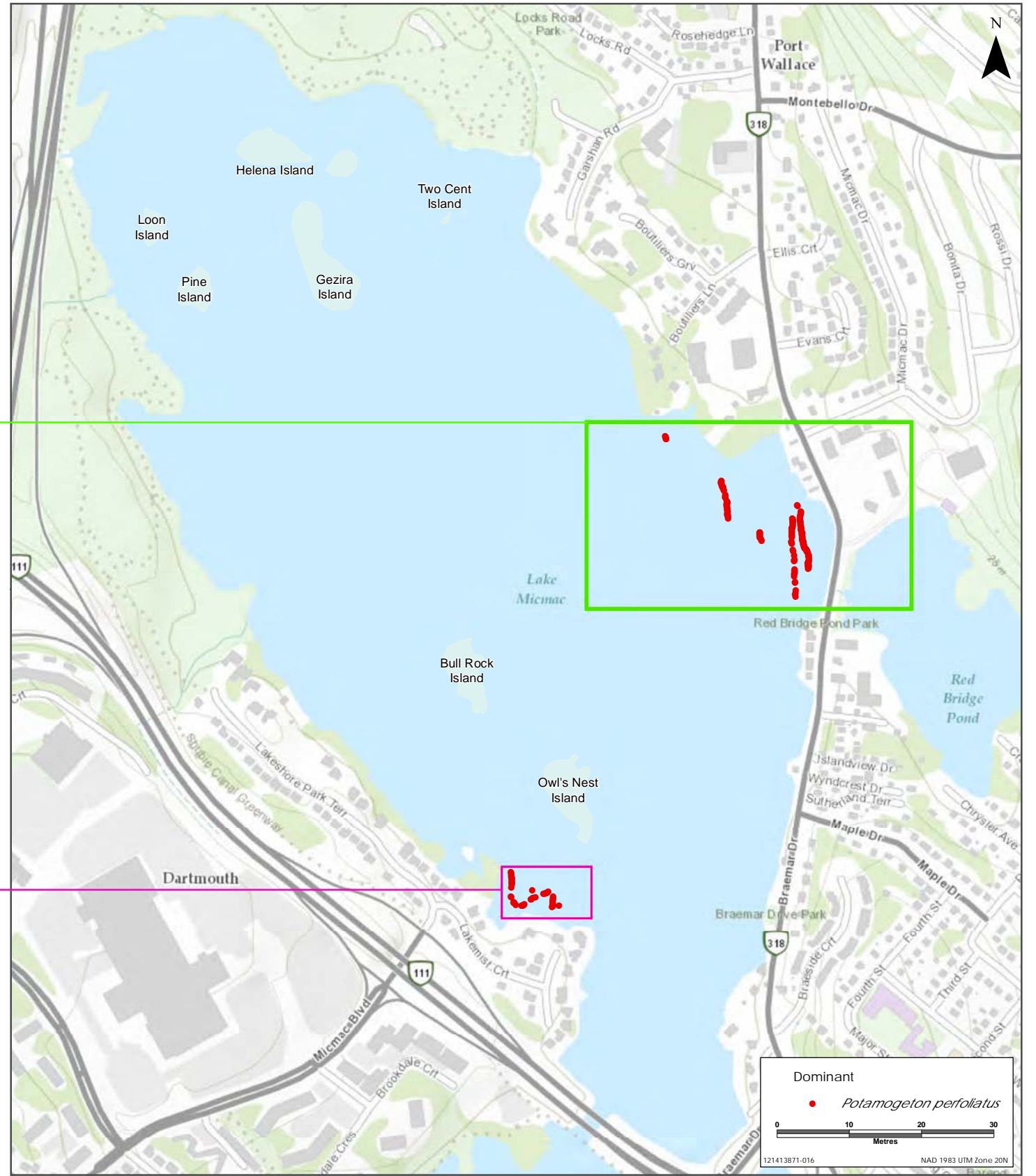


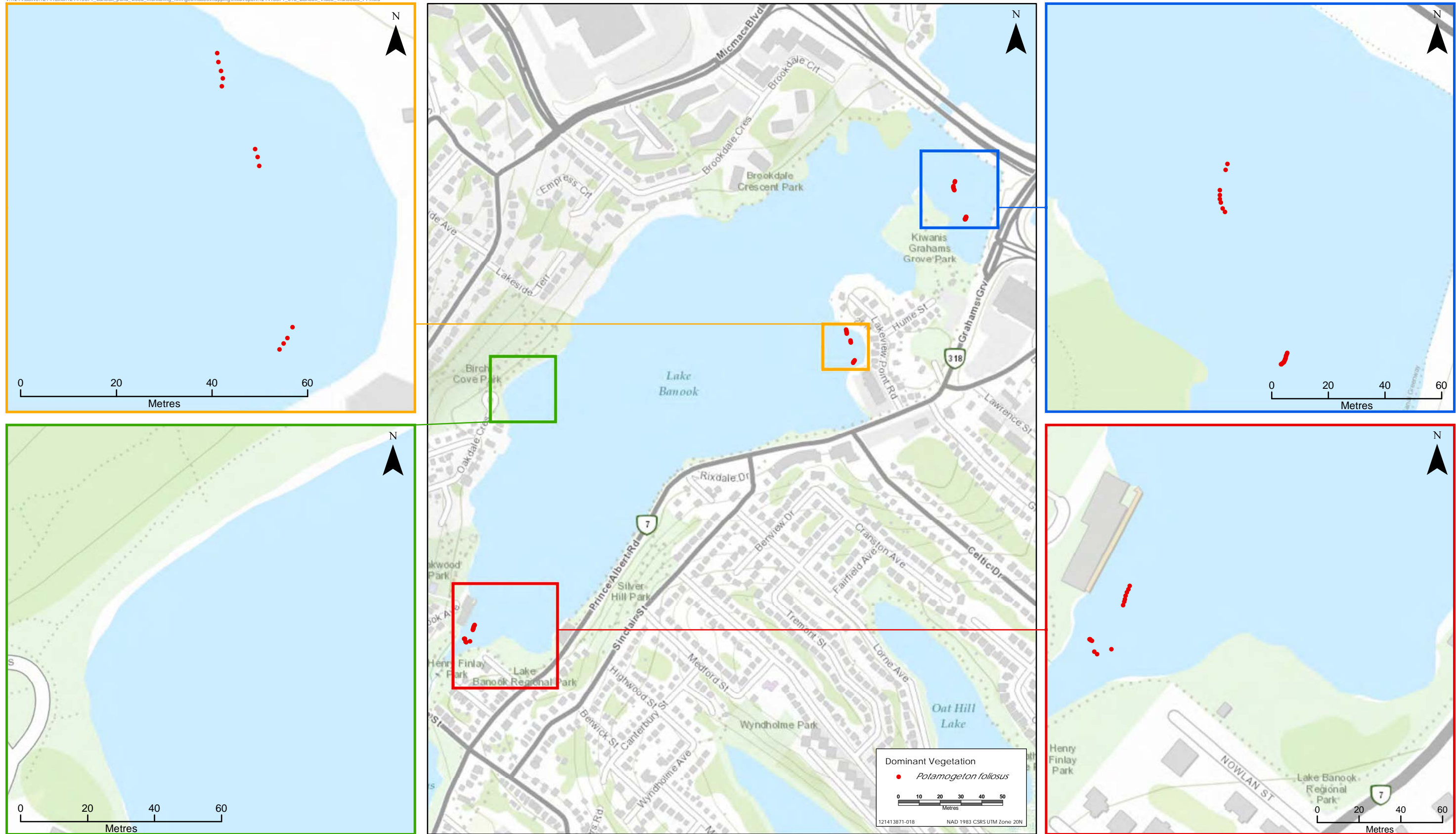
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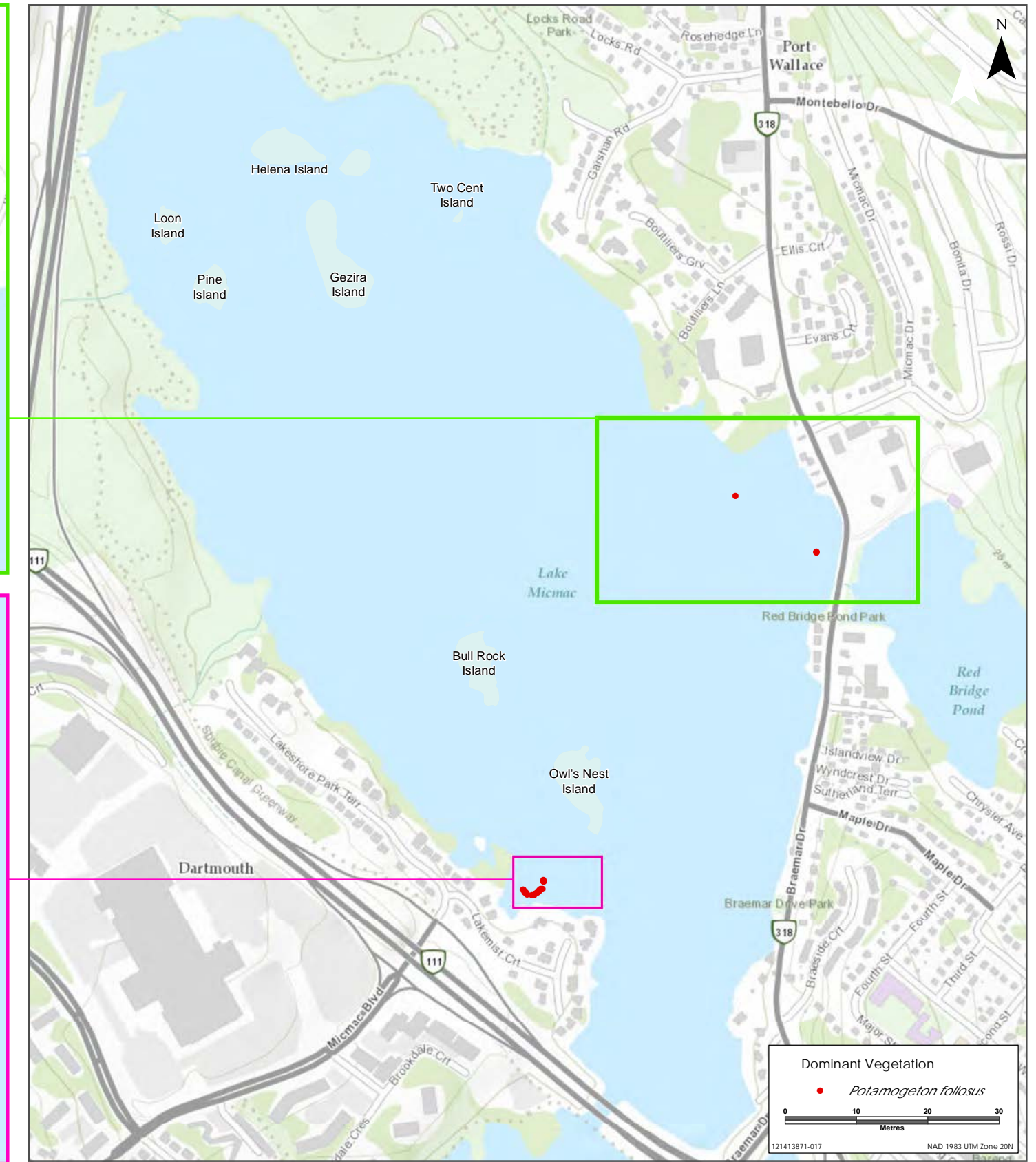
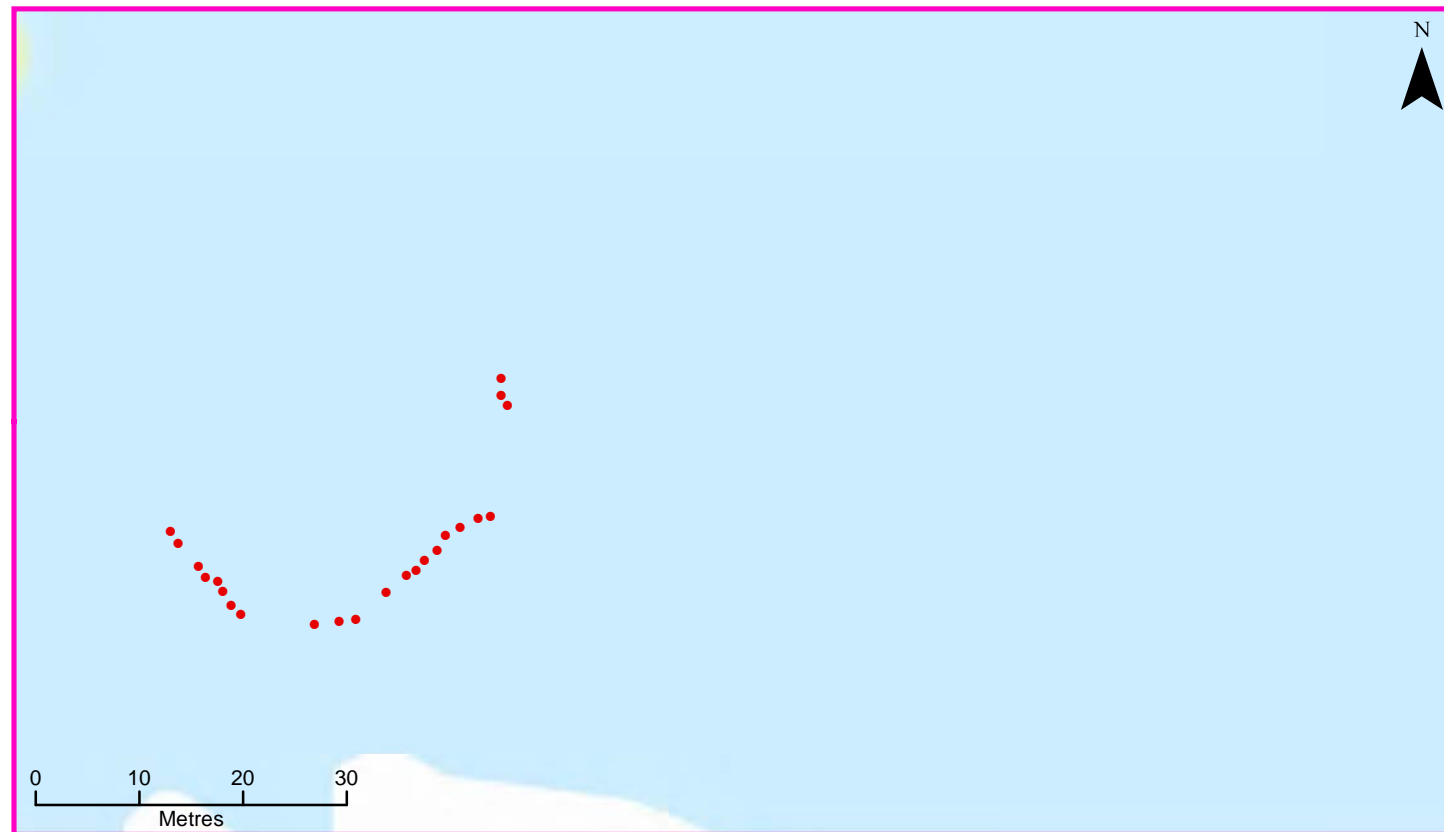
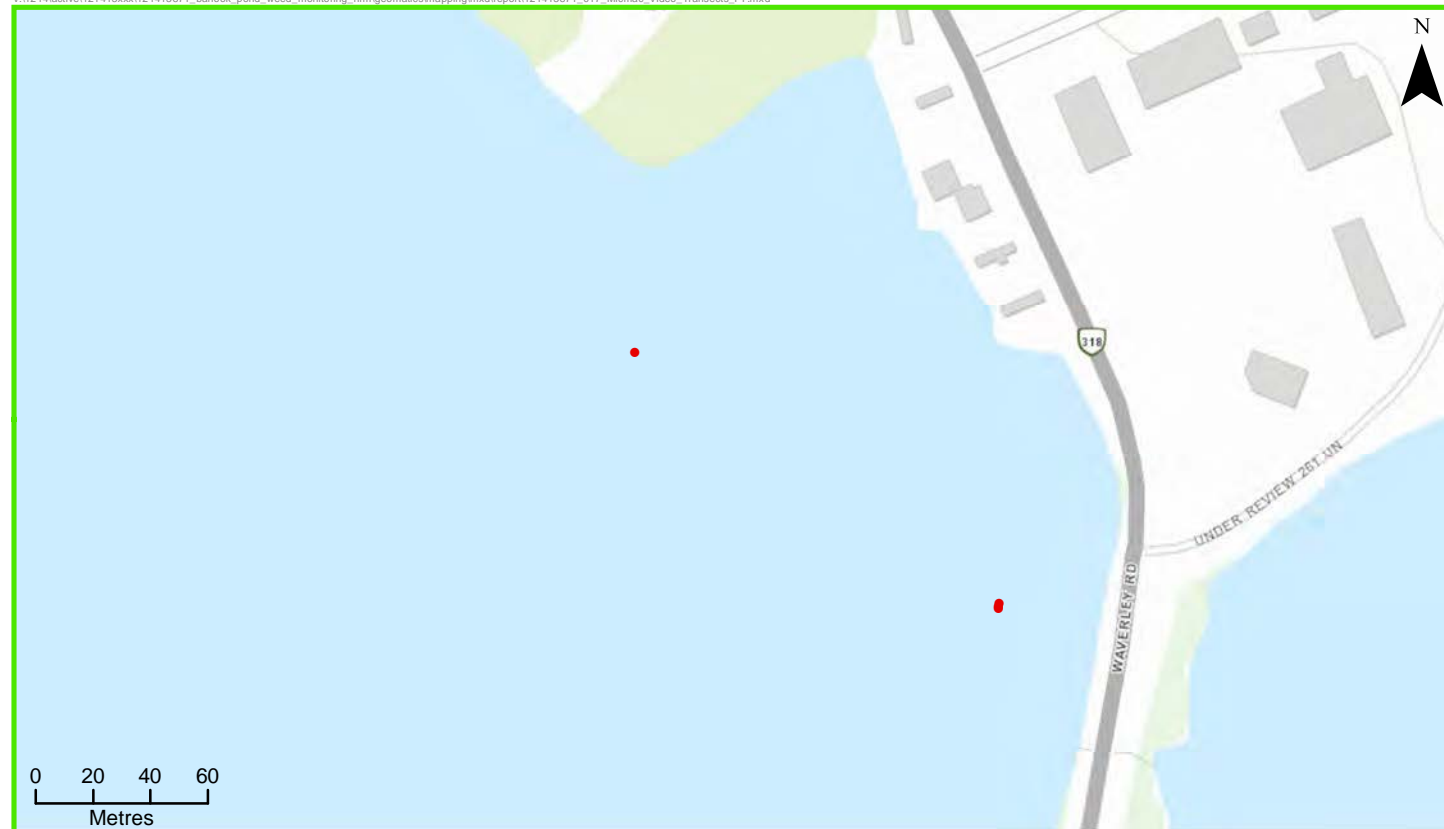
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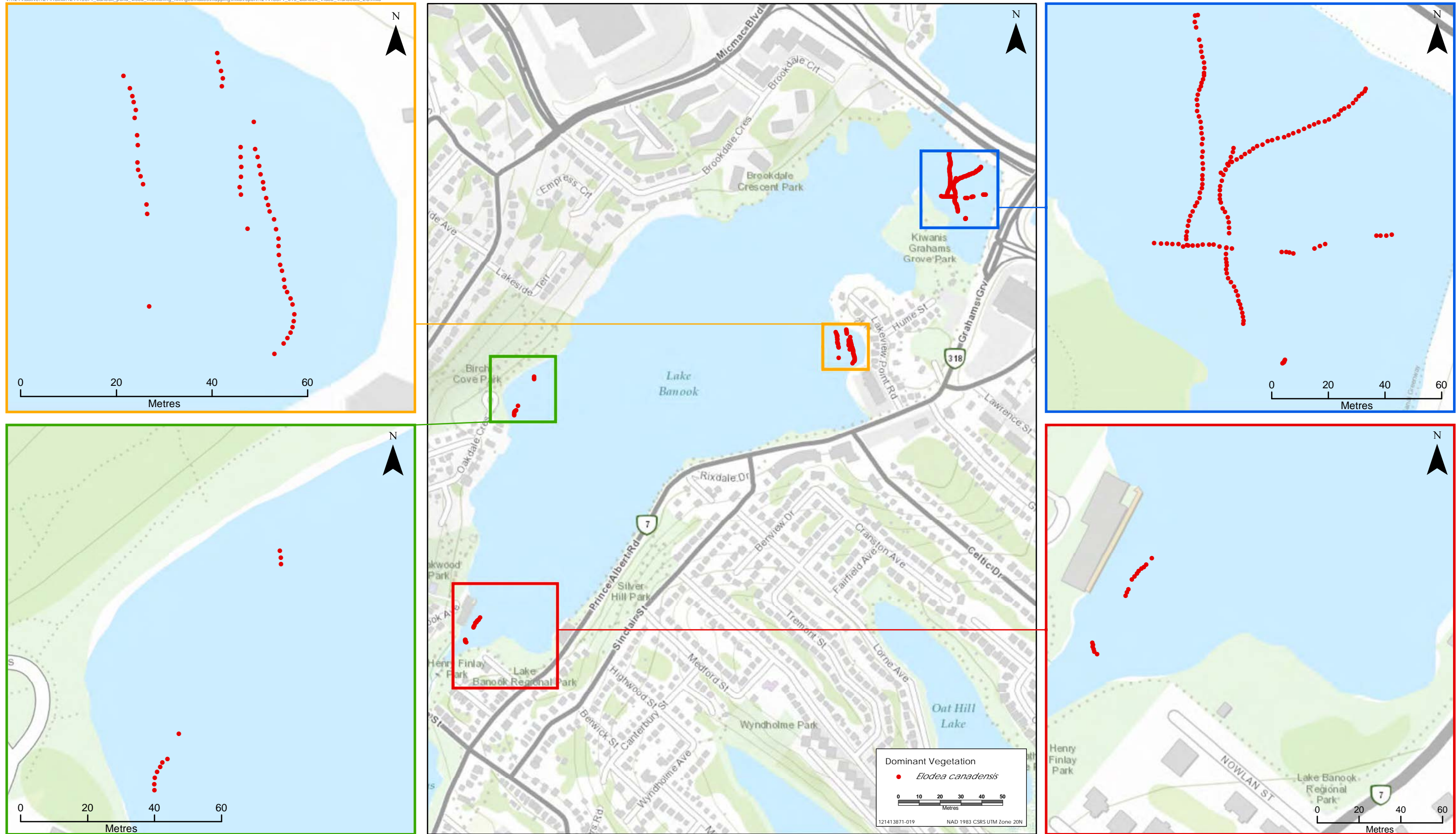


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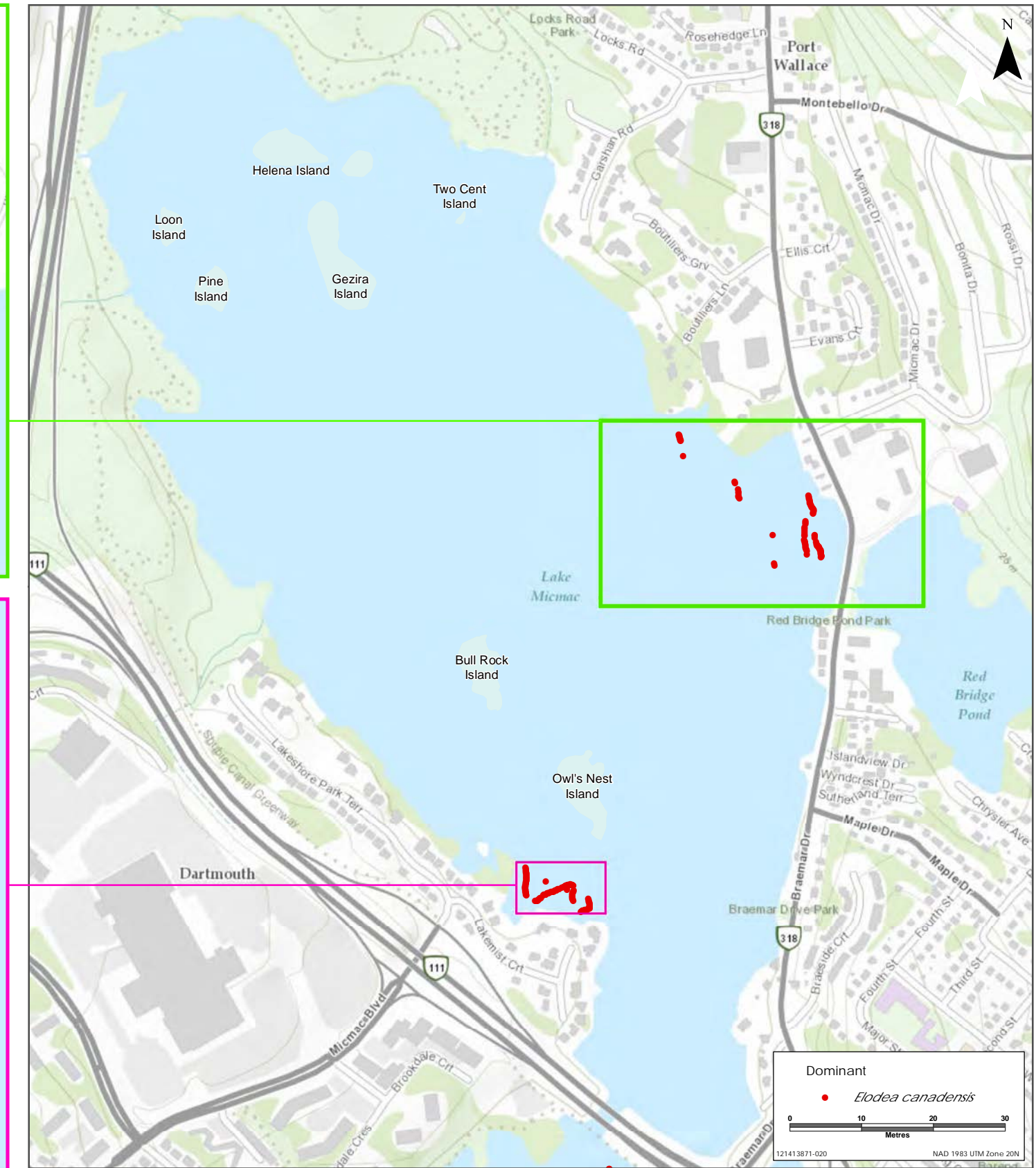
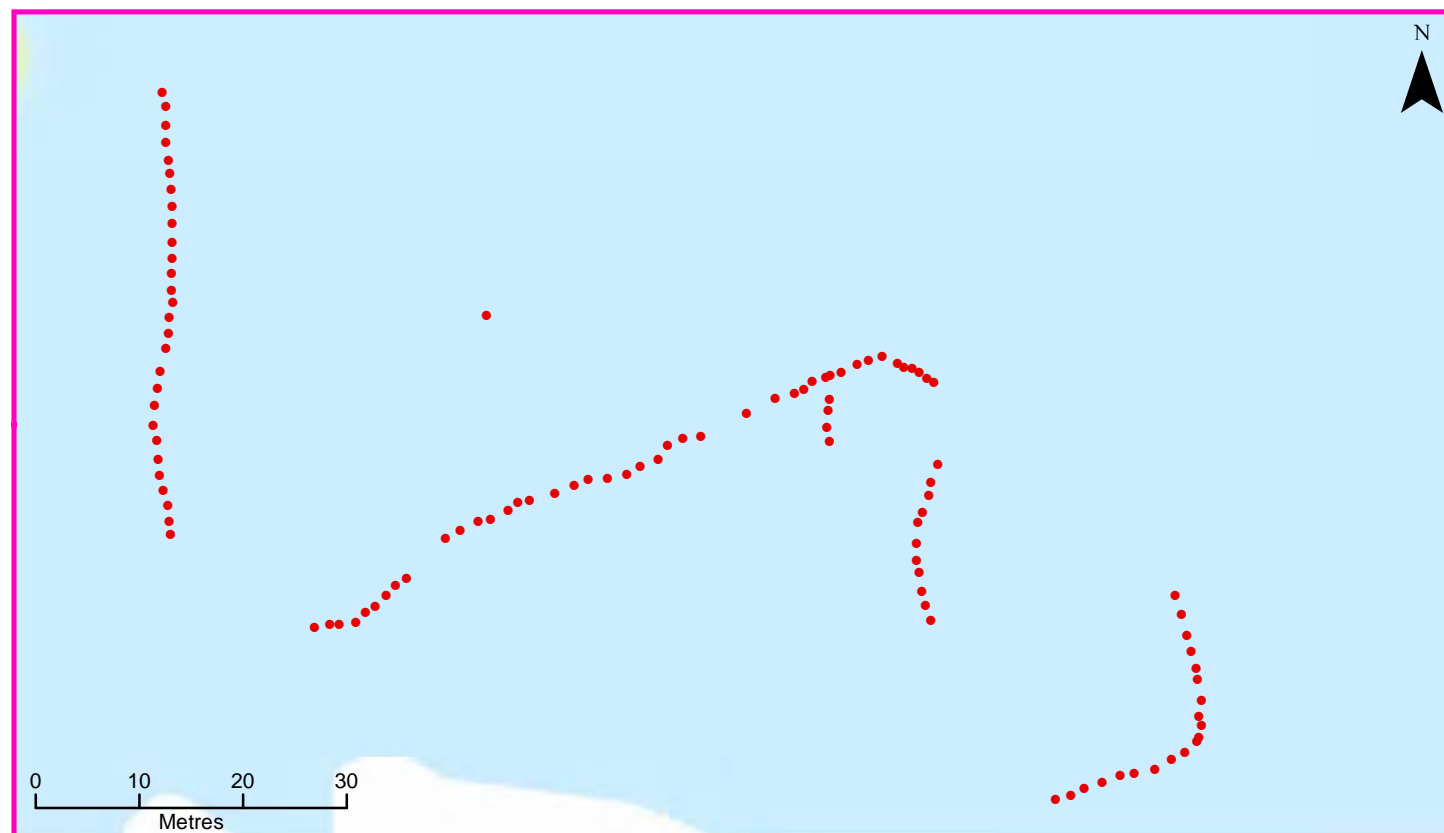
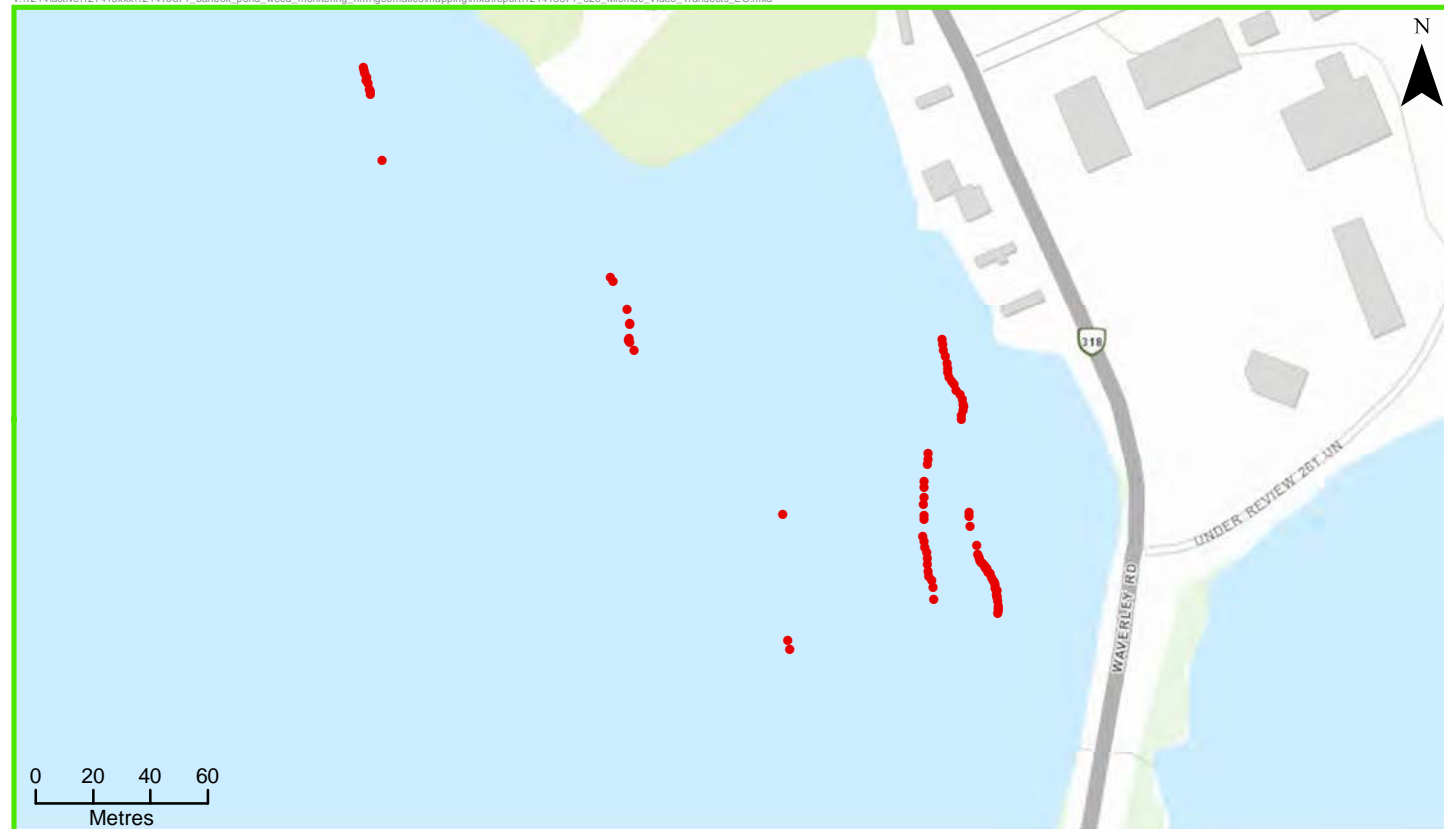


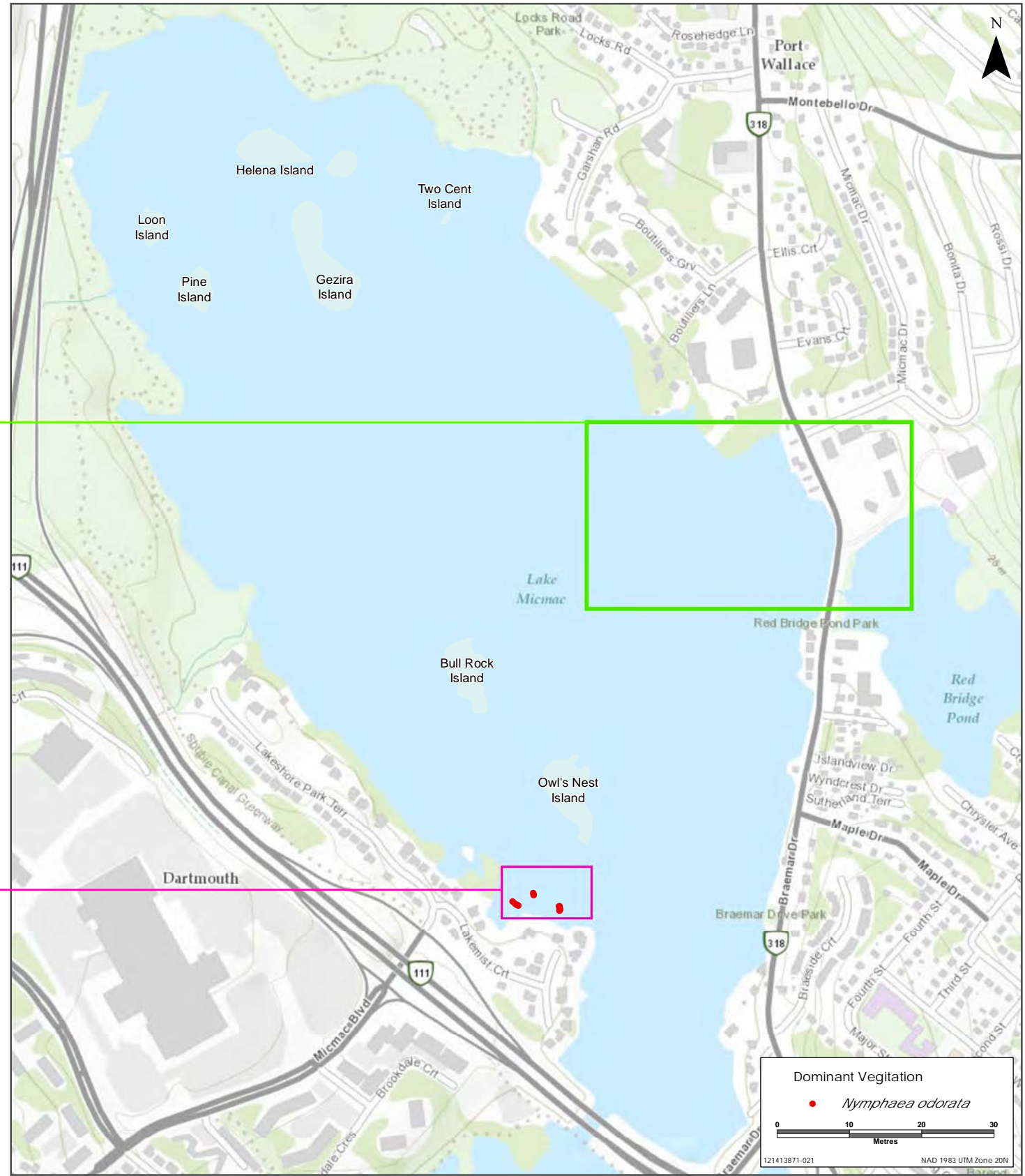
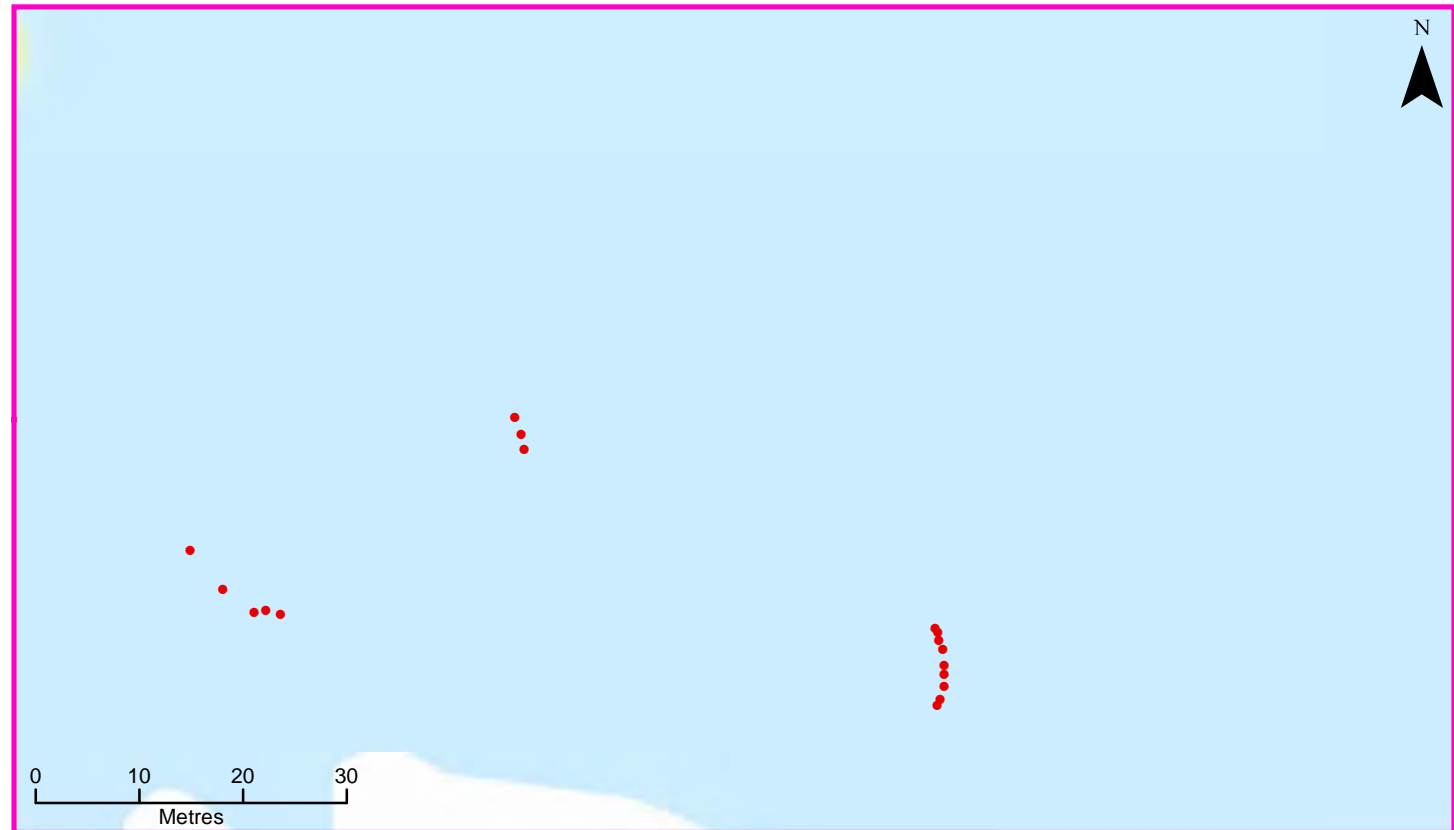






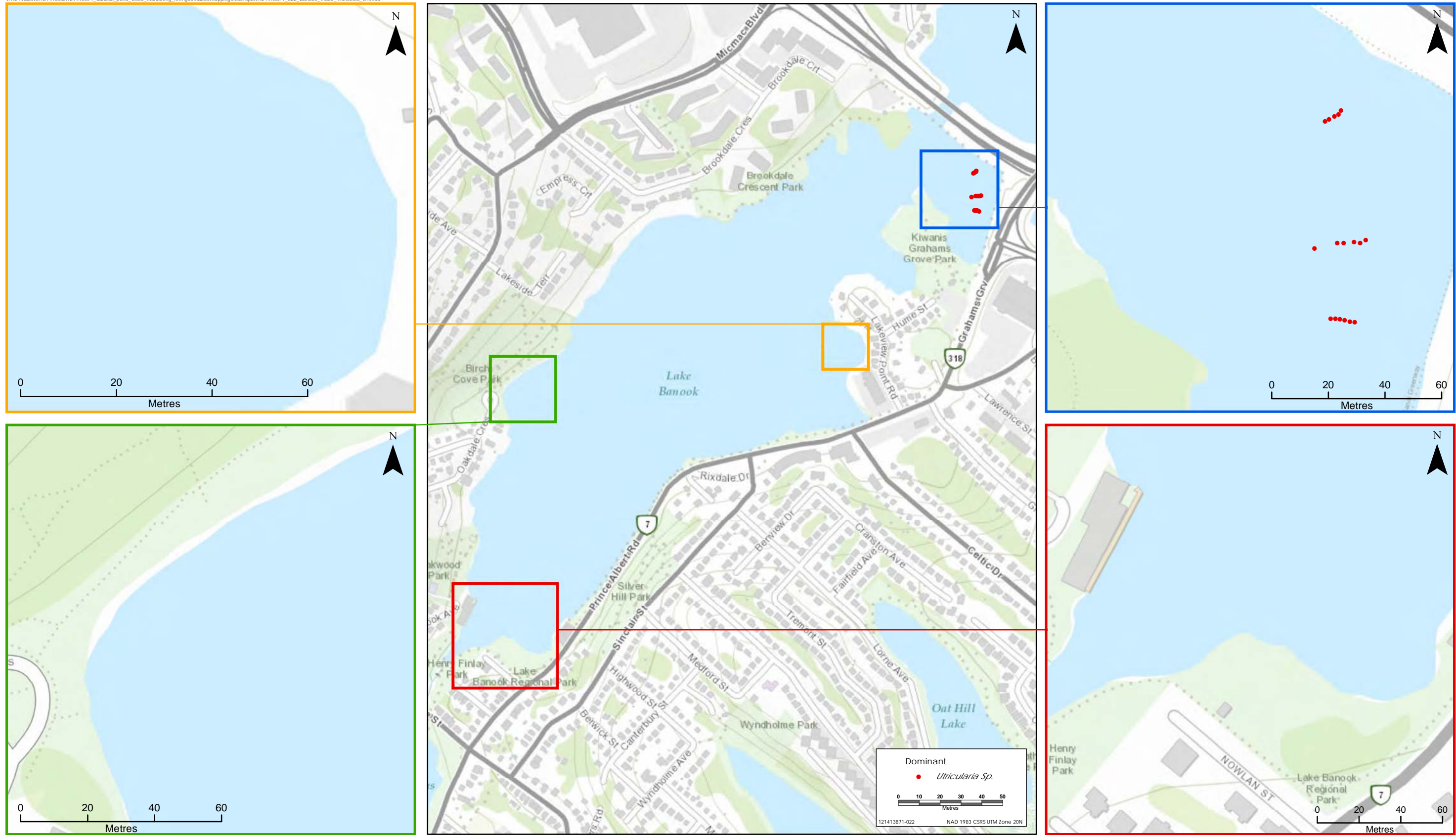






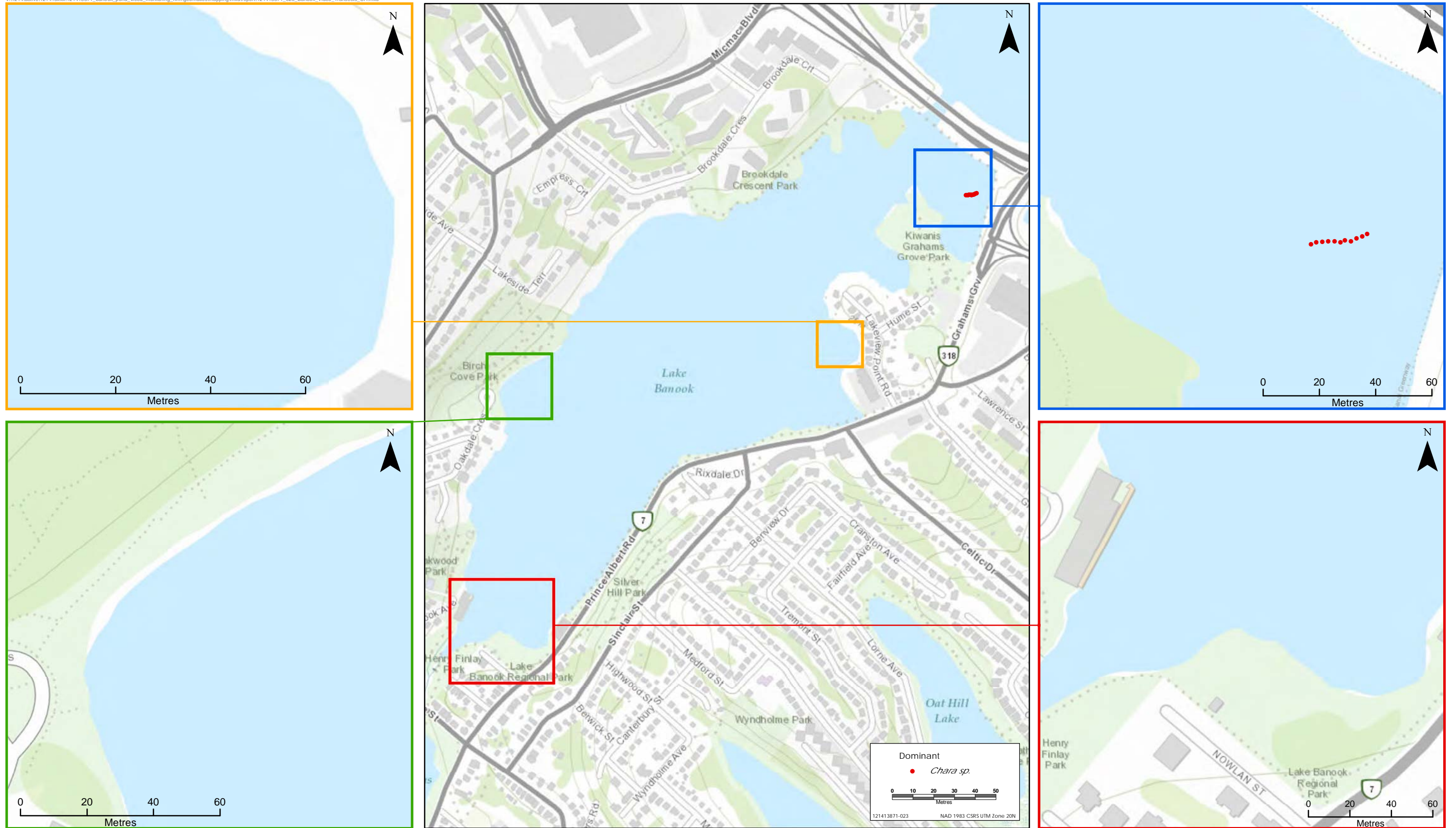
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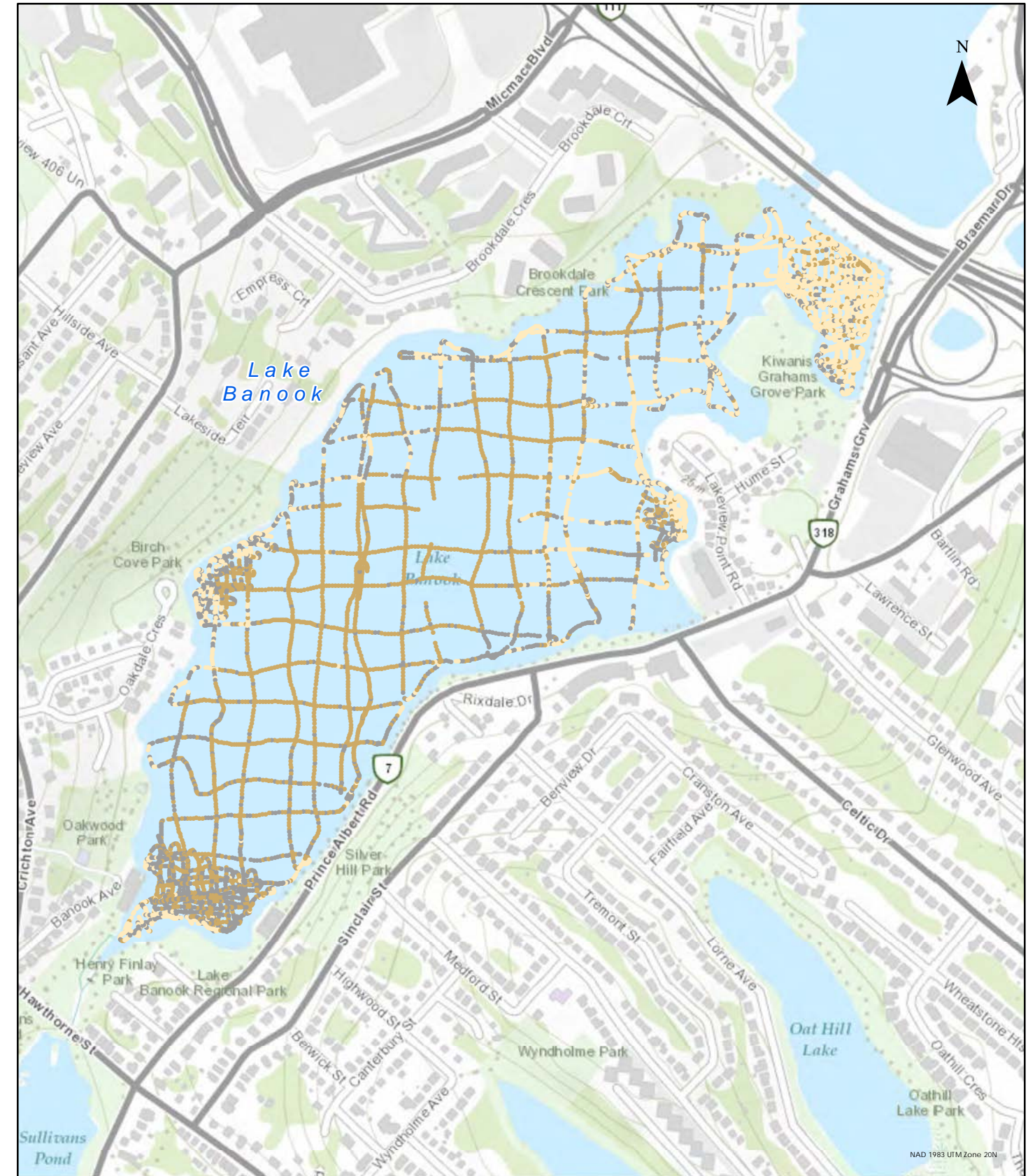
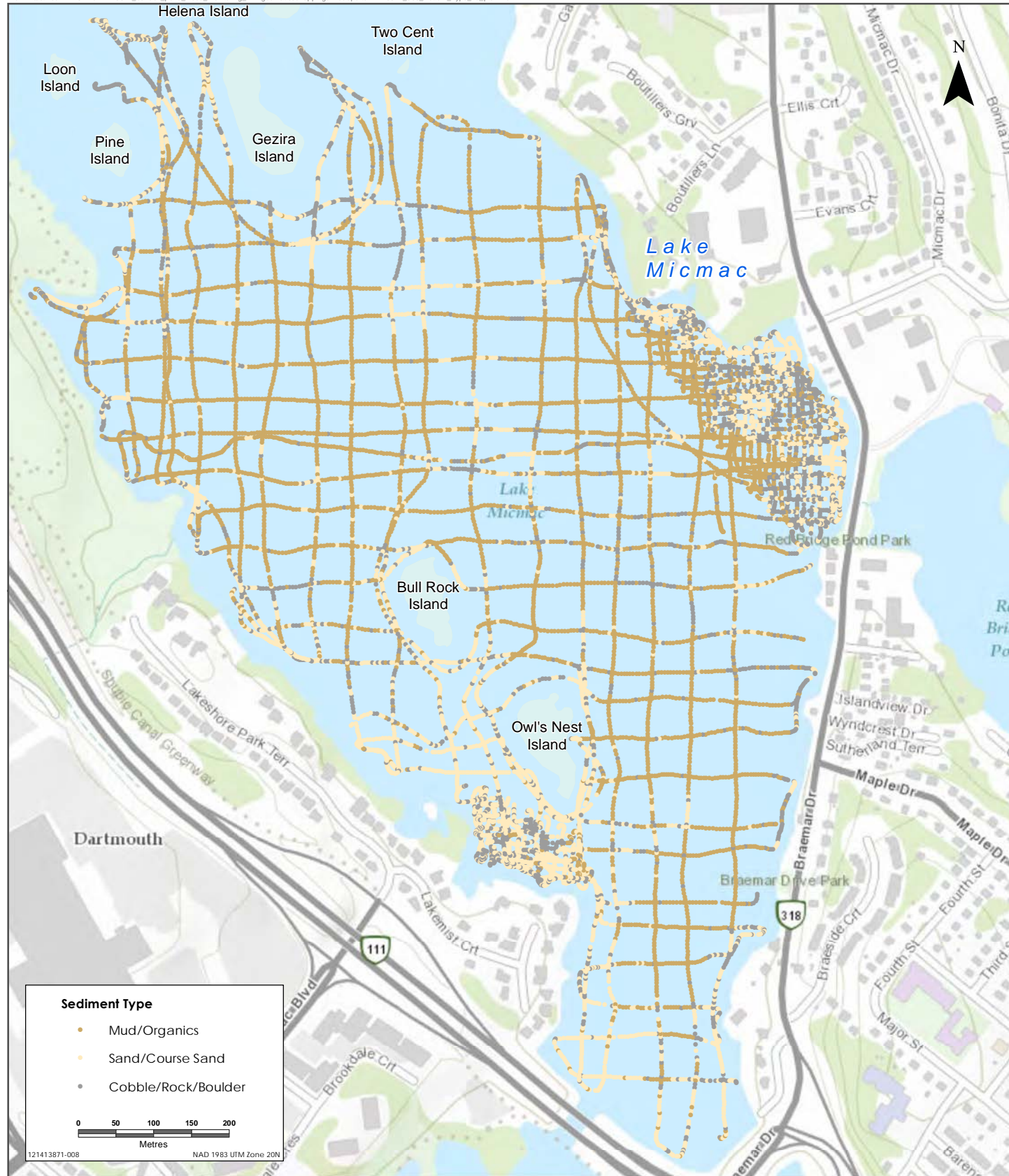
### 3.5 DISTRIBUTION OF SEDIMENT TYPES

Survey data were used to create sediment class mapping. Three types of sediment were identified within Lake Banook:

- Mud/organic detritus
- Sand/coarse sand
- Cobble/Rock/boulder

Refer to Figures 18 and 19 for field point and interpolated sediment type maps of Lake Banook and Lake Micmac. In Lake Banook, mud and organics dominated in water greater than 5 m in depth, but were also present in shallower areas. Sand/coarse sand as well as rock/cobble/boulder sediment types were more prevalent in shallow water depths, near shore, but were also present sporadically in deeper depths of the lake. The northeast section of the lake was dominated by sand and coarse sands, with minimal amounts of mud/organics and rock/cobble/boulder. The northwest shore of the lake was dominated by sand and cobble/rock/boulder substrates, while the southeast shore of the lake was dominated mainly by cobble/rock/boulder and mud/organics.

Similarly to Lake Banook, mud and organics dominate in water depths greater than 5 m and were present sporadically throughout Lake Micmac in shallower depths. The area directly south of Bulls Rock and Owl's Head Islands was dominated by sand and coarse sand substrate. The shoreline of the lake, with the exception of a portion of the western shore, was dominated by a sand/coarse sand and rock/boulder substrate.



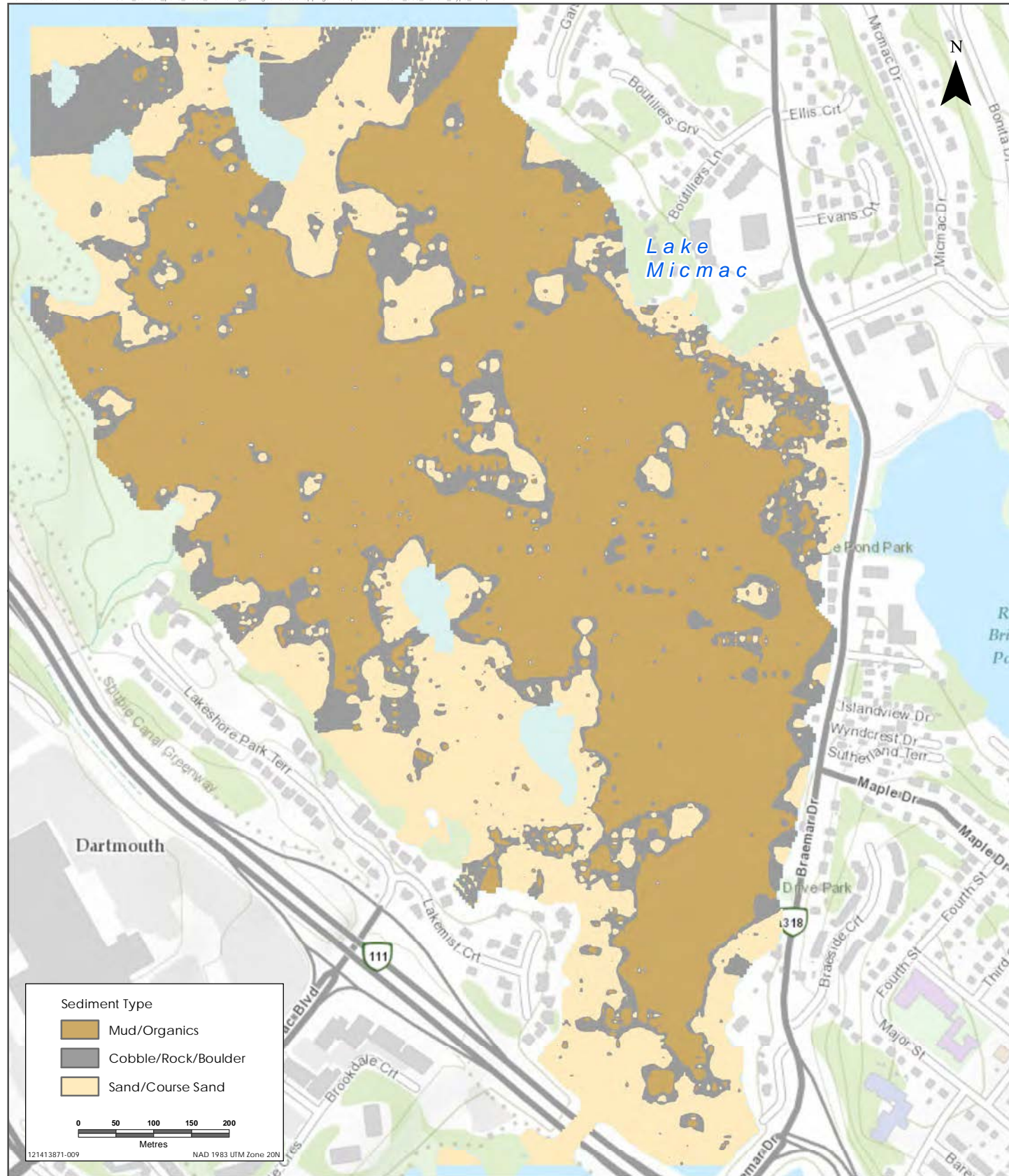
Sources: Base Data - Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Disclaimer: This map is for illustrative purposes to support this project; questions can be directed to the issuing agency



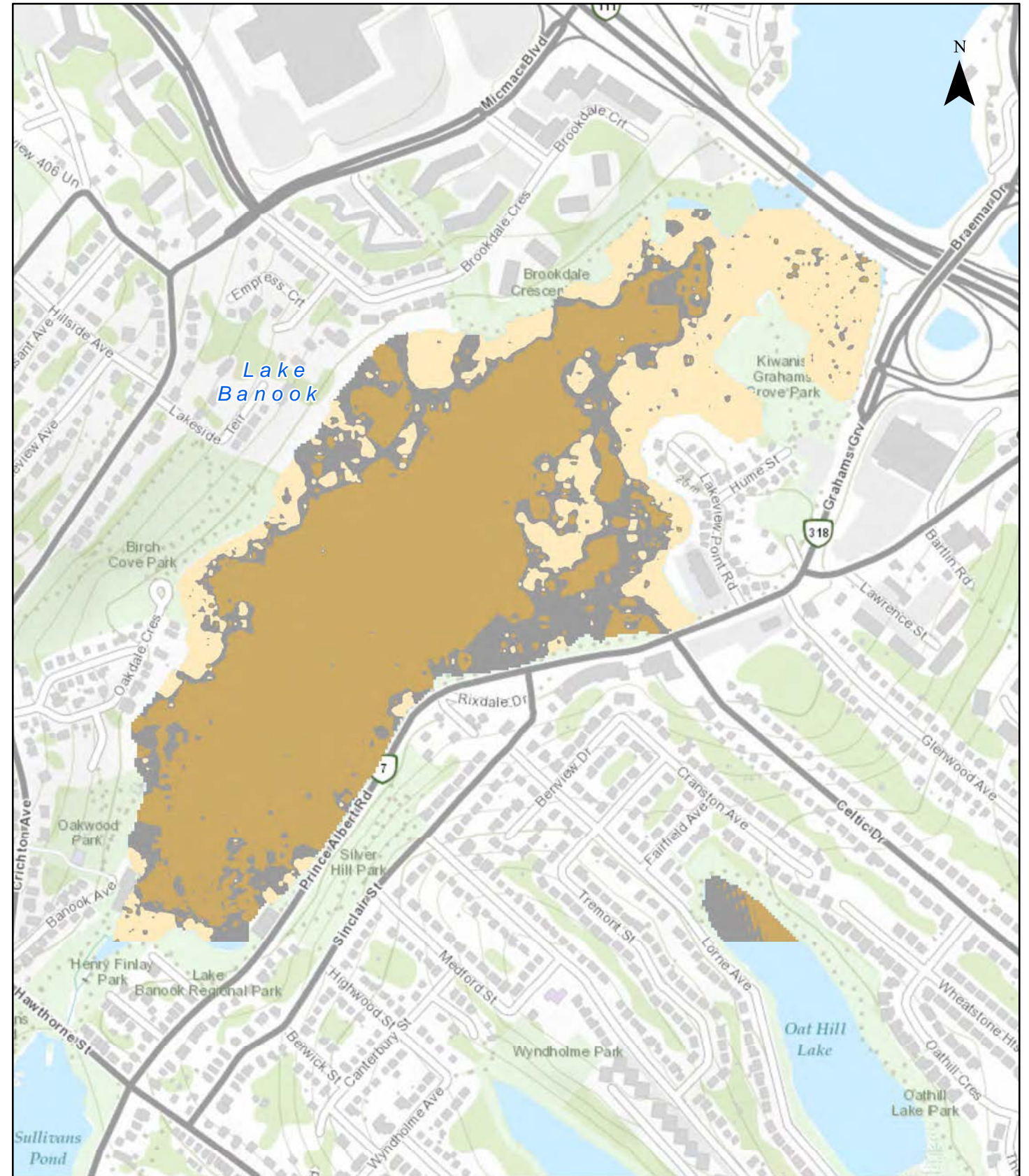
Lake Micmac Sediment Type – Field Points

Lake Banook Sediment Type – Field Points



Sources: Base Data - Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Lake Micmac Sediment Type - Interpolated



Disclaimer: This map is for illustrative purposes to support this project; questions can be directed to the issuing agency

Lake Banook Sediment Type - Interpolated

October 30, 2015

## 4.0 ASSESSMENT OF MECHANICAL WEED HARVESTING PERFORMANCE

As mentioned above, Halifax Regional Municipality directed staff to implement a short-term control of weeds in Lake Banook and Lake Micmac through contracted mechanical harvesting services, from August 18<sup>th</sup> to 28<sup>th</sup>, 2015. Harvesting occurred in targeted priority areas as seen in Figure 12. After harvesting was completed, Stantec conducted focused acoustic surveys within the high vegetation abundance areas in Lake Banook and Lake Micmac that were targeted by the weed harvesting contractor (Refer to Figure 1).

Days after initiation of SAV harvesting activities, the crew of the mechanical harvester was provided a GPS plotter to record their tracks while transiting Lakes Banook and Micmac; however, contrary to the advice provided by Stantec scientists they failed to accurately record the exact positions of when harvesting started and stopped at each discrete location. Additionally, field data records provided to HRM by the mechanical harvester field crew were not satisfactory to determine the precise position of harvesting efforts. As a result of these data gaps, Stantec field survey crews were not able to target discrete areas where confirmed SAV harvest activities occurred. As such, we are not able to provide confirmatory data to conclusively assess the performance of mechanical weed harvesting services provided to HRM in 2015.

### 4.1 LAKE BANOOK

Submerged aquatic vegetation coverage was analyzed in 2014 for Lake Banook by conducting generalized acoustic surveys in a 50-m grid pattern. In 2015 this survey was replicated in addition to adding focused acoustic surveys in target areas of the lake (10-m grid pattern). These acoustic surveys were used to create submerged aquatic vegetation percent coverage and vegetation canopy height mapping. Maps from 2014 are provided in Appendix A and which can be compared to the 2015 mapping presented above.

In general, survey results of the 2015 submerged aquatic vegetation coverage (Figure 7) depicted similar patterns to those found in the 2014 survey for Lake Banook (Stantec 2015b; Appendix A of this report). That being said, a few key differences are evident. The total area of SAV, 28.8 ha as found in the current study is virtually identical to the 29.5 ha observed in 2014 in Lake Banook (Stantec 2015b). Also, the cove south of Grahams Grove Park appears to have a smaller areal distribution and density in 2015 relative to the 2014 survey. A similar trend was also noted for the majority of the Paddler's Cove area (Figure 7). To a lesser degree, similar reductions in the areal distribution and density were also evident along the north-central shoreline of Lake Banook (Figure 7). Given only a discrete nearshore area of Paddler's Cove was subjected to the 2015 mechanical harvesting while the other two zones discussed were not, it is likely these inter-annual reductions in SAV areal distribution and density were not solely due to the 2015 mechanical harvesting efforts.



## LAKE BANOOK AND LAKE MICMAC 2015 AQUATIC VEGETATION MONITORING

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The two other targeted areas in Lake Banook, Birch Cove Park and the southern area of the lake near the canoe clubs, remain largely unchanged. Overall vegetation coverage in Lake Banook shows similar coverage patterns from 2014 to 2015, with an overall lesser amount of coverage in 2015.

Plant canopy heights in the targeted vegetation removal areas consisted of vegetation with canopy heights predominantly within the 0.25 m to 0.5 m height range. There were a few areas with plants heights larger than this in each area. When comparing the canopy height inside the harvesting area to those immediately outside the harvesting zone, there is no apparent large difference in height. This may be due to the fact that the majority of vegetation in the lake has canopy heights of 0.25 m to 0.5 m, with sporadic areas of taller vegetation. This holds true when comparing the 2015 data to the 2014 data in that the canopy heights are relatively unchanged from one year to the next in each of the target areas.

With respect to the condition of the substrate in the targeted areas compared to those that were not targeted, the harvester did not appear to disturb the substrate. Video indicates that the substrate is intact with no signs of disturbance as compared to substrate outside of the targeted areas. However, as mentioned above, due to the lack of suitable GPS data, Stantec field staff were not able to locate precise locations subjected to mechanical harvesting and therefore, cannot conclusively state there was no disturbance to the lake substrate.

Acoustic data also confirm this as there are no drastic changes in substrate types or conditions between targeted areas and those immediately outside the targeted zones. Furthermore, the substrate in the targeted zones did not differ greatly from 2014 to 2015. There are some subtle differences from 2014 to 2015, although this is likely due to an increase in data resolution from 2014 to 2015, allowing for more accurate interpolation of the acoustic data and not from a disturbance from the harvester.

### 4.2 LAKE MICMAC

With respect to Lake Micmac, there is no baseline data to quantify the area covered by aquatic weeds prior to harvesting activities initiated in August 2015. Further, the lack of reliable GPS data from the mechanical harvester crew did not permit a conclusive assessment of the performance of mechanical weed harvesting services provided to HRM in 2015.

Areas targeted by the mechanical harvester in Lake Micmac included portions of the eastern shore of the northern section of the lake, the area directly south of Owl's Head Island and the cove adjacent to Red Bridge Pond. Vegetation coverage in the cove adjacent to Red Bridge Pond and south of Owl's Head Island is relatively high compared other sections of the lake. Vegetation in these areas is however patchy, possibly due to the removal of vegetation by the harvester. With respect to vegetation canopy heights in these areas, canopy heights are relatively taller than the rest of the lake, especially in the cove adjacent to Red Bridge Pond. The greatest concentration of canopy heights over 2 m can be found here. In both the area south of Owl's Head Island and adjacent to Red Bridge Pond, tall canopy heights are interspersed

## LAKE BANOOK AND LAKE MICMAC 2015 AQUATIC VEGETATION MONITORING

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among average heights of 0.25 m to 0.5 m, indicating that the harvester likely removed portions of vegetation from these areas, thus reducing vegetation heights.

With respect to the condition of the substrate in the targeted areas compared to those that were not targeted the harvester did not appear to disturb the substrate. Video indicates that the substrate is intact with no obvious signs of disturbance as compared to substrate outside of the targeted areas. However, as mentioned above, due to the lack of suitable GPS data, Stantec field staff were not able to locate precise locations subjected to mechanical harvesting and therefore, cannot conclusively state there was no disturbance to the lake substrate. Acoustic data also confirm this observation as there are no drastic changes in substrate types or conditions between targeted areas and those immediately outside the targeted zones.

### 5.0 CONCLUSIONS

From September 7<sup>th</sup> to 11<sup>th</sup>, 2015, Stantec collected acoustic and underwater video data from Lake Banook and Lake Micmac, Dartmouth, Nova Scotia. This work was in support of an ongoing vegetation monitoring and removal project. The processing of these data were used to create maps of bathymetric and submerged aquatic vegetation (SAV) conditions within Lake Banook and Lake Micmac to monitor the chosen method of SAV control (mechanical harvesting) as well as to establish a baseline against which to monitor the success of the method in Lake Micmac.

A total of 18 figures were generated from the survey conducted by Stantec:

- Lake Banook and Lake Micmac Sample Point Locations
- Bathymetry of Lake Banook and Lake Micmac – Field Points
- Bathymetry of Lake Banook and Lake Micmac– Interpolated
- Submerged Aquatic Vegetation Coverage of Lake Banook and Lake Micmac – Field Points
- Submerged Aquatic Vegetation Coverage of Lake Banook and Lake Micmac – Interpolated
- Submerged Aquatic Vegetation Canopy Height of Lake Banook and Lake Micmac – Field Points
- Submerged Aquatic Vegetation Canopy Height of Lake Banook and Lake Micmac – Interpolated
- Distribution of Vegetation Species along Select Transects in Targeted Harvest Areas in Lake Banook and Lake Micmac
- Lake Banook and Lake Micmac Sediment Type – Field Points
- Lake Banook and Lake Micmac Sediment Type – Interpolated

Overall, the water depth in Lake Banook ranges from 0 m to 11.6 m. On average, the northeast section of the lake is relatively shallow (1 to 2 m) as compared to the southwest portion of the lake, which has an average depth of 5 to 8 m. Aquatic vegetation can be found in depths ranging from 0 to 5 m with areas of high density vegetation growth in nearshore areas of the lake dominated by sand or rock/boulder substrate types. Large areas of high density vegetation coverage can also be found in the shallow areas of the northern and eastern sections of the



## LAKE BANOOK AND LAKE MICMAC 2015 AQUATIC VEGETATION MONITORING

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lake. Vegetation heights ranged from 0.25 m to > 2.5 m. The majority of vegetation fell within the height range of 0.25 m to 0.5 m, with discrete areas of high canopy heights being predominantly found in the northeast section of the lake. Mud and organic detritus dominate in water depths above 5 m, with sand and rock/boulders dominant in the shallower and nearshore waters.

In Lake Micmac, the water depth ranges from 0 m to 7.5 m, with the deepest sections of the lake centrally located. The northern portion of the lake is relatively shallow with depths of 0 to 2 m. Similar to Lake Banook, aquatic vegetation can be found in depths ranging from 0 to 5 m. Large areas of high density vegetation coverage can be found in northern sections of the lake, adjacent to Red Bridge Pond, south of Owls Head and Bulls Rock Islands, as well as in the southern portion of the lake. The majority of vegetation canopy heights fall within the range of 0.25 to 0.5 m. Compared to Lake Banook, canopy heights in Lake Micmac are greater with concentrations of vegetation with canopy heights greater than 1 m being found in the same areas of high coverage. Sediments in the lake are dominated by mud and organic detritus at depths greater than 5 m. Areas south of Bulls Rock and Owl's Head Island are dominated by sand substrates. The shoreline of the lake is dominated by sand and rock/boulder substrates.

Submerged aquatic vegetation coverage mapping of Lake Banook for 2014 and 2015 indicate similar trends with similar areas depicting high and low percent cover by vegetation. Interpolated submerged vegetation mapping from 2015 compared to mapping created from the 2014 surveys shows a decreased amount of vegetation data in two of the targeted harvest areas; however, it is likely these inter-annual reductions in SAV areal distribution and density were not solely due to the 2015 mechanical harvesting efforts. Overall vegetation coverage in Lake Banook shows similar coverage patterns from 2014 to 2015, with an overall lesser amount of coverage in 2015. When comparing the canopy height inside the harvesting areas to those immediately outside the harvesting zones, there is no apparent large difference in height. This holds true when comparing the 2015 data to the 2014 data in that the canopy heights are relatively unchanged from one year to the next in each of the target areas.

With respect to Lake Micmac, vegetation coverage in the cove adjacent to Red Bridge Pond and south of Owl's Head Island is patchy, possibly due to the removal of vegetation by the harvester. In both the area south of Owl's Head Island and adjacent to Red Bridge Pond, tall canopy heights are interspersed among average heights of 0.25 m to 0.5 m, indicating that the harvester likely removed portions of vegetation from these areas, thus reducing vegetation heights. However, as mentioned previously, we cannot conclusively state this was the case due to sparse GPS data provided by the mechanical harvesting field crew

With respect to the condition of the substrate in the targeted areas compared to those that were not targeted, the harvester did not appear to disturb the substrate. Video indicates that the substrate is intact with no obvious signs of disturbance as compared to substrate outside of the targeted areas. Hydroacoustic data also confirm this as there are no drastic changes in substrate types or conditions between targeted areas and those immediately outside the targeted zones. However, as mentioned previously, we cannot conclusively state there was no

## LAKE BANOOK AND LAKE MICMAC 2015 AQUATIC VEGETATION MONITORING

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disturbance to the lake substrate due to sparse GPS data provided by the mechanical harvesting field crew.

In summary, the distribution and percent cover of the common species *P. perfoliatus*, *P. foliosus*, and *E. canadensis* observed in 2015 validate the assumptions of previous studies (Stantec 2014, 2015) regarding the distribution and identity of the excessive growth of these submerged aquatic vegetation species. As such, these findings do not suggest the need to alter the current HRM plan to conduct targeted harvesting of these three species.

October 30, 2015

### 6.0 LITERATURE CITED

Gleason, H.A. and A. Cronquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*. Second Edition. New York Botanical Garden, NY.

Munro, M.C.; R.E. Newell; and N.M. Hill. 2014. *Nova Scotia Plants*. Available at: <https://ojs.library.dal.ca/NSM/pages/view/Plants>

Sabol, B. M., R.E. Melton, R. Chamberlain, P. Doering and K. Haunert. 2002. Evaluation of a digital echo sounder system for detection of seagrass. *Estuaries* 25:133-141.

Sabol, B.M., J. Kannenberg, and J.G. Skogerboe. 2009. Integrating acoustic mapping into operational aquatic plant management: a case study in Wisconsin. *Journal of Aquatic Plant Management* 47: 44-52

Stantec Consulting Ltd. 2014. *Assessment of Aquatic Vegetation Overgrowth in Lake Banook. Development of Mitigation Alternatives*. 42 pp. + Appendices.

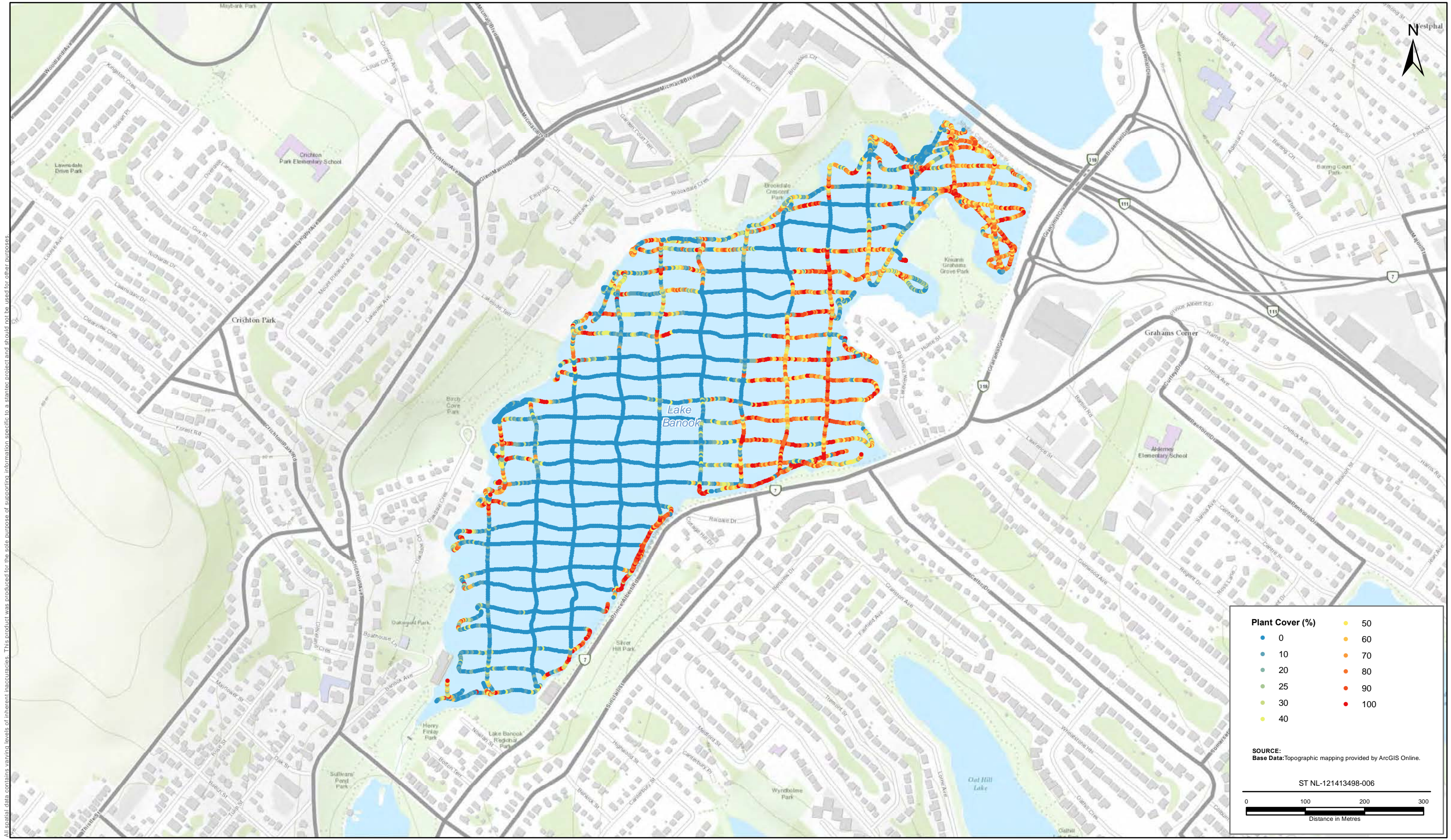
Stantec Consulting Ltd. 2015a. *Opportunities for the Reduction of Sediment Delivery to Lake Banook*. 41 pp. + Appendices.

Stantec Consulting Ltd. 2015b. *Lake Banook 2014 Bathymetry and Aquatic Vegetation Data Processing*. 16 pp.

# LAKE BANOOK AND LAKE MICMAC 2015 AQUATIC VEGETATION MONITORING

October 30, 2015

## APPENDIX A: 2014 VEGETATION MAPPING



All spatial data contains varying levels of inherent inaccuracies. This product was produced for the sole purpose of supporting information specific to a stantec project and should not be used for other purposes.

**Plant Cover (%)**

● 0	● 50
● 10	● 60
● 20	● 70
● 25	● 80
● 30	● 90
● 40	● 100

**SOURCE:**  
Base Data: Topographic mapping provided by ArcGIS Online.

ST NL-121413498-006

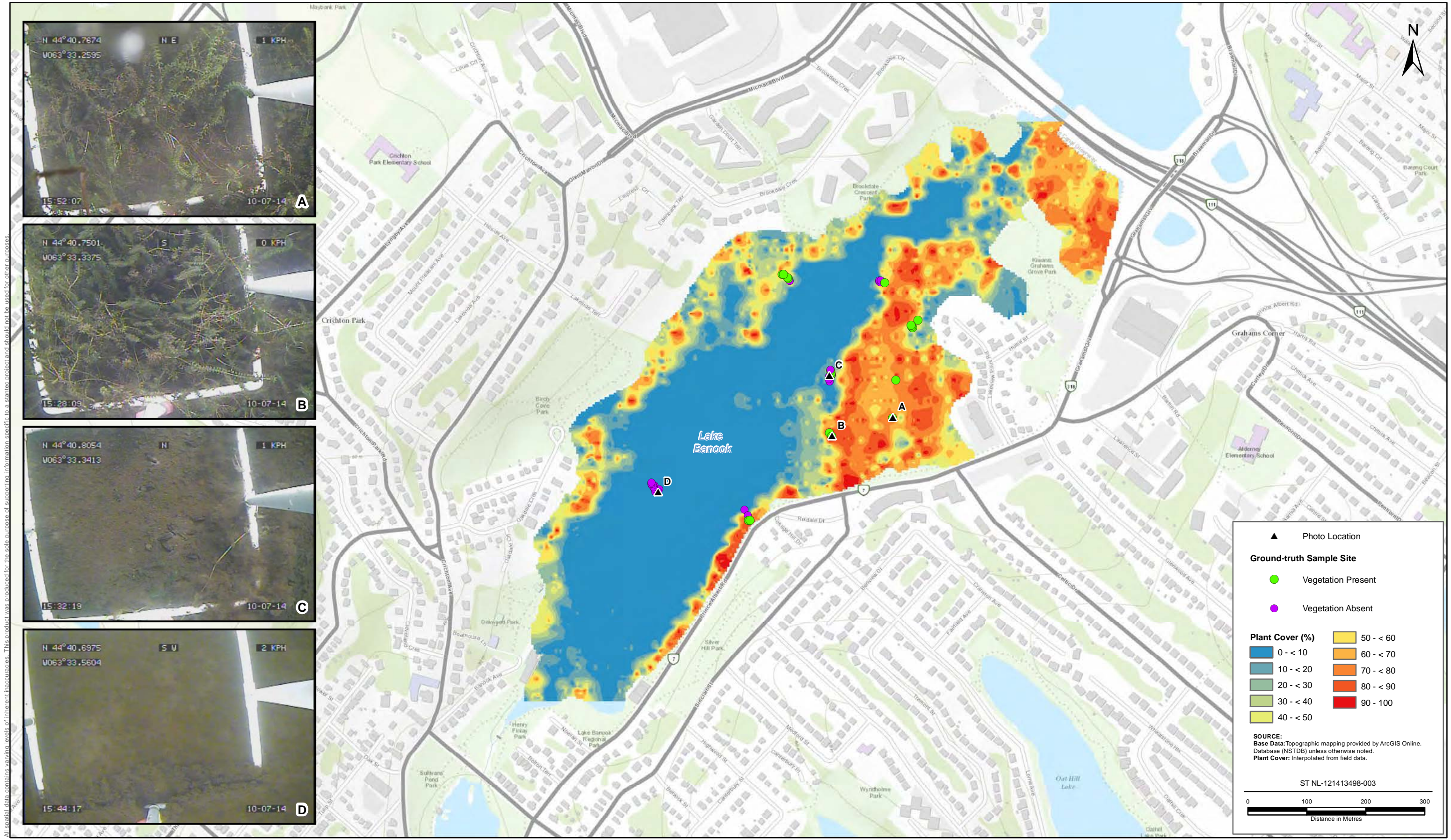
0 100 200 300  
Distance in Metres

PREPARED BY:	H Ward
REVIEWED BY:	C Shupe
CLIENT:	Halifax Regional Municipality

Banook Lake Weed Study

**Submerged Aquatic Vegetation Coverage of Lake Banook – Field Points**

FIGURE NO.:	
DATE:	May 19, 2015



All spatial data contains varying levels of inherent inaccuracies. This product was produced for the sole purpose of supporting information specific to a stantec project and should not be used for other purposes.

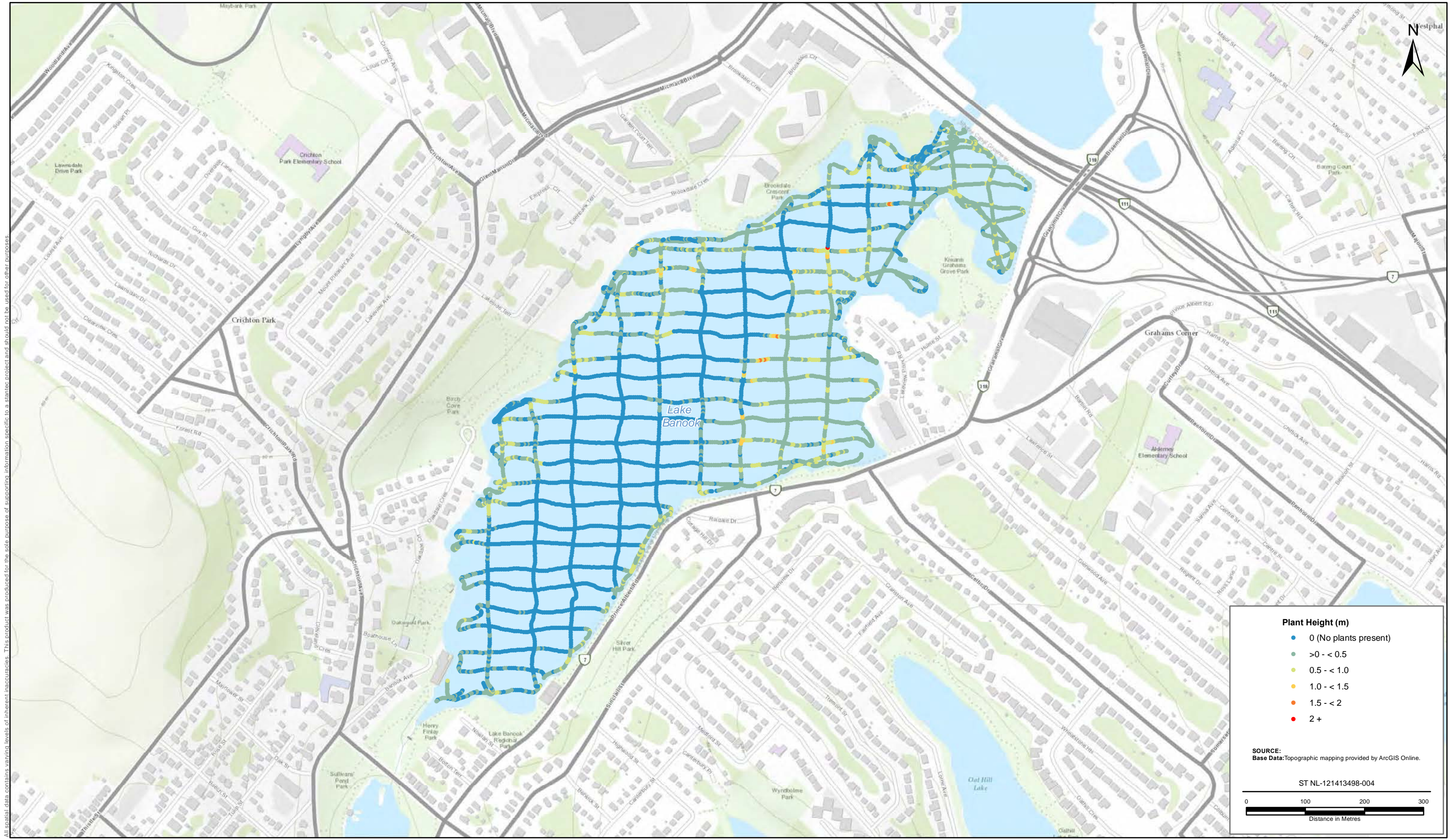
PREPARED BY:	H Ward
REVIEWED BY:	C Shupe
CLIENT:	Halifax Regional Municipality

Banook Lake Weed Study

**Lake Banook Percent Plant Cover & Ground-truth Sample Sites**

FIGURE NO.:	
DATE:	May 19, 2015





All spatial data contains varying levels of inherent inaccuracies. This product was produced for the sole purpose of supporting information specific to a stantec project and should not be used for other purposes.

PREPARED BY:	H Ward
REVIEWED BY:	C Shupe
CLIENT:	Halifax Regional Municipality

Banook Lake Weed Study

**Submerged Aquatic Vegetation Canopy Height – Field Points**

FIGURE NO.:	
DATE:	May 19, 2015

REQUEST FOR PROPOSAL

Weed Harvest Monitoring Services

RFP #15-347

Closing: Thursday, November 12, 2015 at 2:00 pm local time.

NOTE: A non-mandatory information session/site meeting will be held on Thursday, October 29, 2015 at 10:00 am. Interested parties are asked to meet on the 6<sup>th</sup> Floor of the Office Tower, Alderney Gate, 40 Alderney Drive, Dartmouth.

Halifax Regional Municipality  
Procurement Section  
Suite 103, 1<sup>st</sup> Floor,  
40 Alderney Dr. (Alderney Gate),  
Dartmouth Nova Scotia  
B2Y 2N5

October 21, 2015

NOTICE

REQUEST FOR PROPOSAL #15-347

\*\*\*\*\*

The Halifax Regional Municipality (“the Municipality”, also “HRM”) is seeking proposals from qualified individuals/ firms to develop a weed harvest monitoring strategy and annual weed harvest monitoring plans, secure and manage regulatory approvals for weed harvesting activities, and assist the municipality in preparing weed harvesting contractual materials. These services are intended to support planned mechanical weed harvesting in Lake Banook and Lake Micmac during spring and summer 2016, 2017, and 2018.

HRM was formed in 1996 by the amalgamation of Halifax, Dartmouth, Bedford, and Halifax County. Planning and Development is one of eleven (11) business units that comprise the municipality’s administration, and is responsible for the development, administration, and enforcement of municipal planning policies, including all related compliance activities. Energy & Environment, a division within Planning and Development, is responsible for the administration of aquatic science programs and projects, including the project addressed here.

Nuisance aquatic weed growth in Lake Banook and Lake Micmac was reported to the municipality in 2009 and 2010. Subsequent public engagement exercises regarding the effects of the weeds and professional assessment of possible resolutions resulted in Regional Council’s direction to staff to implement the short term control of weed management on Lake Banook and Lake Micmac through contracted mechanical harvesting services. These services are intended to deliver an interim control on the impacts of nuisance weeds while staff investigate and develop long-term controls on the ultimate causes for weed growth (i.e., sustained phosphorus loading into the lakes).

Lake Banook and Lake Micmac uniquely serve as a regional recreational asset for the municipality, as the home of four boating clubs, a regular site of training and demonstration events, and frequent host to regional, national, and international paddling, rowing, and other sporting events. Weed harvesting and associated services are required at these lakes to protect the regional recreational asset.

In 2015, weed harvesting and weed harvest monitoring contracts were issued to local vendors. Work performed through these arrangements, for a single harvesting event, indicates that weed harvesting, management, and disposal can successfully be conducted within Lake Banook and Lake Micmac by removing weeds within designated harvest areas without disruption to boating activities while remaining compliant with all applicable regulations.

The municipality intends to procure weed harvesting services for 2016-2018, and for two distinct harvesting events to occur during each of these years.

Weed harvest monitoring services required in 2015 include i) Development of a monitoring strategy for the 2016-2018 period, and ii) Achievement of regulatory approvals for the strategy.

Weed harvest monitoring services required in 2016-2018 include i) Implementation of the monitoring strategy developed and approved in 2015, and ii) Reporting and related services to ensure continuous regulatory compliance.

Sealed Proposals, one (1) sealed proposal in digital format on USB flash drive and one (1) unbound and duly signed for #15-347, Weed harvest monitor planning services, Halifax Regional Municipality, Halifax, Nova Scotia shall be delivered to Halifax Regional Municipality Procurement Section, Suite 103, 1st Floor, 40 Alderney Dr. (Alderney Gate), Dartmouth Nova Scotia, B2Y 2N5, by 2:00 P.M. local time, Thursday November 12, 2015. Proponents are advised that Canada Post and its’ affiliates do not deliver to the

Procurement Office.

A non-mandatory information meeting is scheduled to be held at 10:00 am on Thursday, October 29. Participants are asked to meet on the 6<sup>th</sup> Floor of the Office Tower, Alderney Gate, 40 Alderney Drive, Dartmouth.

All questions concerning the procurement process shall be directed to Erin MacDonald, Senior Procurement Consultant, at (902) 490-6476, Monday through Friday, 8:30 A.M. to 4:30 P.M. or E-mail to **macdoner@halifax.ca** and those of a technical nature to Cameron Deacoff, Environmental Performance Officer, Energy & Environment, Phone 490-1926, or E-mail to **deacofc@halifax.ca**.

The Municipality reserves the right to reject any or all proposals and to award the contract in its entirety, or in part, whichever in its opinion best serves the interest of the Municipality.

Holly Fancy, Manager  
Procurement

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## SECTION 1. INSTRUCTIONS TO PROPONENTS

### 1. General Instructions

This Request for Proposal (“RFP”) document and any addenda may be obtained in person or by mail from, Halifax Regional Municipality Procurement Section, Suite 103, 1<sup>st</sup> Floor, 40 Alderney Dr. (Alderney Gate), Dartmouth Nova Scotia, B2Y 2N5, or via download at <http://www.novascotia.ca/tenders/tenders/ns-tenders.aspx>

- a. All proposals are to be submitted in accordance with this RFP document.
- b. All proposals are to be submitted in sealed, plainly marked envelopes. Proposals sent by facsimile or e-mail will not be accepted.
- c. Additional information or clarifications of any of the instructions or information contained herein may be obtained from the Halifax Procurement Office.
- d. Any proponent finding any discrepancy in or omission from this RFP, in doubt as to the meaning of any provision(s) herein, or feeling that the RFP is discriminatory, shall notify the Halifax Procurement Office in writing within five (5) days of the scheduled opening of proposals. Inquiries and exceptions taken by proponents in no way obligate the Municipality to change the RFP; however any interpretations given by the Halifax Procurement Office and any changes made to the RFP will be reflected in addenda duly issued by the Halifax Procurement Office.
- e. The Municipality will assume no responsibility or liability for oral instructions or suggestions. All official correspondence in regard to the RFP should be directed to the Halifax Procurement Office.
- f. All proposals must be signed by an authorized signatory of the proponent.
- g. The Municipality reserves the right to make additional copies of all or part of each proponent’s proposal for internal use or for any other purpose required by law.
- h. Proposals may be publicly acknowledged but cost proposals will NOT be publicly opened. Proponents will be advised of the results after an evaluation of all proposals has been completed and a successful proponent has been determined.

### 2. Eligibility

Prospective proponents are not eligible to submit a proposal if current or past corporate and/or other interests may in the opinion of the Municipality, give rise to conflict of interest in connection with this RFP or the Services. Proponents are to submit with their proposal documents a description of any issue that may constitute a conflict of interest violation for review by the Municipality. The Municipality’s decision on this matter will be final. Individuals and entities engaged by the Municipality to draft any component of this RFP (and anyone affiliated with such individuals and/or entities) are not eligible to submit proposals for this RFP.

### 3. Proponent’s Qualifications

- a. No contract will be awarded except to responsible proponents capable of providing the Services.
- b. No contract will be awarded to any proponent who is currently disqualified from bidding (or to a proponent whose owner/principal is or was the owner/principal of a vendor who is disqualified from bidding) on the scope of services outlined in this RFP per Administrative Order #35, Procurement Policy, Section 11 – Vendor Performance.
- c. Proponents must be primarily engaged in providing the Services as outlined in this RFP.
- d. Proponents must have an extremely comprehensive understanding of the subject matter in this RFP. Such understanding and previous experience in all aspects of similar projects are essential criteria in the qualifying process. The Municipality reserves the right to consider past performance on Municipal contracts in the evaluation of a proponent’s qualifications.
- e. Proponents must have a proven record of having provided similar services. The Municipality reserves the right to check all client contacts furnished and to consider the

responses received in evaluating proposals.

- f. Proponents must use personnel and management knowledgeable in their areas of expertise. The Municipality reserves the right to perform investigations as may be deemed necessary to ensure that competent persons will be used in the performance of the Services.
4. Reservations  
The Municipality reserves the right to reject or accept any or all proposals or parts of proposals, when in its reasoned judgment; the public interest will be served thereby. The Municipality may waive formalities or technicalities in proposals as the interest of the Municipality may require. The Municipality may waive or correct minor errors, omissions and inconsistencies in proposals provided they do not violate the proposal intent.  
  
Under no circumstances shall the Municipality be liable for any losses or damages arising from the Municipality's rejection or acceptance of any proposal for any reason whatsoever. Notwithstanding the foregoing, the Municipality's liability for any losses or damages resulting from the Municipality's failure to fulfill any of its explicit or implied obligations under the RFP, including the Municipality's acceptance of a non-compliant proposal, or the Municipality's awarding of a contract to a non-compliant proponent shall in all circumstances be limited to the lesser of actual damages suffered or \$1,000.00
  5. Proponents Expenses  
Proponents are solely responsible for their own expenses in preparing, delivering or presenting a proposal.
  6. Exceptions  
The submission of a proposal shall be considered an agreement to all the terms and conditions provided herein. Any proposal containing exceptions to the terms and conditions of the RFP or the resulting contract may be rejected by the Municipality for non-compliance. Any request for changes to the terms and conditions of the RFP or the resulting contract must be made in writing to the Halifax Procurement Office prior to the date of closing. Only if the Municipality issues a formal addendum to the RFP will any changes to the RFP or resulting contract be effective.
  7. RFP Administration  
All questions concerning the procurement process shall be directed to Erin MacDonald, Senior Procurement Consultant, at (902) 490-6476, Monday through Friday, 8:30 A.M. to 4:30 P.M. or E-mail to [macdoner@halifax.ca](mailto:macdoner@halifax.ca) and those of a technical nature to Cameron Deacoff, Environmental Performance Officer, Energy & Environment, Phone 490-1926, or E-mail to [deacofc@halifax.ca](mailto:deacofc@halifax.ca).
  8. Existing Conditions  
Each proponent must completely satisfy themselves as to the exact nature and existing conditions of the requirements and for the extent and quality of the Services to be performed. Failure to do so will not relieve the successful proponent of their obligation to perform the Services in accordance with the provisions of the contract.
  9. Information Session  
A non-mandatory information session will be held at the Compass Rose Room, 2<sup>nd</sup> Floor Alderney Gate, 40 Alderney Drive, Dartmouth, NS, for one hour at 10:00 am, Monday October 26. Participants are invited to sign in upon arrival.
  10. Questions
    - a. The proponent is responsible for obtaining any needed clarification of the RFP requirements, while the RFP is open. Questions should be directed in writing to the contacts identified in this document. **Email is the preferred method of contact.** Verbal questions and responses that are not later confirmed in writing will not be considered an

official response.

- b. Questions and responses that are deemed to materially affect the RFP requirements, project scope, time lines, etc. or to be of interest to all prospective proponents **may** be made available via Addenda at the sole discretion of the Municipality.

11. Addenda

- a. Any addenda issued by the Municipality shall be posted on the Nova Scotia Public Tenders website at <http://novascotia.ca/tenders/tenders/ns-tenders.aspx>.
- b. The proponent must monitor the Nova Scotia Public Tenders Website for any addenda that may be issued during the full open period of the RFP.
- c. The submission of a proposal shall be deemed to indicate that the proponent has read, understood and considered all addenda posted to the Nova Scotia Public Tenders Website prior to the closing date and time.

12. Currency and Taxes

Prices are to be quoted in Canadian dollars, inclusive of duty (where applicable) and exclusive of HST.

13. Public Information/Proprietary Information

- a. The Municipality is subject to the Freedom of Information and Protection of Privacy provisions contained within the *Municipal Government Act* at Part XX. Any document submitted to the Municipality in response to this RFP is subject to this legislation and proponents should be aware that any member of the public is entitled to request a copy of the document. In response to such a request, the Municipality may be required to disclose some or all of the information in accordance with the criteria set out in the legislation, including sections 462, 480 and 481(1).
- b. The Municipality is also subject to the *Personal Information International Disclosure Protection Act*. The Act creates obligations for the Municipality and its service providers when personal information is collected, used or disclosed. Requirements include limiting storage, access and disclosure of personal information to Canada, except as necessary or otherwise required by law.
- c. By submitting a proposal, the proponent agrees that the Municipality may disclose the following sections of the proposal without notification to the proponent:
  1. Form of Proposal
  2. Executive Summary
  3. Proponent's fixed total cost (if applicable)

14. Period of Submission Validity

Unless otherwise specified, all proposals submitted shall be irrevocable for ninety (90) calendar days following the closing date.

15. Surety

Bid Surety, Performance Surety and/or Labour and Materials Surety may be required in relation to this RFP and the resulting Contract.

16. Disputes

In cases of dispute as to whether or not an item or service proposed meets the RFP requirements, the decision of the Municipality shall be final and binding.

17. Disqualification for Inappropriate Contact



Any attempt on the part of a proponent or any of its employees, agent, contractors or representatives to contact any of the following persons with respect to this RFP or the Services prior to contract award may lead to disqualification:

1. any member of the evaluation team (except those mentioned in this RFP) or any expert advisor to them;
2. any member of Council; and
3. any other member of the Municipal staff
4. any Director or member of staff of the Atlantic Division, Canoe Kayak Canada

18. Proposal Submission

- a. The submission of a proposal will be considered as a representation that the proponent has carefully investigated all conditions which may affect or may, at some future date, affect the proponent's performance of the Services as described in this RFP and that the proponent is fully informed concerning the conditions to be encountered, quality and quantity of work to be performed and materials to be furnished; also, that the proponent is familiar with and will abide by all Federal and Provincial laws and regulations and all by-laws, codes and ordinances of the Municipality which in any way affect the performance of the Services or persons engaged or employed in the performance of the Services.

## SECTION 2: SCOPE OF WORK

### 1. Introduction

The Halifax Regional Municipality (“the Municipality”) is seeking proposals from qualified individuals or firms to provide weed harvest monitoring services in each of 2015, 2016, 2017, and 2018. These services are in support of planned mechanical weed harvesting activities in Lake Banook and Lake Micmac, scheduled to be held in spring and summer, 2016, 2017, and 2018.

### 2. Project Background

The Halifax Regional Municipality (HRM) was formed in 1996 by the amalgamation of Halifax, Dartmouth, Bedford, and Halifax County. Planning and Development is one of eleven (11) business units that comprise the municipality’s administration, and is responsible for the development, administration, and enforcement of municipal planning policies, including all related compliance activities. Energy & Environment, a division within Planning and Development, is responsible for the administration of aquatic science programs and projects, including the project addressed here.

Nuisance aquatic weed growth in Lake Banook and Lake Micmac was reported to the municipality in 2009 and 2010. Subsequent public engagement exercises regarding the effects of the weeds and professional assessment of possible resolutions resulted in Regional Council’s direction to staff to implement the short term control of weed management on Lake Banook and Lake Micmac through contracted mechanical harvesting services. These services are intended to deliver an interim control on the impacts of nuisance weeds while staff investigate and develop long-term controls on the ultimate causes for weed growth (i.e., sustained phosphorus loading into the lakes).

Lake Banook and Lake Micmac uniquely serve as a regional recreational asset for the municipality, as the home of four boating clubs, a regular site of training and demonstration events, and frequent host to regional, national, and international paddling, rowing, and other sporting events. Weed harvesting and associated services are required at these lakes to protect the regional recreational asset.

In 2015, weed harvesting and weed harvest monitoring contracts were issued to local vendors. Work performed through these arrangements, for a single harvesting event, indicates that weed harvesting, management, and disposal can successfully be conducted within Lake Banook and Lake Micmac by removing weeds within designated harvest areas without disruption to boating activities while remaining compliant with all applicable regulations.

The municipality intends to procure weed harvesting services for 2016-2018, and for two distinct harvesting events to occur during each of these years.

Services required in 2015 include i) Development of a monitoring strategy for the 2016-2018 period, and ii) Achievement of regulatory approvals for the strategy.

Services required in 2016-2018 include i) Implementation of the monitoring strategy developed and approved in 2015, and ii) Reporting and related services to ensure continuous regulatory compliance.

### 3. Goal

The primary goal of this solicitation is to secure a contract for weed harvest monitoring services for 2015, 2016, 2017, and 2018. These services will successfully direct and document the extent and effectiveness of weed harvesting activities.

Secondary goals include:

- a. Document the change in distribution and abundance of aquatic weeds after each harvesting event, and after each harvesting season;
- b. Identify all major aquatic weeds observed during each harvesting season
- c. Identify and describe any conditions that may require the municipality to reassess project assumptions and associated harvesting & monitoring strategies.

#### 4. Objectives/Critical Path

The services require that the vendor:

- a. Develop a monitoring strategy for 2016, 2017, and 2017, including yearly monitoring plans. Deadline: December 31, 2015.
- b. Develop and submit a regulatory approval package for NS Environment and Fisheries and Oceans Canada, and manage associated approvals. Initial submission deadline for both agencies: January 15, 2016.
- c. Critically review technical aspects of a draft RFP under development for mechanical weed harvesting services, 2016-2018, by not later than February 26, 2016.

#### 5. Requirements

- a. Proponents must supply a project-specific HSE plan that addresses relevant risks, including but not limited to:
  - i. Vehicle/vessel fuelling
  - ii. Working on boats (water safety)
- b. Proponents must supply and operate, as part of field data collection activities, the following interoperable equipment:
  - i. A vessel-mounted, single beam sonar echosounder,
  - ii. A transducer,
  - iii. A field laptop, and
  - iv. An underwater video camera

#### 6. Constraints

Only one publicly owned facility is known to be available for the launch and retrieval of vessels (boats) operating in Lake Micmac and Lake Banook: the boat ramp located on 177 Braemar Drive. Proponents choosing to access the lake at other facilities shall do so through arrangements with private property owners. HRM will not reimburse expenditures related to the fees for the use of private properties to access the lakeshore.

The selected proponent or legally related firms shall not be eligible to submit proposals for mechanical weed harvesting services. Mechanical weed harvesting proposals received by such firms will be returned unopened to the originator.

#### 7. Assumptions

Well planned and executed aquatic weed harvesting activities will, over several applications, reduce the abundance and distribution of aquatic weeds within Lake Banook and Lake Micmac. The extent and pace of this reduction in abundance and distribution can be accurately mapped, quantified, and effectively communicated to municipal stakeholders (staff, Council, lake users, and the public at large).

Presentations to municipal staff, Regional Council, Community Council, or other Agencies, Boards, or

Committees of Council, and the public are neither required nor requested.

The provision of weed harvest monitoring services will be required for a period of four years; all proponents must be available to provide monitoring services for each of the 2015-16, 2016-17, and 2017-18 fiscal years beginning April 1 and ending March 31. Purchase orders will be issued annually upon the confirmation of sufficient funds in the annual operating budget.

#### 8. Project Framework

The proponent will be responsible for all goods, services, equipment, and materials required to deliver the services required in this RFP.

The municipality will provide the following resources to proponents:

As attachments to this RFP:

1. Copy of RFP for mechanical aquatic weed harvesting services, P15-055R.
2. Copy of Final Report issued by contractor retained for P15-055R.
3. Agenda Item 11.3.1, Weed Growth in Lakes Banook and Micmac, Regional Council Meeting, February 24, 2015 (see <http://www.halifax.ca/council/agendasc/documents/150224ca1131.PDF>; 14.4Mb).
4. Minutes, Regional Council meeting, February 24, 2015 (see Item 11.3.1 at <http://www.halifax.ca/council/agendasc/documents/c150224.pdf>; 65Kb).

Upon contract award:

1. Copy of RFP for weed harvest monitoring services 2015.
2. Copy of Final Report issued by contractor retained for weed harvest monitoring services 2015.
3. Copy of Request for Review submitted to DFO for regulatory considerations, May 2015.
4. Copy of Letter from DFO responding to Request for Review, June 2015.
5. Copy of Request for Authorization submitted to NSE spring 2015.
6. Copy of Response from NSE regarding Request for Authorization, spring 2015.

The Municipality holds the following expectations of the contractor:

- Work on this project will be done with the interests of the public in mind. The contractor shall diligently report to the Municipality any and all developments observed consequent to its work on this or other projects that may affect the success of the overall weed harvest management project.
- The contractor will work proactively with the Municipality, regulators, harvesting contractors, and other stakeholders in the identification and management of all challenges, including the implementation of value-added services.

#### 9. Detailed Scope of Consulting Services

The Municipality requires consulting services along the following themes: environmental monitoring program development, aquatic plant identification, aquatic plant monitoring, regulatory services, data collection and analysis, project management.

The Proponent will be required to undertake, but not limited to, the following tasks:

2015:

1. Develop a monitoring strategy for 2016-2018, including performance indicators and annual monitoring plans for each of 2016, 2017, and 2018, that meets regulatory approval from both NSE & DFO. The strategy and annual plans must identify Designated Harvest Areas, and if necessary, prohibited areas, for each harvesting event of each year, subject to revision if required.
2. Develop and submit Watercourse Alteration Approval package for Nova Scotia Environment (NSE) (Watercourse Alteration Approval).

- a. This application should include all information required by Fisheries and Oceans Canada (DFO)'s Request for Review application
  - b. If required by DFO, develop and submit a complete Application for Fisheries Act Authorization
  - c. Depending on the Response from DFO, work with HRM staff to amend the monitoring strategy to achieve DFO Project Authorization while meeting HRM project objectives
3. Critically reviewing technical aspects of an RFP under development by HRM staff for mechanical weed harvesting services, 2016-2018

2016

Pursuant to NSE & DFO regulatory approvals and the associated approved monitoring strategy and annual monitoring plans:

1. Conduct a generalized acoustic survey pre-harvest and post-harvest field work to collect acoustic survey data and complementary underwater video data. Surveys shall be conducted using transect lines spaced 50m apart for the entirety of Lake Banook and Lake Micmac.
  - a. Collect underwater video along select transects to ground-truth the sonar data for bottom type, vegetation presence and absence.
2. Conduct focused acoustic surveys within the Designated Harvest Area(s). Within these focused surveys, transect lines shall be spaced 10m apart, to provide for additional detail for harvesting operations and for monitoring purposes.
  - a. Collect underwater video along select transects to ground-truth the sonar data for bottom type and vegetation presence and absence.
3. Prior to each harvesting event, install a GPS chart reader complete with bathymetric maps, or analogous device, on the vessel used by the selected harvesting contractor, instruct the contractor on usage, including the marking of waypoints at the start and end of harvesting transects. Upon conclusion of each harvesting event, retrieve the device and download data to plan and execute the post-harvest survey, and to enable task 7, below.
4. Conduct one field botany survey to collect aquatic vegetation type specimens, and to identify all specimens collected to species level. This survey shall be conducted after harvest event 1, and before harvest event 2, during the second pre-harvest monitoring survey.
5. Document the presence, and relative abundance and distribution of multiple forms (morphs) of the same plants, if relevant.
6. Based on tasks 1-3 above, produce maps of aquatic vegetation abundance and distribution post-harvest
7. Document the effectiveness of the harvest activity, by:
  - a. Mapping and documenting the abundance and distribution of all submerged aquatic plants across both lakes before each harvest event
  - b. Mapping and documenting the abundance and distribution of all submerged aquatic plants across both lakes after each harvest event
  - c. Comparing
    - i. Abundance and Distribution (Pre-harvest 1) vs Abundance and Distribution (Post-harvest 1);
    - ii. Abundance and Distribution (Pre-harvest 2) vs Abundance and Distribution (Post-harvest 2);
    - iii. Abundance and Distribution (Pre-harvest 1) vs Abundance and Distribution (Post-harvest 2);
    - iv. Designated harvest vs. Non-designated harvest areas (annual);
    - v. Designated harvest vs. Actual harvest areas (annual);
8. Document the abundance and distribution of algae, particularly algae blooms
9. Identify and document any other factors that may be observed or inferred to significantly affect weed abundance and distribution besides seasonal growth and harvesting activities, which may directly affect the effectiveness of the harvesting program. Such factors may include, but are not limited to, a substantial change in nutrient ratios and the introduction of herbivorous fish into the waters of these lakes or their tributaries.

10. Develop and submit reports summarizing monitoring and harvesting activities and results for each harvesting event, suitable for recirculation to elected officials, residents, and other community members. The Report shall include maps, images, tables and/or figures, and text, as appropriate, to indicate the timing, location, effectiveness, and other measures of project activity. One report is required for each harvesting event. Refer to section 11 below for further information.

#### 2017 & 2018

Repeat steps 1-8 documented for 2016.

In addition to steps listed under step 7c documented for 2016:

- vi) Compare Abundance and Distribution (Post-harvest 2, 2017) vs Abundance and Distribution (Post-harvest 2, 2016);
- vii) Compare Abundance and Distribution (Post-harvest 2, 2018) vs Abundance and Distribution (Post-harvest 2, 2017 AND Abundance and Distribution (Post-harvest-2, 2016).

Proponents are encouraged to present any challenges and recommended solutions not directly addressed in this RFP.

Proponents are also encouraged to present any value added propositions and recommendations that may demonstrate an innovative approach to the completion of this assignment, using all resources actually or potentially available. These may include tasks, indicators of project success (related to weed abundance and distribution, weed harvesting, monitoring, use conflict, etc.), recommendations, and other deliverables that may benefit the municipality and its residents.

#### 10. Project Management

- a. The contractor shall designate in their proposal a project manager. All coordination for services with the Municipality and the contractor shall be the responsibility of the project manager. The project manager shall ensure that any substitutions in proponent team personnel are approved by the Municipality's project manager.
- b. Report to the Municipality through a review process and meetings at various stages of the work program. The work progress shall be measured against a defined budget, project components, and work schedule.
- c. The Municipality recognizes that project management is an essential part of this project, therefore written progress reports are required to be submitted and consist of the actual schedule achieved overlaid on the original base schedule submitted by the proponent at the start up meeting. For instances where the schedule has not been achieved a brief written explanation as to why shall be included. The progress report can be submitted either as a hard copy or as an attachment to an electronic e-mail. These project progress reports are to be independent of letter reports defined above in section 8, and below in section 11.
- d. Meet; liaise with regulatory bodies, utilities, stakeholder groups, other levels of government, and members of the community, as required.
- e. Provide copies to the Municipality of all correspondence related to the project including agreements reached on behalf of the Municipality, as required.
- f. No more than two invoices shall be submitted during each fiscal period. These shall be submitted in association with progress reports.
- g. Proposals for considerations to vary from the approved project tasks, budget, or schedule must be submitted and approved in advance.

#### 11. Reporting and Deliverables

For work to be undertaken in 2015:

- Draft monitoring strategy, including annual monitoring plans, shall be submitted to the Municipality by not later than December 31, 2015.

- Draft regulatory application(s) shall be submitted to the Municipality for review and discussion by January 8, 2016.
- The project purpose, methodology, results and discussion shall be documented in a written letter report to the municipality.
- Maps shall be presented within the letter report, and shapefiles of all maps shall be submitted separately as appendices to the final report.
- The report shall be presented in Adobe PDF format.
- A draft report is due not later than March 11, 2016.
- The municipality shall respond to the draft report by not later than March 18, 2016.
- The final report is due by not later than 4pm on Thursday March 31, 2016.

For work to be undertaken in 2016, 2017, and 2018:

- Two reports are required during each field season, where a field season is defined as the period beginning with the first pre-harvest monitoring event and the second post-harvest monitoring event. The first report shall follow the first harvest event, and the second report shall follow the second harvest event. Each report shall present:
  - i a summary of monitoring activities;
  - ii a summary of the results of analysis of harvesting work;
  - iii a summary of any observations or observations affecting the municipality's compliance with regulatory authorizations or conditions thereof,
  - iv any recommendations for adjustments to the project plan for the following harvesting event and succeeding elements of the overall monitoring strategy; and
  - v any other observations of conditions that may affect the success of the weed harvesting project.

These reports shall include:

- Submerged aquatic vegetation percent cover mapping (both lakes)
- Submerged aquatic vegetation canopy height mapping (both lakes)
- Maps documenting actual harvest area compared against Designated Harvest Area and Prohibited Harvest Areas (where applicable)

Drafts of each report are required.

- The draft first report is due by not later than the last Friday in July.
  - The municipality shall respond to the draft first report by not later than the first Friday in August.
  - The final first report is due not later than 4pm on the second Friday in August.
  - The draft second report is due by not later than the second Friday in September.
  - The municipality shall respond to the draft second report by the third Friday in September.
  - The final second report is due by not later than 4pm on the fourth Friday in September.
- The project purpose, methodology, analysis, results, and discussion shall be documented.
  - Reports, drawings, and calculations shall be in metric units. Reports and drawings shall be stamped by a Professional Landscape Architect and by a Professional Engineer registered to practice in Nova Scotia. Drawings shall be to a scale appropriate to the design depiction and shall comply with the Municipality's standards.
  - Electronic copies of all information (reports, drawings, and calculations; e.g., spreadsheets, computer model data files, etc.) shall be provided to the Municipality on a USB flash drive. All reports are to be provided electronically, each as a single PDF file that includes the report text and all figures, diagrams, and drawings presented. In addition, drawings shall be provided in AutoCAD Current Version format and reports shall be provided in Word format.
  - All material produced and information collected by the proponent in performance of these terms of reference shall become the property of the Municipality. All material shall be kept confidential by the Proponent unless authorized in writing by the Municipality.
  - Where included in the scope of work, cost estimates are required and are to exclude HST.

### SECTION 3 - SUBMISSION REQUIREMENTS

The submission of a proposal on this service will be considered as a representation that the proponent has carefully investigated all conditions which may affect or may, at some future date, affect the performance of the services covered by the proposal, the entire area to be services as described in the attached specifications and other contract documents and that the proponent is fully informed concerning the conditions to be encountered, quality and quantity of work to be performed and materials to be furnished; also, that the proponent is familiar with all Federal and Provincial laws, all codes and ordinances of the Municipality which in any way affects the prosecution of the work or persons engaged or employed in the work.

In responding to this proposal, each proponent shall, include, as a minimum, a Business/Technical Proposal and a Cost Proposal. The proposal is not complete unless it contains a Business/Technical Proposal which addresses the requirements described herein, and a separate Cost Proposal that details all costs for the proposed services. Both the Business/Technical Proposal, which shall be identified as envelope #1, and the separate Cost Proposal, which shall be identified as envelope #2, shall be submitted simultaneously. Both Technical and Cost Proposal must be signed by an authorized representative of the firm submitting.

Sealed Proposals will be received by Halifax Procurement Section, Suite 103, 1<sup>st</sup> Floor, 40 Alderney Dr. (Alderney Gate), Dartmouth Nova Scotia, B2Y 2N5

The Business/Technical Proposal shall be evaluated in step 1. No details of costs or rates are to be included in this part of the Proposal.

- a) The Business/Technical Proposal shall include the Form of Proposal and a transmittal letter. Proposals are limited to 25 pages, excluding forms, schedule, person-hours matrix, transmittal letter, addendums and appendices. A page is defined as a single-sided sheet of 8.5" by 11" paper. The only exceptions to this will be the project schedules, flowcharts and/or person-hours matrix, which may be submitted on 11" by 17" paper.
- b) One (1) unbound and duly signed copy and one (1) in digital format on flash drive of each proposal both technical and price components are to be submitted. Technical and price components must be submitted in separate envelopes and as separate digital files on separated drives.
- c) Elaborate brochures or voluminous examples are neither required nor desired.
- d) No project data sheets or company brochures are to be submitted. Resumes may be referred to in an appendix.
- e) Digital copies of the Proposal must not be larger than 10Mb.
- f) Proposals are to be typed using a font size no smaller than 11 pt (with the exception of footnotes and endnotes) and using a portrait page layout. Column format is not to be used.
- g) In the case of a joint venture or for sub-contractors, commitment letters shall be appended in the Proposal. Letters of commitment from member firms on their own letterhead and signed by an officer of the company affirming their commitment to this assignment and their role. Substitutions, deletions or altering of roles of key personnel will not be allowed without written authorization from the Municipality.

#### 1. Business Technical Solution Submission Requirements

Submissions should include, but not necessarily be limited to, the following:

- a) Mandatory Requirements – The proponent must demonstrate that they meet or will meet upon award the following mandatory requirements:
- b) Evaluation Criteria #1 – Communication Skills: The proposal should be clear and readable. Information should be easy to find and should be in the order presented hereunder.



c) Evaluation Criteria #2 – Team Composition and Experience

- Sector Specific Experience: The proposal should clearly state the proponent firms overall experience in the field of expertise required by the scope of work. The Proposal shall include at least three (3) examples of recent projects as well as three (3) letters of reference or relevant client contact information. Proponents must be able to demonstrate that the firm has an in depth knowledge of the scope of this assignment. The purpose of this information is to demonstrate the Proponent's experience and ability to complete similar projects, develop creative solutions, resolve complex issues and communicate effectively with various parties and audiences.
- Experience of Project Lead with projects of similar scope and size: The Proposal shall include a summary of the relevant experience as it relates to their role in this assignment. A brief description (years in business, services provided, number of employees, etc.). Additionally, the Proposal shall include a brief description of each of the member firms, their role in this undertaking and the office from which their work will be conducted. A summary table format is acceptable.
- Key Team Members appropriate skills and education: The Proposal shall include, as appendices a CV detailing their experience, skills and education in relation to this assignment.
- Demonstrated history of proposed Team: The Proposal shall include a brief description of each of the member firms, their role in this undertaking and the office from which their work will be conducted. A summary table format is acceptable. Additionally the Proposal shall demonstrate the history of the member firms and individuals successfully delivering assignments of similar size and scope as a team.
- Balance of level of effort: The proponent shall provide a proposed schedule to complete the tasks in the proposed work plan as well as a person-hours matrix (WBS) *without fees* outlining the hours each team member has allocated to each of the tasks in the proposed work plan. No hourly rates, dollar figures or costs shall be shown on this person/hours matrix breakdown; inclusion of any pricing information may result in disqualification of your Proposal.

d) Evaluation Criteria #3 – Understanding of the Municipality's Needs

- Understanding of the Requirements of the Scope of Work: Proponents shall provide a demonstrated understanding of the subject matter, including, but not limited to, the scope of work as well as the approach that will be taken to accomplish the Services related to this RFP document, as well as an indication of possible challenges and solutions not directly referenced in the Request of Proposals.
- Acceptable Proposed Schedule and Work-plan: Proponents shall provide a work plan with which clearly outlines milestones and timelines to demonstrate how the work will progress to the desired completion date. Proponents must present a realistic timeline of the proposed Project schedule. The schedule shall reflect the tasks in the work plan and will be updated on a monthly basis to reflect project progress and shall be submitted to the Municipality's Project Lead with the contractor's status report.
- Value added propositions and recommendations: Proponents shall demonstrate an innovative approach to the completion of the assignment, utilizing all potential resources available to them.
- Attention to Relevant Challenges: Proponents shall describe and attempt to address any challenges to the assignment which they have identified but may not be spoken to in the Request.

e) Evaluation Criteria #4 – Business/Technical Solution

This criterion is evaluated based on a global view of the proposal and further analyses the entire proposal in relation to achieving a complete and comprehensive solution from the Successful Proponent.

- Business/Technical Solution: The proposal must address all of the business aspects of the engagement as identified in the RFP.
- Methodology: The proposal must combine proven project methodology and include innovative approaches and ideas in the delivery of the project. Proponents should keep this in mind when submitting similar successful projects for review under Criteria 1.
- Flexible and Scalable Solution: The proposal shall offer all of the services required to successfully deliver the project but should present a schedule that allows for adjustment, addition and/or deletion of specific activities as necessary to reflect budget availability, Regional Council direction or the evolution of the engagement.
- Cost and Time Effectiveness: The proposal shall indicate how the successful proponent will effectively use the Municipality's internal resources.

f) Evaluation Criteria 5 – Project Management Methodology

- Management Structure: the Proposal shall include an organizational chart indicating a clear reporting structure and escalation methodology.
- Proposed Communication Methods: The proposal shall also indicate the number and frequency and method (i.e. /in person, web-conference, tele-conference, etc.) of the anticipated meetings. Meeting dates should also be included in schedule per requirements of section.
- Quality Assurance Standards: A description of Proponents Quality Assurance methods and practices should be included.

g) Business/Technical Response – Other information

The following information shall be included in your Business/Technical response but is not an evaluated as a stand-alone criterion.

- Sustainability: the Municipality is committed to purchasing sustainable goods, services, and construction. To aid the evaluation committee in better understanding the sustainable attributes for this purchase the proponent should prepare the following:
  - A brief statement, to maximum of (2) pages, that outlines the proponent's commitment to the sustainable operations of the Municipality
  - Given the requirements in this RFP, describe how the service that you are proposing will be provided in a sustainable manner (e.g. considering greenhouse gas reduction, waste reduction, toxicity reduction, worker health and safety).
  - If the requirement includes a good as part of the RFP, also include the following question:

Considering the manufacture, uses, and end-of-life disposal of the product proposed, describe the sustainable attributes of the product (e.g. considering greenhouse gas reduction, waste reduction, toxicity reduction, worker health and safety).

2. Evaluation of the Business/Technical Proposal

a) Stage 1 – Mandatory Criteria

- a. The proposal must meet any and all of the mandatory criteria as referenced in the Scope of Work and clearly demonstrate that these are met in a substantially unaltered form. If the proposal fails to meet any one of these criteria, it will receive no further consideration during the evaluation process and be deemed non-compliant.

- b. The proposal must clearly demonstrate the proponent's experience and ability to fulfill the Service Requirements.
    - b) Stage 2 – Proposal Evaluation Criteria
      - a. All proposals which pass Stage 1 – Mandatory Criteria will be evaluated and ranked against the weighted Proposal Evaluation Criteria Proponents are reminded that the proposal is the main document used in the evaluation and to include all required and pertinent information in their proposal. Proposals not achieving a minimum of 75% of the total available technical points will no longer be considered and the Cost Proposal will remain unopened.
      - b. To assist in the evaluation of proposals, the Evaluation Committee may, but is not required to:
        - i. contact any or all of the client/customer contacts cited in a proposal to verify any and all information regarding a proponent and rely on and consider any relevant information obtained from such references in the evaluation of proposals;
        - ii. conduct any background investigations that it considers necessary and consider any relevant information obtained from such investigations in the evaluation of proposals;
        - iii. Seek clarification from a proponent only if certain information in their proposal is ambiguous or missing and such clarification does not offer the proponent the opportunity to improve the competitive position of its proposal.
- 3. Cost Proposal Requirements
  - a) The cost proposal shall be submitted at the same time as the technical proposal as a separate document in a separate sealed envelope
  - b) The Cost Proposal shall include a single page duly signed stating the proponent's firm fixed total price for this service as outlined in the Request for Proposal.
  - c) Proponents should include within the Cost Proposal on a separate page or pages, a detailed listing of the tasks and activities with a breakdown into work packages, details of all individual costs of the proposed services, and total costs (Fixed firm). The cost proposal is to be a separate document.
  - d) The total cost shall represent the maximum payment for the project. Price data should include fixed price, estimated hours of work by key staff and individual hourly cost for staff. Include and identify expenses and HST separately. Price may not be the determining factor for award.
- 4. Evaluation of the Cost Proposal

The proposal with the lowest cost shall receive the maximum points allocated for cost in the Evaluation Scoresheet. All other proposals will be prorated using the lowest cost bid and the following formula:

$$\text{Max Available Pts.} = [\text{Max Available Pts.} \times (\text{total cost} - \text{lowest total cost}) / \text{lowest total cost}]$$

Note: If the result is a negative number, the score assigned will be 0

Example: Two technically compliant bids are received and the maximum available points for cost equal 30:

Bid 1: \$100,000  
Bid 2: \$130,000  
Bid 1 being the lowest, would achieve a score of 30 points  
Bid 2 would achieve a score of 21 points, calculated as follows:  
 $30 - [30 \times (\$130,000 - \$100,000) / \$100,000] = 21$
- 5. Award of Contract
  - a) The Municipality reserves the right to modify the terms, or cancel, or reissue the RFP at

any time at its sole discretion.

- b) The RFP should not be construed as an offer or a contract to purchase goods or services. Although proposals will be assessed in light of the evaluation criteria, the Municipality is not bound to accept the lowest priced or highest scoring proposal or any proposal. The Municipality reserves the right to reject any or all proposals and to award the contract in its entirety, or in part, whichever, in its opinion, best serves the interests of the Municipality.
  - c) Subsequent to the submissions of proposals, interviews may be conducted with some of the proponents, but there will be no obligation to receive further information, whether written or oral from any proponent.
  - d) The Municipality will not be obligated in any manner to any proponent until a written contract has been duly executed. Any damages arising out of a breach by the Municipality, including damages for any implied duty at law, are limited to the lesser of the proponent's actual costs of preparing their proposal and \$1,000. Neither acceptance of a proposal, nor execution of a contract, will constitute approval of any activity or development contemplated in any proposal that requires any approval, permit or license pursuant to any statute, regulation or by-law.
  - e) The Municipality offers debriefings to unsuccessful proponents. An unsuccessful proponent must request a debriefing in writing within 10 (ten) days from the date of the Municipality posting the award on the Nova Scotia Public Tenders website. Upon timely receipt, the Municipality will contact the interested proponent to arrange a date, time and place for the debrief, which normally will be conducted in person.
6. Method of Award
- The evaluation process will be carried out by an evaluating committee who shall establish the ranking of all the proposals and may produce a short list. The short-listed proponents may be invited to make a brief presentation. The evaluating committee will make a recommendation based on the evaluation of the technical and cost proposals, the presentation if offered, and any clarifications made by the proponent during the evaluation process.

APPENDIX A  
 EVALUATION CRITERIA/SCORESHEET

Criteria	Summary (considerations may include but are not limited to the following)	Score
Communication Skills	Clarity and readability of written proposal	5
Team composition and experience	Sector specific experience of the Proponent Firm <ul style="list-style-type: none"> <li>• Balance of level of effort vs. team roles (project mgmt., technical, etc.)</li> </ul>	20
Understanding of the Municipality's needs	<ul style="list-style-type: none"> <li>• Understanding of the requirements of the scope of work and the Municipality's organizational structure</li> <li>• Acceptable proposed schedule and work plan</li> <li>• Value added propositions and recommendations</li> <li>• Attention to relevant challenges that the committee has not considered</li> </ul>	20
Business/Technical Solution	<ul style="list-style-type: none"> <li>• Solution addresses all anticipated aspects of the project as identified in the RFP</li> <li>• Solution draws on proven methodology</li> <li>• Solution is flexible and scalable</li> <li>• Solution is cost and time effective in its use of the Municipality's resources</li> </ul>	20
Project Management Methodology	<ul style="list-style-type: none"> <li>• Management structure within Proponents organization/project team</li> <li>• Proposed communication methods between proponent team and the Municipality</li> <li>• Quality Assurance standards and practices</li> </ul>	5
Subtotal (Business/Technical Proposal)		
Cost		30
		100

## **APPENDIX B**

### **General Terms and Conditions**

The following Terms and Conditions shall apply to any contract resulting from this RFP:

1. **Headings**  
The division of this Contract into articles and sections and the insertion of the recitals and headings are for convenience and reference only and shall not affect the construction or interpretation of the Contract.
2. **Currency**  
All transactions referred to in this Contract will be made in Canadian Dollars.
3. **Singular, plural, gender and person**  
Wherever in this Contract the context so requires, the singular number shall include the plural number and vice versa and any gender used shall be deemed to include the feminine, masculine or neuter gender and "person" shall mean an individual, partnership, consortium, corporation, joint venture or other entity or government or any agency, department or instrumentality thereof and vice versa.
4. **Time**  
Time is of the essence of the Contract.
5. **Expiry of Time Period**  
In the event that any date on which any action is required to be taken under this Contract is not a business day, such action shall be required to be taken on the next succeeding day which is a business day unless otherwise provided in this Contract.
6. **Accounting Terms**  
All accounting terms not specifically defined shall be construed in accordance with Canadian Generally Accepted Accounting Principles.
7. **Governing Law**  
This Contract is and will be deemed to be made in Nova Scotia and for all purposes will be governed exclusively by and construed and enforced in accordance with the laws prevailing in Nova Scotia and the laws of Canada applicable therein. Unless stated otherwise herein, the Contractor attorns to the exclusive jurisdiction of the courts of Nova Scotia to determine any dispute arising out of this Contract and the RFP.
8. **Precedence of Documents**  
In the event of any ambiguity, conflict or inconsistency among any of the provisions of the Contract then the provisions establishing the higher quality or level of goods and services, safety, reliability and durability shall govern.
9. **Advertisement**  
The Contractor will not use the name of the Municipality or any contents of this document in any advertising or publications without prior written consent from the Municipality.
10. **Adverse Material Changes**  
In the event of an adverse material change in the Municipality's Capital or Operating budgets, the Municipality reserves the right to cancel or reduce its contractual obligations without penalty.
11. **Amendment, Waiver or Modification**  
This Contract may not be amended except by a Change Order or by a written instrument

signed by the Municipality. No indulgence or forbearance by the Municipality shall be deemed to constitute a waiver of its rights to insist on performance in full and in a timely manner of all covenants of the Contractor, and any such waiver, in order to be binding upon the Municipality, must be expressed in writing and signed by the Municipality and then such waiver shall only be effective in the specific instance and for the specific purpose for which it is given.

12. Authority

The Contractor warrants it has full power and authority to enter into and perform its obligations under this Contract and the person signing this Contract on behalf of the Contractor has been properly authorized and empowered to enter into such Contract. The Contractor further acknowledges that it has read all of the terms, conditions and provisions of this Contract and understands all provisions thereof and agrees to be bound thereby.

13. Business Registration

Prior to award of the contract the successful RFP proponent is required to be registered to conduct business in the Province of Nova Scotia. The Contractor shall remain so registered for the duration of the Contract.

14. Clear Title

The Contractor warrants clear title to materials and equipment supplied by them and will indemnify and hold the Municipality harmless against any or all lawsuits, claims, demands and/or expenses, patent litigation, intellectual property infringement, materialman's or labourer's liens, or any claims by third parties in or to the goods and services mentioned and supplied by the Contractor.

15. Conflict of Interest

The Contractor and its employees shall take all reasonable steps to ensure avoidance of all direct or indirect conflicts of interest between any of their individual interests and those of the Municipality. If the Contractor or any one of its personnel becomes aware of any reasonable possibility of any such conflicts, then the Contractor shall promptly disclose to the Municipality the facts and circumstances pertaining to same.

16. Contractor's Personnel

The Contractor is solely responsible for all aspects of employment and labour relations in connection with its workforce. The Contractor is the employer of its workforce and such employees are not employees or agents of the Municipality. All such employees shall be under the direct management and sole supervision of the Contractor. No employment relationship is created between the Contractor or any of the employees and the Municipality. The Contractor shall be responsible for all payroll functions and shall pay in a timely manner all salaries and benefits, taxes, employment insurance premiums, Canada Pension Plan premiums or contributions, *Workers Compensation Act* assessments and any other assessments or contributions of any kind or nature whatsoever that are payable to any governmental authority in respect of the Contractor's employees. It is the express mutual understanding and intention of the Contractor and the Municipality that the Contractor is not a successor to, or common employer with the Municipality and nothing in the Contract shall be construed, interpreted, understood or implied contrary to that mutual intention and understanding.

17. Contractor's Taxes

The Contractor shall pay when due all taxes, rates, duties, assessments and license fees that may be payable by the Contractor under applicable law or levied, rated, charged or assessed by any governmental authority in respect of the provisions of the Services to the Municipality

18. Costs

The Contractor shall be responsible for paying its own costs and expenses incurred in connection with the negotiation, preparation and execution and delivery of this Contract.

19. Criminal Records Check

- a. If requested by the Municipality at any time, the Contractor shall ensure that their workers or subcontractors have security clearance, obtained from the Halifax Regional Police Services, to work in any of the Municipality's buildings and properties.
- b. If requested by the Municipality at any time, the Contractor shall ensure that their workers or sub-contractors have a Criminal Record Check and Vulnerable Sector Check. If this security clearance is not available, the reason for unavailability must be clearly stated, and may be ground for non-inclusion at the discretion of the Municipality.

20. Employee Qualifications

The Contractor shall ensure its employees are competent to perform the Services and are properly qualified, trained and supervised in keeping with the qualification, training and supervision provided by a reasonably prudent Contractor of similar services in a public environment.

21. Employee Conduct

The Contractor shall require all of its employees performing Services to adhere to all existing and future the Municipality's policies with regard to harassment, workplace conduct and other policies of a like nature. The Contractor shall ensure its employees do not have any contact with staff other than in the normal course of providing Services and at no time shall such contact be inappropriate. The Contractor shall ensure that any employees who do not meet the standards required by this Contract do not provide Services at any facilities and are promptly removed from the work site. Failure to comply with these provisions constitutes a material breach of the Contract entitling the Municipality to immediately terminate the Contract.

22. Entire Agreement

These terms and conditions, together with the RFP, the Contractor's proposal and subsequent purchase orders constitutes the entire agreement between the parties and supersedes all prior negotiations and discussions. The parties confirm and acknowledge that there are no collateral agreements, representations or terms affecting or forming part of this Contract other than as set forth herein. Any additions or modifications to the Contract may only be made in writing, executed by both parties.

23. Exchanges

No exchanges will be made without authority from the Municipality.

24. Extension of Services

the Municipality may, at their option, upon not less than thirty-days (30-days calendar) written notice to the Contractor, extend the scope of the Contract to any other agency, board or commission governed by or affiliated with the Municipality on the same terms contained in the Contract.

25. Firm Pricing

Pricing shall be fixed for the duration of the Contract and shall not be subject to adjustment unless expressly provided for in the Contract.

26. Term of Contract

The Contract commences on the date that it is awarded to the Contractor, and continues in force until the Services are acceptably completed (as determined by the Municipality, acting reasonably) or until the earlier termination of the Contract in accordance with these Terms and Conditions



27. Continuous Services

The Contractor shall provide continuous and uninterrupted Services to the highest standard of care, skill and diligence maintained by persons providing similar services. Should any work or materials be required for the proper performance of the Contract which are not expressly or completely described in the Contract and are reasonably associated with or necessary for the proper and timely performance and provision of the Services, then such work or materials shall be deemed to be implied and required by the Contract and the Contractor shall furnish them as if they were specifically described in the Contract as part of the Services.

28. Changes to Scope of Service

The Municipality shall have the right to change the scope of Services provided by the Contractor by Change Order including changes in Service standards, increasing or reducing the frequency, level or quality of Services, adding, reducing or deleting Services at any facility and adding, deleting or changing facilities, sites or locations of Services provided. The Contract Price will be adjusted to reflect any change in the scope of Services. The amount of any reduction or increase in the Contract Price shall be determined by the Municipality and the Contractor by taking into account any reduction or increase in capital or labour costs based on the pricing methodology, rates, and costs for the Services set forth in the Contractor's proposal. If the Municipality and the Contractor are unable to agree on the appropriate reduction or increase in the Contract Price the matter shall be referred for resolution pursuant to binding arbitration in accordance with the *Commercial Arbitration Act*. The Municipality shall not be liable to the Contractor for any loss (including loss of anticipated profit) or damage of any nature arising out of any reduction or deletion in Services. The Contractor shall not be entitled to be paid for any Services not expressly provided for within the scope of the Services or not covered by a duly authorized Change Order.

29. Delays, Substitute Services, and Liquidated Damages

Except when due to an Event of Force Majeure, if the Contractor fails to complete the Services or any part of the Services by any date or deadline specified in the Contract or approved change orders (the "Period of Delay"), the Municipality may elect to:

- (a) Obtain substitute services from a third party, in which case the Contractor must reimburse the Municipality for the difference, if any, between the charges incurred by the Municipality for the substitute services and the charges specified in the Contract that the Municipality would owe to the Contractor if not for the Period of Delay. If the Municipality decides to permanently use the substitute service from a third party the Contract Price will be adjusted accordingly.
- (b) Recover from the Contractor any damages or losses suffered by the Owner as result of a Period of Delay ("Actual Damages").
- (c) Recover from the Contractor \$500 per day for each day that the Period of Delay continues ("Liquidated Damages"). The Contractor agrees that such Liquidated Damages represent a fair, reasonable and appropriate estimate of the Municipality's Actual Damages and that such Liquidated Damages may be assessed and recovered by the Municipality as against the Contractor without the Municipality being required to present any evidence of the amount or character of Actual Damages sustained by reason thereof. Such Liquidated Damages are intended to represent estimated Actual Damages and are not intended as a penalty, and the Contractor shall pay them to the Municipality without limiting the Municipality's right to terminate this Contract for default as provided elsewhere herein.

30. Suspension of Services

In any circumstance where the Municipality is of the view that the Services as performed by

the Contractor are either not in accordance with the requirements of the Contract or pose any unacceptable risks to the safety of the Municipality staff or the public, the Municipality may without incurring any liability to the Contractor immediately suspend, in whole or in part, performance of further services on written notice to the Contractor for such a period of time as the Municipality may determine, in which case the Contractor agrees it will vacate the subject Municipal facilities and sites along with its employees and equipment until such period of time as the Municipality may determine.

31. Force Majeure

“Event of Force Majeure” means any cause beyond the control of the Municipality or the Contractor which prevents the performance by either party of any of its duties, liabilities and obligations under this Contract not caused by its default or act of commission or omission and not avoidable by the exercise of reasonable effort or foresight by that party including explosion, fire, casualty or accidents, epidemics, cyclones, earthquakes, floods, droughts, war, civil commotion, acts of Queen’s enemies, blockade or embargo, and acts of God but excluding lack of or insufficient financial resources to discharge and pay any monetary obligations and excluding increases in commodity prices, inability to obtain labour, equipment or materials, strikes, lockouts or other labour disputes.

If the Municipality or the Contractor fails to perform any term of the Contract and such failure is due to an Event of Force Majeure, that failure will not be deemed to be a default under the Contract. The party affected by an Event of Force Majeure will immediately notify the other party and will take all reasonable steps to minimize the extent and duration of the Event of Force Majeure and the period of all delays resulting from the Event of Force Majeure will be excluded in computing the time within which anything is required or permitted by such party to be done under this Contract, it being understood and agreed that the time within which anything is to be done under this Contract will be extended by the total period of all such delays. During the Event of Force Majeure requiring suspension or curtailment of a party’s obligation under this Contract, that party will suspend or curtail its operations in a safe and orderly manner.

32. Limit of Force Majeure

If an Event of Force Majeure prevents the Contractor from providing Services at any facility for a period of one or more days, the Municipality may thereafter, at its option, and without incurring any liability to the Contractor, on notice to the Contractor, either suspend in whole or in part the performance of further Services on a site by site basis or for all sites or terminate this Contract with respect to the affected Services, or if all Services are prevented, the entire Contract. In the event of such suspension, the Contractor agrees it will vacate the affected site(s) along with all of its employees and equipment until such period of time as the Municipality may determine and the Municipality shall have the right to obtain substitute Services from a third party or through its own forces at its sole discretion for the duration of such period of suspension. In the event of such termination, the Municipality shall be entitled to a refund of all prepaid costs related to the Services prevented by the Event of Force Majeure.

33. Termination for Convenience

The Municipality may terminate the Contract, in whole or in part, if determined by the Municipality in its sole discretion that such a termination is in its best interest, without showing cause, upon giving written notice to the Contractor.

34. Termination for Default:

If the Contractor has breached any material term of this Contract and/or has not performed or has unsatisfactorily performed the Contract as determined by the Municipality acting reasonably, the Municipality may terminate the Contract for default. Upon termination for default, payment may be withheld at the discretion of the Municipality. The Contractor will be

paid for work satisfactorily performed prior to termination, less any excess costs incurred by the Municipality in re-procuring and completing the work.

35. Liability Following Termination

In the event of early termination of the Contract by the Municipality in accordance with the terms of the Contract, the Contractor agrees that the Municipality shall not be liable to the Contractor for any loss (including loss of anticipated profit) or damage of any nature including any special, incidental, direct, indirect or consequential damages arising out of such early termination. The Municipality shall not be under any obligation to the Contractor save and except for the payment for such goods as may have been delivered to the Municipality and such Services as may have been performed in accordance with the terms of the Contract up to the date of termination. Notwithstanding the foregoing, the Municipality's maximum liability to the Contractor shall not in any circumstances or for any purpose exceed the Contract Price.

36. Further Assurances

The parties shall, with reasonable diligence, hold all meetings, perform all acts, execute and deliver all documents and instruments, do all such things and provide all such reasonable assurances as may be reasonably necessary or desirable to give effect to the provisions of this Contract.

37. Improvements and Efficiencies

The Contractor shall at its cost continuously develop and implement improvements and efficiencies in the performance of its Services through improved familiarity with the environment, redeployment of resources, workload balancing, lowering unit costs through utilization of shared equipment, simplified and streamlined processes, lower carrying and delivering charges and other strategies. The Contractor will identify all potential performance improvements and efficiencies to the Municipality and shall at the same time provide the Municipality with a calculation of the corresponding savings to the Contractor and the costs of providing such Services. The Municipality will assess whether the proposed performance improvements and efficiencies may be carried out without compromising the service standards and if the Municipality approves same, the Contractor will implement such improvements and efficiencies for the benefit of the Municipality.

38. Independent Contractor

The parties are independent contractors. The Contract does not create or establish any relationship as partners, joint venturers, employer and employee, master and servant or principal and agent.

39. Independent Legal Counsel

The Contractor confirms it has obtained independent legal advice in entering into this Contract.

40. Insurance

- a. If requested at any time by the Municipality, the Contractor will be required to provide proof of General Liability Insurance in a form acceptable to the Municipality, with the Halifax Regional Municipality as a named party, subject to limits no less than \$2,000,000.
- b. If requested at any time by the Municipality, the Contractor shall provide proof of Professional Errors and Omissions Insurance for all design professionals (such as architects, landscape architects or engineers) who provide the Contractor with signed stamped drawing or calculations. Such insurance shall have limits not less than \$2,000,000 for each claim with respect to negligent acts, errors and omissions, and any deductible may not exceed \$50,000 for each claim. The Contractor shall obtain such insurance when the Contractor subcontracts for any work from such a design

professional, and prior to the submittal of construction documents. Any design professional required to obtain professional liability insurance must maintain proof of insurance for the term of this Contract.

- c. If requested at any time by the Municipality, the Contractor shall provide automobile liability insurance in respect to owned and non-owned licensed vehicles subject to limits of not less than Two Million Dollars (\$2,000,000) inclusive.
- d. If the Contractor is legally obliged to be covered by Workers' Compensation and Health and Safety regulations, the Contractor shall provide evidence of coverage and evidence that the premiums have been paid and are up-to-date. Contractor shall also be responsible for obtaining and providing evidence that any subcontractor is also covered as required by law.

#### 41. Intellectual Property Infringement and Royalties

- a. The Contractor represents and warrants that, to the best of its knowledge, neither it nor the Municipality will infringe any third party's intellectual property rights (including patent, copyright or industrial design) as a result of the performance of the Services or through the use of any work delivered by the Contractor in connection with the Services (the "Work"), and the Contractor shall, at its own expense, defend any suit that may arise in respect thereto and hold harmless and indemnify the Municipality against all claims, demands, costs, charges and expenses arising from or incurred by any such infringement.
- b. If anyone makes a claim against the Municipality or the Contractor concerning intellectual property infringement or royalties related to the Work, that Party agrees to notify the other Party in writing immediately. If anyone brings a claim against the Municipality, the Contractor agrees to participate fully in the defence and any settlement negotiations and to pay all costs, damages and legal costs incurred or payable as a result of the claim, including the amount of any settlement. Both Parties agree not to settle any claim unless the other Party first approves the settlement in writing.
- c. The Contractor has no obligation regarding claims that were only made because:
  - i. the Municipality modified the Work or part of the Work without the Contractor's consent or used the Work or part of the Work without following a requirement of the Contract; or
  - ii. the Municipality used the Work or part of the Work with a product that the Contractor did not supply under the Contract (unless that use is described in the Contract or the manufacturer's specifications); or
  - iii. the Contractor used equipment, drawings, specifications or other information supplied to the Contractor by the Municipality (or by someone authorized by the Municipality); or
  - iv. The Contractor used a specific item of equipment or software that it obtained because of specific instructions from the Municipality; however, this exception only applies if the Contractor has included the following language in its own contract with the supplier of that equipment or software: "[Supplier name] acknowledges that the purchased items will be used by the Municipality. If a third party claims that equipment or software supplied under this contract infringes any intellectual property right, [Supplier name], if requested to do so by either [Contractor name] or the Municipality, will defend both [Contractor name] and the Municipality against that claim at its own expense and will pay all costs, damages and legal fees payable as a result of that infringement." Obtaining this protection from the supplier is the Contractor's responsibility and, if the Contractor does not do so, the Contractor will be responsible to the Municipality for the claim.
- d. If anyone claims that, as a result of the Work, the Contractor or the Municipality is infringing its intellectual property rights, the Contractor must immediately do one of the following:
  - i. take whatever steps are necessary to allow the Municipality to continue to use the allegedly infringing part of the Work; or

- ii. modify or replace the Work to avoid intellectual property infringement, while ensuring that the Work continues to meet all the requirements of the Contract; or
- iii. take back the Work and refund any part of the Contract Price that the Municipality has already paid for the Work.

#### 42. Invoices

- a. Payments for this Contract will be administered via the Municipality's electronic payment process. Upon award, the Contractor must send payables information to [hmaplink@Halifax.ca](mailto:hmaplink@Halifax.ca)
- b. Invoices shall match the Purchase Order sequence of items listed. Contractors are to send invoices in duplicate, at the following address:
  - Halifax Regional Municipality
  - P.O. Box 1749, Halifax, Nova Scotia
  - B3J 3A5
  - Attn: Accounts Payable
- c. The invoice must show the authorized purchase order number, itemized list of services being invoiced for and a Contractor contact name and phone number for invoice problem resolution should the need arise. Agreed charges for freight, postage, insurance, crating or packaging, etc. must be shown as separate line item on the invoice(s). HST must also be shown as separate line items on the invoice. The Municipality will not be considered in default of payment terms if the payment process is delayed due to incorrect pricing. The Municipality is interested in taking advantage of any discounts allowed for prompt payment of invoices.

#### 43. Liability and Indemnity

- a. The Contractor will hold harmless, indemnify and defend the Municipality, its officers, officials, employees, agents and volunteers from and against any claim or loss howsoever caused, including, actions, suits, liability, loss, expenses, damages and judgments of any nature, including reasonable costs and attorneys' fees in defense thereof, for injury, sickness, disability or death to persons or damage to property or business, caused by or arising out of the Contractor's negligent acts or those of their subcontractor (s), licensee (s), anyone directly or indirectly employed by any one of them or anyone for whose acts any of them is liable and for any of their negligent errors or omissions in the performance of the Contract.
- b. The Contractor's obligation under this section will not extend to injury, sickness, disability, death or damage caused by or arising out of the sole negligence of the Municipality, its officers, officials, employees, agents or volunteers.
- c. The Contractor's obligations include, but are not limited to, investigating, adjusting and defending all claims alleging loss from negligent action, error or omission, or breach of any common law, statutory or other delegated duty by the Contractor, their employees, agents or subcontractors.
- d. Any property or work to be provided by the Contractor under this Contract will remain at their risk until they are provided with written acceptance by the Municipality. The Contractor will replace at their expense, all property or work damaged or destroyed by any cause whatsoever.
- e. The Contractor's obligations under this section will survive the expiry or early termination of this Contract.

#### 44. Monitoring Service Standards

The Contractor's adherence to the required service standards may be monitored by the Municipality through a number of means including without limitation, observation, monitoring of progress towards targets, periodic audits including joint audits and audits by an independent third party acceptable to the Municipality and the Contractor. Deficiencies in service standards, depending upon their severity and frequency, may result in the application

of predefined and pre-agreed financial penalties if same are agreed upon by the Municipality and the Contractor prior to commencement of the term. The Contractor acknowledges that the Municipality requires that Services be provided at continuous levels in accordance with the service standards notwithstanding any work stoppage by the Contractor's employees or any labour dispute and that the rights of suspension and termination under this Contract are reflective of this requirement.

45. Notices

All notices, consents or other communications other than day-to-day communications, provided for under this Contract shall be in writing and shall be deemed to have been duly given and to be effective, (i) if mailed, three (3) business days after being deposited in the post as registered, postage prepaid, return receipt requested, and (ii) if delivered or sent by facsimile communication, on the date of delivery, to the parties at the respective addresses specified in the RFP and proposal or at such other address as the party to whom the notice is sent shall have designated in accordance with the provisions of this Section.

46. Parking

The Contractor and its employees will be required to make their own parking arrangements. Where parking is available at any of the Municipality's facilities the Contractor and its employees will be required to pay for parking if necessary at the normal rates established for members of the public parking at such facilities.

47. Permits and Licensing

The Contractor covenants and agrees to be responsible, at its sole cost and expense, for obtaining and maintaining throughout the term of the Contract all required permits, approvals and licenses which are or may be required by law in connection with the provision of the goods or services and shall comply and shall require all of its employees, agents and sub-Contractors to comply with all applicable laws, regulations and by-laws of any governmental authority having jurisdiction.

48. Freedom of Information and Protection of Privacy

The Municipality is subject to the Freedom of Information and Protection of Privacy provisions contained within the *Municipal Government Act* at Part XX. Any document submitted to the Municipality is subject to this legislation and the Contractor should be aware that any member of the public is entitled to request a copy of the document. In response to such a request, the Municipality may be required to disclose some or all of the information in accordance with the criteria set out in the legislation, including sections 462, 480 and 481(1).

49. Protection of Personal Information

- a. The Municipality is subject to the *Personal Information International Disclosure Protection Act*. The Act creates obligations for the Municipality and its service providers when personal information is collected, used or disclosed. Requirements include limiting storage, access and disclosure of personal information to Canada, except as necessary or otherwise required by law.
- b. In compliance with section 5(1) of the *Personal Information International Disclosure Protection Act* (PIIDPA), the Municipality is required to ensure that any personal information in its custody or control, which includes personal information that may be held by any of its service providers (including the Contractor), is stored and accessed only within Canada, unless the storage of or access to the information outside of Canada is to meet the necessary requirements of its operations. Unless otherwise agreed to in writing by the Municipality, the Contractor shall ensure all personal information obtained by it in the course of performing the Contract is stored and accessible only within Canada.
- c. The Contractor must not permit the collection, use and/or disclosure of any personal information (as defined by section 461(f) of the *Municipal Government Act*) without the

consent of the individual.

- d. In the event that the Contractor is acquired by a non-Canadian company, the Contractor agrees, at no cost to the Municipality and upon reasonable notification from the Municipality, to provide to the Municipality all of the Municipality's data in electronic format, and to completely purge all of the Municipality's data, including backups, from the Contractor's possession prior to the completion of the acquisition. A certificate from an independent third party verifying that all data, including backups, has been purged shall be provided to the Municipality prior to the acquisition of the Contractor by a non-Canadian company. Acceptable third parties include professional accountants, certified auditors and IT professionals.

50. Quality Assurance Plan

Where required by the Municipality the Contractor shall develop, provide to the Municipality and maintain in effect throughout the term a quality assurance plan acceptable to the Municipality which will provide a coordinated systematic approach to quality that will measure and assess the structure, process and performance of Services and will ensure deficiencies are corrected before the level of service becomes unacceptable to the Municipality. The Contractor will implement any changes in its quality assurance plan that may be required for the Contractor to meet or exceed the service standards and will make any adjustments to its quality assurance plan as may reasonably be required by the Municipality from time to time to ensure the Contractor's performance requirements are met.

51. Quality Assurance Reports

Where required by the Municipality the Contractor shall provide the Municipality on a monthly basis or at other such times as the Municipality may require, a comprehensive report detailing adherence to the services standards, quality monitoring scores, quality assurance plan activity and other matters relating to the Contractor's performance as may be reasonably be requested by the Municipality from time to time.

52. Security Requirements

Only employees of the Contractor specifically assigned to perform the Services will be allowed to enter the Municipality's facilities or sites. Where required by the Municipality, the Contractor shall ensure that all sub-Contractors and service representatives that enter the Municipality's facilities or sites are reported to the Municipality's representative so that the Municipality's representative will be aware of who is at the facility or site and the duration of that person's visit. The Contractor shall comply with all relevant the Municipality's policies relating to building security and card access systems and shall be held responsible for any damages or injuries resulting from the misuse or loss of keys and/or access cards.

53. Set-off

the Municipality shall be entitled at all times to set-off any amount due or owing to the Contractor by the Municipality under the Contract against any amount or amounts for which the Contractor is or may be liable by virtue of the Contractor's failure to comply with any statutory or regulatory requirement, any duty, or any obligation arising out of or relating to the performance of the Contract. the Municipality shall also have the right to withhold any payment which relates to that portion of the Services which have not been provided by the Contractor in accordance with the terms of the Contract, or which relates to a dispute between the parties (until such time as the dispute is resolved).

54. Subcontracting & Assignment

The Contractor will not assign this Contract or any part thereof or enter into any subcontract for any or all of the Services without the prior written consent of the Municipality, which consent may be arbitrarily and unreasonably withheld. The Contractor is required to provide to the Municipality the names of any proposed subcontractors and activities to be performed by them. Approval by the Municipality of a subcontractor shall not relieve the Contractor of its

obligations under the Contract except to the extent those obligations are in fact properly performed. In the event the Municipality approves a subcontractor the Contractor shall secure compliance and enforce at its own expense for the benefit of the Municipality, each of the Contractor's contracts with subcontractors. Nothing contained in this Contract shall create any contractual relationship between any subcontractor and the Municipality. The Contractor agrees to bind every subcontractor to the terms and conditions of the Contract which are appropriate and applicable to the work to be performed by the subcontractor and the Contractor shall be fully responsible to the Municipality for the acts and omissions and errors of all subcontractors and of persons directly or indirectly employed or contracted by them and for coordinating activities of the approved subcontractors. The Municipality, acting reasonably shall be entitled to impose any term or condition in connection with any approval of any proposed assignment or subcontract in order to ensure the continued and effective provision of goods or services to the Municipality. Subcontracting or assigning the Contract to any firm or individual whose current or past or other interests may, in the Municipality's opinion, give rise to a conflict of interest in connection with the Contract will not be permitted.

55. Supplies, Materials and Equipment

The Contractor shall at its expense provide all materials, supplies and equipment for the performance of the Services. No substitute or alternate products or equipment will be used unless agreed to by the Municipality. All equipment, supplies and materials used by the Contractor shall be in good working order and free from defects. All machinery and electrical devices used shall conform to CSA standards and bear CSA approval labels. All costs of approval to obtain the required certification will be the sole responsibility of the Contractor.

56. Survival

All obligations of the Contractor which by their terms are intended or are appropriate to survive the termination of the Contract shall survive the cancellation, termination or expiration of the Contract.

57. Taxes

The Municipality will pay any HST payable in respect of the various goods and services provided by the Contractor in accordance with the requirements under the *Excise Tax Act* (Canada).

58. Ownership of Deliverables

All deliverables, reports and supporting documents furnished by the Contractor in its performance of the Services will become the exclusive property of the Municipality.

59. Value Added Services

The Contractor shall provide the Municipality with any value added services described in its proposal. Such value added services shall be provided to the Municipality at no charge.

60. Waiver

A waiver by the Municipality of a breach or default of the Contractor under the Contract shall not be deemed a waiver of any subsequent or other breach or default by the Contractor. The failure of the Municipality to enforce compliance with any term or condition of the Contract shall not constitute a waiver of such term or condition.

61. Warranties

The Contractor warrants that all Services will be performed with reasonable care, diligence and skill and at least in accordance with the standards of care generally practiced by competing Contractors of similar services. The Contractor further warrants the goods or equipment supplied and work and/or services performed under this Contract will conform to the specifications herein, are free from defects and/or imperfections, are merchantable and fit for the purposes for which they are ordinarily employed, and are available for delivery to the



Municipality at the time of submission of the Contractor's proposal or at the time specified by the Municipality in the RFP. The Contractor shall be liable for all damages incurred by the Municipality and its officers, officials, employees, agents and volunteers as a result of any defect or breach of warranty contained in this Contract. The Contractor's warranty shall extend for no less than a period of twelve (12) months after the goods, equipment, or Services are delivered and accepted by the Municipality and applied to their intended use.

62. Post completion Review

The Municipality wants to ensure the Contractor provides high quality performance during the Contract period. Dependant on the scope of work, measurement factors may include but are not limited to; quoted on-time delivery of Services; response times; financial impact to support the required delivery dates; the acumen of Project Manager; the level of support; Contract management responsibilities; problem solving capabilities; respect for the Municipality's policies; ethical conduct and other attributes of leading organizations.

The Municipality will conduct a post-completion evaluation/review of all performance related issues. The results of this review will be communicated to the contractor and will be retained by the Municipality for future reference in accordance with the Vendor Performance Evaluation Scorecard Process.

**Appendix C**  
**Vendor Performance Evaluation Scorecard Process**

The purpose of the Vendor Performance Evaluation Scorecard is to define the process for monitoring vendors who impact the quality of products delivered to our customers. Going forward the Municipality will be responsible for collecting, managing and monitoring vendor performance evaluations. Following completion of a project, the Municipality will be responsible for evaluating the vendor using the attached Vendor Scorecard. Each Vendors scorecard will be kept on file and used to determine if the vendors are meeting expectations in the following areas: Safety, Project Management, Scheduling and Overall Quality of Work. The Municipality will treat all vendor information and documents in a confidential manner. The Municipality reserves the right to use the results of Vendor Scorecards in its evaluation of future solicitations.

If a vendor scores three (3) or less in any particular sub-category/category or produces an overall score between 0-60%, the vendor or the Municipality may request a meeting to discuss these particular areas of concern.

**Vendor Scorecard Rating**

Rating	Criteria
1	<b>Consistently falls far below expectations</b> - Performance jeopardized the achievement of Contract Requirements, despite additional oversight.
2	<b>Frequently misses expectations</b> - There are a number of performance issues that required the Municipality to provide an additional oversight to ensure that contract requirements were met.
3	<b>Mostly meets expectations</b> - There are very minor performance issues but vendor or service provider has otherwise met the contract requirements.
4	<b>Consistently meets expectations</b> - There are no performance issues and the vendor or service provider has met the contract requirements.
5	<b>Exceeds Expectations</b> - Vendor or service provider has demonstrated a performance level in measurable excess of Contract requirements.
N/A	<b>Not Applicable</b>

**Vendor Overall Score**

Score	Criteria
(0-20%)	<b>Consistently falls far below expectations</b> - Performance jeopardized the achievement of Contract Requirements, despite additional oversight.
(21-40%)	<b>Frequently misses expectations</b> - There are a number of performance issues that required the Municipality to provide an additional oversight to ensure that contract requirements were met.
(41-60%)	<b>Mostly meets expectations</b> - There are very minor performance issues but vendor or service provider has otherwise met the contract requirements.
(61-80%)	<b>Consistently meets expectations</b> - There are no performance issues and the vendor or service provider has met the contract requirements.
(81-100%)	<b>Exceeds Expectations</b> - Vendor or service provider has demonstrated a performance level in measurable excess of Contract requirements.

Vendor Performance Evaluation	Below Expectations	Frequently Misses Expectations	Mostly Meets Expectations	Consistently Meets Expectations	Exceeds Expectations	Not Applicable	OVERALL SCORE
	1	2	3	4	5		
<b>Quality and Safety</b>							<b>/15</b>
Proactive in its review of statutes, regulations, codes and by-laws affecting the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Implementation of appropriate safety practices throughout the duration of the contract/project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Performance with respect to quality, health, safety and environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Project/Account Management</b>							<b>/30</b>
Prompt and effective at addressing client requests and incorporating requested changes into the scope of work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Project Account Lead effectively managed and coordinated the project delivery.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Project Account Lead facilitated regular site meetings as per the requirements outlined at time of award.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Project Account Lead advised Client of required adjustments to budget and schedule as a result of changes in client requirements and market conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vendor rendered findings with a reasonable time on claims, disputes and other matters relating to execution or performance for the work outlined in the contract documents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vendor responded in a timely manner to all questions and issues pertaining to the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Schedule</b>							<b>/15</b>
Vendor was able to maintain stated project deadlines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vendor was diligent at communicating progress on the project and providing updates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Vendor was proactive at addressing and resolving project issues per the agreed schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>General</b>							<b>/15</b>
Vendor issued complete invoices in a clear, accurate and organized format per agreed timelines to facilitate timely payment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Quality of overall work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Overall experience with vendors service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Total Overall Score /75</b>							

APPENDIX D – FORM OF PROPOSAL  
(Complete and Return with your Proposal)

**FORM OF PROPOSAL COVER PAGE**

Firm's Name \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Email: \_\_\_\_\_

HST Number: \_\_\_\_\_

Nova Scotia Joint Stocks Registry Number: \_\_\_\_\_

RFP Number: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

Proposal Due Date: \_\_\_\_\_

**FORM OF PROPOSAL SIGNATURE PAGE**

The undersigned duly authorized representative of the Proponent certifies personally and on the Proponent's behalf that all of the representations set forth above and in the Proponent's proposal are complete and accurate.

PROPONENT:

Signature \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

The signatory must have the legal capacity to bind the proponent. If the Proponent is a sole proprietorship, a partnership or a corporate body, the Proponent must provide, if requested by Halifax, a statement and any requested supporting documentation indicating the laws under which it is registered or incorporated together with the registered or corporate name and place of business. This also applies to bidders submitting a bid as a joint venture. Failure to properly execute submitted documents or to properly complete the Form of Proposal will result in rejection of your proposal.

**APPENDIX E**

Cost Submissions

**Weed Harvesting Services**

**Please submit this form with your Cost Proposal in a separate sealed envelope as outlined in Section 3.3 of the RFP document.**

Year 1 - 2015-2016 \$ \_\_\_\_\_

Year 2 - 2016-2017 \$ \_\_\_\_\_

Year 3 - 2017-2018 \$ \_\_\_\_\_

Year 4 - 2018-2019 \$ \_\_\_\_\_

**Total\$ (Year 1 through 4 above, excluding HST)** \$ \_\_\_\_\_

The RFP will be evaluated using the Total Price above, but HRM reserves the right to exclude any or all of the preceding years listed above. Years 2016 and forward will proceed upon confirmation of sufficient funds in the annual operating budget

Signature \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_