



## Lake Major Watershed Advisory Board Meeting Notes March 23, 2017 – 2:00 p.m. Lake Major Water Treatment Plant

### ATTENDEES:

Jillanna Brown (JiB), P. Eng. ....Nova Scotia Environment  
 Spencer Colley (SC), East Preston Ratepayers Association (Chair).....Community Representative  
 Julie Ernst (JE), Lake Major.....Community Representative  
 Andrew Faulkner (AF), Development Officer.....Halifax Regional Municipality  
 Barry Geddes (BG), Watershed Manager (Secretary).....Halifax Water  
 Anna McCarron (AM), Source Water Planner.....Halifax Water  
 Matt Nelson (MN), Forest Technician .....Nova Scotia Natural Resources  
 Derrick Stoddard, Area Manager Halifax West.....Nova Scotia Natural Resources

### REGRETS:

Pearl Cain (PC), North Preston Residents Association.....Community Representative  
 Reid Campbell (RC), Director of Water Services (Vice Chair).....Halifax Water  
 Dawn MacNeill (DM), Watershed Planner.....Nova Scotia Environment  
 Bernie Matlock (BM), P. Eng.....Nova Scotia Environment  
 Heather Olivella (HO), Protected Areas Coordinator.....Nova Scotia Environment  
 Brenton Sparks (BS), Lake Loon/Cherry Brook Development Assoc. (Chair).....Community Representative  
 Colin Waddell (CW), Lake Major Treatment Plant Supervisor.....Halifax Water

### GUEST:

Jonathan MacDonald (JM), Project Engineer.....Halifax Water

#### **1. Attendance and Introductions**

- In absence of CW, Lake Major Water Treatment Plant Supervisor BG reviewed safety plan with Board members.
- In absence of BS, Lake Major Watershed Advisory Board Chair, BG, Vice Chair acted as Chair for the meeting.
- Meeting called to order by BG.
- No quorum noted, notes taken.

#### **2. Lake Major Dam Replacement Project Update – JM**

- JM shared most recent drawings to date.
- Design details recently finished.
- Halifax Water and Halifax Water consultant (MECO) to finalize any design changes.
- Environmental Assessment (EA) completed by consultant (Strum) to assess dam impacts on other landowners, wildlife, wetlands and fish passage.
- Halifax Water registered with NSE on September 16, 2016 and received approval

### Action

## Action

February 9, 2017 with a list of conditions which Halifax Water is currently working on.

- Hoping to meet NSE conditions by mid-April.
- Recently received Environmental Protection Plan from Strum - under review.
- Archeological assessment completed in October 2016, nothing of significance found.
- Application to DFO to install fish ladder recently submitted.
- Anticipating construction to start May 2017 and be complete by December 2017.

### Background on fish ladder:

- First of its kind in Nova Scotia.
- Saw tooth dam pattern.
- Dam pattern provides ability to hold more water than present dam, has more surface spillage area and has sluice gates, which the present dam does not have.
- Will allow fish passage.
- Low maintenance.
- The sluice gate's main purpose is to supply maintenance flow to the downstream river during low water level periods.
- Drawings were shared with the Board:
  - JM explained the specifications including water flow, elevations, fish ladder, and maintenance equipment which will stay on site (manual crane).
- Dam will be built in two-phase construction – one phase per coffer dam side.
- A series of two (2) settling ponds will be built next to the construction area to pump “construction water” into, to allow sediment to settle out before flowing back into lake.

### **Action Item: JM to circulate maps approved for tender to Lake Major Watershed Advisory Board Members.**

JM

*Q: What is the height of this dam compared to the old dam? (BG)*

*A: Crest is about half a meter higher than the old dam. (JM)*

*Q: What will attract the fish to the fish ladder? (AM)*

*A: During construction, a deeper channel will be constructed to the fish ladder from the main channel which will accommodate more flow and naturally attract fish away from the dam and towards the fish ladder. (JM)*

*Q: The old dam is not scheduled to be removed until 2018. How will the federal funding be impacted? (JiB)*

*A: Federal funding must be spent by March of 2018. The plan is to spend the bulk of the money before March 2018 and the old dam removal will be a cost on its own unless an extension is granted. (JM)*

- JiB informed the Board that the Environmental Assessment trigger was the alteration of wetlands within the PWA as a result of the dam project (The nova

## Action

Scotia Wetland Conservation Policy identifies wetlands within a PWA as *Wetlands of Special Significance* where no alteration can occur unless authorized by NSE, after consultation with the public (i.e., the Board), or other approvals).

- Wetland alteration was not discussed in this presentation; therefore, further discussion on this with the Board is required to satisfy the Wetland Policy.

### Wetland alteration discussion:

- JM informed the Board that Halifax Water recently submitted an application for a wetland alteration to NSE and it is currently under review.

*Q (JiB): Does Halifax Water have to present the wetland alteration application to the Board first?*

**A (BG):** In past meetings with the Board, Halifax Water has discussed the Environmental Assessment application, which touched on impacts to the watershed; however, review of past minutes is required to determine what exactly was discussed. If wetlands are impacted, then consultation with the public and the Board will be required. Nothing can be done without the signature of the Minister of Environment.

**A (JM):** A consultant was hired to assess the potential wetlands that could be impacted. At this point, a 2.3 ha area was identified as a wetland, which potentially could be impacted by the new dam design. (BG displayed area on a google earth image where the potential impacted wetland exists – near Cain Cove). Halifax Water owns the lands surrounding the wetlands, so there is no impact to other landowners. The new dam elevation is proposed to be 19.5 m which would impact the wetland area below that.

*Q (JE): How does construction of the dam impact the water level that far up the lake?*

**A (BG):** The dam holds water back, which causes water levels behind the dam to rise and cause flooding of that wetland.

**A (JM):** The areas within the wetland are already impacted by the existing dam, but the slightly higher elevation of the new dam could impact slightly more wetland area.

**A (BG):** Halifax Water would prefer that water levels not rise as it would impact water quality, which causes issues with the treatment process. We want to store as much water as possible behind the dam without raising water levels above their current level. The wetland will still act as a wetland, but there may be times throughout the year that the wetland will experience some flooding.

### **3. Action Item Review and Approval of October 6, 2016, Meeting Minutes**

No quorum noted, therefore approval of Minutes is deferred until the next meeting.

#### **Action i: Follow Up**

Previous Dam presentation: Circulate presentation to membership for information purposes and distribution.

- AM confirmed that the presentation was sent to the Board members.

#### **Action ii: Follow up**

Wetland area near quarry: permit questions

**Complete**

**Complete**

	<u>Action</u>
<ul style="list-style-type: none"> <li>NSE completed a follow up site visit and found the quarry in compliance.</li> </ul>	Complete
<p><b>Action iii: Follow up.</b></p> <p><u>Lake Major Source Water Protection Plan review:</u></p> <ul style="list-style-type: none"> <li>BG finalizing Plan.</li> </ul>	Complete
<p><b>Action iv: Follow up.</b></p> <p><u>Water Supply Plant Tour:</u> preceded this meeting (March 23).</p>	Complete
<p><b>Action v: Follow up.</b></p> <p><u>HRM request for sedimentation information:</u> from Halifax Water.</p> <ul style="list-style-type: none"> <li>AM confirmed information was sent to Cameron Deacoff</li> </ul>	Complete
<p><b>Action vi: Follow up,</b></p> <p><u>Swimming in Long Lake:</u> Request to Halifax Water to begin talks about allowing.</p> <ul style="list-style-type: none"> <li>Halifax Water sent letter to North Preston Ratepayers Association (NPRA) to set up meeting, at NPRA's convenience, to begin discussions.</li> </ul>	Ongoing
<p><b>Action vii: Follow up.</b></p> <p><u>76 Johnson Road:</u> HRM and Halifax Water to conduct a follow up site visit in late 2016-early 2017.</p> <ul style="list-style-type: none"> <li>BG informed the Board that a site visit was conducted by Halifax Water in January 2017; the area shows signs of clean up, but the owner still has lots of work to do to meet the HRM clean-up order.</li> <li>Another site visit is scheduled when the snow melts.</li> </ul>	Ongoing
<p><b>Action viii: Follow up.</b></p> <p><u>Board Representation Confirmation:</u> Community Board members representing a group or organization are to contact their respective groups for reappointment.</p> <ul style="list-style-type: none"> <li>BG heard from all the respective representatives and they are continuing on for their respective community organizations.</li> </ul>	Complete
<p><b>Action ix: Follow up.</b></p> <p><u>Community of Lake Major:</u> Halifax Water to send out letters to area that does not have a representative group to seek candidate nominations.</p> <ul style="list-style-type: none"> <li>A letter was sent to the Lake Major area community. JE reoffered her name. No others came forward.</li> </ul>	Complete
<p><b>4. Old Business:</b></p>	
<p>a. <u>Protected Areas (PA) Update</u></p> <ul style="list-style-type: none"> <li>BG reported that Halifax Water signed the license which has been sent to NSE for their approval.</li> <li>Lake Major land swap is still being reviewed by NSE/ DNR.</li> </ul>	
<p>b. <u>76 Johnson Road Update</u></p> <ul style="list-style-type: none"> <li>Please see Section 3. <b>Action item vii.</b></li> </ul>	

c. Lake Major Regulation changes/considerations

i. **Dam Upgrade - BG**

- Halifax Water made an application to the province to amend the *Lake Major Watershed Protected Water Area (PWA)* regulations to allow for an outboard motor larger than 9.9 horse power (hp) for water utility-related business; i.e., the Lake Major dam replacement project.
  - Existing regulations were legislated prior to the Lake Major water supply plant installation.
  - Amending hp size will provide a safer work environment for Halifax Water.
  - The public will continue to be permitted to use up to a 9.9 hp motor.
  - Request to amend Regulations was submitted by Halifax Water, fall 2016.
  - NSE approved changes, but specific to the Lake Major Dam construction and only until the end of December 2016; however, this timeframe is not long enough to complete the necessary dam work, or practical for Halifax Water to perform other duties.
  - Halifax Water seeking permanent changes to the Regulations to allow outboard motors larger than 9.9 hp to be used for Halifax Water-related business only.

ii. **On-site septic systems - BG**

- Halifax Water is responsible for monitoring activities inside the Lake Major Watershed *PWA*. The most efficient way to monitor activities is to ensure Halifax Water is contacted when risky activities take place, which is the normal practice. However, exceptions occur, most notably when private on-site septic systems are installed in the *PWA*. Halifax Water is seeking improvement in notification from NSE since they are the agency responsible for approving such installations.
- Halifax Water sent a letter to the Wastewater District Manager seeking a meeting with her to discuss improvements in the on-site septic applications within the *PWA*'s. To date, there has been no response from NSE.
- JiB provided clarification that under the new on-site septic regulations, there is no longer an approval required to install an on-site septic field unless you are inside a *PWA*. The process is meant to streamline the process. The installers are required to provide the GPS coordinates and if the coordinates are inside a *PWA* then an approval is required to install.
- BG replied that the issue is that the installations are only audited on a small percent basis. Halifax Water wants to see all on-site septic installations inside *PWAs* audited; there are only a few in its *PWAs* every couple of years.
- JiB urged Board members to contact NSE if anyone sees "straight piping" (raw sewage piped directly into watershed) so a directive can be issued immediately to have a properly functioning septic system installed.

iii. **Swimming in Long Lake**

Action

- See section 3. **Action item vi.**
- d. Source Water Protection Review Update – BG
  - See section 3. **Action item iii.**

**5. New Business**

- a. Source Water Protection Report
  - Halifax Water is required to provide an annual report to NSE. The Source Water Protection report for Lake Major, included in the meeting package provided to the Board members, is part of the larger report.
  - First 11 pages is general information,
  - Pages 12-15 are specific to Lake Major. They are based on accomplishments and outstanding balances for the year, as well as water quality reports.

**Action Item: BG requested the Members please review and provide comment to him by next Friday (March 31<sup>st</sup>).**

**All Board  
Members**

**6. Landowner Questions:**

- No landowner questions

**7. Education Update**

- a. Arnold D. Johnson Sr. Water Resources Award Update
  - Nothing to report.
- b. Lake Major Newsletter
  - Next one due this summer (2017).

**8. Municipal Development Update:**

- HRM Planning has nothing to report.

Note: AF may be absent from the next meeting. HRM will assign another designate.

**9. Election of Officers – September 2016:**

- None at this time

**10. Next Meeting Date:**

- October 5, 2017.

**11. Meeting adjourned:**

- 3:30 p.m.

*Brenton Sparks – Chair (Absent)*

*Barry Geddes – Vice Chair (Acting Chair)*

*Anna McCarron – Secretary*