

**MIDDLE MUSQUODOBOIT WATERSHED
ADVISORY COMMITTEE**

Meeting Notes

March 28, 2018 – 6:30 pm

Nova Scotia Natural Resource Education Centre, Middle Musquodoboit

Attendance:

Andrew Faulkner (AF), Principle Planner & Dev. Officer.....Halifax Regional Municipality
Barry Geddes (BG), Watershed Manager.....Halifax Water
Dawn MacNeill (DM), Watershed Planner.....Nova Scotia Environment
Matthew McFetridge (MM), District Forest Technician.....NS Dept. Natural Resources
Hugh Parker (HP), Representative.....Musquodoboit River Watershed Society (MMWS)
Mark Sutherland, Representative.....Agriculture Sector

Regrets:

Valerie Farnell (VF), Representative.....Community Customer
Anna McCarron (AM), Source Water Planner.....Halifax Water
Dave Taylor (DT), Representative.....Forestry/Woodlot Owner

Absent:

Kerry-Anne Taylor (KT), Representative.....Community Landowner

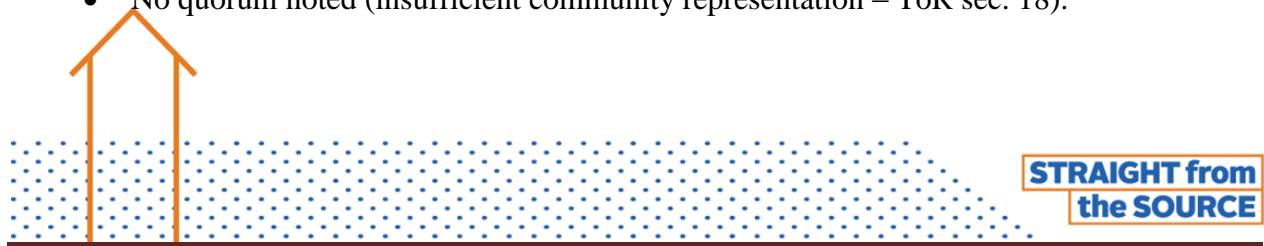
1. ***Attendance / Introductions:***

BG distributed:

- March 28, 2018 Meeting Agenda;
- November 22, 2017 Meeting Notes;
- Source Water Protection 2017 Annual Report; and
- Two (2) agriculture documents:
 1. A Guide to Agriculture Best Management Practices within Municipal Drinking Water Supply Areas in Nova Scotia (October 2017); and
 2. Environmental Regulations Handbook for Nova Scotia Agriculture (2nd Ed. 2004).

BG called meeting to order:

- Introductions;
- Regrets noted (see above); and
- No quorum noted (insufficient community representation – ToR sec. 18).



**STRAIGHT from
the SOURCE**

<p>2. Old Business: Review of November 22, 2017 meeting Notes and Approval</p> <ul style="list-style-type: none"> November 22, 2017 Notes' <u>Action Item</u> updates (<u>underlined</u>) are incorporated with corresponding Agenda Items. <p><u>November 22, 2017 Notes not approved due to lack of quorum.</u></p>	<p><u>Action</u></p>
<p>a. Emergency Preparedness: <u>Annual Firefighters Meeting (MM/DM/BG)</u></p> <ul style="list-style-type: none"> Firefighter meeting will <i>not</i> occur in 2018: <ul style="list-style-type: none"> Purpose is to discuss how a fire should be fought with respect to the municipal water supplies and ensure Halifax Water is contacted. 	<p>Ongoing</p>
<p>Action: Send BG the contact information for the fire technician.</p>	<p>MM</p>
<p><i>Q: Is the emergency number changed? (DM)</i></p>	
<p>A: Yes. NSE GIS incorporates contact numbers into GIS layer sent to DNR.</p>	
<p>Action: Confirm the emergency number that is provided to NSE and DNR from Halifax Water.</p>	<p>BG/AM</p>
<p>b. Education and Awareness:</p>	
<p><i>i. Signage:</i></p>	
<p><u>Send request to install proposed sign sites on DNR (Crown) land to MM to direct to proper authorities.</u></p>	<p>Complete</p>
<ul style="list-style-type: none"> Sign site locations and landownership were reviewed: <ul style="list-style-type: none"> MM directed the request to erect three (3) signs on DNR (Crown) land, of which one is in the Musquodoboit Valley Provincial Park; <ul style="list-style-type: none"> DNR Parks & Recreation asked (via MM) whether just the sign proposed for the Park could be smaller than 4 ft. x 8 ft.; <ul style="list-style-type: none"> MM will determine how much smaller DNR would prefer; Sign size may need to be approved by Park Division; and 	
<p>Action: MM will provide AM with sign development updates.</p>	
<ul style="list-style-type: none"> Signage on HRM land requires a land-lease agreement. 	<p>AM/MM</p>
<p><i>ii. Brochure Distribution</i></p>	
<ul style="list-style-type: none"> Brochures were given to MS to distribute. Remove from Agenda. 	
<p><i>iii. Newsletter/Outreach Opportunities</i></p>	
<p><u>Ask Councillor Steve Streach whether he has a newsletter into which contact information may be placed.</u></p>	
<ul style="list-style-type: none"> Councillor Streach advised that he did <i>not</i> have a newsletter or website and recommended the same outreach tools HP did at previous meeting. 	<p>Complete</p>
<p><i>iv. Logo Design Contest:</i></p>	

<p><u>Create a MMWAC logo design contest in local school(s) which also will help to raise awareness in the community.</u></p> <ul style="list-style-type: none"> • AM wrote letter to Vice Principal of Musquodoboit Valley Education Centre; • No response from VP yet. 	<p><u>Action</u> Ongoing</p>
<p><u>KT and AM to meet to discuss logo development and watershed awareness opportunities through schools and Young Naturalists Club (YNC).</u></p> <ul style="list-style-type: none"> • As indicated in emails provided for meeting, AM/KT met March 15: <ul style="list-style-type: none"> ○ KT provided contact name and email YNC parent leader as first step in developing a Middle M. education and awareness program. <ul style="list-style-type: none"> ▪ AM discussed opportunities contact via email; advised rather than going through YNC, she has “standing offer” with MM elementary schoolteachers to “design and lead outdoor classroom time in the McCurdy woodlot” behind the school. 	<p>Complete</p>
<p>Action: Meet contact to discuss education program for elementary schools.</p> <ul style="list-style-type: none"> v. <i>Kids in the Forest (KITF) Event:</i> <ul style="list-style-type: none"> • Located at Natural Resources Education Centre (NREC) this year. <ul style="list-style-type: none"> ○ Halifax Water will have a station there. vi. <i>Open Houses</i> <ul style="list-style-type: none"> • Open houses on hold until the logo, education sessions and KITF events have been conducted. <p>c. Terms of Reference (ToR):</p> <ul style="list-style-type: none"> i. <i>Forestry/Woodlot Owner Membership Recruitment:</i> 	<p>AM</p>
<p><u>BG will look/relook into suggested forest/woodlot owner sector contacts.</u></p> <ul style="list-style-type: none"> • Dave Taylor (DT) accepted position; however, could not attend tonight’s meeting due to a previous commitment. 	<p>Complete</p>
<ul style="list-style-type: none"> ii. <i>Community (Customer)/Landowner representative:</i> <p><u>Talk to Halifax Water communications staff about putting out a call for customer membership through bills.</u></p> <ul style="list-style-type: none"> • Search continues; – DT offered to help recruit a customer-landowner. 	<p>Ongoing</p>
<p>d. Livestock Access to Watercourses Impact – Water Quality Baseline</p> <p><u>Assess new baseline water quality (WQ) sample site collection point.</u></p> <p><i>Barry directed everyone’s attention to a watershed area map.</i></p> <ul style="list-style-type: none"> • MMG9 and MMG10 at the Lindsay Brook location have been determined to be the new water quality sample points: <ul style="list-style-type: none"> ○ samples will be collected monthly between April and December; ○ accessing these points will be only via forest access road; and 	<p>Complete</p>

<p>o baselines will be established after two years of testing.</p> <p><u>New meeting time arranged to assess new sample collection site.</u></p> <p><i>Q: Why is livestock access to watercourses not being enforced? (MS)</i></p> <p>A: The new sample sites (MMG9 and MMG10) will provide the baseline data (after two years) to determine whether there is a problem that requires mitigation.</p> <p><i>Q: Streambank erosion is also occurring due to cattle travelling upstream. What regulations are in place? (MS)</i></p> <p>A: There are no regulations when it comes to accessing the brook (discussed in section e. below). Best Management Practices (BMPs) provide guidance on behaviors with least impact. New sampling points, upstream and downstream of the potential impact area, will demonstrate whether there is an impact. (DM)</p>	<p><u>Action</u></p> <p>Complete</p>
<p>e. Water Quality (WQ) Data:</p> <p><u>BG to provide water quality data over at least two years for the Committee to compare normal with abnormal data to establish trends.</u></p> <p><i>BG displayed water quality data trend lines based on sample point (location) average for each year since data collection began in 2009.</i></p> <p><i>Q: Do you collect water samples every month of the year?</i></p> <p>A: Yes, as long as conditions are safe. Also sample at any time, allowing us to correlate effects of events with data results.</p> <ul style="list-style-type: none"> • pH is trending upwards, as it is throughout the province; • Collection data shows much lower nitrate levels trending compared to previous years. Nitrate use was pushed back from the (in-field) intake area, thanks to an agreement between Halifax Water and the farm field owner; <p><i>Q: May 1 2009 May 2011 – why the difference in nitrate levels there?</i></p> <p>A: Demonstrates rain events at point where there is constant flow from the field, prompting Halifax Water to shut off water supply plant (WSP) to mitigate elevated nitrate levels at the WSP during significant rain events. Nitrate levels are tested weekly and rain events are monitored to determine any correlation with the nitrate spikes.(BG)</p> <p>A: Another high nitrate instance occurred after manure tillage application into intake area, followed by rain event. Considered operator error. (MS)</p> <p><i>Q: Is MS’ property the only setback on this source water system? (HP)</i></p> <p>A: Yes. This setback provides a solution to a specific problem to meet needs of all affected parties. WSP filters do not capture minute Nitrate molecules. To capture them would require very expensive upgrades to the WSP. In future, a more permanent solution may be arranged. Currently, arrangements with farmer and turning off WSP when necessary is the best way to lower nitrate levels. (BG)</p> <p>f. Water Supply Plant Tour Date:</p>	<p>Complete</p>

<p><u>Invite members to tour WSP to gain better understanding of how system works.</u></p> <ul style="list-style-type: none"> • Once Committee membership is established, arrange tour of MM WSP. <p>g. Community Outreach Strategies:</p> <ol style="list-style-type: none"> i. Open House in Upper Musquodoboit; and ii. School Presentations: <ul style="list-style-type: none"> • Both deferred – under AM’s responsibility. <p>Action: Move to Education and Awareness topic on Agenda</p> <p>h. Agriculture Regulations:</p> <ul style="list-style-type: none"> • No agriculture regulations really with respect to water (DM): <ul style="list-style-type: none"> ○ 2017 Agriculture BMPs for NSE Water Supplies: <ul style="list-style-type: none"> ▪ There will be another update to the 2017 version of the BMPs; ▪ Wells were not included in the old version; ▪ Fuel storage and pesticides need to be addressed in update. • <u>Environmental Farm Plan (EFP)</u>: <ul style="list-style-type: none"> ○ Administered under the Federation of Agriculture, an EFP helps farmers identify and assess environmental risk on their property and enables farmers to incorporate environmental considerations into their everyday business decisions. <p><i>Q: Do EFP participants get audited? (HP)</i></p> <p>A: No. However, EFP reviewers highlight areas they think participants need to work on, based on their Plan. A 5-year plan is effective only for that period, after which you need to reapply. If Plan components are not implemented, it is difficult to get one approved next time. Most in dairy sector have EFP. Funding through EFP is provided for various needs; e.g., storage buildings to reduce the risk of exposure to fertilizers, pesticides, etc., but only if you are registered as an EFP participant. Certain products distributed through <u>Truro Agromart Limited</u> cannot be purchased without being registered through an EFP. (MS)</p> <p><i>Q: Isn’t there always a stream buffer required regardless of the land use activity? (HP)</i></p> <p>A: The 20 m setback is in every land use bylaw. A setback is tied to the development under the bylaw as soon as a developer indicates they want to develop. However, if there is no construction or development permit then the bylaw doesn’t apply. Often the land is stripped first and often to the water’s edge, then a permit application is submitted. (AF)</p> <ul style="list-style-type: none"> • If cattle are observed in brook then the following regulations apply: <ul style="list-style-type: none"> ○ <i>Fisheries Act:</i> <ul style="list-style-type: none"> ▪ Applies to sedimentation; e.g., streambank erosion from cattle/livestock and crossings; ○ <i>Environment Act:</i> <ul style="list-style-type: none"> ▪ Applies to livestock defecating and urinating in brook; 	<p>Action Ongoing</p> <p>AM</p>
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<ul style="list-style-type: none"> ○ For enactment of regulations, events must be reported to appropriate agency and proof provided; ● Halifax Water prefers first approaching land users with evidence of a problem, to applying regulations. <p><u>Request that the Agriculture Department present to educate the Committee about the regulations that govern agriculture practices.</u></p> <p>3. <i>New Business:</i></p> <p>a. Source Water Protection 2017 Annual Report (SWPR):</p> <ul style="list-style-type: none"> ● Committee reviewed SWPR: <p><i>Q: Please clarify on pg. 4 what is meant by low level testing vs high level testing?</i> A: Sampling machine operators were using different testing levels; a high level test is more accurate; going forward testing levels will be consistent.</p> <p>Action: Label the wellheads on the SWPR map.</p> <p>4. <i>Landowner Questions:</i></p> <p><i>Q: Is N-Viro® application permitted on the setback area in the intake field? (MS)</i> A: Make request to Halifax Water and include product content information. (BG) A: N-Viro® consists of human waste mixed with lime that is cooked. A source of nitrogen and lime and can raise pH up to 1/3 to 1/2 point in a year. Applied in spring or fall when the ground is not frozen and not on snow. Product producers state there is no impact on water quality even if applied close to a stream. (MS) <i>Q: What is liquid manure? (HP)</i> A: Liquid manure is used heavily on corn and tilled into the soil, but there is not enough of it. Applying liquid manure in conjunction with N’Viro® substantially reduces chemical fertilizer costs and makes the fertilizer more responsive.</p> <p>Action: MS to send N’Viro® information to BG. Considering potential for spreading the product on the setback area so field area does not become inactive. Need to ensure it won’t affect water quality.</p> <p>5. <i>Municipal Updates:</i></p> <ul style="list-style-type: none"> ● No activity. <p>6. <i>Next Meeting:</i></p> <ul style="list-style-type: none"> ● November (not week of Nov. 12-19 or 21st.) ● Tie the plant tour (item 2.f.) and next meeting together. <p>Action: Circulate Doodle Poll to determine meeting and tour date.</p> <p>7. <i>Adjournment:</i></p> <ul style="list-style-type: none"> ● 8:40 p.m. <p><i>Chaired by: Barry Geddes</i> <i>Notes transcribed by: Anna McCarron</i></p>	<p><u>Action</u></p> <p>Deferred</p> <p>BG</p> <p>MS/BG</p> <p>AM</p>
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