

POCKWOCK WATERSHED MANAGEMENT COMMITTEE



March 5, 2020 – 10:00 am
Meeting Minutes
Conference Boardroom, 2 Park Avenue, Lower Sackville

Attendance:

Michael Allen, Watershed Planner.....Nova Scotia Environment (NSE)
Jillanna Brown (JiB), P. Eng., Regional Engineer.....Nova Scotia Environment (NSE)
Barry Geddes (BG), (*Vice Chair*) Watershed ManagerHalifax Water
Rachel Gilbert (RG), Manager of Planning ServicesEast Hants Municipality (EH)
Andrew Houlihan (AH), Supervisor, J.D. Kline Water Supply Plant.....Halifax Water
Dawn MacNeill (DM), for Sally Steele, Reg. Coord. Prot. Areas.....Nova Scotia Environment (NSE)
Anna McCarron (AM), (*Secretary*) Source Water Planner.Halifax Water
Tim O’Brien (TO), (*Chair*) Regional Forester.....Department of Lands and Forestry (DLF)
Michael Perry (MP), Community Representative.....Mount Uniacke

Regrets:

Jeff Brown (JeB), Forestry TechnicianDepartment of Lands and Forestry (DLF)
Reid Campbell (RC), P. Eng., Director of Water ServicesHalifax Water
Sally Steele (SS), Protected Areas Coordinator, Western Region.....Nova Scotia Environment (NSE)

Guests:

Tricia Isnor (TI), Regulatory Services, Halifax Water.....Halifax Water

Pockwock Watershed Management Committee (PWMC) Meeting Called to Order by Chair (TO)

1. Attendance/Introductions:

- Introductions were made.
- AM distributed copies of the following:
 - i.* March 5, 2020 Meeting Agenda;
 - ii.* DRAFT September 12, 2019 Meeting Minutes; and
 - iii.* Annual Source Water Protection Report – Pockwock Excerpt;
- TI distributed copies of:
 - iv.* PowerPoint presentation on J.D. Kline Surface Water Storage and Withdrawal Application;
- Regrets were conveyed (listed above):
 - v.* Quorum noted.
- a. Review and Approval of March 5, 2020 Meeting Agenda and September 12, 2019 Meeting Minutes**
 - BG added to the Agenda under New Business: Item d.: Pockwock Wind Turbine Oil Leak
 - Agenda approved

Minutes approved as presented–Moved by MP, seconded by JiB, all in favour.

<p>2. Presentation by Patricia Isnor, Regulatory Services, Halifax Water: <u>Water Storage and Withdrawal Permit Application</u></p> <ul style="list-style-type: none"> • TI asked people to refer to the 5-page PowerPoint handout (Item: 1.□.a.iv.); <ul style="list-style-type: none"> ○ this is a quick overview to prompt feedback, comments and questions; • Halifax Water has a 50-year water withdrawal permit issued in 1971 due to expire September 2021; <ul style="list-style-type: none"> ○ there were 2 permits – 1 for Pockwock (main water source for distribution system) and 1 for Tomahawk (a back-up system to provide surplus water to support Pockwock’s water distribution); ○ current average daily withdrawal rates, for which an increase was approved in 2000 for Pockwock and in 1985 for Tomahawk are: 29 million (M) gallons (gal) and 8M gal, with maximum daily rates of 37.7M gal to 10.4M gal, respectively; • new application must be submitted by June 3, 2021; <p><i>Q: Do you have to tap into Tomahawk often? (TO)</i> A: Never. The infrastructure would need to be installed. Tomahawk was only designated in 1971 as a potential future supply within a 50-year timeframe. (TI)</p> <ul style="list-style-type: none"> • The new application is based on 2 criteria; i.e., withdrawal and storage; • Nova Scotia Environment Guide to Surface Water Withdrawal Approvals guides the application process, which identifies required information; • surface water withdrawal applications are classified into three (3) categories, which are outlined in the Guide; <ul style="list-style-type: none"> ○ Pockwock’s application fits into Category 3 – the most stringent; • the guide does not cover much on the storage side; <ul style="list-style-type: none"> ○ because of the dam on Pockwock, it is considered a storage system; • looking at a combo (withdrawal and storage) report to submit to NSE; • requirements and criteria have been vetted with NSE representatives to ensure we are on track; now at preliminary stage – a year and a half out; • BG wants TI to be aware of the Pockwock Wilderness Area (WA) in the Pockwock <i>Protected Water Area (PWA)</i>; because Crown land is managed differently from WA land, any encroachment into the WA needs to be managed separately from Crown land. WA land is to the water’s edge, so if there is a rise in water levels, there will need to be an application regarding the shoreline of the WA; <p><i>Q: Do you have flowage rights over the shoreline? (MA)</i> A: Flowage rights are just on Crown land. (TI)</p> <ul style="list-style-type: none"> • application is based on water withdrawal approval for next 10 years; <ul style="list-style-type: none"> ○ not requesting more water withdrawal from Pockwock; ○ not predicting any needs or fixes over next 10-year period; 	<p><u>Action</u></p>
--	-----------------------------

<ul style="list-style-type: none"> • new 10-year permit approval will not likely include Tomahawk Lake: <ul style="list-style-type: none"> ○ Tomahawk’s permit expires at the same time as Pockwock’s; ○ using Tomahawk as a supply would involve a separate study because it’s a different watershed; however, we want to keep it as a future supply, depending on what happens in the next 10, 20, or 30 years; ○ if we want to use Tomahawk, we will do a study then, if need be; • storage application is required because there is a dam on Pockwock; <ul style="list-style-type: none"> ○ We are not proposing any changes to the dam in the next 10 years with respect to raising water levels, or withdrawal; ○ not predicting any fixes or adjustments to the dam, pending results of the dam safety review, currently underway, per 7-year cycle specs; <p><i>Q: Will you need access to the dam through the Wilderness Area? (DM)</i> A: No more than we do now, which is negligible and non-intrusive. (TI/AH) A: We have a license to operate. Any need to access the Wilderness Area would be negotiated between NSE and Halifax Water. (BG)</p> <p><i>Q: Is the water supply strictly an impoundment or are there control structures?(JiB)</i> A: We have the ability to move water if we need to, but generally don’t. (AH)</p> <p><i>Q: Does it have a weir or pumping or a gate? (JiB/MA)</i> A: Water is just allowed to flow over the dam during spring or high water levels. We do have gates; if need be, we could open the gates and dump water. (AH)</p> <ul style="list-style-type: none"> • There are no planned infrastructure changes such as dam upgrades; but Category 3 guidelines require meeting Department of Fisheries and Oceans (DFO) requirements; • there are some planned intake screening upgrades to meet DFO requirements, which requires more discussion with them; <p><i>Q: Could DFO require a fish ladder?(JiB)</i> A: So far, DFO is not concerned with fish passage or maintenance flow on Pockwock. Directly downstream there is a NS Power dam, on Wright’s Lake, which <i>does not</i> have a fish ladder; the one past that <i>does</i> have a fish ladder. DFO does not want to interfere with the existing integrity of the water flow. (TI) A: As major upgrades are made, e.g., Sandy Lake dam, there are requirements to put in fish passage, but it is from the bottom up. (AH)</p> <ul style="list-style-type: none"> • Stantec was contracted to study the watershed system and to begin field work in April to get aquatic, hydrology and wetland baseline information; • plan to use Halifax Water’s boat to do transects across the lake; • existing data loggers retrieve information for Halifax Water’s water quality group, who will conduct multiple visits through the year to collect the data and do some modelling; • there is lots of bathymetry information; • 78 wetlands have been identified via desktop analysis, so field assessments will be conducted for the report on only a portion of the wetlands; • still need to fine-tune data collection before presenting to environment; 	<p><u>Action</u></p>
--	-----------------------------

<ul style="list-style-type: none"> ○ ATVANS (All Terrain Vehicle Association of Nova Scotia), a provincial group that manages registered ATV clubs in NS, put this trail on their provincial website; ○ while this trail is low impact, another off this one has more impact; ○ conversation and shapefiles sent to DLF demonstrated that the trail they were using was inside the watershed, which prompted ATVANS to move their road around the watershed rather than through it, 	<u>Action</u>
<p><i>Q: Are there any issues with SANS (Snowmobile Association of Nova Scotia)? (DM)</i> <i>A: No. rarely seen in the watershed – maybe a couple of times. (BG)</i></p>	
<ul style="list-style-type: none"> ● more WA signage is needed. <p>Action: BG to send TO (DLF) a protocol for contractors and others to access the watershed area through locked gates.</p>	BG
<p>c. Mount Uniacke Signage:</p> <p><i>i. Signage at Bell Park:</i></p> <p>a) Public Water Supply Signage</p> <p><u>Remove Halifax Water’s and provincial branding and keep sign simple: i.e., call 911 in emergency and state “Pockwock Lake Water Supply Area”.</u></p>	<u>Complete</u>
<ul style="list-style-type: none"> ● A simple black and white 4 ft x 4 ft sign indicating the Public Water Supply Area, with no corporate branding (see <i>Appendix B</i>) was installed at the entrance to Bell Park by contractor, MacDonald Fencing; ● A corporate branded 4 ft x 8 ft Public Water Supply Watershed Sign (see <i>Appendix C</i>) was erected by MacDonald Fencing at a Halifax Water gate to watershed area, located two kms NW of Bell Park, (572 Highway #1); <p>b) Interpretive Signage throughout Bell Park</p> <ul style="list-style-type: none"> ● interpretive signage will be pursued through discussions with Jim Foster after all watershed area signage has been installed. 	
<p>Action: After watershed signage has been installed, approach Bell Park Association (Jim Foster) about interpretive signage in the Park.</p>	Pending
<p><i>ii. Pockwock Watershed Protected Water Area Signs:</i></p> <ul style="list-style-type: none"> ● Replacement of 3 <i>Protected Water Area (PWA)</i> (old wooden) signs, two (2) of which are on Hwy 101 and one (1) at Halifax Water gate off Exit 3 onramp to Hwy 101 (see <i>Appendix D</i>) are pending Nova Scotia Transportation and Infrastructure Renewal response regarding installation; <p><i>iii. Regulatory Signage</i></p> <ul style="list-style-type: none"> ● A regulatory sign (see <i>Appendix E</i>) was installed by MacDonald Fencing where OHVs access the watershed area via access road off Hwy 101. 	
<p>Action: Continue working on signage for Pockwock watershed area.</p>	Ongoing
<p>d. Resource management updates:</p> <p><i>i. Forestry:</i></p>	

<ul style="list-style-type: none"> • as part of the <i>forWater</i> Network program and forest management (see <i>Appendix A</i> for illustrations) the following forest activity was conducted: <ul style="list-style-type: none"> ○ the selection group block was harvested last summer; ○ 2 variable retention blocks were harvested a road was upgraded there; ○ a small clearcut was not harvested due to being too close to wetlands; • we are looking at taking out dead and dying trees because when we leave trees on the ground, we have trouble with water quality; • The commercial thinning area is being considered: <ul style="list-style-type: none"> ○ a road was built into the commercial thin area, but only so far because it was too wet – no harvesting was done here to avoid road damage; ○ the richer ground area is scheduled to be done this summer but with Northern Pulp not operating, there may be some issues; say they will cut it, though we need to discuss what may be left on the ground; <p>Q: <i>Do they lose value if you leave the trees to grow?</i> (JiB)</p> <p>A: The objective is forest improvement. A stand improves by removing lower value wood. It can be viewed that there is still biodiversity, or that you are not improving the stand at all. In a commercial silviculture operation, the bottom product is typically removed and pulp left standing. Currently in transition period. (TO)</p> <p>A: This watershed has been selectively managed since the 1970s. The forest was “weeded” for the last 50 years, now going to a different type of management. (BG)</p> <ul style="list-style-type: none"> • great work was done by the harvesting contractors – no siltation issues; <p><i>ii. Water Quality:</i></p> <p style="padding-left: 40px;">a) Geosmin_update (AH):</p> <ul style="list-style-type: none"> • detected in October 2019; now values are slowly declining; • upgrading treatment plant in 3-5 years, hopefully addressing geosmin; • our levels are low compared to other areas, with high detection levels; • treating geosmin would be costly and would be passed on to customers. <p style="padding-left: 40px;">b) Lake Recovery Research:</p> <ul style="list-style-type: none"> • examining why we see geosmin, increased organics, algae blooms etc., • an overlap between lake recovery and the <i>forWater</i> (forest management) projects is enhancing information sharing; • a consultant was hired to categorize the lake’s limnology; i.e., what organisms are in the lake, where they are located; data to guide changes needed to the supply plant’s infrastructure, e.g., may need an intake that moves to avoid the zooplankton (Moncton utility does this practice); • these studies are led by Halifax Water, Water Quality Management team; • part of the water quality sampling program connects with forest management studies; i.e., learning how pH and organics are impacting water quality; i.e., are forest management activities increasing or decreasing the impacts to the animals in the water. 	<p><u>Action</u></p>
---	-----------------------------

Q: *Is tabularia still an issue at the plant?* (DM)

A: Combating that by increasing chlorine treatment levels. They were breeding in the plant, so chlorine was added to combat its growth. Hoping limnology studies will help us understand triggers for their increasing or decreasing presence. Present in water pre-industrialization; what caused their flare-up last year is a mystery. (AH)

Action

e. forWater Research Network:

- a communication network between water utilities, NGOs, industry and administrators (governments) and industry (forestry) looking at forest management practices as a technology to improve water quality;
- many utilities are just dipping into looking at new technology;
- Halifax Water is ahead of the game in Eastern Canada through research, and information collaboration between regulators and the utility; and
- for example; some network participants are looking at forest access roads on water quality by examining the shape of the road; and examining soil types in the area, as well as in the whole network across the country.

f. Tour of water supply plant and watershed area:

- A worthwhile effort; let's do it again.

g. Water Storage and Withdrawal Permit Application

- (see item 2 above – Presentation by TI).

h. ATVANS (All Terrain Vehicle Association of NS) permit in watershed

- JeB had not been contacted by ATVANS and there was no record of authorization by DLF for ATVANS members to travel in watershed.

4. New Business

a. Source Water Protection Report (2019)

- Referring to handout Item 1.iii, particularly pages 10-12, specific to Pockwock's source water protection accomplishments, outstanding issues and water quality information;
- Most of the items were discussed through the meeting.

b. Sackville River Nature Reserve

- an [interactive map](#) shows pending and designated provincial protected areas, including proposed Sackville River Nature Reserve (SRNR);
 - SRNR was thought to have been excluded from the watershed area;
 - Halifax Water and NSE's Protected Areas Branch need to discuss.

Action: Halifax Water will meet with Protected Areas Branch of NSE to discuss the impacts regarding the portion of the SRNR inside the Pockwock PWA.

BG/DM

c. Pockwock Wind Turbine Leak

- Two weeks ago, a wind turbine failed on our land, almost two years to the month that a previous one failed, due to an oil leak;
- this event caused oil levels to lower to just above the operating levels, causing an alarm to sound;

<ul style="list-style-type: none"> • filling the oil back-up indicated that about 20 litres of oil was lost, which is below the 100-litre reportable limit; • much of the leaked oil flowed slowly down the turbine pole and did not reach the ground; however, some of the oil reached the ground due to it hitting the turbine blades, causing it to be thrown around; <ul style="list-style-type: none"> ○ where it hit the ground, the oil could be seen on top of the snow; ○ though the residual hit the road on a melting day, barriers and mats were put in place, containing everything; ○ oil-stained snow was removed and disposed of at approved facility; ○ booms placed at base of pole captured oil before it hit the ground; • the event was outside the PWA watershed boundary; • specialized oil is used now; a more specialized oil will be used in future; • Halifax Water was not contacted until the next day; <p><i>Q: Who is responsible for contacting Halifax Water in such an event? (AM)</i> A: RMS Energy is responsible for maintaining the turbines and for contacting Halifax Water. After the oil leak occurrence two years ago, they were instructed at the debriefing to contact us immediately. They were advised then as they were this time that Halifax Water is always available to assist in any cleanup efforts. (AH)</p> <ul style="list-style-type: none"> • RMS Energy got the alarm and topped up the oil to measure the loss and tried to figure out what caused the leak; still need to meet with RMS Energy to discuss follow up; • a new camera on our towers shows the spill occurrence; • no impact, no risk to the water supply; and everything has been cleaned. 	<p><u>Action</u></p>
<p>Action: Provide a debrief about the oil leak at next meeting.</p> <p>5. <i>Landowner Q & A:</i></p> <p>a. Mount Uniacke Community (MP):</p> <ul style="list-style-type: none"> • as the signage gets done, MP will monitor the comments; • many questions as to why Halifax Water signs are up in the park: some ask what it means and why it is there; I respond that we all live in one ecosystem and everything works together; the sign shows number to call in emergency; some say it is ugly, others don't care the sign is there. 	<p>AH/BG</p>
<p>Action: If there is more concern about the signage, MP will let us know.</p> <p>b. Crown Land (TO/DM)</p> <ul style="list-style-type: none"> • Gate use after hours: contractors want to know what to do in the event they are locked in and need to get out in an emergency. <ul style="list-style-type: none"> ○ If they want to do a lock box and leave it there that would be fine. ○ That will come up again. <p>c. East Hants Municipality (RG)</p> <ul style="list-style-type: none"> • No comments. 	<p>MP</p>

Appendix A: Map of Landownership and Pockwock Wilderness Area

**Pockwock Lake
Water Supply
Area**

**Emergency Spills:
Call 911**

Appendix C: Public Water Supply Corporate Branded Sign



Pockwock Lake Watershed Protected Water Area

Emergency Spills: **Call 911**



(902) 420-9287

PROTECTED WATER AREA

REGULATED* ACTIVITIES

- No unauthorized fires
- No fishing
- No swimming (including pets)
- No unauthorized boating
- No dumping or disposal
- No unauthorized tree cutting

**Pockwock Lake Watershed Protected Water Area Regulations*

NO UNAUTHORIZED VEHICLES

- Cars and Trucks
- Snowmobiles
- All-terrain (Off-highway) Vehicles
- Trail Bikes

Note: Leave at least a 4 inch space for two stickers that will be placed here.

For More Information Call (902) 420-9287

Pockwock Lake

