

Collin's Park Watershed Advisory Committee Meeting Minutes

April 16, 2018 7:00 – 9:00

Gordon Snow Centre Boardroom, Fall River



Attendees:

Ken Burrows (KB), Industry Sector Rep.....Development
Damon Conrad (DC), Community Rep.....Fall River
Barry Geddes (BG), (*Vice Chair*) Watershed Manager.....Halifax Water
Bev Lawson (BL), CustomerCollin's Park WSP
Janice MacEwan (JM), Principal Planner/Development Officer.....Halifax Regional Municipality (HRM)
Erin MacIntyre (EM), Program Manager, Land Development & Subdivision.....HRM
Dawn MacNeill (DM), Watershed Planner.....Nova Scotia Environment
Keith Manchester (KM), Community Rep.....Lake Fletcher
Anna McCarron (AM), (*Secretary*) Source Water Planner.....Halifax Water
Tom Mills (TM), (*Chair*).....Shubenacadie Watershed Environmental Protection Society (SWEPS)
Wayne Stobo (WS), Community Rep.....Waverley

Guest:

Steve Conway, (SC) Acting On-site Services Program Coordinator.....Nova Scotia Environment

Regrets:

Dick Pickrill (DP), Community Rep.....Wellington

1. Welcome and Introductions

Meeting called to order by the Committee Chair (TM):

- AM/BG distributed copies of:
 - i. April 16, 2018 Meeting Agenda;
 - ii. DRAFT October 25, 2017 Meeting Minutes;
 - iii. Map of Aerotech Connector and Bedrock Geology;
 - iv. “Draft Port Wallace Update for Residents” email from Andrew Bone
 - v. and
 - vi. Binders for two (2) new members.
- Introductions, for the benefit of the new faces/members.
 - Due to EM’s new HRM position, JM will now fill EM’s position including position on advisory committee.
 - Regrets as listed above.

2. Old Business

a) October 25, 2017 Meeting Minutes

- i. Review of Action Items:



Determine whether the issue of overflow has been resolved at Lockview’s Wastewater Treatment Plant (WTP).

**Action
Complete**

- BG determined that the Lockview Plant has not overflowed in five (5) years.

Are On-site Sewage Disposal System (OSSDS) installers informed about areas where chlorinated water is in place; and does the OSSDS Standard consider treated (chlorinated) water’s impact on OSSDS functionality?

Complete

- Discussed under Item 2. c).

Halifax Water to investigate the impact of treated (chlorinated water) on OSSDS:

Complete

- Discussed under Item 2. d).

EM to provide copy of concept plans map to AM to forward to Committee members for consideration in advance of next meeting.

Deferred

- More discussion needed due to lack of clarity about next steps;

AM to contact Alden Thurston. Send request for GIS development mapping through Kurt Pyle who would manage the request.

Complete

- Discussion deferred to next meeting under Item 5.

Find the gaps in the development/jurisdictional (HRM and NSE) processes through education from HRM to confirm what is or isn’t done. Put at beginning of the meeting to give sufficient time to determine what the gaps and risks are; and

Deferred

Send a letter to the NSHBA asking whether they wish to have a representative on the Committee, otherwise a replacement will be sought.

Complete

Halifax Water will seek Waverley member through the SWEPS email list.

Complete

- Last two Action Items discussed under Item 2. b) i.

First have a better understanding of the NSE and Halifax Water jurisdictions – ask DM to do a presentation on OSSDS and stormwater impacts with respect to water quality with the understanding that quality of stormwater flow is the responsibility of HRM and/or Halifax Water.

**On-site
Complete;
stormwater
deferred**

- Discussion of NSE’s limitations regarding stormwater deferred to Item 2. c) ii

Members invited to circulate brochures in their community/ neighbourhood.

Complete

Invite Committee members to attend presentation by Ian Spooner and Dewey Dunnington to Pockwock Watershed Management Committee meeting.

Complete

ii. Approval of Minutes:

- Moved by KM, seconded by BL and KB. Approved by all.

b) **Terms of Reference (ToR):**

i. Membership:

- Nova Scotia Home Builders Association (NSHBA)/Development Sector:
 - No response by NSHBA to email sent by BG requesting a response by Feb. 22nd about providing a representative, or it would be assumed that the NSHBA is not interested, prompted the search for an alternative rep;
 - A development industry company identified as landowners within the delineated Intake Protection Zone (IPZ) was approached and accepted;
 - Ken Burrows, an environmental consultant including for on-site septic design systems,

accepted the invitation to represent the development sector. Welcome and thank you Ken!

- Waverley Community Representative:
 - The SWEPS email list was used to recruit a Waverley community member. Wayne Stobo a retired research scientist from DFO, Bedford Institute of Oceanography accepted the invitation on a trial basis. Welcome and thank you Wayne!

Q: How does the mandate of the CPWAC interact with SWEPS? (WS)

A: SWEPS has a seat on this Committee based on the ToR. (TM)

A: SWEPS was involved in the development of the Terms of Reference and provided a resource for membership. (AM)

Q: Will SWEPS step aside to allow the CPWAC to conduct work? (WS)

A: The mandates of the two groups are different: CPWAC advises Halifax Water on water quality to protect the drinking water supply source; and SWEPS' mandate covers trails, habitats and water quality for recreational and aquatic health. (BG)

c) **Development of Source Water Protection Plan (SWPP)**

i. Development Applications in Collin's Park Risk Areas:

- The methodologies of the development of the Intake Protection Zone (IPZ) and Risk Area Zones (RAZ) was explained:
 - On the map high risk areas are depicted in red, medium-high risk areas in brown, medium risk in yellow and low risk areas in green;
 - Indicators to determine risk area levels, in order of highest to lowest are:
 1. proximity to the intake, as defined by the subwatershed area (sourced from NSE's subwatershed area GIS shape files and Halifax Water ground-truthing);
 2. municipal water, wastewater and stormwater services that indicate and influence land use development such that:
 - a. an absence of municipal wastewater services and presence of development indicates the use of private or on-site sewage disposal systems (OSSDS) – a higher risk; or
 - b. municipal wastewater services – a lower risk;
 3. where potential development is, or is proposed to be, based on Regional and Community Generalized Future Land Use Maps (GFLUMs), concept plans and wastewater serviceability; and
 4. Crown land, parks and forested areas with no imminent development are given the lowest risk value.
 - The IPZ is the subwatershed area surrounding Lake Fletcher and has the highest risk (red) value based on proximity, except where lower risk values have been applied (as defined above); i.e:
 - Developed areas without municipal services are red; developed areas with municipal wastewater services are brown, areas with development potential are yellow and Crown/parks and forested areas are green;
 - The SWPP focus for Collin's Park is to determine which areas present the greatest (or lowest) risks to the water supply.
 - Each source water area has its own SWPP. Mapping priority areas (e.g., geology) and/or

activities (e.g., mining and development land use) helps identify risk areas in the SWPP and the areas which need to be “managed” in terms of regulations, eliminating or mitigating the risk factors and how to implement the management plan. (BG/AM)

Action

Q: *How much do you consider Conrad Bros. Ltd. 's quarry as input? (WS)*

A: There is a berm around the backside of the quarry to keep the water in the *Lake Major Watershed Protected Water Area (PWA)* (i.e., not leaching into the pit). (BG)

A: However, there is significant runoff into Lake Charles. This Committee has not considered the runoff from the Quarry but it will be discussed further under the HRM Port Wallace Agenda Item. (AM)

Q: *Have the new Committee members been able to review the maps? (DM)*

A: No.

Action: **AM to circulate maps to the new members for comment.**

AM

Q: *How far afield from the water intake are we concerned? WS*

A: The risk areas were delineated according to a defined subwatershed area's proximity to the intake (described above). Geology influences risks, especially around the granitoid pluton where the lack of soil cover provides no runoff buffer. (AM)

Q: *Is the granitoid pluton west side of Lake Fletcher the only granite area? (WS)*

A: Yes. (AM)

Q: *What criteria make the east side red (high risk); e.g., is there more granite there?*

A: No, it's boggy and has good infiltration. The east side is considered high risk because of; landownership; mixed resource, commercial and residential land use designations (GFLUM); and lack of services. It has slate bedrock – a risk. (TM/AM)

A: Halifax Water also considered the benefit forested areas provide for water quality: within the IPZ the forested area was assigned a medium (yellow) and not low (green) risk because it is in an area with potential for development in close proximity to the source water supply. If the trees are cleared and the area is developed, then the risk will be elevated to high (red) since a mitigating factor (the forest) that provided some protection was lost. It is also an area to watch. (BG/DM)

A: Risk levels in the watershed could decrease under this methodology if there were municipal wastewater services provided on all unserved areas, but only if there is no municipal water provided there. Where municipal water and wastewater is provided, lot sizes decrease and allows for increased development density, which presents other high risk impacts that density brings. (AM)

A: SC could speak to the different kinds of OSSDS that would be required to service development on the granitoid pluton. (AM)

A: Less overburden means less filtration; so when things aren't going well with OSSDS there is less protection to absorb any mishap. In terms of technology there are many systems available. Septic systems can be built up to create a greater separation distance between the bedrock and the water table. There are lots of types of technology to deal with on-site septic systems in a broader context now. (SC)

Q: *How does this Committee deal with development concerns? (TM)*

A: The SWPP (with advice from the Committee) is not designed to make a new bylaw but it is designed to provide information to NSE to support requesting policy changes and what regulation guidelines should be considered. (BG)

A: NSE also needs to know what is going to happen beyond the IPZ of the watershed area. The IPZ is not sufficient for NSE's review of the Collin's Park SWPP. (DM)

A: It is a big area and we need to prioritize the work. We define how we will manage and mitigate the risks that we can't do anything about. (BG)

Q: *If someone were to buy a piece of property in the red area and put in a horse barn they could do that because of the land use designation applied to the area. The SWPP is not going to be effective in controlling the development is it?* (TM)

A: Halifax Water does not have jurisdiction to control what kind of development can occur in the watershed area. However, the SWPP helps Halifax Water make recommendations to HRM about changing bylaws or policies to protect the source water. It also helps to protect those living in the area. (BG)

A: We could ask that HRM apply policy or otherwise put source water at risk. (BG)

A: An OSSDS does not live forever. The risk is really, *when* will it fail? (SC)

A: That understates the problem. There is a finite life to the field. There is going to be phosphate migration no matter what. There is a finite life that will eventually hit the water. If that is the case then we have already hit the failure point in terms of the life of septic fields. Has the migration effect hit the lake yet? We suspect it has, even though owners have been diligent in pumping the system. Is the failure when the septic bed is done or when the effluent has already migrated? If migration is the failure point, then the whole (lake) system is already compromised. (WS)

Q: *Do you need something from the committee regarding the map(s)? The SWPP is based on this map, so before we delve into risk management techniques, we need to establish the defined risk areas.* (DM)

A: Yes. Input from the Committee would be appreciated.

Action: **Circulate the risk (IPZ) area map (as well as all the other maps to provide context) to the members to review the map on or before May 14 to add things that may be missing. Send all of the SWPP maps in both PDF and JPEG.**

Action

AM/All

Q: *Have we considered the volume of water from the various sources of input; i.e., Miller, Soldiers, lake William, etc., that is flowing through the system?*

A: No. We have not calculated the flow rates.

A: TM is concerned about the volume of input coming from these other systems.

Q: *Why is the IPZ boundary cut at Lake Thomas bridge when the major input is coming down the lake chain?* (WS)

A: It is only based on the subwatershed areas. (AM)

A: To TM's point, the major input is coming down the lake chain. Which is only part of the inflow. (WS)

A: The brown risk area is essentially a high risk (red) area, only outside the IPZ. It may be an area we need to look at and will later in Agenda (i.e., Port Wallace). (BG)

A: It gets us back to the management factor. How much can we manage? (AM)

A: The west side red zone is considerably less developed than the east so the pollution input would be less as well. (WS)

Q: *Another question is how much settles out before we get to Lake Thomas?* (WS)

A: The focus is within the IPZ; however, if something outside of the IPZ is identified as a concern it could increase in priority. (BG)

Q: *Can we add more sample points to assess water quality of the lake chain?*

A: Sampling is not conducted further south. We have not gone outside of the Lake Fletcher

subwatershed area; however, we may need to in the event of an increased risk; Halifax water currently samples 50 sites from all of our water supply areas. (BG)

Action

iii. Applicable Regulations

I. On-site Sewage Disposal System (OSSDS) regulations

- DM provided background on the purpose of Steve Conway's (SC) attendance; i.e., to clarify OSSDS impacts on the Collin's Park water supply; to answer questions about OSSDS Notifications and Approvals and when NSE is or is not involved in the OSSDS installation/maintenance process.
- When a person wants to put in an OSSDS they need authorization in one of two ways:
 1. **Notification** by a Qualified Person (QP) or Engineer (P. Eng.) to NSE that the proposed system meets the [OSSDS Standard](#);
 - a receipt is issued allowing work to proceed according to the Standard; or
 2. an **Approval** is required for systems that do not meet the Standard, e.g.:
 - vertical and/or horizontal separation distances from groundwater, bedrock or adjacent properties;
 - whether it's a drilled or a dug well; and
 - cannot meet a 1 m separation on top of bedrock.
- QPs are technologists who are authorized to select pre-engineered OSSD systems designed by NSE and conveyed in the OSSDS Standard; or an engineered solution from a P. Eng. There are also advanced treatment units that must be overseen and meet discharge standards; for the most part they discharge into a bed. On a small building footprint discharge can be designed to go into a road ditch or watercourse as long as the effluent meets treatment standards; e.g., a recirculating sand filter or a sewage treatment plant.

Q: *Now that the OSSDS system is put in, when is NSE involved?* (TM)

A: After the Approval to Construct an OSSDS, it is the owner's, not NSE's responsibility to ensure it is working properly. (SC)

Q: *Who is responsible for sewage treatment systems?*(TM)

A: Sewage treatment systems have an inspection schedule with NSE. If the Committee has questions about a specific site, contact NSE. NSE has the list of all the OSSDS plants. A request to NSE will go to the Bedford office to provide the information. However, this may require a FOIPOP process to get results; in some cases it could depend on your approach. Approvals are public information but no other information such as the address, for example, may be released. (SC/DM)

Q: *What is the province's position on wastewater management districts?* (TM)

A: The province encourages municipal wastewater management systems but it is the municipality's decision to do it. A good example of this is in Richmond Co. (SC)

2. OSSDS Standard (via-à-vis chlorinated water):

- The query is whether chlorinated water from municipally sourced water supplies impacts OSSDS and if it was a consideration in the Standard.
 - No, it would not have been considered in the Standard.

Q: *Has Capilano Estates municipally treated water?*

A: Yes.

- Anecdotally speaking, OSSDS installers have had no indications that chlorinated water has impacted on their customers' OSSDS. (KB)
- Committee members had the same observations. (WS/BL)
- AM reported that Halifax Water staff – Regulatory Services Director Kenda MacKenzie and Water Quality Manager Dr. Wendy Krkosek – asked whether chlorinated water compromised OSSDS, reported that to their knowledge, no. Dr. Krkosek said that the low level of residual chlorine in drinking water should not be enough to compromise OSSDS bacteria; also, a quick literature search indicated nothing either. Further, she contacted water quality researcher, Dr. Rob Jamieson, who concurred.
- Users of predominantly chlorinated centralized systems have a tendency to use more water; so the concern is about volume not chlorine content. (DC)
- There is a tendency to be more aware of water usage when on a well. (DC)

Q to an installer (KB): *Would you know if you were in a PWA or not, as an installer of OSSDS?* (BG)

A: No. That (Collin's Park watershed boundary area) map is the first delineation of a watershed boundary I have seen. (KB)

- Halifax Water wants installers to know when they are in a PWA or a non-PWA. (BG)
- The wording in the OSSDS Standard only applies to PWAs, not non-designated municipal water supply areas. (DM)

Q: *How can installers determine if an OSSDS is in a PWA or not?*(BG)

A: Educate the community, partly through signage. Installers are directed by NSE to call the water operator to find out if they are in a PWA or not and what rules apply. (DM)

3. New Business

a) Aerotech Park Connector to Highway 2

- Timeline for development is: review RFPs before June, have EIA approved in 2019 and begin construction in spring of 2020. (TM)

Q: *Will NSE review this proposal since it is in a municipal water supply area?* (BG).

A: NS Transportation (NSTIR) have information about municipal water supplies and MAY identify it. How the pyritic slate there will be handled remains to be seen. (DM)

Action: Defer further discussion to next meeting.

All

b) Port Wallace Development

- Deferred to next meeting.

c) Source Water Protection Report (SWPR)

- Review of SWPR – a portion of the full report – a snapshot of the year's accomplishments and shortfalls, including water quality information.
- Home heating oil spill:
 - Spill originated at Laura Crt., where the tank drained its contents into the ditch. A small amount made it to the source water supply (Lake Fletcher). The sampling protocol was employed. Halifax Water customers were protected by shutting down the intake to the plant. The WS Plant was supplemented by bulk water delivered to it by truck.

- It was successfully handled by everyone involved.
- Awareness to the general public was enhanced through SWEPS.
- This was the second oil spill event in two years.
- Considering the number of oil tanks within the Collin's Park watershed area, this committee may want to raise community awareness.
- Insurance companies are taking steps to address the issue.

Q: *Does the Committee need to make comment or a motion on the SWPR?*

A: No. The report had to be submitted to NSE by March 31. The Committee was not able to collectively review it due to the postponement of this meeting. Everyone had an opportunity via email to review and provide comment prior to submission. It is now an information item. The Committee is welcome to express any comments.

4. Education and Awareness

- Members to circulate brochures in their community/neighbourhood.

Q: *Can they be included in the Halifax Water bills?*

A: No. Most customers do not live in a watershed area. They also get disposed of.

A: It would be an excellent thing to send around to the people in the red IPZ area.

A: TM shared East Hants' strategy: target information to residents within Near Zone.

Action: AM to contact Chelsea Adams about East Hants Municipality newsletter.

AM

5. HRM Planning and Development Update:

a) Planning Strategy Committee Review opportunities

- Planning Strategy Committee review and role of Committee.

Action: Defer to the top of the Agenda of the next meeting.

All

6. Election of Officers

a) Election of Officers Election/renewal of Officers per ToR sec. 14

- All Community reps reoffered their positions. Thank you!

b) Election of Chair and Vice Chair per ToR sec 17.

- TM was nominated to return as Chair by KB; TM respectfully declined and stepped aside as Chair in favour of DP's nomination for the position.
- DP was accepted as the new Chair of the CPWAC by the membership.
- BG and AM retained their positions as Vice Chair and Secretary, respectively

7. Next meeting:

- October 2018 determined through Doodle poll.

8. Motion to adjourn:

- BG moved to adjourn at **9:10 p.m.**

Tom Mills – Chair

Barry Geddes – Vice Chair

Anna McCarron – Secretary