



ATTENDING

- Councillor Wendy Elliott (Chair),
- Councillor Ian Palmeter
- Alex de Sousa, Director of Engineering & Public Works
- Meghan Swanburg
- Marcel Falkenham, Acadia University Representative
- Mike Allen, Nova Scotia Department of Environment
- Greg Cummings
- Karen Outerleys, Recording Secretary

ALSO ATTENDING

- Colin Walker, CBCL Hydrogeologist

- **ABSENT WITH REGRET**
- Mayor, Wendy Donovan
- Councillor Peter Allen, Municipality of the County of Kings,

CALL TO ORDER

Chair, Councillor Wendy Elliott, called the meeting to order at 2:31 pm

○ **APPROVAL OF THE AGENDA**

CARRIED

○ **APPROVAL OF THE SOURCE WATER PROTECTION ADVISORY COMMITTEE MINUTES OF THE REGULAR MEETING OF MAY 10, 2023, by CONSENSUS**

CARRIED

○ **NEW BUSINESS:**

- a. CBCL Hydrogeologist Colin Walker, update on the SWP Plan Review
 - Reviewed where our 2 operating wells Cherry Lane and Wickwire Lane are located and the current SWP zones based on ground water flow paths, 2yr, 5yr & 25yr.
 - Source Water Protection uses a multi barrier approach, 1. protect the water source (the roll of the SWP Committee protect the raw water) 2. provide disinfection (Town & Town Engineers responsibility) and 3. monitoring & enforcement (this is the provinces Job).
 - Provided a distinction of SWP, protection which is the job of the committee and operating a Water System, which is the job of the Town. Any water system operates under an approval provided under the province and there is a list of requirements that the Town needs to follow.
 - Source Water Protection is there to make sure nothing else will affect the water in the future.

- The work CBCL has been commissioned to do is review the 2008 SWP Plan, the current plan has been reviewed and all other documents that were available. It is a very substantial plan; this is one of the most comprehensive plans Colin has seen within the province but needs to be updated.
- Compile an updated version of the SWP Plan, with feedback from the SWP Committee.
- CBCL will update the Groundwater Flow Model from 2005, computer model to determine the ground water flow patterns, new technology since 2005 will create a more detailed model, to see what the current model would look like.
- Assist with New Risk Tables, when we think about risks from contaminants there are 3 factors to consider, toxicity, persistence & mobility, and likelihood of release.
 - Toxicity, (acute, chronic, or aesthetic) to decide if it is a risk and how dangerous it is.
 - ❖ Aesthetic affects the taste or odor something like salt, it would still be useable for drinking water, but no immediate health benefits.
 - ❖ Chronic toxicity comes from things like arsenic, uranium, and lead, won't kill you but over a period of time can cause health issues.
 - ❖ Acute could end your tomorrow pathogens and e-coli is the big one.
 - Persistence & Mobility of the Contaminate
 - ❖ As you move further away from the well, contaminates become less of an issue. This is why we use ground water; pathogens die out or are filtered through the ground before they reach the source.
 - Likelihood of Release
 - ❖ For example, PCBs from older transformers, we don't worry about the PCB's leaching out, but it is there and something to think about.

The current Risk Tables use the numbers 1-5 for scoring the risk, #1 being the highest priority. Colin has a process that takes most of the judgement out of determining the risk to use in the updated table. The current table covers items like the Municipal sanitary & storm sewer, domestic fuel storage tanks, abandoned wells, proximity to Highway 1 as a transportation corridor, parking lots, road salt, septic systems (close to the water source), fertilizers etc.

- Ways to manage the source water, and to reduce risk, land acquisition, education, LUB's, inspection & sealing of unused wells, annual water quality monitoring (require monitoring wells) and public information sessions. One of the old monitoring wells will be reestablished in order to conduct water quality monitoring.
- The 2008 Plan had 10 initiatives or action plans, including abandons well capped, inspection of the sanitary sewer line and replacement as needed, continuing education, identify vulnerable areas to aquifer (how deep is the clay/gravel layer over the aquifer), inventory fuel tanks, draft LUB, Provincial Designation (encoded into the NS Environment Act allows enforcement), prepare an Emergency Response Plan and testing of former industrial sites.
- The current LUB allows for water production, parkland, and any existing residential furnace oil storage. Prohibited in Zones A, B & C, any type of automotive garage, bulk chemical storage, bulk salt storage, commercial nurseries, chlorinated solvents (dry cleaning shops), storage and some spreading of fertilizers, pesticides herbicides



(some of which can't always be avoided), petroleum fuel, manure storage, scrap metal/salvage yards and new geothermal installations.

- At the end of the plan renewal, zones will be updated in the SWP plan and a new inventory of properties and usage of the properties. Review terms of reference and update if needed, commencement of a monitor plan, emergency response/contingency plan, and type of SWPP (designation).

b. Search for the Third Well

- The potential third well is located to the west end of town, just outside of the Town boundary.
- We have viable land for the third well, the aquifer tells us it is a good spot, the landowner is very aware of the activities on the land that could eventually impact the water quality and is careful about products that are used on the land.
- Colin will have more information of the initial drilling for the February 2024 meeting.
- A third well is being investigated to provide redundancy, if one well goes down, we will have an additional backup well, also the third well will address capacity for future development.
- Initially Wickwire well ran most of the time with Cherry Lane well being the backup. However, since installing our new well pumps (in the last couple of years) we are now splitting the time 50/50 on each of the wells to reduce the mechanical burden.

o DISCUSSION & QUESTIONS:

- As part of the new plan there will be an Emergency Response Plan, when a spill happened the province has a process and that would be enacted without a plan. The initial response would still go to the Fire Department, they have very specific protocols to dealing with hazardous substances and are accustomed to dealing with spills like fuel, chemicals.
- How does the Source Water Protection committee fall under water safety planning? The province has a process for source water protection, there is a set of guidance documents on their website, the Source Water Protection plan and models come from the guidance documents set out by the province. This Source Water Protection Plan and the computer model are parts of the process including this meeting, this is the process of source to tap.
- On a wholistic view, our approval to operate states requires us to complete a system assessment report, gets submitted to Nova Scotia Environment for review, follows a very prescribed process. We just completed our 10-year system assessment report spring of 2023, and there were some corrective actions suggested in the report that need a corrective action plan.
- How do we get the list of prohibited items listed in the Zones A, B & C, of the LUB back to the County and surrounding areas? Education and the request to participate, needs to be addressed fairly and with an open mind. Once the Source Water Protection Plan update is completed and reviewed by the committee, at this time we could discuss Provincial Designation.



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- **NEXT MEETING:** February 20, 2024, 2:30-4:30

 - **ADJOURNMENT:** The meeting adjourned at 3:31pm.

Approved at the February 20, 2024, Source Water Protection Advisory Committee Meeting.

As recorded by Karen Outerleys, Administrative Assistance Public Works