



ATTENDING

- Councillor Wendy Elliott (Chair),
- Mayor, Wendy Donovan
- John Brustowski,
- Meghan Swanburg
- Marcel Falkenham, Acadia University Representative
- Councillor Ian Palmeter
- Karen Outerleys, Recording Secretary

ALSO ATTENDING

- Alex de Sousa, Director of Engineering & Public Works
- Colin Walker, CBCL Hydrogeologist
- Kris Cheeseman, Municipal Engineering Technician

ABSENT WITH REGRET

- Mike Allen, Nova Scotia Department of Environment
- Shane Warner
- Councillor Peter Allen, Municipality of the County of Kings,
- Devin Lake, Director of Planning & Development, and

CALL TO ORDER

Chair, Councillor Wendy Elliott, called the meeting to order at 2:32 pm

○ APPROVAL OF THE AGENDA

CARRIED

○ APPROVAL OF THE SOURCE WATER PROTECTION ADVISORY COMMITTEE MINUTES OF THE REGULAR MEETING OF FEBRUARY 8, 2023.

CARRIED

○ NEW BUSINESS:

- Introduction of newest staff member, Kris Cheeseman, Municipal Engineering Technician, helping with technician tasks, field work and overall asset management.
- **Update on the Source Water Protection Plan Proposal from CBCL**
 - CBCL has submitted the Town with a proposal to update the Source Water Protection Plan, to review the requirements and update our 2008 plan. Plans are typically updated every 5 years.



- Colin summarized the proposal, broken into 4 tasks.
Task 1 -Is to review exiting the plan and compare it to what is happening on the ground and what has changed since 2008. What kinds of practices are in place and how many of those practises are happening and need to be updated.
 - Task 2 – Computer model update, not strictly required the original model was done by CBCL in 2005/2006 and the zones we have are still good. However, if we add a new well to our system, new zones will need to be calculated. The original data would be downloaded to a new model, new zones would be calculated and state of the art techniques.
 - Task 3 - Risk Assessment, identify current land use, 3 basis elements of risk, how toxic is the contaminate to our water table, how persistent and likely is it to travel through the ground and how likely to occur.
 - Task 4- Documentation and Reporting from the first 3 steps any addition can be discussed and requested.
 - **DISCUSSION& QUESTIONS:**
 - The risk assessment (task 3) does not include any assessment of the mechanical components, configuration of our well houses or distribution system.
 - The System Assessment Report started in fall 2022 with CBCL is due this year.
 - Windshield Reconnaissance time of year and will there be photos to share with the committee, ideally happens when there is no snow on the ground, however otherwise it doesn't make a difference whether it happens in May or September, photos to be shared with the committee. Most of the streets of the Town are visited as well as outlying areas noting anything that seem out of place or potential contaminate sources.
 - General timeline for all 4 tasks, approximately 6 months.
 - Modeling exercise, the report from 2005 model had some recommendations, thoughts about filling in the data gaps, example saltwater intrusion, the past model was steady state, would there be any thoughts to do a transient model. Yes, a test of time on the model (transient) would be considered. Committee member referenced the recent research at Dalhousie, re: mega tidal controls because of the boundary condition at the Cornwallis River, it may be possible to access a copy of the report. Would the build up of the dykelands (to happen in 2026) be a concern for ground water intrusion? Somewhat but it maybe low down on the risk scale, needs more information Recommendations of the hydrologic budget, recharge in the past model had it uniformly distributed will that be reinvestigated? Yes, the next level up from uniform amount, would be to look at things available, land cover, slope, soil type and get a better estimate of the modelled area.
 - In the modelling process would it help us determine if we are overutilizing any one well, to help us determine if we are using how we are operating the wells and doing it more responsibly. The model is calibrated by using measurements of wells in aquifer. Most important is how much water comes into the aquifer, which is hard to measure exactly, and river flow data is also use in the calculation. It would possibly give information about whether or not we are overdrawing, one thing that matters a lot is how far down the water level is pump when the well is on. If the water level drops in the aquifer over a period of time
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- (years) that's a sign that more water is coming out than being replenished to the aquifer.
- Will the modeling process help us determine where the best place for the third well to be located. No, usually with exploration work the first step is to find a place where the amount of water going through the aquifer to the well is large enough, and that depends how much gravel unit is and how extensive is it, field data for that. If the question was what is the safest place is to put the well, than yes the modelling data would assist answering this question.
 - Committee members would like a copy of the systems assessment report and the annual water report.
 - Committees access to past SWP information, Teams SWP group will be created where files/documents can be dropped.

2023-02-22 It was moved and seconded that the Source Water Protection Advisory Committee recommends to council, moving forward with all four tasks from the CBCL Proposal to update the Source Water Protection Plan.

- When considering the third well for the Town, should we look at a few smaller wells instead of another large well. One of the problems sourcing the pump was that we needed such a large pump. Needs investigation.
 - Do we know how large our aquifer is and will it handle a new development of 3500 people, do we know if there is water in the grow to handle this going forward. A desk top compacity study was done and the wells are currently not declining over time. There will be lots of water to allow for the extra growth.
 - Bring information to a future meeting what water testing the Town does, mineral etc.
 - We have general understanding of areas that we will focus our attention on for the 3rd well, west of Cherry Lane and a location just outside the Town boundary.
 - No results received at the time of the meeting as to the reason for the pump failed.
- **NEXT MEETING:** April 13, 2023, 2:30-4:30
- **ADJOURNMENT:** The meeting adjourned at 2:32pm.

Approved at the May 10, 2023 Source Water Protection Advisory Committee Meeting.

As recorded by Karen Outerleys, Administrative Assistance Public Works