

Stanhope Peninsula Potable Water Research Ad Hoc Committee - Update #3

The committee met on July 28, 2021. After the review, amendment and approval of the minutes of the previous meeting members reviewed the information and documents which have been gathered to date. This review and discussion enabled the Committee to decide upon action to be taken before the next meeting on September 16, 2021. It was agreed that the following actions would be undertaken prior to the next meeting:

- Issue/post a third public information update on the Committee's activities and plans;
- Meet with IRAC representatives to determine what information and actions would be required by IRAC for approval to establish a water utility should this be considered. Questions would include:
 - o Generally, what information does IRAC require for such an application?
 - o Does IRAC have a 'template' for an application for the establishment of a water utility that can be shared with the Committee?
 - o Are there examples of similar applications (by other PEI communities) on the public record which can be reviewed by the Committee?
 - o It was indicated that IRAC requires utilities to be established with a 'user pay' model in place. This should be confirmed and fully detailed as to what this involves/encompasses.
- Continue to contact other municipalities for studies, Terms of Reference and other pertinent information which will be added to the shared Google drive which has been created for the Committee's archived information.
- Draft a Request For Proposals (Terms of Reference) for the engagement of an engineering consultant to develop detailed, practical and technical options for the establishment of a potable water system for the Stanhope Peninsula area. The options developed would be:
 - o fully costed,
 - o capital funding sources identified,
 - o consider the merits and disadvantages of a system phased-in over a period of years,
 - o meet all government regulatory requirements,
 - o include a detailed structure for a water utility entity,
 - o provide annual operating budget forecasts including user fee structure, revenue estimates, operational cost estimates (including interest payments),
 - o a capital debt repayment plan,
 - o review and update existing data on well density, water usage, water issues, etc. - current and anticipated,
 - o reference similar water utilities established in other PEI communities and provide a critique of lessons learned/best practices.

The foregoing actions have been designed to enable the Committee to develop a solution to a current and impending potable water quality issue. Rather than simply update study data from years past the Committee is focused on the design of a practical technical and financially viable

potable water system that will protect the value of residents' investment on the peninsula and provide a source of potable water for the area over the long-term. The need and immediacy for a new solution is fully supported by the experts who have provided advice, knowledge and described potential outcomes to the Committee. Provincial representatives including Ben Lannigan (Water and Wastewater), Qing Li (Hydrogeologist) and Morley Foy (Quality and Compliance) have provided the Committee with key insight and advice, as summarized below:

- Two factors affect the amount of fresh, potable water: the recharge rate and the elevation above sea level. The peninsula has a relatively low recharge rate and its elevation is close to sea level.
- As more wells are drilled the demand on the aquifer increases. The potential for salt water to penetrate into the fresh water aquifer is further exacerbated as the demand increases and the location of unknown fractures in the bedrock provide entry points for salt water. The existence of substratum fractures cannot be fully quantified however it is a common phenomenon in coastal areas.
- The timing of increased salt water intrusion is uncertain but the substantive threat it poses must be addressed proactively in order to avoid a situation that is difficult to manage and perhaps financially prohibitive to resolve.

The options developed by the engineering consultant retained to design a solution(s) will be reviewed by the Committee and recommendations presented to Council.