



# Shubenacadie Source Water Protection Plan

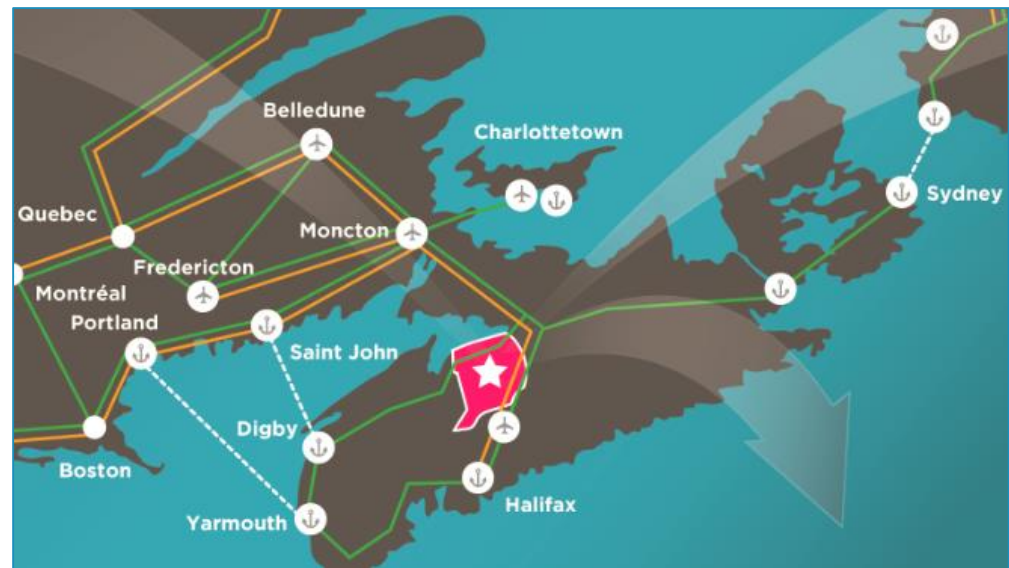
2015/16 Utility Excellence Award  
Community Outreach Award  
Medium/Small Utility



**EAST HANTS**

## Shubenacadie

- **Shubenacadie Water Treatment Plant** serves a population of **900**
- Community is governed by the **Municipality of East Hants** with a total population of **24,000**
- **East Hants Water Utility** operates a separate regional water system across 3 communities serving a population of **6500**



## The Shubenacadie System

- New Water Treatment Plant was commissioned in **2012**
- Public Consultation for Source Water Protection in **2015**
- Water supplied by 2 production wells by **Aquifer Supply**
- **Treatment Process:** Sand Filtration, Water Softener, GAC Filter, Disinfection, Corrosion Control



## Community Outreach - Source Water Protection Plan

- Nova Scotia Environment requires a Source Water Protection Plan for Approvals to Operate Water Treatment Plants
- Protection plan was started after completing a study trial that demonstrated the water source was not under the direct influence of surface water
- Trial set base line for level of risks to be considered



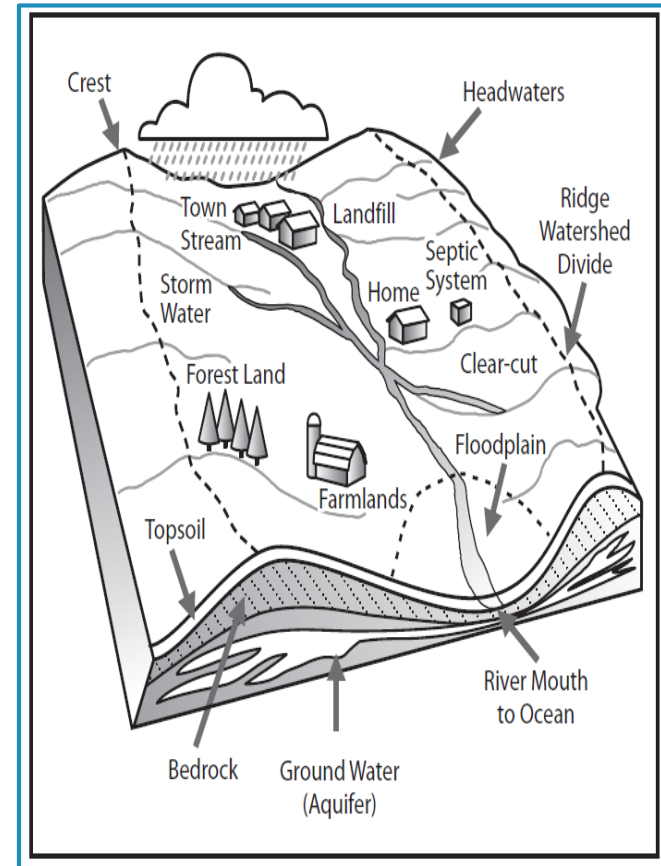
## Community Outreach – Approach

- Host community events to present;
  - Established travel distances to production wells
  - Discuss pre-identified risks with rankings
  - Present current protection measures and proposed additional measures
  - Gather public comments
  - Determine next steps



## Community Outreach – First Community Meeting

- **Learnings from 1<sup>st</sup> event**
  - The community supported increasing the protection of its drinking water supply
  - The Farming Community was a unique stakeholder group needing independent consultation
  - Everyone in attendance wanted to build their own awareness of about the system



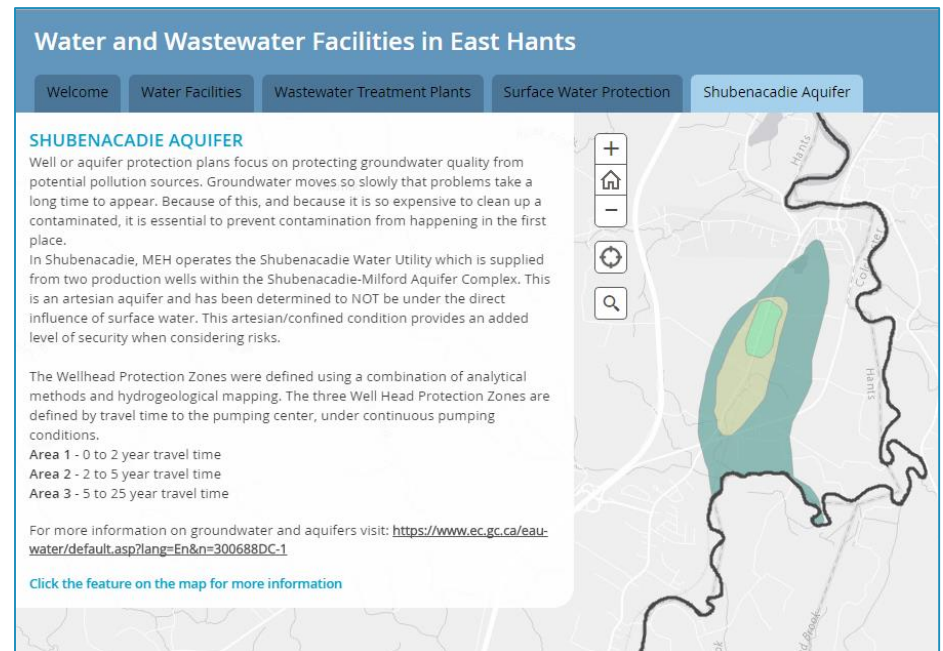
## Community Outreach – working with Farming Community

- Over 4 meetings we identify concerns, reported back with findings & recommendations, then agree to a path forward
- It was important to build trust through active listening and demonstrate an open process by following up on information requests
- Mitigated additional administration by leveraging the Agricultural Farm Plan as a requirement that was familiar and accepted by local Farmers



## Community Outreach – Response to Public Feedback

- Water Utility interactive mapping program now available to the public
- Public website rebuilt to reflect the public interest
- Well decommissioning program launched
- New planning regulations set
- Public summary meeting held
- **The program will be sustained through the Source Water Protection Committee process**



The screenshot displays a web interface for 'Water and Wastewater Facilities in East Hants'. The navigation menu includes 'Welcome', 'Water Facilities', 'Wastewater Treatment Plants', 'Surface Water Protection', and 'Shubenacadie Aquifer'. The 'Shubenacadie Aquifer' section is active, featuring a text panel on the left and a map on the right. The text panel provides information about the aquifer, its protection, and Wellhead Protection Zones. The map shows the aquifer's location in East Hants, with three distinct protection zones highlighted in green, yellow, and orange.

**Water and Wastewater Facilities in East Hants**

Welcome Water Facilities Wastewater Treatment Plants Surface Water Protection **Shubenacadie Aquifer**

**SHUBENACADIE AQUIFER**

Well or aquifer protection plans focus on protecting groundwater quality from potential pollution sources. Groundwater moves so slowly that problems take a long time to appear. Because of this, and because it is so expensive to clean up a contaminated, it is essential to prevent contamination from happening in the first place.

In Shubenacadie, MEH operates the Shubenacadie Water Utility which is supplied from two production wells within the Shubenacadie-Milford Aquifer Complex. This is an artesian aquifer and has been determined to NOT be under the direct influence of surface water. This artesian/confined condition provides an added level of security when considering risks.

The Wellhead Protection Zones were defined using a combination of analytical methods and hydrogeological mapping. The three Well Head Protection Zones are defined by travel time to the pumping center, under continuous pumping conditions.

Area 1 - 0 to 2 year travel time  
Area 2 - 2 to 5 year travel time  
Area 3 - 5 to 25 year travel time

For more information on groundwater and aquifers visit: <https://www.ec.gc.ca/eau-water/default.asp?lang=En&n=300688DC-1>

[Click the feature on the map for more information](#)



## Community Outreach – East Hants Water Utility

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