

Panel: Problems for Individual Properties and Small Communities

Dave Wigmore, N.S. Department of Environment and Labour gave the provincial perspective of on-site problems (pages 10-13).

Pierre Breau, Director of Engineering, Municipality of the District of Lunenburg presented the issues and challenges that face a municipality. (not available)

Maureen Ryan, Planning and Development Services, Halifax Regional Municipality, concentrated on planning issues – fragility of development on unserviced lots in poor soil conditions, the resulting sprawl, difficulty of providing other services, loss of valued rural character, transportation issues (pages 14-17).

David Cotton, Wastewater Technologies Inc., Vermont, provided an overview of the problems experienced in the northeastern U.S. (pages 18-21).

Dave Wigmore, N.S. Department of Environment and Labour
**Options for Small Scale
Wastewater Management in Nova Scotia
JURISDICTIONAL OVERVIEW**
Nova Scotia Department of Environment and Labour
Truro, Nova Scotia
May 2002

Presentation Objective

- **Brief overview of NSDEL and our regulatory role in Wastewater Management**
 - **Our legislation and policies**
- **Approvals, Qualified Persons, Certificates of Qualification facility classification and operator certification**

Nova Scotia Department of Environment and Labour

- **Mission**
 - To protect and promote a healthy environment
- **Goal**
 - To promote sustainable management and protection of the environment and natural areas

Environmental Monitoring and Compliance Division

- **Responsible for administration, inspection and compliance activities related to environmental protection issues associated with the *Environment Act***
 - **Activities include**
 - Processing applications
 - Issuance, inspection and monitoring of approvals
 - Enforcement activities
 - Response to public issues and complaints

Nova Scotia Legislation

- **Under the Nova Scotia *Environment Act***
 - Activities Designation Regulations (N.S. Reg. 47/95)
 - Approvals Procedure Regulations (N.S. Reg. 48/95)
 - Water and Wastewater Facilities Regulations (N.S. Reg. 60/95)
 - On-site Sewage Disposal Systems Regulations (N.S. Reg. 51/97)

Nova Scotia Legislation

- **Regulations can be found at:**
www.gov.ns.ca/just/regulations/regs
- **Search under the *Environment Act***

Facility Classification

- **Since January 1, 1996 the following facilities need a classification certificate**
 - Water Treatment Plants
 - Water Distribution Systems
 - Wastewater Treatment Plants
 - Wastewater Collection Systems

Operator Certification

- **Since January 1, 1996 the following systems require certified operators**
 - Water Treatment Plants
 - Water Distribution Systems
 - Wastewater Treatment Plants
 - Wastewater Collection Systems
- **An operator's certification level must equal or exceed that of the facility's classification**

Sewage Management

- **'Municipal Infrastructure Needs Assessment'**
Department of Municipal Affairs 1996
 - \$400M Halifax
 - \$ 80M Sydney
 - \$ 55M Province
- **Estimated \$81M to correct malfunctioning on-site sewage disposal systems**
- **Total Projected Expenditure**
 - \$616,000,000

Sewage Management Strategy

- **Sewage Management Discussion Paper**
 - Increase awareness and solicit input
 - **Public consultation**
 - Spring/Summer 2001
 - **Sewage Strategy**
 - map out an achievable plan
 - establish solutions, priorities and timelines

Sewage Management Strategy

- **Wastewater Management Options in Nova Scotia based on Location and Population**
 - 45% On-Site Sewage Disposal Systems
 - 30% Raw Sewage Discharge
 - 25% Central Sewage Treatment

- **Total Projected Expenditure to Meet Acceptable Treatment Requirements**
 - \$750,000,000 to \$1,000,000,000

Sewage Management Strategy

- **Financial**
- **Education**
- **Regulations**
- **Research**
- **Enforcement**

On-Site Sewage Management

- *On-site Sewage Disposal Systems Regulations* (N.S. Reg. 51/97)
- Nova Scotia Department of Environment ‘On-Site Sewage Disposal Systems Technical Guidelines’

On-site Sewage Disposal Systems Regulations

- Prescriptive Approach
- Front end focused based on site characteristics and projected load
- No septic tank maintenance requirement
- No current requirement for filters and risers on septic tanks

On-Site Sewage Management

- **Qualified Person I**
- Capable of designing/selecting an on-site sewage disposal system
- **Qualified Person II**
- Capable of selecting an on-site sewage disposal system

On-Site Sewage Management

- **Installer**
- Capable of installing an on-site sewage disposal system
- **Septic Tank Pumper**
- Capable of pumping septic and holding tanks

On-Site Sewage Malfunctions

- **Lack of Maintenance**
 - **Overloading**
- **Water Treatment Devices**
 - **Foreign Objects**
- **Fats, Chemicals, Solvents**
- **Septic Tank Additives**
 - **Compaction**

On-Site Sewage Management Options

- **Replacement Systems**
 - **Holding Tanks**
 - **Filter Systems**
- **Technological Options**
 - **Cluster Systems**
- **Waste Management Districts**
 - **Central Services**

On-Site Sewage Management Possible Directions

- **Mandatory Inspection and Maintenance Programs**
 - **Time of Sale Inspection**
 - **Septic Tank Risers**
 - **Effluent Filters**
 - **Warranty Programs**