



**Maintaining and Conserving
Nova Scotia's
Wildlife Species:**

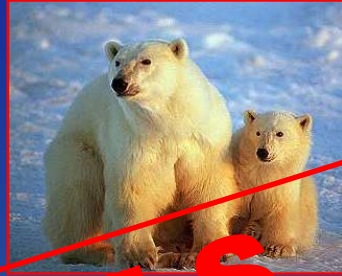
Focus on Species at Risk

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*Municipality of the County of Antigonish
February 17th, 2004*

What are Species at Risk?

- Any animal, plant, or other organism that is considered at serious risk of extinction



- Usually species are at risk due to human activities that impact species or their habitat

- Extinction is occurring at a rate never before seen in the history of human existence

Project Goal

**Maintaining and Conserving
Nova Scotia's Wildlife Species:
*Focus on Species at Risk***



The goal is to:

- Share information and explore the role municipalities may play in conservation and recovery of species at risk and their habitats



Project Context

Who is involved in species at risk conservation and recovery



Role of Municipalities?



Recognition of municipal role:



- "...[we] require **greater acknowledgement of the role** that municipal governments can play in fostering stewardship at a local and regional level."



- "Municipal governments **should become more involved** in assisting with species at risk recovery..."

However, we realize that:



- There has been "... **increased 'downloading' of responsibilities** on municipalities..."

Why a Municipality May be Interested in Species at Risk?

Maintaining and Conserving
Nova Scotia's Wildlife Species:
Focus on Species at Risk



1. *Legislation* exists to protect species at risk and applies to private and municipal lands
2. Municipal government is the level of *government nearest to the people*
3. *Funding opportunities* exist for species at risk conservation initiatives
4. Species at risk can serve as indicators of the *health of our natural environment*
5. *Municipal "tools" may* be able to assist in species at risk conservation and recovery



Municipalities & Species at Risk Legislation

Nova Scotia Endangered Species Act



- Applies to all private land and public (crown) land
- Prohibits the killing or harming of species at risk or their habitat

What to do prior to alteration of any land:

- Follow appropriate permitting and assessment processes, species at risk must be considered
- Contact the Department of Natural Resources Regional Biologists or Wildlife Division who can:
 - Help assess whether species at risk are present
 - Flag areas of particular concern for municipalities
 - Assist stakeholders in finding solutions to issues and problems

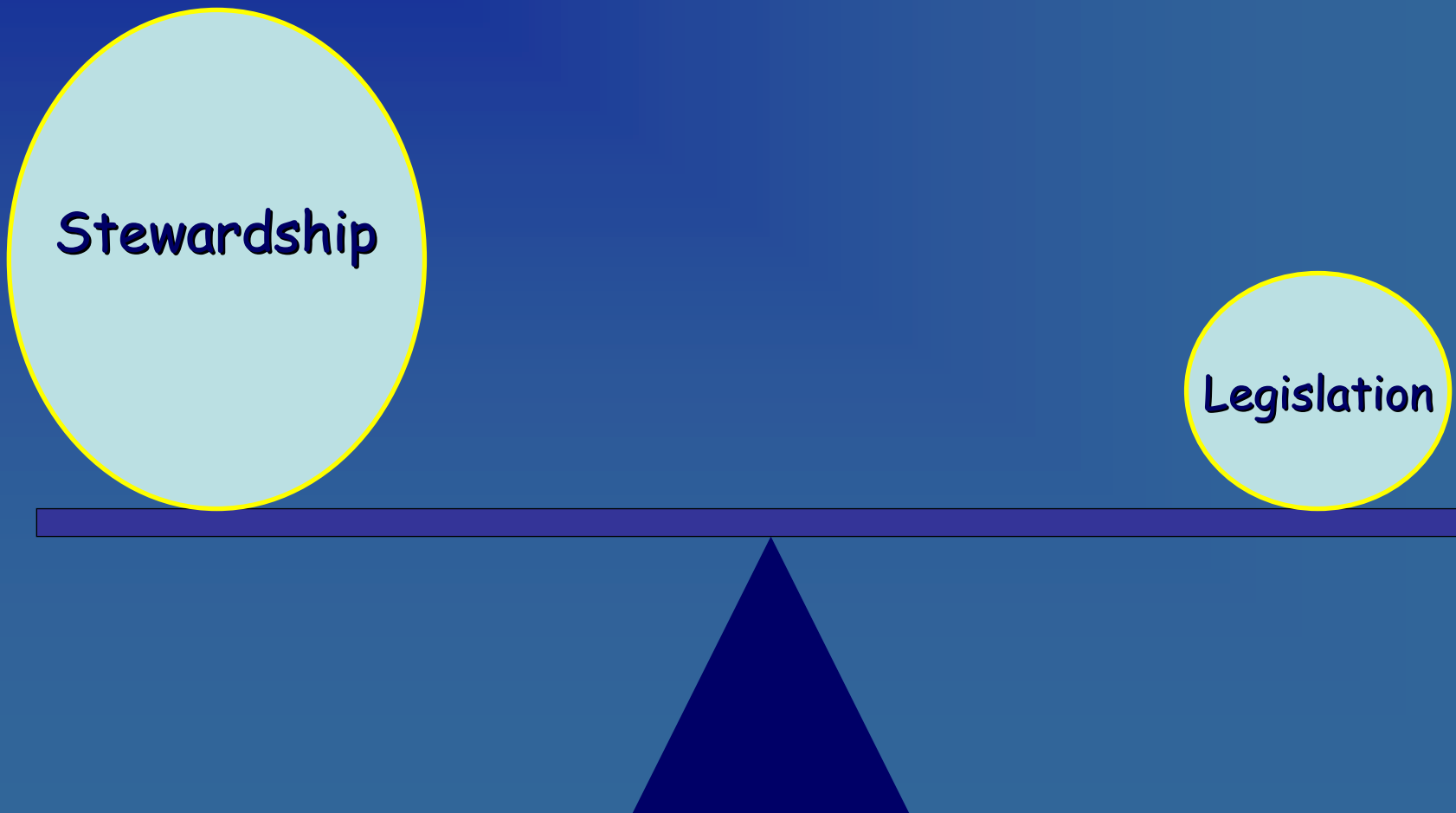


Federal Species at Risk Act



Municipalities & Species at Risk *Legislation*

The importance of stewardship in species at risk protection





The Role Municipalities Can Play

Level of Government Nearest to the People

- Municipalities are a direct link to communities and citizens
- Municipalities could help in communicating and encouraging awareness and stewardship for species at risk
- Municipalities could be involved in species at risk conservation and recovery





Municipalities & Species at Risk

Funding Opportunities

Municipalities are eligible to apply for species at risk and habitat stewardship funds



- Species at Risk Conservation Fund



- Habitat Stewardship Program for Species at Risk



- Green Municipal Funds



- Endangered Species Recovery Fund



Municipalities & Species at Risk

Health of Our Natural Environment

Increased municipal awareness of Environmental Issues



FCM Environmental Policy on Nature:

29. urge municipal governments to ensure that their policies, financial instruments and programs protect and *encourage conservation of ecologically significant lands*. Factors determining ecological significance include:
- a) wildlife habitat and wildlife movement corridors necessary for the long-term sustainability of affected wildlife within the ecosystem of the area;
 - b) land necessary for the protection of rare and endangered species and to prevent species from becoming endangered; ...**



Municipalities & Species at Risk

Health of Our Natural Environment

Increased public awareness of environmental issues and interconnections



Water Quality, Air Quality, Pollution, Climate Change



Nature, Wildlife, Species at Risk, Natural Habitats

Environmental
Issues
(species at risk)

Healthy,
Sustainable
Communities

QUALITY OF LIFE



The Role Municipalities Can Play

Municipal "Tools"

- Some municipal "tools" have the potential to assist in species at risk conservation and recovery
- Examples of what we are referring to as municipal "tools":
 - Land use planning (strategic planning, zoning)
 - By-laws
 - Development agreements
 - Parks and protected areas
 - Policies
- Not traditionally thought of as being able to help species at risk, wildlife and habitat

Municipalities and Species at Risk



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Species at Risk in Nova Scotia's Municipalities



Municipality of the County of Antigonish

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Antigonish

Species at Risk in Antigonish:

- Piping Plover - Endangered
- Moose (NS Mainland population) - Endangered
- Boreal Felt Lichen - Endangered
- Wood Turtle - Special Concern

NS's Species at Risk: Piping Plover



Piping Plover (*Charadrius melodus*)

Endangered

Quick Facts:

- 40 breeding pairs in NS
- Located at 17 beaches around the province
- Many Threats:
 - Natural deterioration of habitat
 - Human alteration of habitat
 - Human disturbance during nesting
 - Predation by birds & mammals on eggs and young

NS's Species at Risk: Moose (Mainland)



Moose (*Alces alces americana*)
Endangered

Quick Facts:

- 1,000 moose on mainland NS in isolated sub-populations
- Population decline of 20% in past 30 years, hunting closures since 1930's
- Decreases over the past 200 years
- Cape Breton moose are not at risk
- Many Threats:
 - Over harvesting
 - Illegal hunting
 - Parasitic brainworm
 - Increased road access to habitat
 - Spread of white-tailed deer
 - High cadmium levels
 - Cobalt deficiency

NS's Species at Risk: Wood Turtle



Wood Turtle (*Clemmys insculpta*)
Special Concern (Vulnerable)

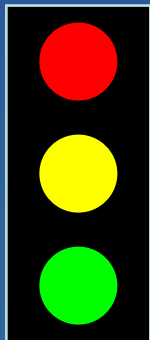
Quick Facts:

- 2,500 wood turtle in NS
- Located in river habitats
- Long-lived species
- Threats include: alteration and destruction of river and stream habitats and translocation by people

NS's Wildlife: Not Just Species at Risk



- NS has over 10,000 wildlife species
 - Only 30 species are at risk
 - Cannot forget about the other species
-
- **General Status** assessment process: First alert tool



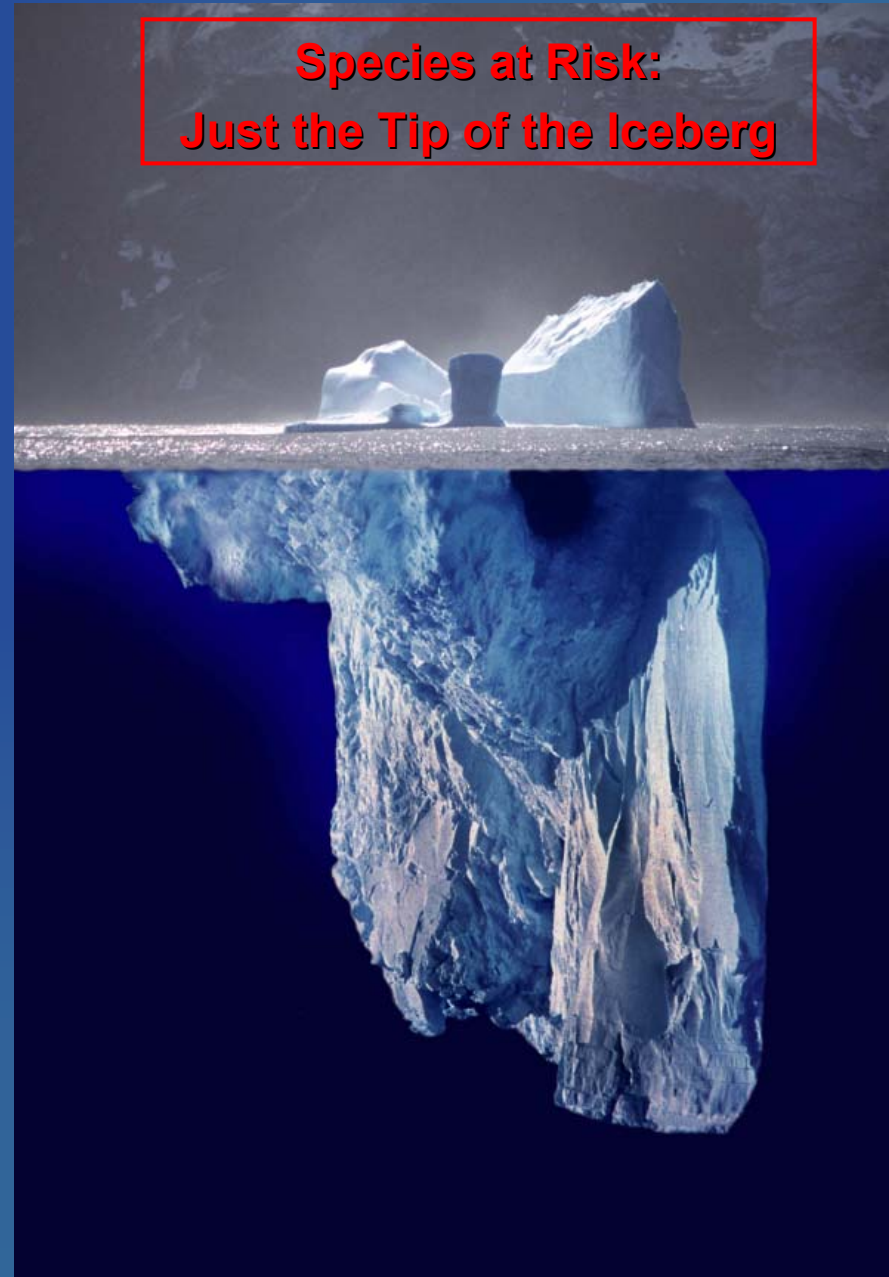
Red: At risk, or maybe at risk

Yellow: Sensitive

Green: Secure



Grey: Undetermined



Municipalities and Species at Risk

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Wildlife do not recognize political boundaries

Antigonish

Pictou

St. Mary's

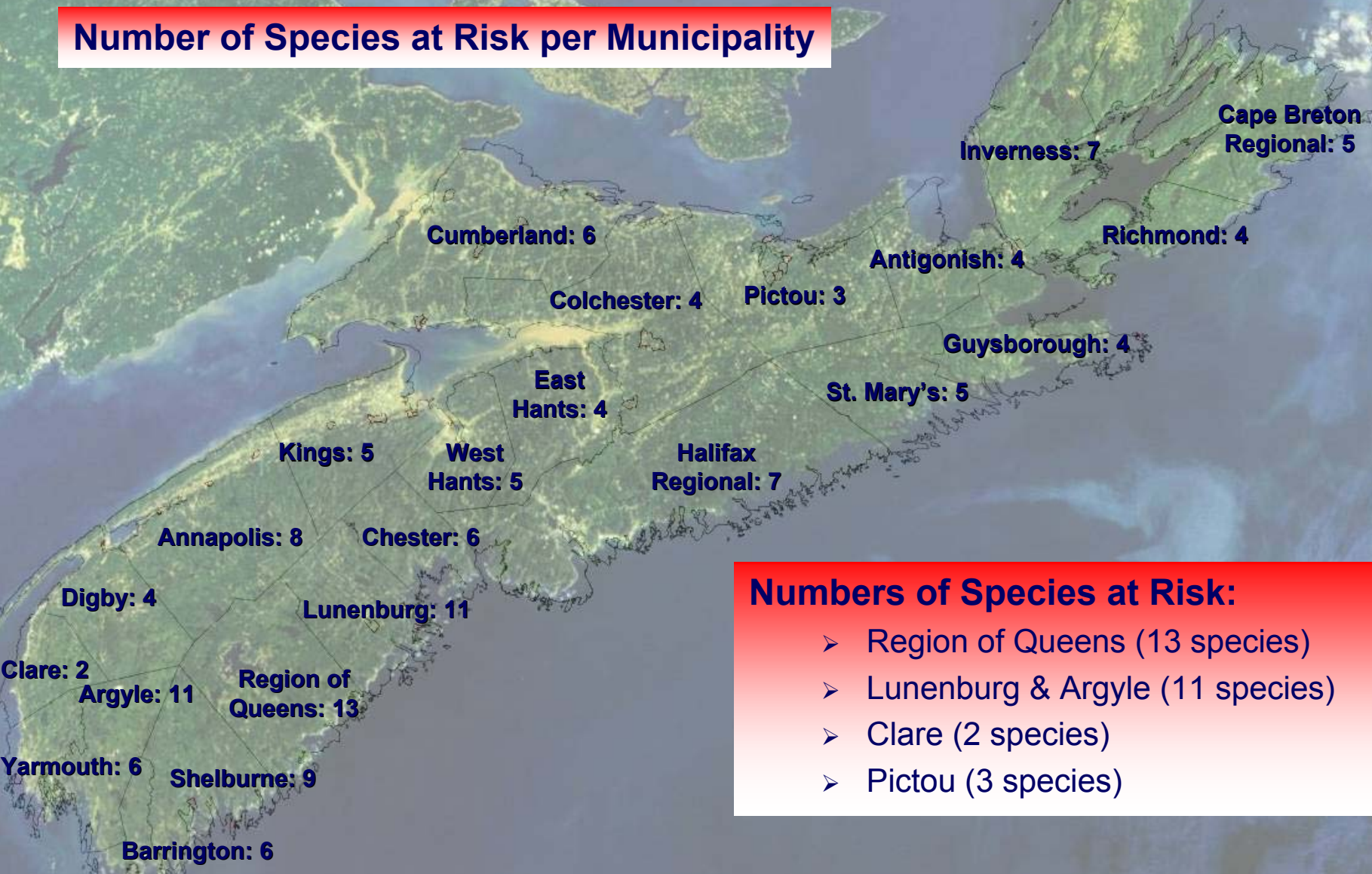
Guysborough



Municipalities and Species at Risk



Number of Species at Risk per Municipality



Numbers of Species at Risk:

- Region of Queens (13 species)
- Lunenburg & Argyle (11 species)
- Clare (2 species)
- Pictou (3 species)



How Could Municipalities Help?

Municipal "Tools"

Example in Municipality of the County of Kings:

- Study to address water quality in relation to increased development on lakeshores
- Amendments to Municipal Planning Strategy and Land Use Bylaws
 - *Zoning and Building permits (limited the number of homes & cottages)*
 - *Policies, development agreements & regulations*
 - *Community water quality monitoring program*
- Municipal "tools" address multiple issues and have multiple benefits
 - *Added benefits for wildlife species & habitats*

Transforming Theory into Practice: Lakeshore Planning in Kings County, Nova Scotia

"...The transition to sustainable communities involves new kinds of adaptations, and some alternative ways of doing things. While we may find the transition difficult, the long-term rewards should prove well worth the effort."
(Sustainable Development in Residential Land Use Planning Grant 1993: page 87)

INTRODUCTION

In the summer of 1997, Kings County Council adopted amendments to its Municipal Planning Strategy and Land Use Bylaw to manage land use around freshwater lakes. The amendments implemented a new approach to controlling shoreline development on freshwater lakes in Nova Scotia. This approach also relied on the Municipality's adaptation of a scientific method that ties development controls directly to the capability of the lakes to sustain development.

The aim of this paper is to describe the new planning framework, the process which led up to it and Council's expectations in terms of the benefits of a proactive watershed management program. This paper is one of a number of ways in which we are sharing the Kings County experience with interested municipalities and organizations. Not only do we believe the Kings County approach has put a tangible face on the notion of sustainable development, we have committed to a long-term monitoring program that sets out to prove it.

SHORELINE DEVELOPMENT AND THE STATUS QUO:

County Council and residents of Kings County take great pride in the pristine lakes and rivers that characterize the watersheds of the South Mountain Plateau. In the 1950s,

60s and 70s, cottage development spread around dozens of freshwater lakes in a 400 square kilometre watershed. At least three generations of cottagers have summered on many of these lakes.



Obliteration of a lake's natural shoreline, consequent habitat loss and reduced water quality.

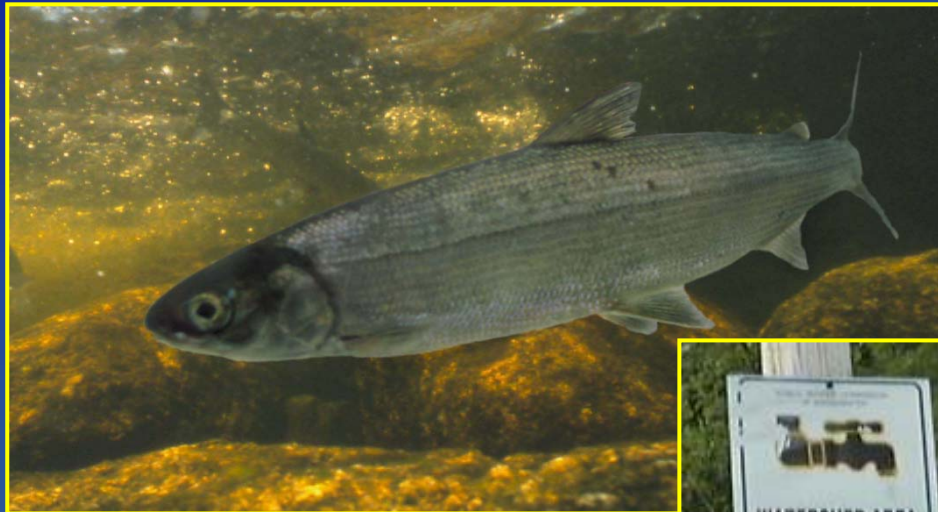
Unfortunately, by the mid 1970s the more accessible lakes experienced stresses which led to public health concerns for recreational swimming. In fact, health officials closed the public beach at Lake George in successive years due to high coliform levels. The contamination was attributed to cottage development, and either the failure of or complete absence of private septic systems along the shoreline. In the face of a growing stigma of pollution on Lake George, cottage owners finally organized. With the support of the Provincial Department of Health, and a ground swell of citizen action, cottagers turned the situation around within just a few years. Almost twenty years later, Lake George can boast excellent water quality and a safe and appealing public beach despite a



How Could Municipalities Help?

Municipal "Tools"

Example in the Municipality of the District of Lunenburg:



- Atlantic Whitefish:
 - Only found in NS
 - Only in the Petite Rivière
- Town of Bridgewater watershed area



- Municipality and community are participating on the recovery team

Where to Go From Here?

- Meet with all regional and rural municipalities
- Help municipalities get the information they need: <http://www.speciesatrisk.ca/municipalities/>
- Help municipalities develop “tools” that can assist with conservation and recovery
- Help coordinate municipalities with common interests
- Get feedback from municipalities on this project

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