

## Muskoka Watershed Council

## MWC Report Card Citizen Science

Muskoka Stewardship Conference April 27, 2013

Judi Brouse

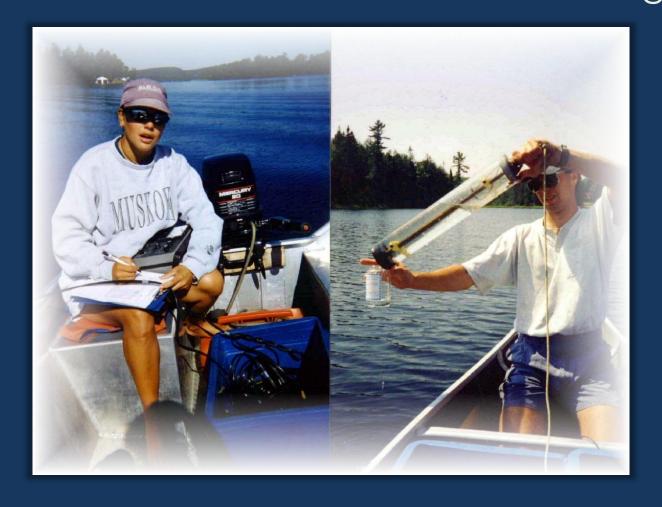
Director of Watershed Programs

## Why Monitor





#### What we don't measure we can't manage



## What are people asking?



- How are lakes changing?
- Is my lake is healthy?
- Can I swim in my lake?
- Can I use the lake water for drinking?
- Are we losing wetlands?
- What is the impact of climate change?
- What is the impact of invasive species?
- What is the impact of development?



- Algae (number of blooms/year)
- Clarity (Secchi)
- Phosphorus
- Benthic community
- Calcium levels
- Invasive species
- Road density
- Change in development



- We don't have a lot of data
- We don't have programs in place to gather the data
- Senior levels of government resources are being cut



## **Opportunities**





- Citizen science
- Eyes on the lake
- With training can be very effective







## Lake Partner Program



- A volunteer-based, water-quality monitoring program
- Focuses on the health of Ontario's inland lakes

Volunteers collect phosphorus samples and

record water clarity



#### **Contact Information**



Mailing Address:

Dorset Environmental Science Centre

Box 39, Dorset, ON

POA 1E0

Phone number:

• 1-800-470-8322 (in Ontario)

Email: lakepartner@ontario.ca

Website: http://desc.ca/programs/LPP

## **Invasive Species**





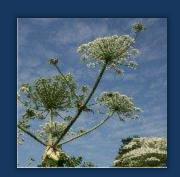


#### Website:

http://www.invasivestrackingsystem.ca/index.php



- Zebra Mussels
- Rainbow Smelt
- Spiny Water Flea
- Giant Hogweed



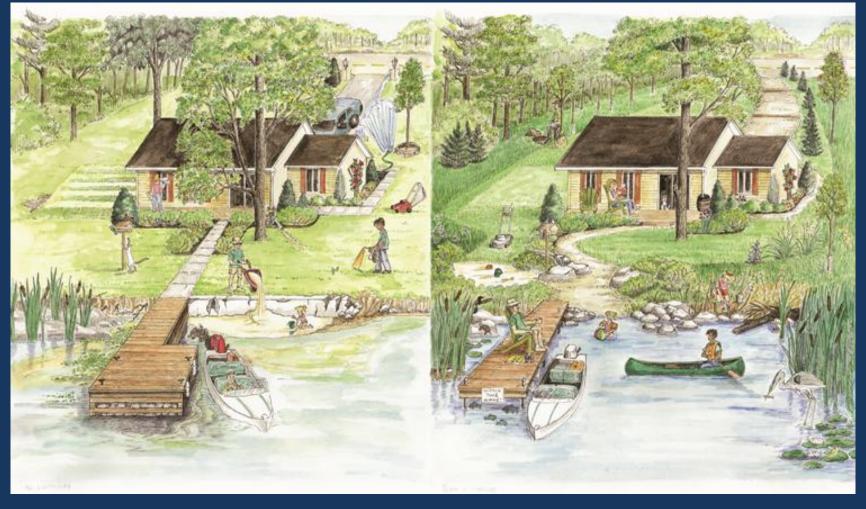






## **Shoreline Surveys**







## Lot Usage





Average number of people each day at a shoreline residence – both seasonal and permanent







## **Wetland Types**



- Wetland Types
  - Swamp
  - Marsh
  - Bog/Fen
  - Beaver Pond





#### **Disturbance**





- Residential
- Commercial/Industrial
- Filling

- Road
- Estimate of size of disturbance



#### **Wetland Grades**



Subwatershed Name	Subwatershed Area (ha)	Wetland Area (ha)	% Wetlands	1 % Wetland Loss (ha)	Wetland Loss (ha)
Moon River watershed	35,148	5,112	14.55	51.12	
Gibson Lake watershed	18,894	3,398	17.99	33.98	
Lake Muskoka watershed	33,853	3,861	11.41	38.61	
Lakes Rosseau and Joseph watershed	41,308	3,642	8.82	36.42	
Cardwell Lake watershed	1,140	212	18.58	2.12	



## **Algal Bloom Monitoring**



- Call the Spills Action Centre 1-866-MOE-TIPS (1-866-663-8477)
- Can citizen scientists help?







#### Muskoka WATERSHED COUNCIL

Pollen







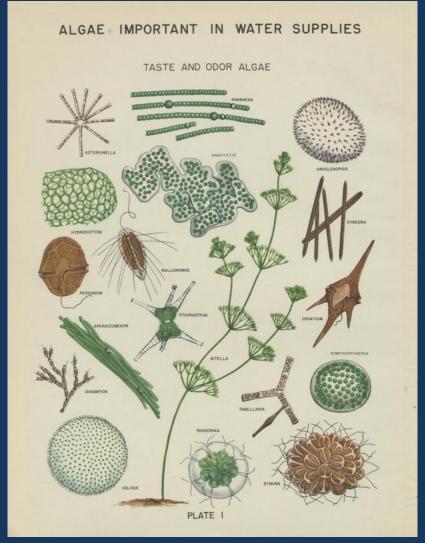
## Muskoka WATERSHED COUNCIL

Pondweed

## **Algal Monitoring**



- Training
  - Algae identification
  - Reporting format
  - Coordination with MOE
  - Databasedevelopment



#### What Do We Monitor?



- How are lakes changing? CWN project
- Is my lake healthy? This is an undefined question
- Can I swim in my lake? Yes, extensive monitoring
- Can I use the lake water for drinking? Yes, with treatment

#### What Do We Monitor?



- Are we losing wetlands? Insufficient data
- What is the impact of climate change?
   CWN project, DESC work, MWC analysis
- What is the impact of invasive species?
   Insufficient data
- What is the impact of development?
   Insufficient data

#### What Can You Monitor



- Province-wide Individuals and Associations
  - Lake Partner Program
    - Email: lakepartner@ontario.ca
    - Website: http://desc.ca/programs/LPP
  - Invasive Species
    - Website: http://www.invasivestrackingsystem.ca/index.php



- District of Muskoka Associations
  - Shoreline Surveys
    - Email: rwillison@muskoka.on.ca
  - Lot Usage
    - Email: rwillison@muskoka.on.ca

#### What Can You Monitor



- Muskoka Watershed Council Individuals and Associations
  - Wetlands
    - Email: info@muskokawatershed.org
  - Algal Blooms
    - Email: info@muskokawatershed.org

# Muskoka Watershed Report Card

Help us monitor and report on the health of our Watersheds

