

A satellite map of the Great Lakes region, showing the five Great Lakes (Superior, Michigan, Huron, Erie, and Ontario) and the surrounding landmasses. The water bodies are dark blue, while the land is a mix of brown, green, and white, indicating different terrain types and possibly snow or ice cover in some areas.

# **Great Lakes Public Forum 2013**

## **Binational Priorities for Science and Action – September 10, 2013**

Michael Goffin, Environment Canada

– and –

Susan Hedman, U.S. Environmental Protection Agency



# Overview of Day 2 of the 2013 Great Lakes Public Forum

- Proposed binational Great Lakes 2013 to 2016 science and action priorities
- Public comments on these priorities



# Annex 1: Areas of Concern



# Annex 1: Areas of Concern

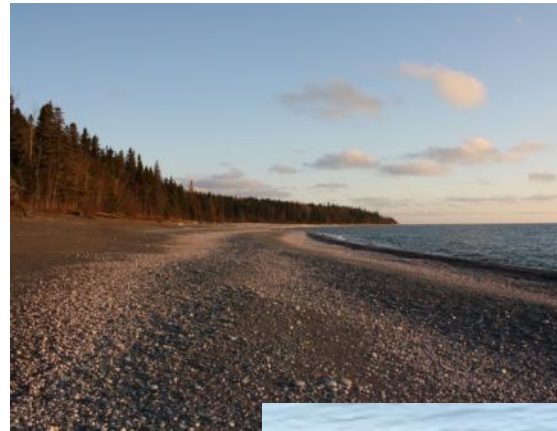
## Priorities for Action:

- Develop Areas of Concern documents
- Develop practices or mechanisms for sharing information





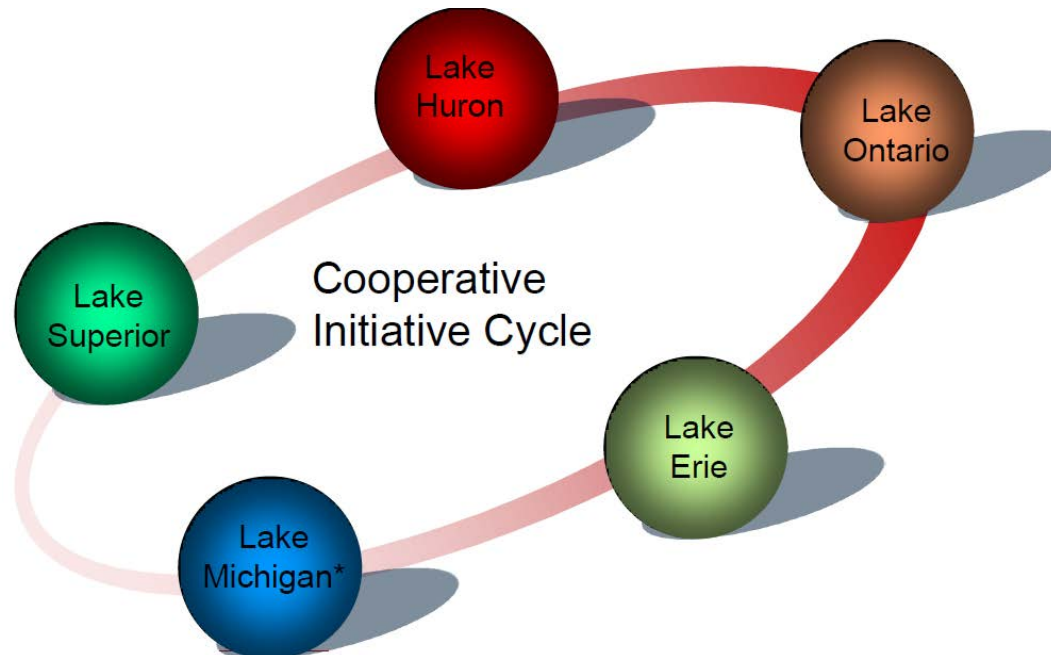
# Annex 2: Lakewide Management



# Annex 2: Lakewide Management

## Priorities for Science:

- Science to better understand the nearshore
- Identify lake-specific science priorities for the Cooperative Science and Monitoring Initiative and identify needs for further action on a Lake by Lake basis



# Annex 2: Lakewide Management

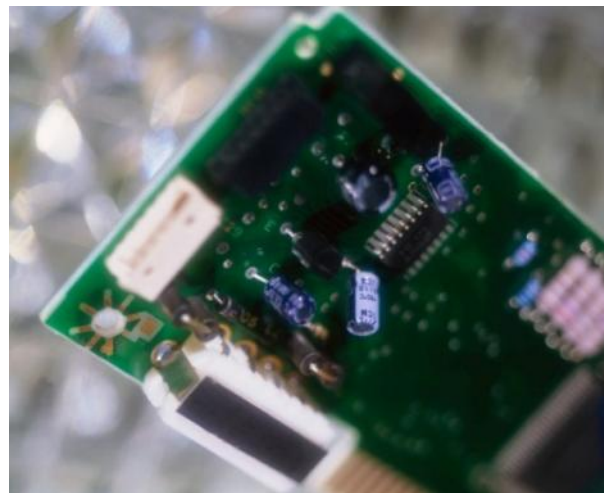
## Priorities for Action:

- Draft Lake Ecosystem Objectives to assess status and trends
- Establish an integrated framework to assess and manage nearshore areas of the Great Lakes





# Annex 3: Chemicals of Mutual Concern





# Annex 3: Chemicals of Mutual Concern

## Priorities for Science:

- Research, monitoring and/or surveillance
- Identification of Chemicals of Mutual Concern (CMCs)
- Analytical methods to support monitoring and/or risk management needs
- Domestic water quality standards, objectives and/or guidelines for CMCs
- New standards, objectives, guidelines, if warranted, must be guided by current scientific knowledge



# Annex 3: Chemicals of Mutual Concern



## Priorities for Action:

- Develop a binational process for identifying and designating CMCs
- Develop binational strategies for CMCs
- Share information
  - Web-based inventory of existing water quality standards, objectives, criteria and guidelines for CMCs





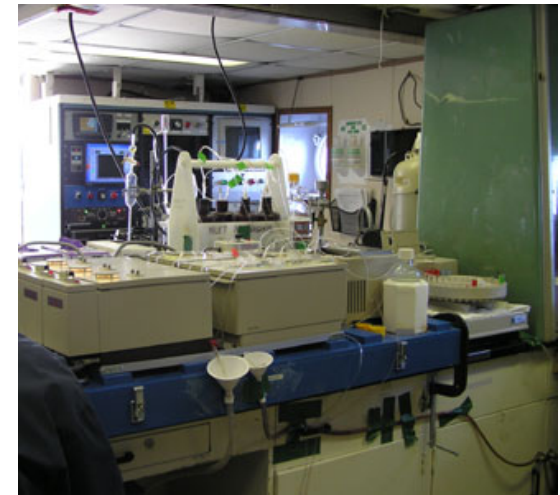
# Annex 4: Nutrients



# Annex 4: Nutrients

## Priorities for Science:

- Science to support establishment of phosphorus objectives, improving understanding, and identifying priority watersheds
- Monitoring to track progress towards objectives





# Annex 4: Nutrients

## **Priorities for Action:**

- Update 1987 offshore phosphorus objectives and developing new nearshore phosphorus objectives
- Phosphorus loading targets necessary to achieve the above phosphorus objectives
- Phosphorus reduction strategies and domestic action plans
- Assess effectiveness of programs and measures

# Annex 5: Discharges from Vessels





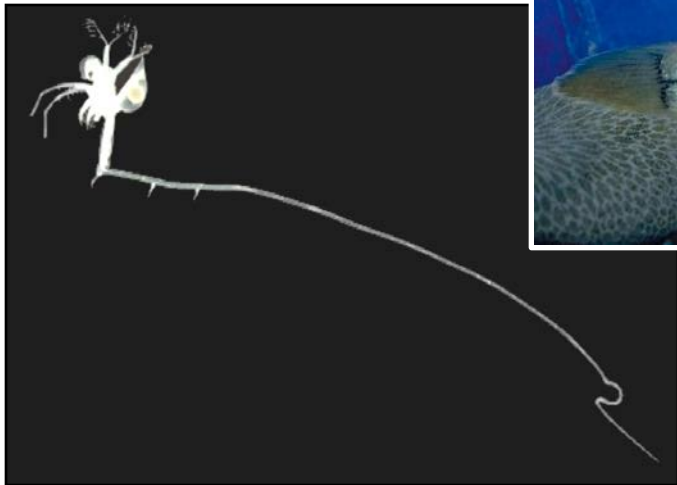
# Annex 5: Discharges from Vessels

## Priorities for Action:

- Continue prevention and reduction of threat of impact to the waters of the Great Lakes from all vessel discharges
- Ship inspections
  - Foreign-flag ships examined through the Canadian and U.S. Port State Control program
  - “Lakers” regulated under domestic vessel inspections



# Annex 6: Aquatic Invasive Species





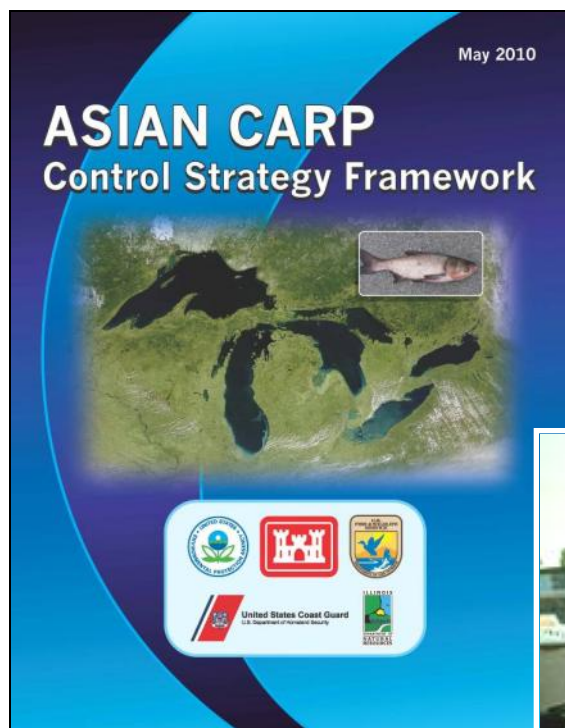
# Annex 6: Aquatic Invasive Species

## Priorities for Science:

- Assessing Aquatic Invasive Species (AIS) prevention programs
- Programs developing and evaluating early detection technologies and methods
- Research, development, and testing of technology and methods for control and eradication efforts
- Tools used for AIS climate niche modeling
- Risk assessment methods



# Annex 6: Aquatic Invasive Species



## Priorities for Action:

- Develop and implement an early detection and rapid response program by February 2015





# Annex 7: Habitats and Species



# Annex 7: Habitats and Species



## Priorities for Science:

- Evaluate existing information and recommend approaches to establish measureable targets for net habitat gain.
- Investigate tools and techniques that can assist with priority setting and decision making.
- Explore ways to incorporate the concepts of resilience, adaptive management and climate change adaptation strategies into conservation of habitats.



# Annex 7: Habitats and Species

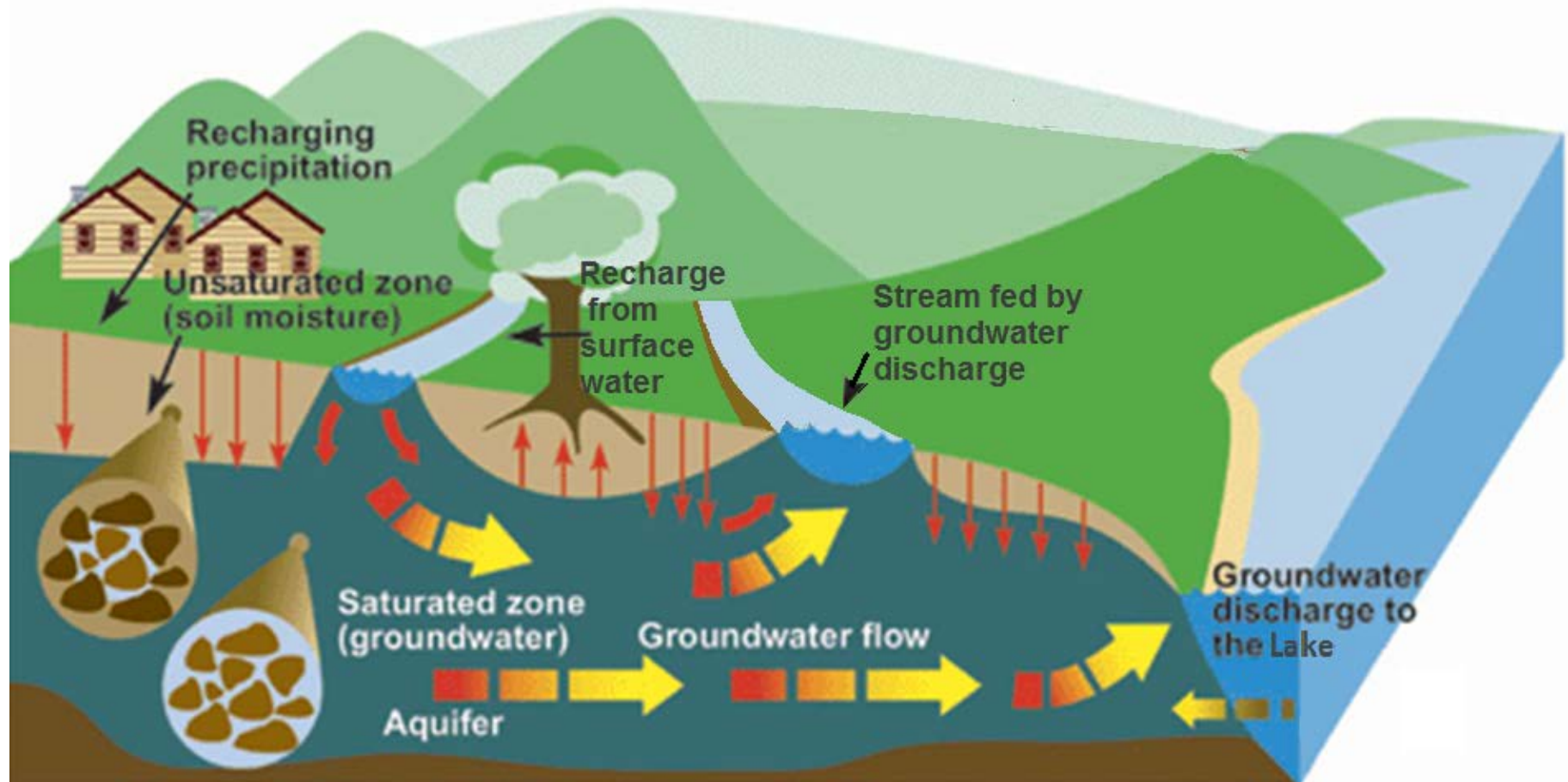
## Priorities for Action:

- Complete Biodiversity Conservation Strategies for all lakes by 2015
- Implement priority actions in Conservation Strategies through existing programs and agreements



# Annex 8: Groundwater

## Groundwater flow





# Annex 8: Groundwater

## Priorities for Science:

- Identify science gaps and research needs
- Surveillance of groundwater quality
- Analyze contaminants and other factors affecting groundwater's impact on the waters of the Great Lakes



# Annex 8: Groundwater

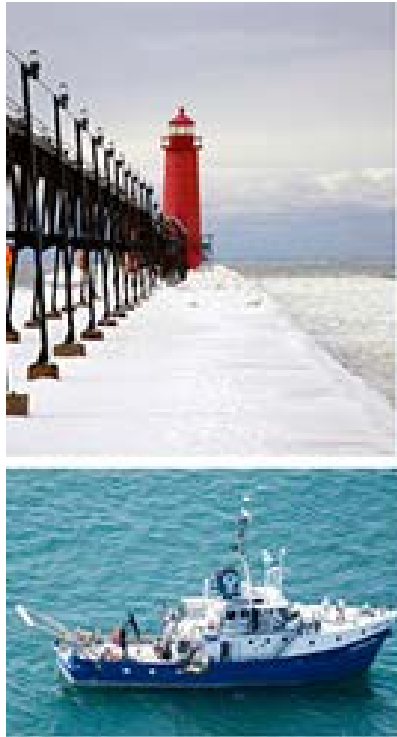
## Priorities for Action:

- Publish a Groundwater Science Report by February 2015
- Coordinate binational groundwater activities
- Engage managers, stakeholders and public on these collaborative actions





# Annex 9: Climate Change Impacts



# Annex 9: Climate Change Impacts

## Priorities for Science:

- Compile science or information about the state of Great Lakes climate change knowledge
- Assess and identify critical information needs and develop strategies to address them

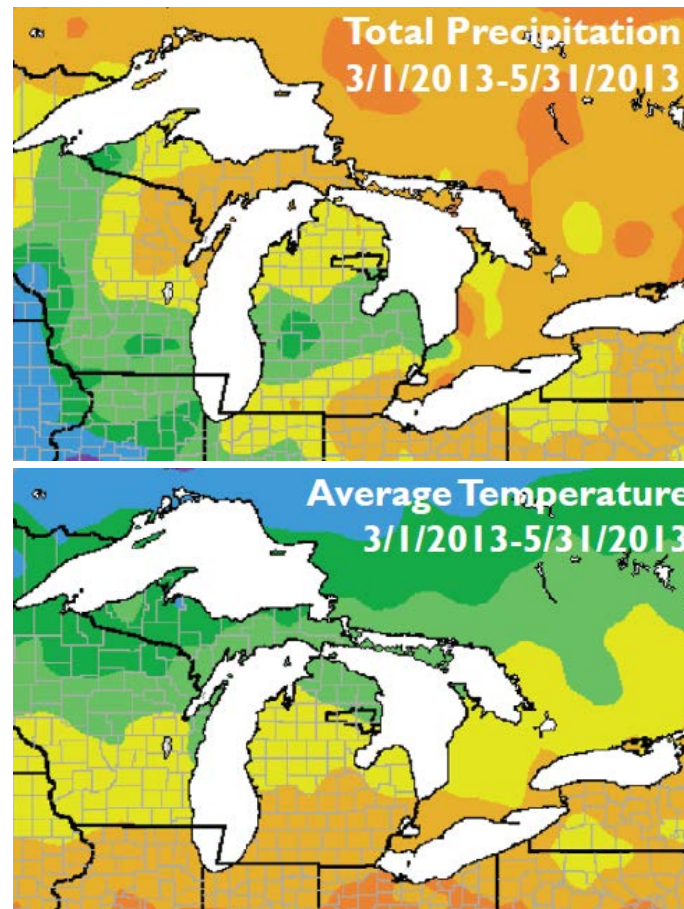




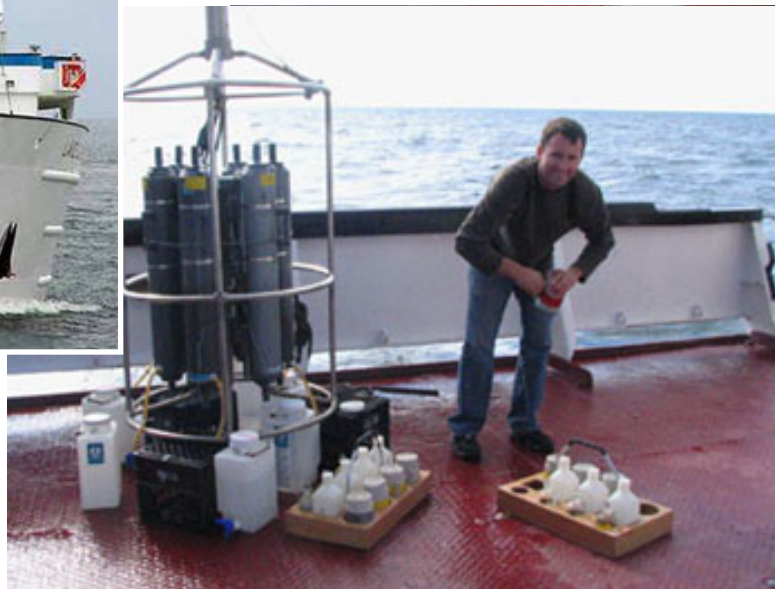
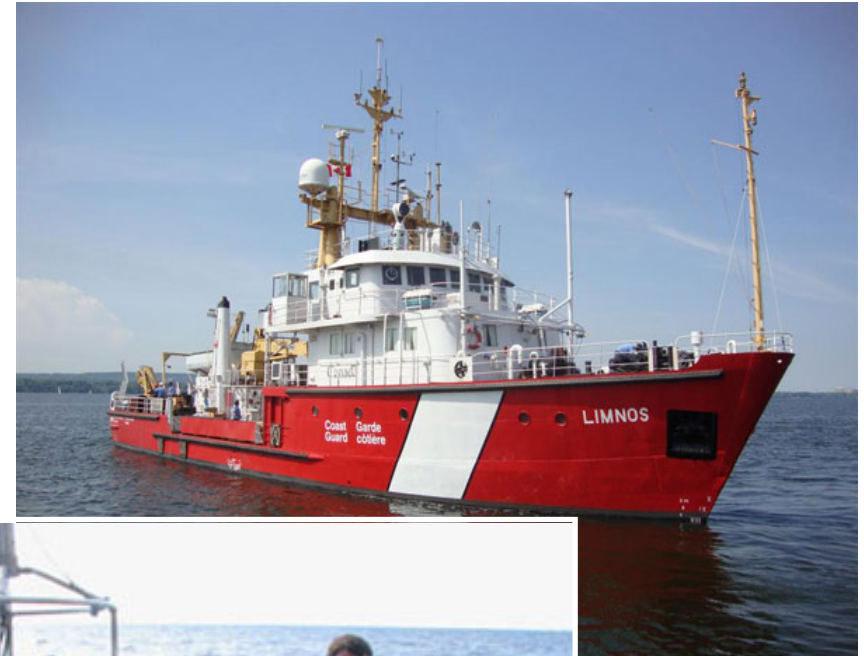
# Annex 9: Climate Change Impacts

## Priorities for Action:

- Address regional needs for improved climate science
- Coordinate across Annexes
- Communicate and share climate information
- Deliver Great Lakes Climate Summaries and Outlooks



# Annex 10: Science





# Annex 10: Science

## Priorities for Action:

- Cooperative Science and Monitoring Initiative
  - Coordinated Planning
  - Delivery and Reporting of Science
- Integrating science activities across all annexes and identifying common needs
- Exploring options for managing and sharing data and information
- Timely reporting and synthesis of all science under Agreement



A satellite image of the African continent, showing the outlines of the major landmasses in shades of green and brown. The text is overlaid on the central part of the continent.

# **Science and Action Priorities Public Comments**



# Next Steps

- Post presentations on [binational.net](http://binational.net)
- Written comment period
- Consideration of input
- Finalize and post priorities on [binational.net](http://binational.net) by early spring 2014