State of the Lakes Ecosystem Conferences

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U.S. EPA Great Lakes National Program Office

Sustainable Water Resources Roundtable
October 22, 2010

What is SOLEC?

- State of the Lakes Ecosystem Conference

- Report on progress toward meeting goals of the Great Lakes Water Quality Agreement

SOLEC

- Framework for Great Lakes monitoring, assessment and reporting
- Indicators-based
- Co-organized by US EPA and Environment Canada
- Multiple stakeholders
- Better environmental management & decision making

SOLEC Objectives

- Provide science-based information on the state of the Great Lakes basin ecosystem.
- Strengthen environmental decision making and management
- Inform decision makers and other stakeholders of Great Lakes environmental issues
- Provide a forum for communication and networking among stakeholders

SOLEC Audience

- Environmental Managers
- Local Decision Makers

- Upper Administration
- Public

State of the Lakes Ecosystem Conference (SOLEC)

- 3-year Cycle:
  - Monitoring & Assessments
  - Indicator Reports
  - Workshops
  - Background Papers
  - Conference
- *State of the Great Lakes* Reports
  - Technical Report
  - Highlights Report
  - Fact Sheets
- Future: web-based reporting

www.epa.gov/glnpo/solec

SOLEC 2008

- Indicator categories included:

Human Health	Resource Utilization
Invasive Species	Land Use-Land Cover
Contamination	Biotic Communities
Coastal Zones & Aquatic Habitats	Climate Change

- Experts authored 62 indicator reports

Indicator Assessments

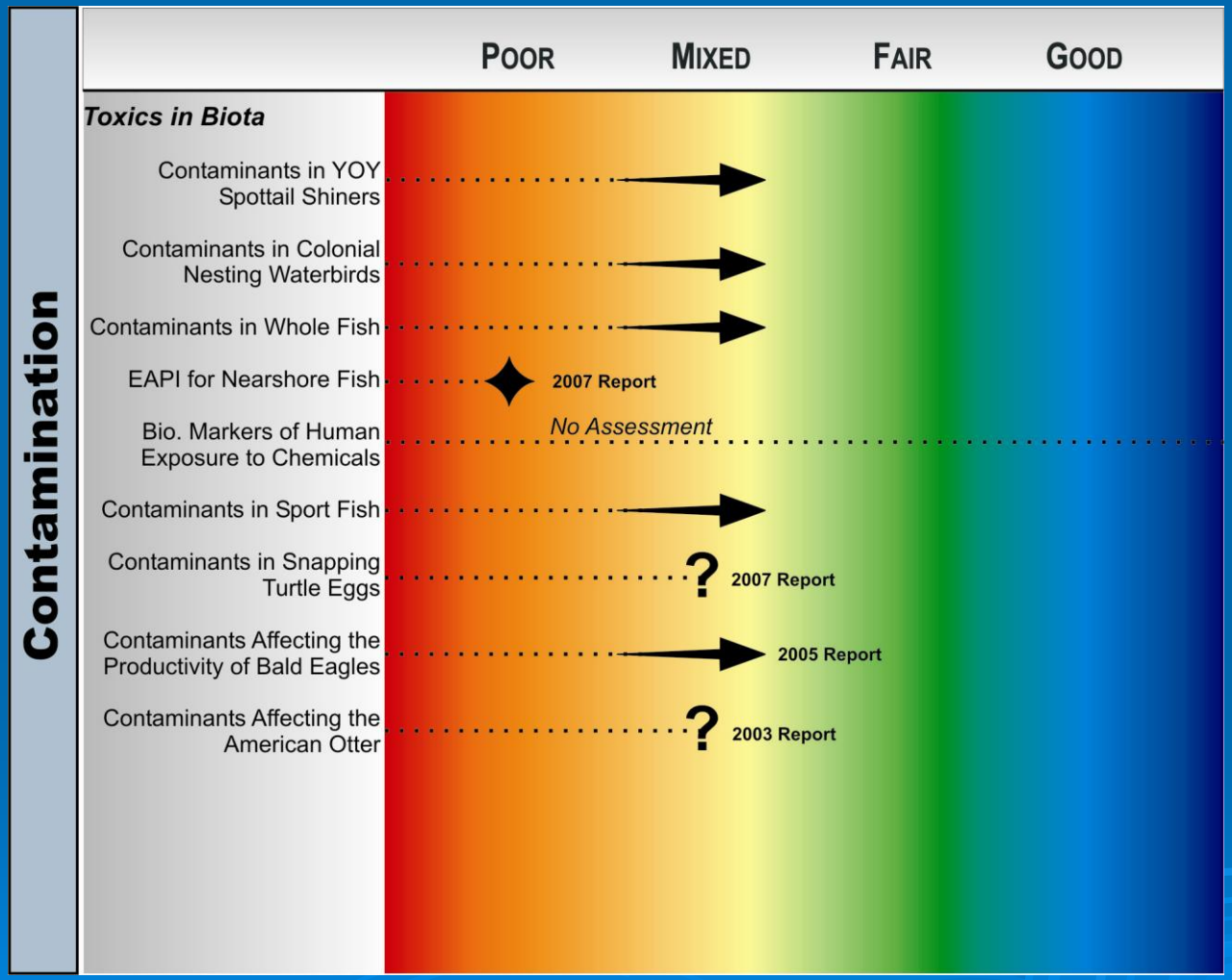
Status

- Good
- Fair
- Poor
- Mixed
- Undetermined

Trend

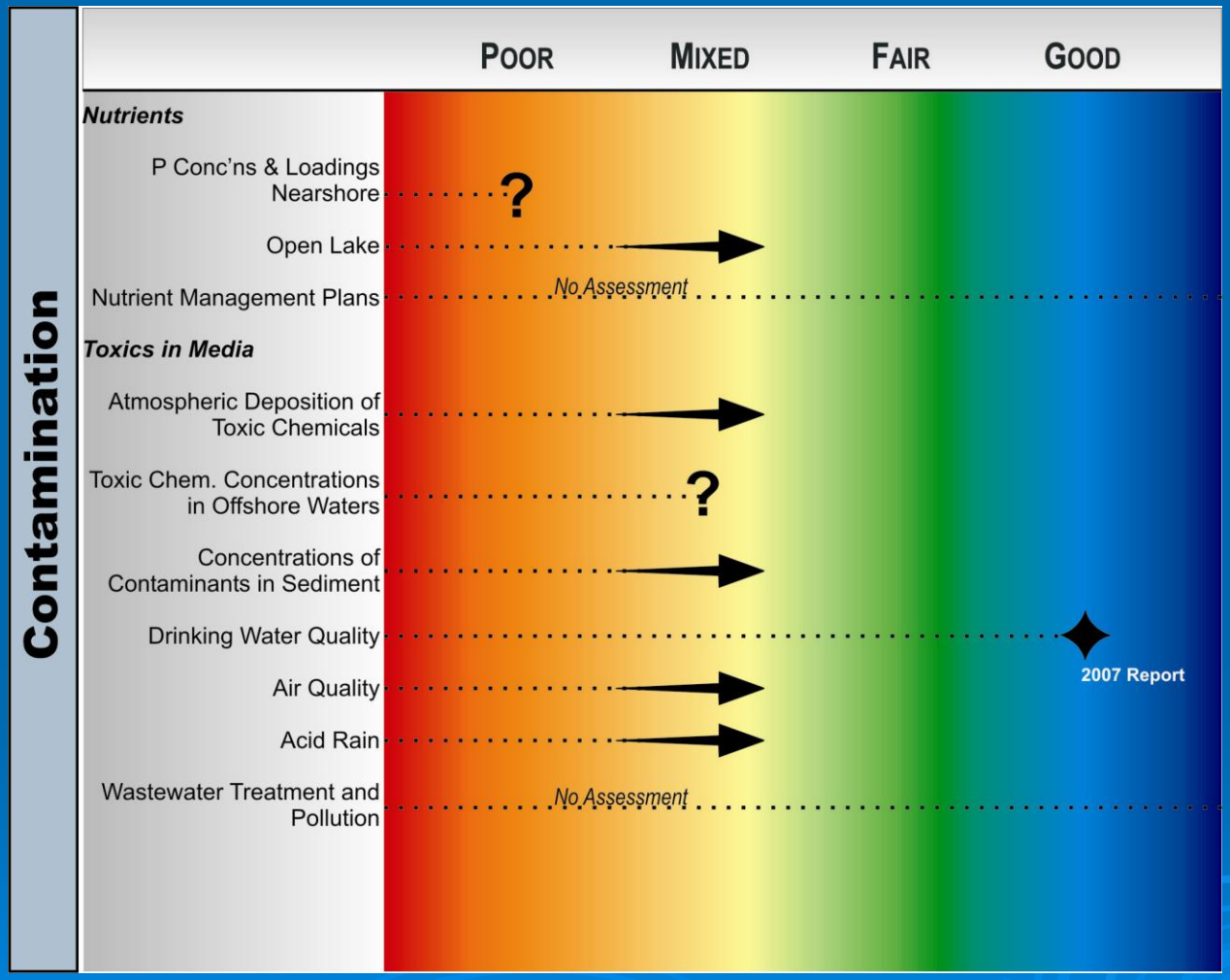
- Improving
- Unchanging
- Deteriorating
- Undetermined

Contaminants



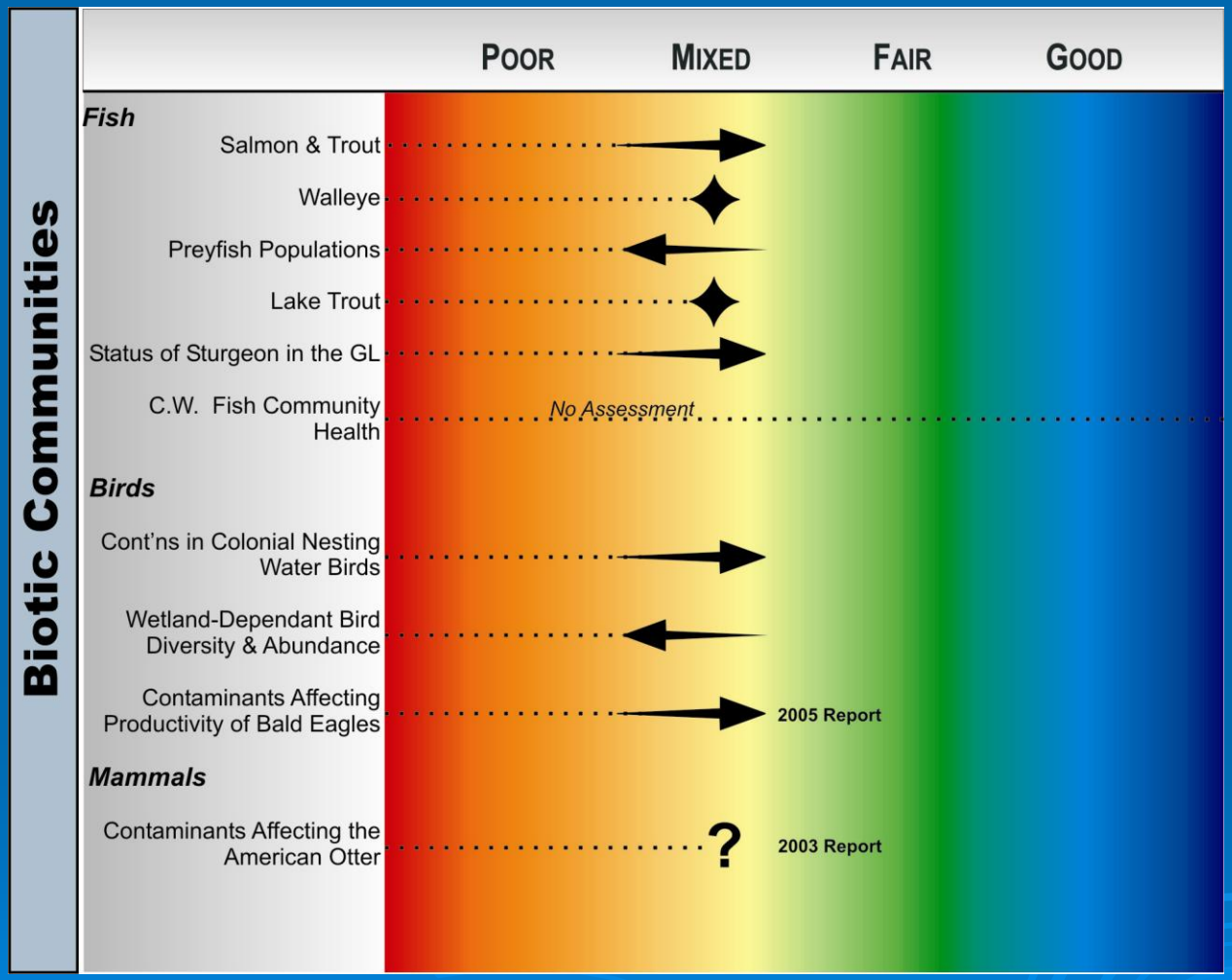
MIXED, IMPROVING

Contaminants



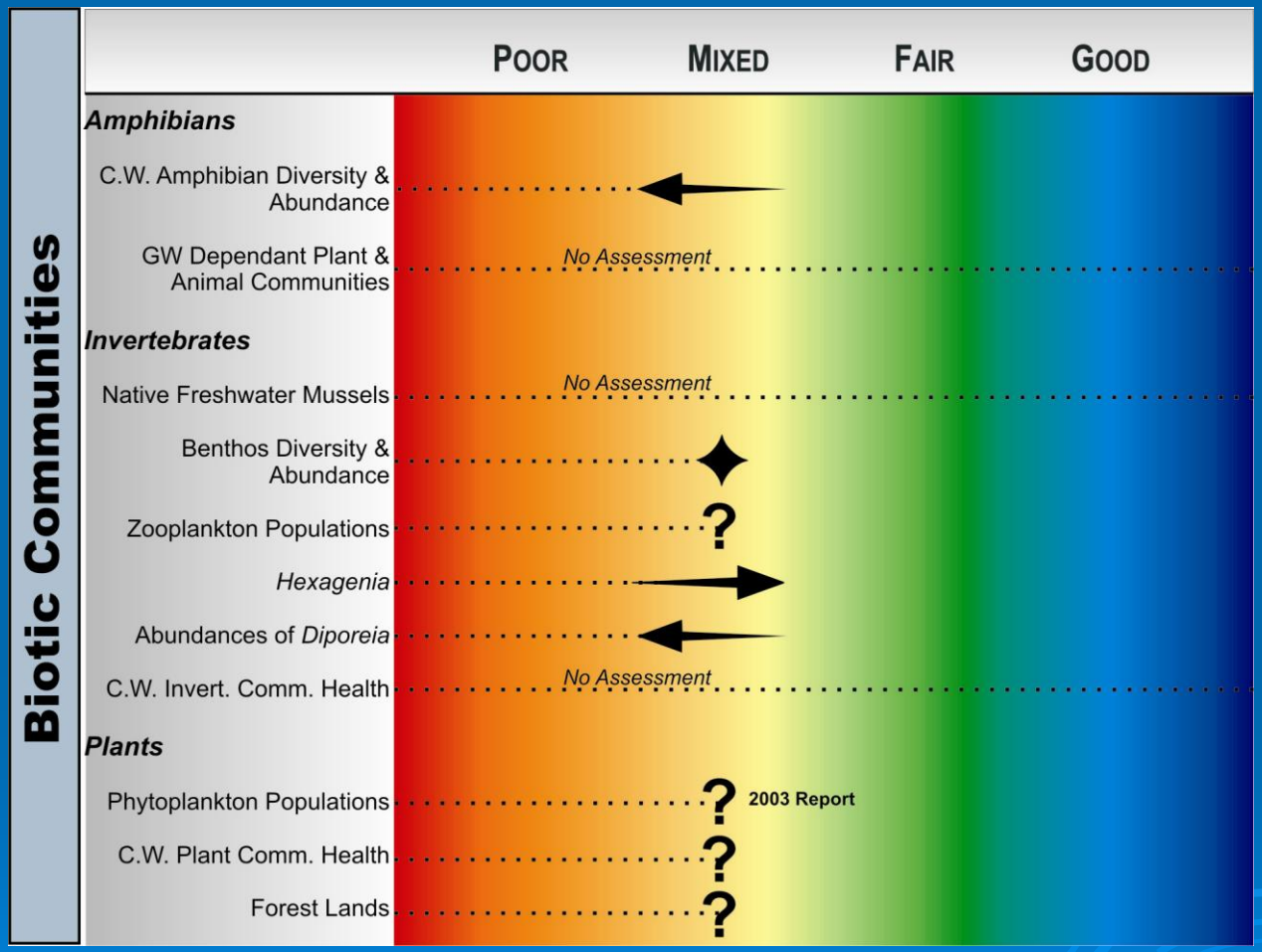
MIXED, IMPROVING

Biotic Communities



MIXED, UNDETERMINED

Biotic Communities



MIXED, UNDETERMINED

SOLEC 2008 Category Assessments

“MIXED” STATUS, “UNDETERMINED” TREND

Human Health

Land Use-Land Cover

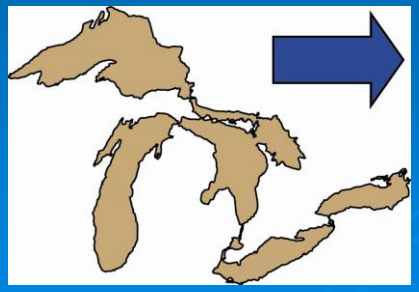
Coastal Zones & Aquatic Habitats

Resource Utilization

Biotic Communities

“MIXED” STATUS “IMPROVING” TREND

Contamination

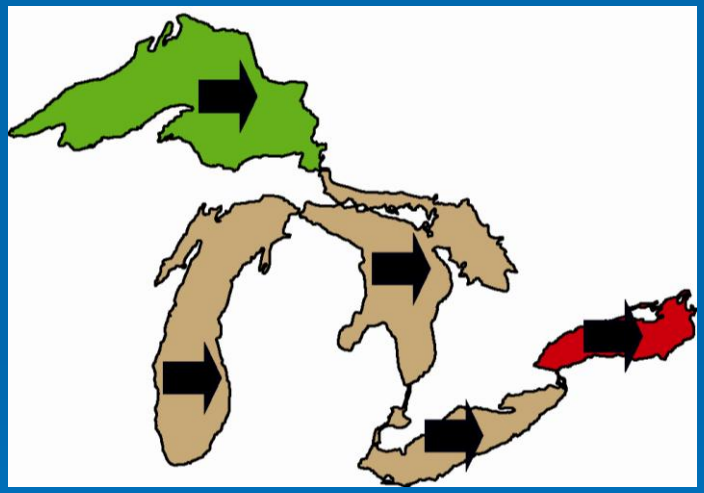


“POOR” STATUS “DETERIORATING” TREND

Invasive Species

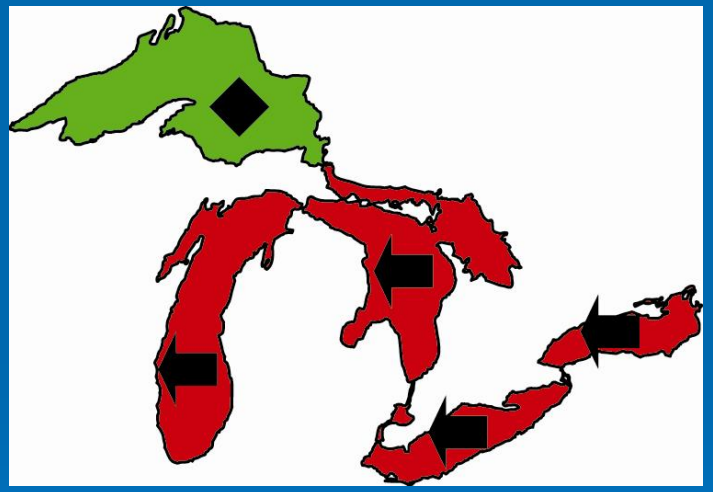
Lake-by-Lake Assessments

Contamination in colonial nesting waterbirds



Mixed, Improving

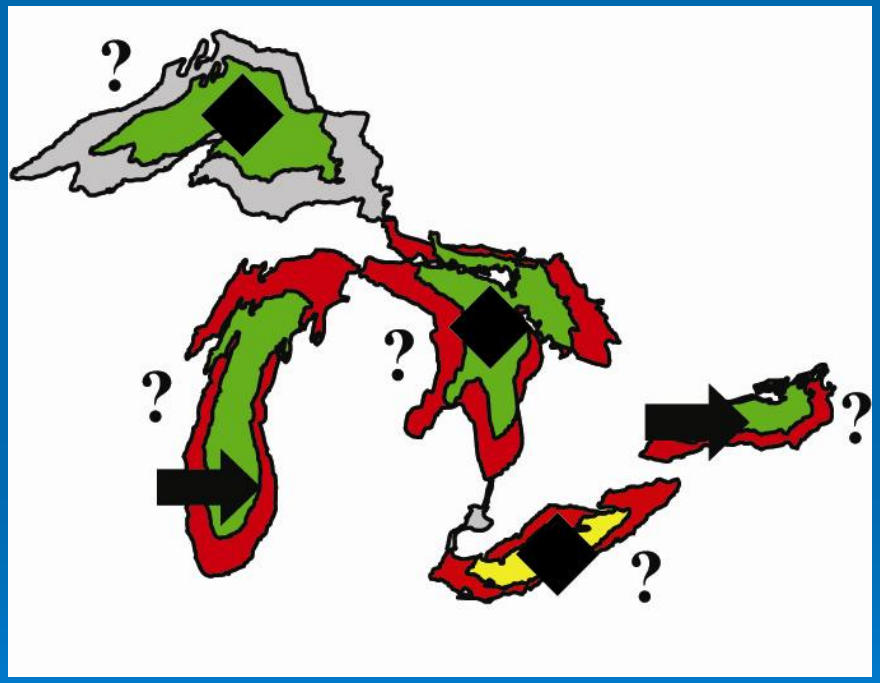
Abundance of benthic amphipod, *Diporeia*



Mixed, Deteriorating

Open Lake vs. Nearshore Assessments

Phosphorus concentrations and loadings

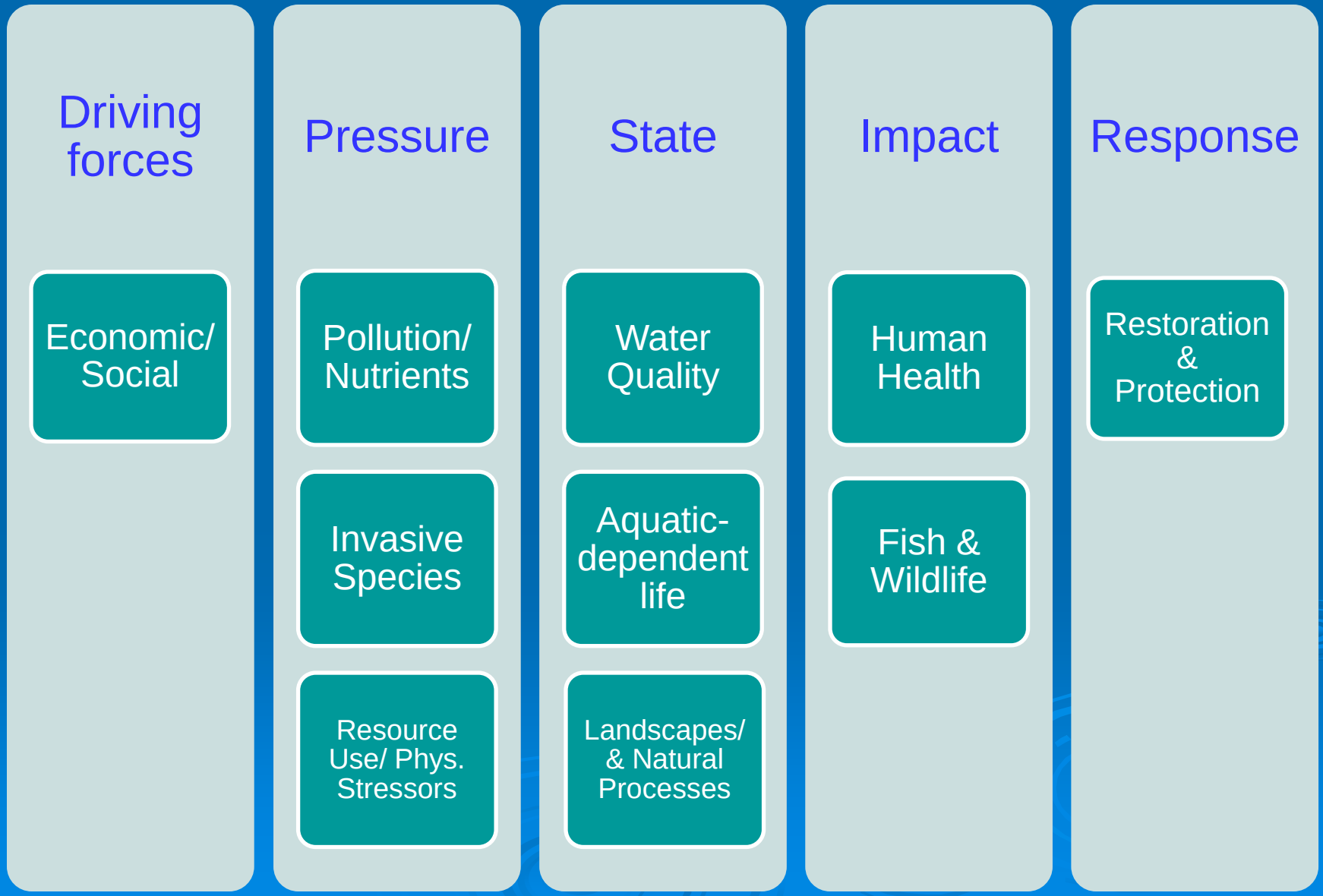


Open Lake: Mixed, Improving or unchanging
Nearshore: Poor, Undetermined

Lessons Learned

- Revisit, Revise, Revisit, Revise…!
- Build consensus, collaboration, and cooperation
- How to be proactive:
  - End points/reference values/tipping points needed for context
  - Target managers

New Indicator Framework Model



Great Lakes Restoration Initiative

GLRI and Indicators

- Identification of Land Use and Agriculture Practice Indicators for Great Lakes (NOAA)
- Identification of Land Use Tipping Points in the Great Lakes Ecosystem (NOAA)
- Development of Nearshore Indicators and Endpoints (GLEI project)

Great Lakes Restoration Initiative (GLRI)

Major Themes for 2011

- Target the most significant Great Lakes issues
- Results- and action-oriented
- Fully engage Great Lakes community
- Transparency and accountability

FY2010 – FY2014

Great Lakes Restoration Initiative
Action Plan

February 21, 2010

White House Council on Environmental Quality
U.S. Department of Agriculture
U.S. Department of Commerce
U.S. Department of Health and Human Services
U.S. Department of Homeland Security
U.S. Department of Housing and Urban Development
U.S. Department of State
U.S. Department of the Army
U.S. Department of the Interior
U.S. Department of Transportation
U.S. Environmental Protection Agency

http://epa.gov/glnpo

SOLEC 2011

When: October 26-27, 2011

Where: Erie, Pennsylvania

Theme: *Linking Land to the Lakes*

Gull Point at Presque Isle State Park, Erie County

For more information

Visit the SOLEC websites:

www.on.ec.gc.ca/solec

www.epa.gov/glnpo/solec

Or contact:

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