

# Theme Summaries

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Historical Biological Impacts; The River Bottom; Water and People; Habitat

## Outline:

- Information sources:
  - Canadian 2007-2010 Work Plan Report of Accomplishments
  - United States Achievements Presentations
- Context of Beneficial Use Impairments (BUIs) and delisting criteria



# Historical Biological Impacts

## Summary and Accomplishments

Claude Lafrance  
St. Clair River RAP Coordinator

St. Clair River AOC Symposium  
“The Path to a Healthy River”  
Working Towards Delisting the St. Clair  
River

June 7, 2012  
Sarnia, Ontario



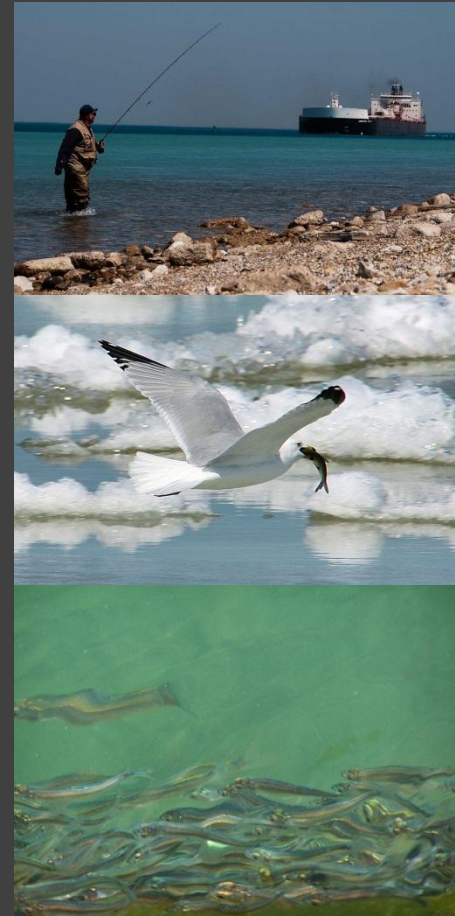
# Related Beneficial Use Impairments (BUIs)

Restrictions on Fish and Wildlife  
Consumption

Tainting of Fish and Wildlife Flavour

Fish Tumours or Other Deformities

Bird or Animal Deformities or  
Reproduction Problems



Historical Biological Impacts

# Restrictions on Fish and Wildlife Consumption

## Causes:

- Primarily due to historical discharges and spills of mercury (Hg) and polychlorinated biphenyls (PCBs)
- No guidelines for wildlife

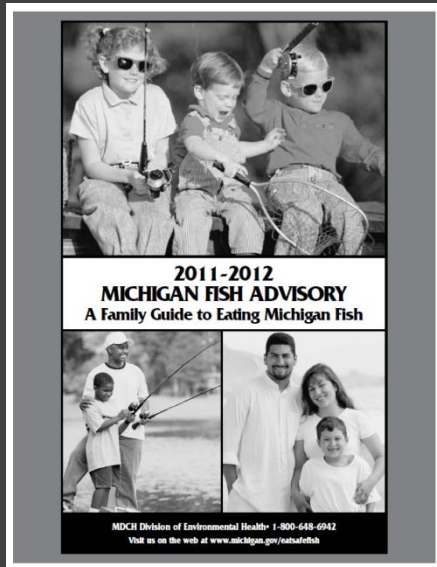
## RAP Objective:

*“Restore conditions so fish consumption guidelines for the St. Clair River are no more restrictive than the surrounding Great Lakes waters”*

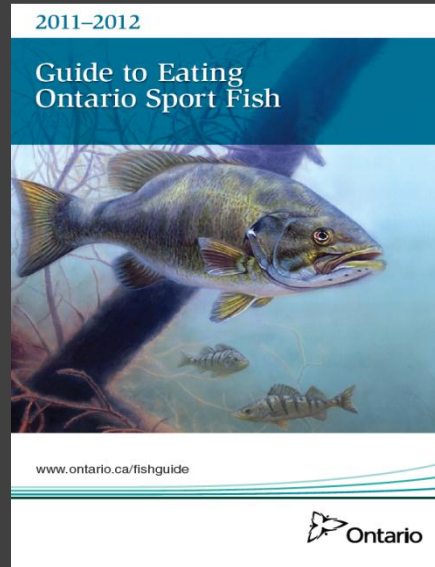


Historical Biological Impacts

# Restrictions on Fish and Wildlife Consumption



Michigan Department of  
Community Health



Ontario Ministry of the  
Environment

- Sport fish Monitoring Programs
  - Canada – OMOE, OMNR
  - United States – MDCH
- Out-of-Basin Sources
  - Sediments – COCs decreasing
  - Little input from atmospheric deposition and Lake Huron
- Future Work
  - Fish Consumption Hazard Assessment Model
  - Enhanced US sport fish monitoring program 2012



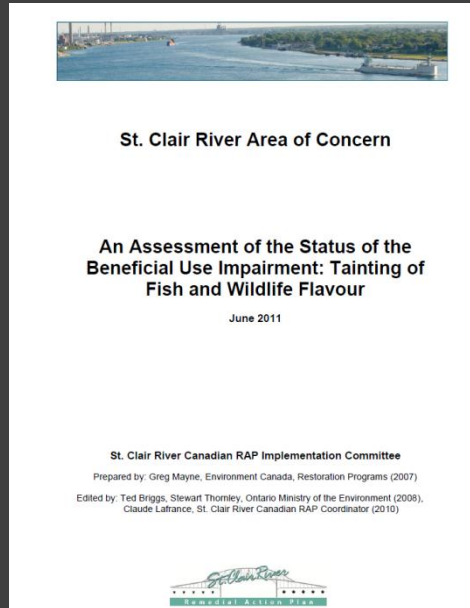
Historical Biological Impacts

# Tainting of Fish and Wildlife Flavour

Final Report prepared  
by CRIC (June 2011)



Fish and Wildlife  
Taste and Smell  
Response Summary  
(June 2011)



## 1995 – Taste and Odour Panel

- Walleye – AOC vs. Upstream/Outside of AOC
- No difference found

## 1996-1997 – Wildlife Tainting Survey

- No reported tainting

## 2007-2008 – Public Survey

- General Public
- Anglers
- Walpole Island First Nation
- Aamjiwnaang First Nation

## 2010 – Walpole Island First Nation Survey

- Total Surveyed = 299 (2007-2008, 2010)
- 95% reported no tainting of odour or taste

	Excellent	Good	Fair	Poor
Taste	77 (30 per cent)	132 (51 per cent)	36 (14 per cent)	14 (5 per cent)
Smell	53 (21 per cent)	119 (48 per cent)	62(25 per cent)	16 (6 per cent)



Historical Biological Impacts

August 26, 2011

Point Edward, Ontario  
Port Huron, Michigan

# Tainting of Fish and Wildlife Flavour

First Binational BUI Re-Designation



# Fish Tumours and Other Deformities



Current Research Suggests  
**NO IMPAIRMENT**

Not Impaired in the United States

Potential Future Studies in Canada:

- St. Clair River Walleye
  - skin lesions



Historical Biological Impacts

# Bird or Animal Deformities or Reproduction Problems

## Canada

- 2006 – 2007, 2011
  - Northern Leopard Frogs and Turtles
  - Final Report expected in 2012

## United States

- Snapping turtles, black terns, amphibians



## Future

### Research/Considerations:

Selection of species common to the St. Clair River and Detroit River to assess bird and animal deformities and reproductive problems along the Huron-Erie Corridor



Historical Biological Impacts

# Questions and Discussion

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Emily Awad – Ontario Ministry of the Environment

Dr. Paul Baumann – Ohio State University

Claude Lafrance – RAP Coordinator



Historical Biological Impacts