

**Lake Huron
Binational Partnership**

2008-2010 Action Plan

TABLE OF CONTENTS

I.	Executive Summary	1
II.	Introduction.....	3
	The Lake Huron Basin	3
	The Areas of Concern	3
	The Partnership.....	4
	The Issues	4
III.	Fish and Wildlife Contaminants	7
	Introduction.....	7
	Contaminant Trends in Whole Fish.....	7
	Contaminant Trends in Sport Fish	9
	Additional Information.....	12
	Contaminants in Lake Huron Wildlife.....	13
	Introduction	13
	Contaminant Trends in Fish-Eating Birds.....	13
	Bald Eagles/Osprey	15
	Wild Game Contaminants from the Tittabawassee River Flood Plain.....	15
	Other Wildlife.....	16
	Conclusions	16
	References.....	16
IV.	Aquatic Ecosystem.....	19
	Aquatic Ecosystem Change	19
	Lower Trophic Levels	19
	Prey Fish	22
	Alewife	22
	Rainbow Smelt.....	23
	Bloater	23
	Cisco	24
	Sculpins, Sticklebacks and Trout-Perch	24
	Prey Fish Conclusions	24
	Fish of Interest to the Recreational and Commercial Fisheries.....	25
	Chinook Salmon.....	25
	Lake Trout	27
	Percids (Walleye and Yellow Perch)	28
	Coregonids (Lake Whitefish, Bloater, Lake Herring, Shortjaw Cisco)	29
	Lake Sturgeon	30
	Fishery Management Goals.....	31
	Spawning and Nursery Habitats	32
	Shoreline Processes.....	33



Lake Huron Binational Partnership 2008-2010 Action Plan

Food Web Structure and Invasive Species.....	33
Water Quality	34
Invasive Species	34
References.....	36
V. Aquatic and Coastal Habitat	37
Coastal Wetlands.....	37
Coastal Wetland Distribution and Inventories	37
Coastal Wetland Stressors.....	38
Coastal Wetland Status and Indicators of Health	38
Lake Huron Coastal Wetland Priority Management Areas	38
Saginaw Bay.....	38
Les Chenaux Islands.....	39
Bruce Peninsula, Eastern Georgian Bay and North Shore of North Channel.....	39
Alvars	40
Distribution and Factors Affecting Alvar Habitat.....	40
Coastal Dunes	40
Distribution	41
Current Factors Affecting Dune Ecology	41
Coastal Sand Dune Conservation.....	41
Lake Huron Islands	42
Current Factors Affecting Island Habitat.....	42
Island Conservation.....	43
Lake Huron Reefs.....	43
Tributaries.....	43
Factors affecting Lake Huron Tributaries	44
Priority Management Areas for Tributary Management.....	45
Lake Huron Habitat Protection, Restoration and Conservation.....	45
References.....	45
VI. Areas of Concern.....	49
Areas of Concern in Lake Huron.....	49
Spanish Harbour, Ontario	49
Saginaw River/Bay, Michigan.....	49
Binational Area of Concern: St. Marys River	51
References.....	53
VII. Other Issues	55
Lake Water Levels.....	55
Water Level Fluctuations	55
Botulism	57
Viral Hemorrhagic Septicemia (VHS).....	58
Beaches and Bacterial Contamination	58

Lake Huron Binational Partnership 2008-2010 Action Plan

Beaches and Algal Fouling.....	60
Low Level Contaminants	63
References.....	63
VIII. Action Plan	65
Activities Addressing Contaminants in Fish and Wildlife	68
Activities Addressing Nutrient and Bacteria Issues	70
Activities Addressing Fish and Wildlife Habitat/Populations	73
Activities to Increase Understanding of Ecosystem Change, Biodiversity and the Impact of Exotic Species.....	77
Activities at Areas of Concern	78
Monitoring Coordination/Data Sharing.....	80
Outreach Activities	81



