St. Clair – Detroit River System Initiative Report Card 2017

Indicator Status for Priority Objectives updated 2/23/2018

Status:	Very Good	Good	Fair	Poor	Undetermined
Trend:	Improving		Unchanging	Deteriorating	Undetermined

Non-Habitat Related Indicators

Priority Objective	Indicator	Reporting Frame	Status
Reduce loading from regulated and unregulated sources of total phosphorus and dissolved reactive phosphorus entering western Lake Erie	Spring (March-July) total phosphorus load (< 860 MT) and dissolved reactive phosphorus (< 186 MT) entering western Lake Erie from the Maumee River	Annually	Improving
	40% reductions in spring (March – July) loading of total phosphorus and dissolved reactive phosphorus relative to 2008 levels (Detroit River, Thames River, Maumee River, River Raisin, Portage River, Toussaint Creek, and Leamington tributaries)	Annually	Undetermined
	Western basin-specific spring (May – September) total phosphorus concentration between (10-20 µg/L)	Annually	Unchanging
Identify contaminants of emerging concern (e.g., pharmaceuticals and personal care products, microplastics) determine sources, and develop load reduction strategies	Intersex prevalence and severity in fish compared to healthy "reference" locations	Opportunistically	Undetermined
	Prevalence of plasma vitellogenin in male fish compared to healthy "reference" locations	Opportunistically	Undetermined
	Prevalence of abnormal concentrations of reproductive hormones in fish	Opportunistically	Undetermined
	Level of estrogenicity being discharged in wastewater effluent	Opportunistically	Research and Monitoring Need
Improve detection and assessment by developing surveillance monitoring for non-native species	Number of programs implemented for and their distribution within the SCDRS targeting non-native species (mollusks, fish, amphibians, reptiles, plants)	Annually	Undetermined
	Percent coverage of *Phragmites* in wetlands in the SCDRS	Opportunistically	Unchanging
Implement preventive strategies for non-native species through information/education programs and management of potential sources and pathways (e.g., ballast water, live release, etc.)	Vector risk analysis scores of pathways for invasive species introduction for the St. Clair River, Lake St. Clair, Detroit River, and Maumee Bay (USFWS 2016)	Every three years	Undetermined

Many of the status ratings were taken from the SCDRS Viability Analysis and Lake Erie Biodiversity Conservation Strategy (Pearsall et al. 2012)

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Habitat Related Indicators

Priority Objective	Indicator	Reporting Frame	Status
Complete habitat improvement projects to remove loss of fish and wildlife habitat Beneficial Use Impairment (BUI)	Number of projects left to complete leading to the removal of this BUI in the Detroit River	Annually	9; Unchanging
	Number of projects left to complete leading to the removal of this BUI in the St. Clair River	Annually	Complete
	Canadian response indicators	Annually	Research and monitoring need
Increase riparian complexity/connectivity through increased softened shorelines and native riparian vegetation	Artificial shoreline index: increase percentage of softened shoreline by removing artificial structures (e.g., sea walls and rip rap)	Opportunistically	Unchanging
	Amphibian Index of Biotic Integrity (AmphIBI) for Wetlands (Ohio EPA)	Opportunistically	Research and monitoring need
Increase the continuous area of ecologically functional wetlands and their connectivity to the SCDRS	Percent of accessible tributary habitat	Opportunistically	Unchanging
	Wetland area	Opportunistically	Unchanging
	Marsh bird IBI	Opportunistically	Unchanging
	Invertebrate IBI	Opportunistically	Research and monitoring need
	Amphibian Index of Biotic Integrity (AmphIBI) for Wetlands (Ohio EPA)	Opportunistically	Research and monitoring need
	Wetland fish index (WFI) of wetland quality	Opportunistically	Unchanging
Increase functional river spawning habitat for native lithophilic species in main channel and tributaries	Area of main channel (St. Clair and Detroit rivers) habitat suitable for lithophilic spawners (hectares)	Annually	Undetermined
	Percent of accessible tributary habitat	Opportunistically	Unchanging
	Mean 5-year annual peak density of pelagic larval whitefish and walleye (#/1000 m^3)	Annually	Unchanging
	Mean 5-year catch per unit effort of adult walleye, shorthead redhorse, lake whitefish, and burbot	Annually	Undetermined
	Mean 5-year catch per unit effort of juvenile lake sturgeon (< 1000 mm)	Annually	Undetermined
Identify and protect critical habitat areas for rare native species in main channel and tributaries	Mean 5-year catch per unit effort of juvenile lake sturgeon (< 1000 mm)		Undetermined
	Additional indicators		Research and monitoring need

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