		DRAFT Working Hypotheses (If "action" then "expected outcome")			
Priority	**ID**	**Actions Needed (Objectives)**	**Expected Outcomes by 2023**	**Indicators**	**Inter-connections among Priorities**
1	1	Remove contaminated sediments to remove degradation of benthos BUI	Reductions in PCB, mercury and PAHs to cleanup criteria; Improved benthic community and reduced contaminant levels (protective of fish and wildlife) due to sediment cleanup(Can AOCs) or cleanup criteria (US AOCs)	PCB, Hg, PAH concentration in sediment to cleanup criteria levels; Achievement of reference condition criteria (Can AOCs);benthic community structure , contaminants in benthos	Remediation of contaminated sediments will improve habitats for healthy fauna and their use by people; contaminants are linked directly to the benthos BUI and response is expected there initially; less water pollution will address drinking water impairments; increased biodiversity, fisheries, and drinking water quality will improve societal perception of healthier ecosystem.
1	2	Complete remedial actions to remove fish tumors and other deformities BUI	Incidence of brown bullhead tumors to levels similar to reference conditions	liver tumors in brown bullheads	
1	3	Complete remedial actions to remove restrictions on fish and wildlife consumption BUI	Reduced contaminants in fish tissues; decrease in fish consumption advisories	fish consumption advisories for specificic species	
1	4	Complete remedial actions to remove bird or animal deformities or other reproductive problems BUI	Incidences of bird or animal deformities or other reproductive problems reduced	deformities in frogs, hatching success, clutch size, threshold concentrations of contaminants causing reproductive problems in indicator species.	
1,3,4	*5*	*Complete habitat improvement projects to remove loss of fish and wildlife habitat BUI*	*Completion of targeted habitat projects as per AOC habitat plans; pre/post monitoring protocol for projects*	*# of projects completed*	
2	*6*	*Reduce loading from regulated and unregulated sources of TP/DRP*	*Less contaminants, nutrients, & nuisance algae; reduced loading to L.Erie, more SAV, fish diversity*	*TP/DRP loads from SCDRS sources including tributaries*	Improved water quality from reductions in sources and loadings of pollutants will be needed to remove BUIs and to increase habitat suitability for indigenous fauna.
2	*7*	*Identify contaminants of concern (e.g. pharmaceuticals and personal care products, microplastics) determine sources, and develop load reduction strategies*	*Less contaminants of concern (e.g pharmaceuticals, personal care products, microplastics)*	*Loads of contaminants of concern from SCDRS sources, including tributaries*	
2	8	Reduce biological contamination (e.coli, pathogens, virus impacts on wildlife)	Reduced beach closures, improved ability to predict beach closures, improved wildlife health	bacterial/pathogen/viruses in water and sediment; incidences of fish/wildlife disease incidents	
2	9	Reduce loadings from legacy contaminant sources (including groundwater at known locations in DR)	Reduced loadings of legacy contaminants (including groundwater)	Loads of legacy contaminants from SCDRS sources, including groundwater	
2	10	Integrated landscape contaminant source assessment	Identification of landuses/contaminant source locations/loadings strategies to address multiple contaminant issues to allow focused implementation actions for load reductions in priority areas		
3	*11*	*Increase riparian complexity/connectivity through increased softened shorelines and native riparian veg.*	*More herps, shorebirds, waterfowl, & fish species in shoreline areas*	*acres protected/improved; species richness*	An expression of higher biodiversity of indigenous species will be needed to demonstrate that water quality has improved and that BUI's for aquatic habitats, deformities, benthos, etc., have been addressed. Habitat improvements through water quality and AOC initiatives should increase indigenous fish production in the system, not just short-term fish attraction, and provide significant economic benefits to fisheries.
3,4	*12*	*Increase continuous area of functional wetlands and their connectivity to the SCDRS*	*increased biodiversity and fish production in wetland areas*	*acres protected/improved; species richness; larval fish densities; fish population dynamics*	
3,4	*13*	*Increase river spawning habitat*	*Improved biodiversity and fish production*	*acres protected/improved; species richness; larval fish densities; fish population dynamics*	
3,4	*14*	*Identify and protect critical habitat areas for rare species, including river mouth habitats & connectivity within tribs*	*Increased T&E/SAR species abundance; increased production of YOY fishes*	*acres protected/improved; rare species presence*	
4	15	Increase hydrological lateral connectivity between main channel habitats (e.g., islands) and shallow water habitat	Increased larval/juvenile fish production	areas protected/improved; larval fish densities; fish population dynamics	
5	*16*	*Develop surveillance monitoring for AIS based on habitat requirements and availability*	*Improve detection and assessment programs for developing effective risk management actions*	*estimated detection probabilities by species and gear type*	Sea lamprey control is necessary for production of indigenous fishes at levels for fisheries benefits. AIS plants control is important to promote increases in wetland. Might anticipate increases in AIS as habitats are improved, which may compromise expected increases in non-indigenous biodiversity and potentially ecosystem services.
5	17	Adaptively manage invasive plants (e.g., Phragmites, European frogbit) at a system landscape scale	Reduce the impact on, and promote restoration of, desired wetland habitats	AIS plant distribution and coverage	
5	18	Apply integrated pest management for sea lampreys in the SCDRS	Reduce sea lamprey recruitment to Lake Erie	adult lamprey abundance; wounding rates	
5	*19*	*Implement preventive strategies through information/education programs and management of potential sources and pathways (e.g., ballast water, live release, etc.)*	*Prevent introductions of new species*	*# people/groups contacted; compliance rates with BW plans; # new species by vector over time*	
5	20	Develop integrated pest management for established AIS (e.g., common carp, Dresseinid mussels, gobies, grass carp)	Prevent further dispersal or establishment of populations from SCDRS source populations	range expansion	

Yellow Highlights (italics) are the final set of Objectives selected by the Steering Committee on Feb 5, 2015.

Last Updated: 9/23/15

In 2014, the Steering Committee established five management priorities. They include (non-ranked):

1. **Address beneficial use impairments to de-list the Detroit River AOC and St. Clair River AOC in both countries**
2. **Improve water quality through reductions in pollutants from SCDRS sources**
3. **Increase overall biodiversity through protection and improvements to a connected mosaic of habitats in the system**
4. **Increase production of indigenous fish stocks through protection and improvements to functional habitats in the system**
5. **Reduce impacts on habitats, biodiversity, and fisheries from AIS threats**