

## **APPENDIX 4**

### **Conservation Target–Related Recommendations from St. Louis River Remedial Action Plan**

The St. Louis River System Remedial Action Plan (MPCA and WDNR 1995) contains 43 recommended actions for restoring the impaired uses in the St. Louis River System Area of Concern. The recommendations related to the conservation-targets are included below.

#### **[2 - LAND ACQUISITION]**

**Recommended Actions:** (1) Wisconsin DNR should acquire lands owned by WERCO along the Red River, and along and near the St. Louis River in Douglas County.

(2) The St. Louis River Board should acquire lands along the St. Louis River that meet the high priority acquisition criteria set forth in the St. Louis River Management Plan. Once acquired, the St. Louis River Board, MDNR and others should prepare site management plans.

#### **[8 - NEMADJI]**

**Recommendation:** Minnesota and Wisconsin should secure funding in order to implement the recommendations that will be generated by the Nemadji River Basin Project.

#### **[9 - RUFFE]**

**Recommendation:** Limit the success of the naturalized population of ruffe (*Gymnocephalus cernuus*), by restoring and maintaining a healthy, resilient, and diverse aquatic ecosystem. Actions to eradicate or reduce the ruffe population in the St. Louis River estuary are not recommended until greater success can be assured.

#### **[10 - HERONS]**

**Recommendation:** Locate and protect the current heron rookery and manage public lands in the Area of Concern (AOC) to ensure that appropriate habitat exists for at least one Great Blue Heron rookery.

#### **[13 - POINT]**

**Recommendation:** The cities of Duluth and Superior and the states of Minnesota and Wisconsin should protect all of the undeveloped and natural areas of Minnesota (Park) and Wisconsin Points, and should restore natural plant communities to provide optimum habitat for breeding and migrating wildlife. The jurisdictions should also protect and maintain the conditions that sustain the natural geophysical dynamics associated with these bay-mouth bar ecosystems.

#### **[14 - DULUTH INFILTRATION/INFLOW]**

**Recommendation 1:** The City of Duluth should amend the building codes to require that existing homes be brought up to current plumbing code.

**Recommendation 2:** The City of Duluth should prioritize neighborhoods to define areas with the most severe inflow problems and immediately begin to eliminate the I & I problem with the available resources. They should also vigorously pursue funding to deal with the inflow problem from residential sanitary systems.

**Recommendation 3:** The City of Duluth should set up a mechanism to ensure that homeowners do not dismantle sump pump, roof drain, and/or footing drain connections that are in compliance with building codes in order to illegally connect them back to the sanitary sewer system.

**Recommendation 4:** The City of Duluth should continue maintaining the sanitary sewer system to minimize infiltration problems.

#### **[18 - SHORELINE FORESTRY]**

**Recommendation:** Education efforts should be undertaken to educate riparian landowners, loggers, and the general public about shoreland ordinances that deal with forestry practices and vegetative cutting.

#### **[19 - FOREST DIVERSITY]**

**Recommendation:** Forest managers should manage forests in the St. Louis River and Nemadji River watersheds on a subwatershed basis and diversify age classes and species to reduce peak flows in streams and rivers.

#### **[23 - CONSTRUCTION EROSION]**

**Recommendation:** Construction site best management practices (BMPs) should be used at all new development projects and redevelopment projects to control erosion and minimize sediment and nutrient loading to waterbodies.

#### **[26 - WATER BIRDS]**

**Recommendation:** Wisconsin Department of Natural Resources (DNR) should coordinate information available on birds affected by toxic contaminants and assess the feasibility of using birds to identify toxic hot spots and monitor uptake of chemical contaminants in the food web of the Area of Concern (AOC).

#### **[27 - RAPTORS]**

**Recommendation:** The Wisconsin and Minnesota Departments of Natural Resources (DNRs) should coordinate monitoring efforts and consolidate data to evaluate the factors that potentially limit the population growth of Bald Eagles and other raptors in and near the St. Louis River System Area of Concern.

#### **[28 - PIPING PLOVERS]**

**Recommendation:** The Minnesota and Wisconsin Departments of Natural Resources should continue to monitor potential Piping Plover nest sites; no narrowly targeted management activity is recommended at this time.

### [29 - COMMON TERNS]

**Recommendation:** The Minnesota and Wisconsin Departments of Natural Resources (DNRs) should continue to provide high quality nesting habitat for Common Terns (*Sterna hirundo*), and should enhance the quality and quantity of habitat for terns that breed in or migrate through the St. Louis River and Nemadji River watersheds.

### [30 - SEPTIC]

**Recommendation:** Reduce the amount of inadequately treated wastewater reaching the St. Louis River and other waterbodies through adoption and enforcement of county point-of-sale ordinances for individual on-site wastewater systems.

### [31 - SILVICULTURAL BMPs]

**Recommendation:** State and county land-management agencies and the state extension services should promote the use of silvicultural best management practices (BMPs) and audit BMP compliance in order to reduce non-point source nutrient and sediment loading to the St. Louis River, harbor, and ultimately Lake Superior.

### [32 - BALLAST WATER]

**Recommendation:** Research to assess potential technologies for preventing introduction and spread of undesirable exotic species in the Lake Superior watershed via ballast water should be accelerated. Results of this research should be used to establish regulations for ballast water management.

### [33 - EXOTICS TRANSPORT]

**Recommendation:** Efforts to educate users of the St. Louis River System about the importance of preventing the spread of ecologically harmful exotic species should be enhanced and coordinated between the states of Minnesota and Wisconsin. Additional regulatory measures to restrict the transport of these species into uninfested areas should be evaluated and enacted if feasible.

### [34 - PURPLE LOOSESTRIFE]

**Recommendation:** Populations of purple loosestrife in the St. Louis River Area of Concern should be reduced primarily by using biological control organisms currently approved for use by the U.S. Department of Agriculture.

### [36 - FOND DU LAC SEPTIC]

**Recommendation:** Reduce the amount of inadequately treated wastewater reaching the St. Louis River by correcting the failing septic system problems in the Fond du Lac, Minnesota community and in Oliver, Wisconsin.

### [38 - HABITAT PLAN]

**Recommendation:** Design and implement a coordinated comprehensive plan for the protection and furtherance of biodiversity and ecological diversity within the Area of Concern, without seeking to restore the estuary to its presettlement condition, through the creation, restoration, reclamation, enhancement and management of a desired mix of ecosystems and habitat.

### **[39 - SUPERIOR INFILTRATION/INFLOW]**

**Recommendation 1:** The City of Superior should continue its efforts to eliminate Category I bypasses by developing an approved facilities plan.

**Recommendation 2:** In the long term, the City of Superior should develop solutions to minimize Category II bypasses resulting from inflow and infiltration.

### **[40 - ERIE PIER CAPACITY]**

**Recommendation:** Indefinitely extend the life of the Erie Pier Dredged Materials Processing Facility by processing and reusing as much dredged material as possible and, if necessary, relocating non-reusable dredged materials to an inland disposal facility.

### **[41 - HABITAT ENHANCEMENT]**

**Recommendation:** Reduce the need for dredged materials processing and disposal capacity by utilizing suitable dredged materials to restore, enhance, and recreate fish and wildlife habitat.

### **[42 - EXOTIC MUSSELS (ZEBRA) IMPORTATION]**

**Recommendation:** Continue to work with the shipping industry on finding ways to eliminate importation of zebra mussels into the Area of Concern (AOC) and continue to educate the boating public about the preventive measures that should be practiced to avoid further introductions of this serious pest. Ongoing research and monitoring related to zebra mussels should determine conditions controlling population growth in the AOC.