

**Figure B-1**  
**Summary of U.S. Recommendations**  
**St. Clair River and Lake St. Clair Comprehensive Management Plan**

This summary lists the Management Plan (MP) recommendations by chapter and key topic area. The recommendations are numbered consecutively which is cross-referenced to the MP recommendation numbering system.

**Chapter 3 - Environmental Health**

**Contaminant Sources and Contaminated Sediments**

1. **3-1.** Develop and implement a Contaminant Management Strategy that focuses on pollution prevention and restoration of polluted areas.
2. **3-2.** Implement U.S. obligations under the Great Lakes Binational Toxics Strategy
3. **3-3.** Prioritize contaminants of concern
4. **3-4.** Identify all sources and quantify all loads of point source and nonpoint source contaminants
5. **3-5.** Investigate the extent of contaminated sediments, evaluate the degree of contamination and the risk it poses, and implement the best remedial option(s) to reduce the risk posed by the sediment to a safe level
6. **3-6.** Develop, fund and distribute practical and economically feasible pollution prevention programs for municipalities, industries, and other relevant parties
7. **3-7.** Continue and accelerate research and monitoring on the distribution, fate, and effects of mercury, PCBs and other contaminants
8. **3-8.** Define impacts of new generation pesticides, pharmaceuticals, endocrine disrupters, and other chemicals
9. **3-9.** Identify, quantify and prioritize atmospheric sources of contaminants and implement regulatory programs and pollution prevent strategies to assure that the sources are reduced or eliminated
10. **3-10.** Support the development and implementation of Total Maximum Daily Loads (TMDLs) throughout the watershed.

**Pollution Prevention Practices and Education**

11. **3-11.** Encourage the use of agricultural Best Management Practices, as needed
12. **3-12.** Distribute to local government and other stakeholders, information-education materials highlighting homeowner impacts on water quality and actions that can be taken to prevent or minimize those impacts.

## Chapter 4 - Habitat & Diversity

### Loss and Degradation of Habitat

13. **4-1.** Develop a habitat strategy to protect, restore and maintain natural physical and biological diversity and identify priority habitat areas for restoration and conservation. The strategy should:
  14. **4-1.a.** Provide a single coordinated inventory of wetlands and other habitats that identifies protected and managed habitats as well as rare and environmentally sensitive habits
  15. **4-1.b.** Locate, inventory and map imperiled species.
  16. **4-1.c.** Restore degraded priority habitat areas by working with landowners and public land managers to promote beneficial land management practices and natural community restoration practices.
  17. **4-1.d.** Coordinate land acquisition programs with existing federal, state, provincial, and local habitat protection programs to maximize habitat protection efforts
  18. **4-1.e.** Develop a public outreach program to increase interest in, and awareness of, habitat restoration and conservation. Develop outreach tools that outline habitat conservation and restoration programs available through government agencies and conservation organizations
  19. **4-1.f.** Develop a public education program that focuses on the unique habitat within the watershed and methods to protect it
  20. **4-1.g.** Encourage local units of government to preserve and protect unique habitat areas and to restrict development in environmentally sensitive areas. Provide technical assistance to local units of government to manage local habitat areas.
21. **4-2.** Use the findings of the Lake St. Clair Coastal Habitat Restoration and Conservation Plan to contribute to a Lake St. Clair habitat strategy.

### Invasive Species

22. **4-3.** Prevent and control the introduction of aquatic invasive species into the Great Lakes-St. Lawrence system.
23. **4-4.** Support the implementation of Michigan's Aquatic Nuisance Species State Management Plan Update.
24. **4-5.** Develop and distribute educational information regarding identification and control of invasive species

### Impacts from Boating and Shipping

25. **4-6.** Limit watercraft access to environmentally sensitive areas during certain seasons of the year to protect waterfowl nesting and fish spawning.
26. **4-7.** Develop a focused public education program to promote understanding and protection of the lake by watercraft users.
27. **4-7.a.** Disseminate public information materials to registered watercraft owners in the region

28. **4-7.b.** Post signage at boat launches and piers on the importance of protecting Lake St. Clair resources
29. **4-7.c.** Educate boaters about aquatic vegetation and its important ecological role in the lake, and the need to avoid damage to it by boating and related activities

## **Chapter 5 - Human Health**

### **Drinking Water Protection**

30. **5-1.** Complete and implement Source Water Assessments to ensure effective protection of raw drinking water supply sources.
31. **5-2.** Require monitoring programs for public water supplies to assure rapid detection of variations in water quality due to spills, contamination, and other factors.
32. **5-3.** Revise existing notification and response plans to assure source water protection from contaminants associated with spills and runoff events.
33. **5-4.** Support long-term establishment and operation of the Lake St. Clair weather buoy

### **Spill Prevention and Control**

34. **5-5.** Formalize the current, informal reporting and notification process used by water treatment operators.

### **Fish Consumption Advisories**

35. **5-6.** Continue to collect and evaluate fish contaminant monitoring data
36. **5-7.** Review sediment and water quality criteria, and sediment remediation/mitigation measures, to assure that the bioavailability of bioaccumulative chemicals of concern is reduced to the point that fish consumption guidelines are no longer necessary.
37. **5-8.** Expand ongoing outreach efforts to adequately inform the public, especially at-risk populations, about fish consumption guidelines.

### **Beach Closures**

38. **5-9.** Require the elimination of all sources of untreated human sewage entering the waterways through:
  39. **5-9.a.** The development and implementation of illicit discharge elimination plans (IDEP)
  40. **5-9.b.** Completion of combined sewer overflow (CSO) and sanitary sewer overflow (SSO) treatment and elimination programs.
  41. **5-9.c.** Detection and correction of failing on-site disposal systems (OSDSs).
  42. **5-9 d.** Implement point-of-sale OSDS inspection programs to assure continued maintenance.

43. **5-10.** Improve wastewater treatment planning, monitoring and permitting at the local level to assure that sewage is properly managed, regardless of the selected treatment alternative. Specifically, smaller systems must be properly sited, constructed, monitored, operated, maintained, and regulated. This would require:
44. **5-10.a.** Existing programs for permitting and siting on-site sewage disposal systems must be diligently enforced
45. **5-10.b.** Existing small package wastewater treatment plants and lagoon systems must be well monitored by state and local environmental officials.
46. **5-10.c.** Current E. coli monitoring programs for drains and tributaries must be maintained and examined for possible expansion
47. **5-10.d.** Provide incentives for septage transfer stations and disposal facilities
48. **5-11.** Develop and implement an education and incentive program to assist local units of government in providing regional sewer service that would minimize the number of small local wastewater treatment plants, lagoons and onsite disposal systems.
49. **5-12.** Evaluate the impact of wildlife, pets, and livestock on elevated E. coli levels. Institute a regional bacterial source tracking system (BST).

### **Beach Monitoring and Assessment**

50. **5-13.** Continue research into more timely and cost effective strategies for early detection of beach closures and predictive models for beach closures.
51. **5-14.** Implement the Beaches Environmental Assessment and Coastal Health Act (BEACH Act).

## **Chapter 6 - Land Use**

### **Land Use Planning**

52. **6-1.** Maintain, on a county and regional level, land use data and information. This should include maps that depict the location of coastal areas, protected and managed areas, and natural features that identify at-risk areas for better protection and management.
53. **6-2.** Develop and implement regional and local watershed management plans to control, mitigate, and prevent point source and nonpoint source pollution.
54. **6-3.** Provide technical assistance to local units of government to manage development and natural resources in a sustainable manner through the use of education, incentives, technical assistance, and funding assistance.
55. **6-3.a.** Increase funds and technical assistance for local government to develop and implement land use plans. Emphasize erosion hazards, floodplain functions, sedimentation controls, habitat protection, and use of natural vegetation as requirements in local zoning and subdivision regulations.
56. **6-3.b.** Increase funds and technical resources for local units of governments to implement best management practices (BMPs) to protect natural resources, reduce erosion, and reduce nonpoint source pollution.

57. **6-3.c.** Educate local zoning boards and planning commissions regarding innovative tools to manage development and natural resources in a sustainable manner, such as model ordinances, best management practices, and existing programs that provide technical and cost-share assistance to control and prevent point and nonpoint source pollution
58. **6-3.d.** Encourage local zoning boards and planning commissions to establish regulations to limit development in sensitive areas, such as critical habitats and erosion sites.
59. **6-3.e.** Encourage local zoning boards and planning commissions to incorporate a review of water quality impacts in all projects they review and to deny approval to projects that would significantly degrade water quality or contribute to violations of water quality standards.
60. **6-4.** Encourage local units of governments to implement tools such as Low Impact Development (LID) and wetland ordinances.
61. **6-5.** Minimize traditional techniques of shoreline hardening and encourage alternative approaches that improve fish and wildlife production capacity through habitat protection and restoration.

### **Nonpoint Source Pollution**

62. **6-6.** Accelerate implementation of existing incentive programs to reduce nonpoint source pollution
63. **6-7.** Require the use of best management practices, such as stormwater control measures, that limit post-development flow rates to predevelopment levels
64. **6-8.** Evaluate soil erosion and sedimentation control programs for adequate staffing and enforcement.
65. **6-9.** Identify and target priority areas for soil erosion and sediment control efforts.
66. **6-10.** Educate property owners, such as homeowners and farmers, about nonpoint source pollution and encourage them to implement actions to minimize the amount of nonpoint source pollution leaving their property.

### **Stormwater Runoff**

67. **6-11.** Enforce the requirements of the Michigan General Stormwater Permit and the U.S. EPA Phase II stormwater permit.
68. **6-12.** Develop and implement Storm Water Pollution Prevention Initiatives (SWPPIs) in all Phase II governmental units in the watershed, including implementation of pollution prevention and good housekeeping practices
69. **6-13.** Implement BMPs designed to minimize impacts of new development and redevelopment
70. **6-14.** Incorporate findings from the watershed planning efforts into future land use planning to improve stormwater management.
71. **6-15.** Adopt improved local ordinances, consistent Master Planning, and coordinated zoning.
72. **6-15.a.** Require infiltration, buffer strips, and other BMPs in developments;
73. **6-15.b.** Promote innovative site design that reduces the creation of impervious surface.

74. **6-15.c.** Emphasize stormwater management as requirements in local zoning and subdivision regulations.

## **Chapter 7 - Fisheries, Recreational Boating and Commercial Navigation**

### **Marine Industry Pollution Prevention**

75. **7-1.** Develop and implement pollution prevention programs for marine industries and recreational activities.
76. **7-1.a.** Expand pollution prevention programs to target boat maintenance and repair facilities in all counties bordering Lake St. Clair.
77. **7-1.b.** Support implementation of a Clean Marina Program to educate marina operators about best management practices in order to avoid pollution releases to the environment and encourage implementation of these BMPs.
78. **7-2.** Assure compliance with existing rules and regulations for watercraft users.
79. **7-3.** Increase the number of pump-out stations in the watershed to accommodate increasing boater demand.

### **Fisheries Management**

80. **7-4.** Fulfill obligations under the Great Lakes Fishery Commission's *Fish Community Goals and Objectives for Lake St. Clair and Connecting Waters (St. Clair System)*

### **Dredging**

81. **7-5.** Support efforts of the Great Lakes Dredging team to develop risk-based guidance to establish contamination thresholds for different beneficial use applications of dredged material, based on the physical and chemical properties and end uses.
82. **7-6.** Ensure that all dredging is conducted in an environmentally sound manner to minimize downstream impacts.

### **Aquatic Invasive Species and Ballast Water Management**

83. **7-7.** Prevent the introduction of aquatic invasive species from ballast water and other commercial vectors throughout the Great Lakes-St. Lawrence system.
84. **7-8.** Evaluate and recommend ballast water management practices and treatment technologies.
85. **7-9.** Disseminate educational materials to prevent and limit the spread of aquatic nuisance species by recreational boaters, fishermen, and riparian property owners.

## Public Access

86. **7-10.** Provide adequate public access to Lake St. Clair by means of environmentally sound marinas, boat launches, and related facilities

## Chapter 8 - Monitoring

87. **8-1.** Create a Lake St. Clair monitoring coordination committee (LSCMCC) to develop and implement a comprehensive, coordinated, long-term monitoring strategy for the U.S. portion of the Lake St. Clair watershed. The main objectives of the committee should be to:
  88. **8-1.a.** Establish a priority list of monitoring needs in the watershed;
  89. **8-1.b.** Encourage the sharing of data and information among all interested U.S., Canadian, and tribal/First Nation authorities;
  90. **8-1.c.** Coordinate monitoring among monitoring organizations toward basin wide needs;
  91. **8-1.d.** Direct future regional monitoring in a way that best meets basin wide monitoring needs;
  92. **8-1.e.** Coordinate with existing Binational monitoring efforts, such as the Monitoring Upper Great Lakes Connection Channel (MUGLCC) committee.
  93. **8-1.f.** Address additional management plan monitoring recommendations.
94. **8-2.** Align program objectives to address priority monitoring needs and allow for an effective merger of information between disparate programs. Programs with conflicting or overlapping goals or objectives should be examined for areas of compromise or adaptation to better accommodate basin wide goals.
95. **8-3.** Develop a set of critical indicators and identify parameters needed to produce monitoring results for these indicators.
96. **8-4.** Develop standards for data collection methods, metadata creation, quality assurance and quality control (QA/QC) plans, data analysis comparability, and report generation.
97. **8-5.** Identify sampling locations that are representative of the system being sampled and expand monitoring into key areas where currently none exists.
98. **8-6.** Coordinate sampling frequency among monitoring programs so that the combined network addresses basin wide monitoring needs.
99. **8-7.** Ensure that the combined network of monitoring programs results in a sampling design that is statistically powerful enough to detect change in the ecosystem.
100. **8-8.** Analyze methodologies being used by monitoring organizations to ensure they produce comparable data.
101. **8-9.** Where possible, utilize remotely sensed data and modeling approaches to fill in data gaps, better connect monitoring information with management activities, and develop a better understanding of ecosystem interactions
102. **8-10.** Maintain the publicly accessible inventory of current monitoring programs.
103. **8-11.** Establish a financial plan for supporting monitoring coordination committee staff and addressing monitoring gaps.

104. **8-12.** Utilize emerging technologies to develop a real-time monitoring system within the watershed for appropriate parameters, especially those related to human health and drinking water protection.
105. **8-13.** Create a periodic environmental report card for the U.S. portion of the Lake St. Clair watershed that reports on status and trends in environmental indicators, the overall health of the watershed, and progress toward achieving management plan goals and objectives.

## **Chapter 9 - Achieving our Vision**

106. **9-1.** Establish a Lake St. Clair Partnership and develop/adopt a unified and comprehensive management structure to allow watershed-wide coordination across disciplines and to coordinate, assess and oversee implementation efforts at all levels of government.
107. **9-2.** Establish a U.S. Lake St. Clair Coordinating Council with representation from federal, state, and local agencies with management responsibilities for the Lake St. Clair watershed to promote and coordinate implementation of the management plan, facilitate communication among stakeholders, establish priorities, monitor progress, and advocate for funding for management plan activities
108. **9-3.** Conduct a biennial technical and community conference within the watershed to disseminate information to the stakeholders regarding findings, conclusions, and recommendations of any completed studies or projects, and current and future implementation activities
109. **9-4.** Implement a comprehensive information-education program targeted at key audiences to educate them about Lake St. Clair, environmental impacts to the lake, and what can be done to protect and restore the lake
110. **9-5.** Develop a central clearinghouse and watershed website to maintain an up-to-date listing of all program activities, studies, and organizations within the watershed. All organizations conducting activities in the watershed would be responsible for advising the clearinghouse of their activities