

Strategic Vision for the ST. CLAIR-DETROIT RIVER SYSTEM INITIATIVE 2014-2023

Adopted by the Steering Committee, February 6, 2014

INTRODUCTION

Following a successful 10-year collaboration of managers and researchers under the former Huron Erie Corridor Initiative (HECI), the St. Clair-Detroit River System (SCDRS) Initiative was formed in 2013 to advance the joint objectives of a formal partnership agreement. Participants included natural resource and water quality managers, environmental scientists, aquatic ecologists, and community stakeholders, who identified specific interests and priorities that encompassed water quality, aquatic and terrestrial habitats and organisms, monitoring, biodiversity, rare species, Areas of Concern, invasive species, and cultural/socio-economic connections to the system.

Implementation of the Partnership Agreement provides a foundation of continued collaboration to advance specific interests, and to work collectively through a blueprint of strategic actions (a *strategic vision*) to fulfill the *partnership purpose* and ultimately achieve a *shared vision* in the St. Clair-Detroit River System. Elements of this blueprint include the adoption of:

- a *common agenda* of integrated strategic priorities for the next decade, with
- *guiding principles* to provide a consistent basis for achieving
- *desired outcomes* through defined
- *strategies* that are linked by
- *theme* areas of mutual interest to direct a
- *science strategy* and a
- *monitoring plan* that will help inform, evaluate, and coordinate decisions of the partners.

PARTNERSHIP PURPOSE

The Partnership coordinates research and management efforts that collectively achieve measurable progress toward the shared vision, as implemented through a strategic process to link science with integrated management priorities, that is to say, a common agenda.

SHARED VISION STATEMENT

The St. Clair-Detroit River System is a thriving ecosystem managed with science-based principles and broad social support, providing desired environmental services for the region and the Great Lakes basin.

COMMON AGENDA

Restoration, protection and sustainability of the System will be accomplished through adaptive and coordinated decisions, focused science, timely assessment and evaluation, and communication among partners, to provide sustained improvements to:

- Physical, biological and chemical features of habitats,
- Production and biodiversity of indigenous species,
- Prevention or mitigation of negative impacts from AIS, and
- Societal satisfaction in the system.

GUIDING PRINCIPLES

Derived from the partnership purpose and vision statements, guiding principles (below) provide rationale for the selection of desired outcomes (e.g., targets) that will result from the application of strategies. They also provide broad criteria for project prioritization, which include:

- A thriving ecosystem includes not only improvement of environmental conditions within the System, but also its contributions and benefits to societies in the adjacent Great Lakes,
- Science-based management provides a means to adapt to inherent uncertainties and challenges of an altered ecosystem through information-based prioritization of actions, strategic investment in applied research to address knowledge deficiencies, and in monitoring to evaluate progress toward the shared vision,
- Specific interests of partners are integrated in the common agenda to guide the collective efforts of the partnership toward the shared vision, connected through specific “themes” of mutual interest to managers.
- Sustained social support through communication and understanding of stakeholder interests is vital to fulfill the vision.

DESIRED OUTCOMES AND STRATEGIES

Expected achievements by 2023 are:

Outcome 1: Environmental, biological, and societal benefits from the System are measurably improved.

- **Strategy 1a:** Identify, prioritize, and implement projects to protect, enhance, and restore physical, biological and chemical features of the system that improve native biodiversity and benefit people,
- **Strategy 1b:** Identify, prioritize, and implement projects that address emerging and existing threats/risks from invasive species, pollutants, and habitat alterations on present and future ecosystem function, native biodiversity, and services to people.

Outcome 2: Decisions on common agenda priorities are made using science and monitoring tools that accommodate uncertainties, existing/emerging threat, and societal interests.

- **Strategy 2a:** Build a Science Strategy to facilitate coordinated, science-based, development and prioritization of research projects/actions,
- **Strategy 2b:** Build a Monitoring Plan to develop and implement standardized assessments of environmental conditions and biotic responses that will facilitate prioritization of projects/actions, and evaluation of progress toward the common agenda.

Outcome 3: The Partnership provides a defined forum for coordinated, transparent decision-making and communication that grows and sustains the partnership.

- **Strategy 3a:** Conduct annual meetings to share progress and results and exchange information and to identify opportunities for leveraging resources,
- **Strategy 3b:** Develop communication tactics (fact sheets, report cards, media events, signage, and public meetings) that provide consistent and clear evaluation of progress toward defined outcomes, and promote public education and outreach.

THEMES

Themes, or key areas of mutual interest to partners, connect the common agenda to feasible management actions. Themes guide the development of tools (e.g., a science strategy and monitoring plan) for the identification and prioritization of projects/actions that will most effectively implement the strategies to achieve desired outcomes. Themes include:

- **Pollutants:** Sources of nutrients, sediments, and other pollutants that can be altered to manage water quality at levels that create aquatic habitats that support desired biodiversity and benefits to people,
- **Habitats:** Protection, enhancement, and restoration of features that can be implemented to provide habitats that support desired aquatic and terrestrial biodiversity and benefits to people, or to buffer against impacts from emerging stresses on the System,
- **Connectivity:** Accommodation of connectivity among physical and chemical features in habitat improvement projects, relative to targeted species life histories and varying hydrological conditions, so as to enhance production, biodiversity, as well as social satisfaction (aesthetics, use, cultural value) in the system,
- **Fisheries:** Accommodation of existing fish population status, stock discreteness, and migratory behavior when conducting native species restoration projects, such as hatchery introductions or spawning habitat enhancements, when considering expected outcomes and benefits to the corridor and adjacent Great Lakes,
- **Invasive Species Management and Prevention:** Control sea lamprey produced in the System, manage the spread of invasive *Phragmites*, and prevent the entry and establishment of new invasive threats to the system, such as Asian carps,
- **Societal:** Understanding and managing human behavior in the system to achieve and sustain satisfaction with improvements to environmental conditions in the system, such as removal of Beneficial Use Impairments and delisting of all Areas of Concern in the System.

SCIENCE STRATEGY

The Science Strategy is a tool to implement adaptive management, linking science to the common agenda priorities through identified themes, allowing users to explicitly understand and communicate the rationale for conducting a research project and the expected contribution of the science to management actions. The strategy is a set of working hypotheses that reflect the current state of knowledge for each common agenda/theme category along with testable research hypotheses. As projects/actions are completed, tested research hypotheses either support the existing working hypotheses or indicate that revisions to them should be considered. Over time, an understanding of how to manage the system to meet the common agenda will be enhanced through applied science. The strategy should guide researchers in their development of projects that address specific hypotheses to improve the working knowledge on how to achieve the common agenda priority. How well a proposed project is likely to improve the working knowledge, in turn provides useful criteria to assist with decisions involving coordination and prioritization of research projects that are most likely to achieve the shared vision in the Initiative.

MONITORING PLAN

Along with the Science Strategy, the Monitoring Plan is another tool to implement adaptive management, providing the means for users to assess current status, develop targets or endpoints, and to measure progress toward achieving the outcomes of the shared vision and common agenda. Measurable indicators (response variables) for the set of working and research hypotheses are important needs of the Science Strategy. Standardized monitoring of water chemistry, fish populations, and other aquatic organisms is also routinely used by water quality and natural resource managers in their decisions and actions, but is lacking for some of the above theme areas in the SCDRS. Therefore, the purpose of this tool is to provide measurable indicators (where monitoring is available), for implementation of the Science Strategy, and to provide recommendations on the development of monitoring programs to address deficiencies essential for measuring progress toward the common agenda.