

## **SUSTAINABLE DEVELOPMENT**

### **I. Problem Statement**

Sustainable development is an approach to achieving balance between economic, societal and ecological needs that has not been fully integrated into all aspects of the use, development, restoration and conservation of Great Lakes resources. Sustainability works from the bottom-up, and is rooted in the actions and decisions by individuals, private enterprises and local communities. State and federal governments play important roles in promoting sustainable behavior through guidance, outreach, and support to enhance the capability of local communities, as well as policy and funding decisions.

Sustainable Development was examined with respect to six categories of services provided by the region's ecosystems: land use and development; agriculture and forestry; transportation; industrial activities; water infrastructure, and; recreation, tourism and fishery. An evaluation of current and future human activities in the Great Lakes Basin highlights trends that continue to draw on ecosystem services and economic competitiveness, including:

- loss of natural and agricultural lands to development at rates far exceeding population growth;
- leveling or decline in conservation tillage practices;
- fragmentation of privately owned forest lands into smaller tracts and decreasing levels of active management on public forest lands;
- increased demands on ecosystems for recreation;
- aging transportation infrastructure that impedes more efficient intermodal systems;
- an aged water and wastewater infrastructure unable to handle current demands;
- disconnected programs for planning and management of ecosystem services;
- practices and policy disincentives that deter sustainability, and;
- outdated perceptions of the region ("rust belt") which fail to promote the potential of its sustainable ecosystem services.

### **II. Goals and Milestones**

The goal is a Great Lakes Basin where human activities support a strong and vibrant economy, meeting societal and cultural needs in balance with a diverse and resilient ecosystem. A sub-goal that is essential to this desired state is a Great Lakes community that has fully embraced and routinely applies sustainability in all decisions and actions. While the near-term actions recommended herein will have specific milestones, the adoption and use of sustainability as a guide to local and regional decision making will take time. As sustainability becomes embedded in the fabric of individual, corporate and governmental thinking, the return on that investment should continue indefinitely.

### **III. Recommendations**

This Team identified actions to promote sustainable development practices aligned with six categories of services provided by Great Lakes ecosystems. These include actions for all sectors of stakeholders, including federal, state, tribal and local governments, private business, industry and manufacturing, and nongovernmental organizations (NGOs). The complete set of these actions is provided in the full report of the Sustainable Development Team (Appendix) and are summarized by four major recommendations:

1. Adapt and maintain programs that promote sustainability across all sectors;
2. Align governance to enhance sustainable planning and management of resources, and;
3. Build outreach that brands the Great Lakes as an exceptional, healthy, and competitive place to live, work, invest and play, and;

4. Provide leadership for sustainable development through the implementation of Strategy recommendations.

Each of these recommendations will be discussed with examples of near-term actions that can deliver measurable results, most without substantial new, financial requirements.

### **1) Adapt and maintain programs that promote sustainability across all sectors**

Among the most critical actions necessary to promote sustainability is to eliminate or modify existing programs that actually encourage non-sustainable practices. For example, some state and local tax laws and federal infrastructure aid programs inadvertently encourage urban sprawl and should be modified to give preference or additional funding attention to those projects and communities that encourage and practice sustainable actions. Some federal agricultural price supports tend to discourage conservation tillage practices, and need to be amended, and some taxes and user-fees impacting transportation may not encourage the most efficient and sustainable modes. Near-term actions to address these program shortcomings are:

**Action (a):** States should incorporate sustainable criteria into sewer and water infrastructure loan and grant programs in the Great Lakes as a means of prioritizing those projects that pursue sustainable objectives.

**Timeframe:** 2006

**Lead:** Governors and state agencies

**Resources:** Policy change; no new funding required

**Action (b):** Federal agencies should review existing grant, loan and subsidy programs applicable to the Great Lakes Basin and incorporate sustainable criteria to provide priority for those projects that pursue sustainable objectives.

**Timeframe:** 2006

**Lead:** Great Lakes Interagency Task Force

**Resources:** Policy change; no new funding required

Other programs that have greater potential to promote sustainability, but are under funded or need to be modified for greater effect include funding and tax incentive programs for brownfields and sustainable recreation, and incentives for development of renewable energy technologies, energy efficiency, and pollution prevention.

**Action (c):** Local communities should re-use brownfields to revitalize lakeside and tributary waterfronts, with emphasis on public access and recreational opportunities. Federal and state grant programs should give increased funding priority for these projects.

**Timeframe:** 2006-2007

**Lead:** Local governments, with priority funding from federal and state programs

**Resources:** Target existing program funds

**Sources:** Federal and state funding programs including: USEPA, Brownfields Program; U.S. Dept. of Housing and Urban Development (HUD), Brownfields Economic Development Initiative; US Forest Service (USFS), US Dept of Interior (USDOI) and US Fish & Wildlife Service (USFWS) ,Land and Water Conservation Fund; NOAA Coastal Brownfields and Portfields (with USEPA) programs, US Army Corps of Engineers (USACE), Great Lakes Remedial Action Plan, Beneficial Use of Dredged Material and ecosystem restoration programs.

An important tool in encouraging sustainable practices is to develop and apply specific metrics for sustainability, such as a set of standards for “green” marinas, sustainable forestry, or for sustainable urban, suburban and rural development. When creating and applying “green” standards and metrics, the integration of sustainable activities and cooperation within and among governmental jurisdictions is a key to success and should carry incentives. By recognizing preferred “green” practices with a “Contributing to a Healthy Great Lakes” label, the region can gain community support for sustainable practices.

**Action (d):** Conduct a review of examples of sustainable practices, evaluate their effectiveness and applicability to the Great Lakes Basin, and develop potential criteria for “green” certification and potential criteria for prioritizing proposals for funding programs.

**Timeframe:** 2006

**Lead:** Great Lakes Commission; Great Lakes Regional Planning Group; Sea Grant/University; contractors

**Resources:** \$200,000

**Source:** Federal and state funding programs including: USEPA, CEM funding through GLNPO/LaMP; NOAA, Coastal Zone Management (CZM) grants and Coastal Estuary Land Protection; Great Lakes Protection Fund

## 2) Align governance to enhance sustainable planning and management of resources

While the Great Lakes ecosystems are not aligned by political boundaries, human management of ecosystem services is. Our ability to balance economic, societal and ecosystem needs is challenged by the disconnection between economic drivers and the planning and management of ecosystem services. For example, existing programs for local and regional planning of land use are disjointed from the programs for planning and management of transportation, and water infrastructure. Recommend actions to realign governance institutions to sustain ecosystem services and integrate the planning and management of these services.

**Action (e):** Conduct a 3-year demonstration project in 3-4 Great Lakes major metropolitan areas for development of a consistent, sustainable land use plan that uses best available new technologies to integrate with regional transportation plans and other public infrastructure plans including extensive public participation and local involvement. The regional 2040 framework plan of the Northeast Illinois Planning Commission provides a model.

**Timeframe:** 2006-2008

**Lead:** US Dept of Transportation (DOT), Federal Highway Administration and Federal Transit Agency; state DOTs; Regional Metropolitan Planning Organizations (MPOs)

**Resources:** 10-20% of selected demonstration MPOs’ annual Regional Transportation Plan (RTP) funding.

**Sources:** Funding 50% from RTP funds and balance from a range of existing program (that may vary by state) including: USEPA (Clean Water, Brownfields, LaMP), NOAA/Sea Grant; HUD Community Development Block Grant program, and; US Dept of Commerce (USDOC) Economic Development Funds; USDA programs; Foundations.

Activities to address the restoration of ecosystems should be integrated with activities that promote sustainable use of ecosystem services, especially where the uses and restoration are linked. An ecosystem restoration plan that does not provide a path for economic development is as unsustainable as an economic development plan that fails to directly address ecological restoration and societal needs. The integration of restoration and sustainable use planning has been limited by the alignment of agencies along single purposes, and requires actions to promote integrated, multi-purpose planning.

**Action (f):** In order to start to address two critically inter-related issues, transportation and invasive species (aquatic and terrestrial), authorize and fund a comprehensive study that integrates long-term invasive species control and management with sustainable intermodal transportation for Great Lakes-St. Lawrence Basin.

**Timeframe:** 2006-2009

**Lead:** Congress

**Resources:** \$20 million over 4 years

**Sources:** Federal funding programs of USFWS, USDOT and USACE

Another element of governance that is limiting sustainability is the capacity of local communities, watershed councils, soil and water conservation districts, and MPOs which are challenged to attract and retain staff knowledgeable on sustainable practices due to unstable base funding. These organizations provide critical training, technical assistance, and are regional advocates for sustainability are challenged to maintain their institutional knowledge. Recommend actions to enhance the capacity of local and regional organizations to inform, promote, and implement sustainability.

**Action (g):** Identify, expand and enhance existing, online clearinghouses to provide additional capacity for education and outreach, tourism projects and products, and local watershed planning initiatives

**Timeframe:** 2006-2007

**Lead:** Great Lakes Commission/GLIN; Sea Grant/University

**Resources:** \$500K per year

**Source:** Federal and state funding programs including: USEPA, CEM funding through GLNPO/LaMP; NOAA, Coastal Zone Management (CZM) grants and Coastal Estuary Land Protection; Great Lakes Protection Fund

**Action (h):** Enhance the capacity of local communities to apply sustainability through training and technical assistance provided with priority funding from multiple federal and state grant and assistance programs.

**Timeframe:** 2006-2007

**Lead:** Watershed and regional councils, RAP groups, tribes, NGOs, soil & water conservation districts

**Resources:** \$2 million (ramping up to \$8 million in 5 years); \$100K per watershed per year

**Source:** US Dept Agriculture (USDA), Tech Asst Fund; USEPA, CEM funding through GLNPO/LaMP, Sec 319 grants through States; NOAA/CZM and Coastal Estuary Land Protection grants; USACE RAP Support (WRDA Sec 401) program; HUD Community Development Block Grant program, Great Lakes Protection Fund; Foundations

**Action (i):** Initiate two new and maintain two existing watershed or regional partnerships with emphasis on rural, multi-ecosystem watersheds that incorporate sustainable criteria and local government capacity enhancing programs into a comprehensive strategic planning initiative.

**Timeframe:** 2006-2007

**Lead:** Watershed and regional councils, RAP groups, tribes, NGOs, soil & water conservation districts

**Resources:** \$100-250K per watershed per year

**Sources:** USEPA, Section 319 grants through states; state watershed planning programs

**Action (j):** Enhance the capacity of Great Lakes ports and marinas to implement best management practices in partnership with the outreach initiative of the American Association of Port Authorities (AAPA)

**Timeframe:** 2006-2007

**Lead:** Port authorities, state, local and private harbor and marina interests, AAPA

**Resources:** \$300,000 annually

**Sources:** Federal and state funding programs, including USDOT and USACE

Commitments to existing partnerships that bridge governmental alignments and promote sustainability should be renewed and sustained. One example is the state/federal partnership of the Great Lakes Dredging Team.

### **3) Build outreach that brands the Great Lakes as an exceptional, healthy, and competitive place to live, work, invest, and play**

In order to gain the public support, both within the Basin and nationwide, to accomplish the recommendations identified in the Strategy and promote the sustainability of the Great Lakes as a national priority, a combination of marketing and outreach is required. Specific objectives of this outreach and marketing are to educate users and consumers on sustainable alternatives available and the consequences of decisions, build a sense of ownership and pride in regional ecosystems, attract new residents and businesses to the region with abundant ecosystem services and a society where sustainability is practiced, and develop national support for the restoration and protection of the Great Lakes because of its ecological and economic importance to the country.

**Action (k):** Develop and implement a marketing strategy for the Great Lakes targeted at a national audience that delivers messages of the region's ecological and economic importance to the nation/world

**Timeframe:** 2006-2008

**Lead:** Foundations and NGOs

**Resources:** \$2 million

**Sources:** Foundations and public interest funds

**Action (l):** Create new awards to recognize excellence in sustainable development within the Great Lakes

**Timeframe:** 2006

**Lead:** Foundations, business sector associations, NGOs

**Resources:** undetermined, but may not be required

**Action (m):** Develop additional education and outreach modules on sustainability (such as WET and Water Riches curricula for water conservation) and promote their incorporation into school curriculum (K-12)

**Timeframe:** 2006-2007

**Lead:** State resource and education agencies and NGOs in partnership with local school districts

**Resources:** \$2 million

**Sources:** State and federal funding programs, including: USEPA, Environmental Education grants; US Dept of Education grants; and state and local education funding programs

#### **4) Provide leadership for sustainable development through the implementation of the Strategy recommendations**

This Strategy document presents both short- and long-term actions required to restore and protect the ecosystem services provided by the Great Lakes. However, there is another critical step in moving forward from this document to the implementation of the recommended actions. That is the formulation of an implementation plan which provides the specifics for prioritization and sequencing of actions. This plan must also evaluate alternative actions, develop more detailed cost estimates, and assign responsibilities to assure that funds and human resources are used efficiently. Sustainable development cuts across all other priority issues addressed in this Strategy, it is future-oriented, and represents a sound platform for integrating efforts to restore and protect the Great Lakes.

**Action (n):** Congress should authorize and appropriate funding for development of a phased implementation plan for the recommendations in the Strategy that provides a scientifically sound process for prioritization, sequencing, development of detailed cost data, evaluation of alternatives, and assignment of responsibilities, utilizing sustainable development as the overarching guide

**Timeframe:** 2006

**Lead:** Congress

**Resources:** \$6 million over three years

A final action that is essential for the successful implementation of the Great Lakes Strategy is providing leadership. The Collaboration, a partnership of federal, state, tribal and local governments, is the logical choice for overseeing of the development of the implementation plan as well as tracking and reporting on its application. This will necessitate some changes to the Collaboration's charter and organization structure. It is also recommended that the Governors, Mayors and Tribal leaders provide leadership as the advocates for sustainable use, development and conservation of Great Lakes resources.

**Action (o):** The Great Lakes Regional Collaboration should amend its Framework to provide oversight of the development, approval, and application of a phased implementation plan for the Great Lakes Strategy using sustainable development as the overarching guide. The Collaboration should also monitor and report on the status of implementation.

**Timeframe:** 2006

**Lead:** Collaboration

**Action (p):** The Governors, Mayors, and Tribal leaders of the Great Lakes should renew and expand their commitments to the sustainable use, development and conservation of Great Lakes resources and utilize the Great Lakes Commission and Great Lakes and St. Lawrence Cities Initiative as a proactive advocates for sustainable development.

**Timeframe:** 2006

**Lead:** Governors, Mayors and Tribal leaders