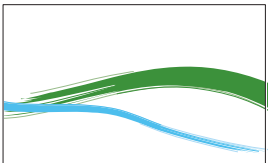


# Action Plan for Addressing Terrestrial Invasive Species Within the Great Lakes Basin

*June 2006*

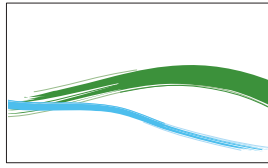


M·N·R·G



Midwest Natural  
Resources Group





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# *Action Plan for Addressing Terrestrial Invasive Species Within the Great Lakes Basin*

## **Executive Summary**

In response to an inquiry from the federal Interagency Task Force for the Great Lakes Regional Collaboration (<http://www.epa.gov/greatlakes/collaboration/taskforce/>) on federal initiatives that could support the Great Lakes Regional Collaboration Strategy (<http://www.epa.gov/greatlakes/collaboration/strategy.html>), the Midwest Natural Resources Group (MNRG – <http://www.mnrg.gov>) developed this *Action Plan* to **“... apply [the MNRG’s] existing resources to establish a team charged with developing an Action Plan, [and] to effectively coordinate and develop inventories, mapping and treatment of terrestrial invasive species for the Great Lakes basin.”**

This *Action Plan* is a first step toward achieving this goal by promoting increased collaboration and efficiency among federal and non-federal partners within the basin. Through its action items, the plan also helps define the appropriate role of the MNRG in addressing the threat from terrestrial invasive species within the Great Lakes basin. It is produced under the auspices of the 2003 MNRG Memorandum of Agreement (MOA) titled “*A Collaborative Agreement for Meeting the Threat of Invasive Species.*”

The development of this *Action Plan* closely parallels the National Management Plan written by the National Invasive Species Council (NISC) in 2001.

In 1999, the Executive Order (EO) 13112 required all federal agencies to cooperate, coordinate and communicate on invasive species and their control. The MNRG’s *Action Plan* addresses the application of EO 13112 primarily within the Great Lakes basin.

Major obstacles to success include outdated policies that discourage partnerships across traditional boundaries and inadequate funding to effectively address invasive species concerns. A key plan recommendation involves the updating and strengthening of the current MNRG MOA.

To facilitate ongoing and effective leadership on invasive species control, the *Action Plan* calls for a permanent Great Lakes Terrestrial Invasive Species Committee (GL-TISC) to accomplish many of the action items in partnership with other federal, state, tribal and applicable non-governmental organizations (NGOs).

All of the action items have been designed to be practical and achievable. Special care has been taken to maximize the use of existing organizations, pathways and mechanisms for invasive species control; therefore, most of the action items within the plan may be accomplished without additional funding, but simply through expanded cooperation.

**Highest Priority *Action Plan* Recommendations to the MNRG Leadership:**

- Revise and renew the current MNRG MOA (*Leadership and Coordination, Action Item 1, page 15*)
- Establish a Great Lakes Terrestrial Invasive Species Committee (*Leadership and Coordination, Action Item 2, page 15*).
- Promote an ecosystem/watershed approach to invasive species control (*Restoration, Action Item 5, page 25*).
- Promote interagency sharing of invasive species data (*Data Management, Action Item 2, page 32; and Action Item 4, page 33*).
- Participate in local and regional invasive species collaborations (*Restoration, Action Item 1, page 24; Cooperation, Action item 5, page 28*).
- Promote the use of invasive-free products (*Prevention, Action Item 1, page 18*).

**Other Priorities:**

- Pursue funding sources outside agencies.
- Create an interagency agreement to allow U.S. Department of Transportation (DOT) control of invasive species on highways that cross agency property boundaries.
- Support and participate in *Weeds Across Borders*.
- Participate in an annual Invasive Species Awareness Month.
- Support increased public awareness and education regarding invasive species, their impacts and control.
- Reinforce EO13112's "do no harm" provision and include Best Management Practices (BMPs) in invasive species training.
- Use existing partnerships for research and technical information transfer.

**Letters from the MNRG:**

- Invite other federal agencies to join MNRG to implement *Action Plan* recommendations.
- Request streamlining of NEPA process to facilitate invasive species control.
- Endorse the St. Louis Code of Conduct within agencies regarding invasive species control actions.
- Request Midwest involvement in the National Invasive Species Council (NISC).

# *Section I*

## *Introduction*



# *Introduction*

## ***MNRG Responds to the Great Lakes Regional Collaboration Strategy***

In response to an inquiry from the federal Interagency Task Force for the Great Lakes Regional Collaboration on federal initiatives that could support the Great Lakes Regional Collaboration Strategy, the Midwest Natural Resources Group (MNRG) proposed to “... apply [the MNRG’s] existing resources to establish a team charged with developing an Action Plan, [and] to effectively coordinate and develop inventories, mapping and treatment of terrestrial invasive species for the Great Lakes basin.” In its proposal, the MNRG committed to:

- coordinate and develop inventories, mapping and treatment of terrestrial invasive species for the Great Lakes basin;
- define MNRG’s involvement and appropriate role to support existing infrastructure and initiatives focused on terrestrial invasive species control within the basin;
- coordinate and facilitate resource sharing related to terrestrial invasive species, such as professional expertise, databases and training;
- identify an Internet-based source for the exchange of scientific information involving terrestrial invasive species; and
- coordinate a collaborative public education and outreach strategy for terrestrial invasive species within the Great Lakes basin.

## ***The Midwest Natural Resources Group and Its Role***

The goal of the MNRG is to function as a partnership of agency senior executives that advocates excellence in federal activities in support of the health, vitality and sustainable stewardship of natural resource systems in the Midwest, particularly within the Upper Mississippi River, Ohio River and the Great Lakes watersheds. The MNRG expects to achieve this goal through developing processes; marshalling resources among agencies and partners; seeking opportunities for enhanced communications; coordinating and collaborating on mutually-recognized resource issues; and, by providing timely interagency assistance where needed for the benefit of the American people. For more information on the MNRG, see <http://www.mnrg.gov>.

In May 2003, eight MNRG agency senior executives signed a Memorandum of Agreement (MOA) titled: *A Collaborative Agreement for Meeting the Threat of Invasive Species*. Objectives of this MOA include:

*“...collaborative efforts to prevent, detect early, rapidly respond to, and control non-native...invasive species...while providing the public with the information, understanding and opportunities they will need to join MNRG in these efforts. The [member agencies of the] MNRG agreed to work together toward prevention and control of non-native species by prudent application of [their] current laws and regulations while maintaining the missions of [their] agencies.*”



These authorities, along with the MNRG's willingness to work collaboratively with non-federal partners in the Midwest and diverse expertise among the member agencies and partners, have provided a strong basis for success in MNRG's efforts toward the prevention and control of invasive species.

### ***MNRG's 2005 Annual Meeting and Focus on Invasive Species***

The MNRG's senior executives, together with appropriate agency staff, met in Minneapolis, Minn., Nov. 8-10, 2005, for the MNRG's Annual Meeting. The theme for this meeting was *Collaboration and Partnerships: Strategies for Meeting the Invasive Species Threat*. The meeting resulted in the development of a series of goals, strategies and potential actions by the various agency invasive species professionals in attendance, as recommendations to the MNRG senior executive leadership on how the organization could take action on invasive species. Notes from the MNRG's Annual Meeting and its proceedings can be found on the MNRG Web site: (<http://www.mnrg.gov/meetings/2005/200511agenda.htm>).

This *Action Plan for Addressing Terrestrial Invasive Species within the Great Lakes Basin (Action Plan)* builds on key themes identified at the November 2005 meeting. The emphasis on terrestrial invasive species is, in part, intended to complement the "Great Lakes Regional Collaboration Strategy" (in development at the time), which included a chapter focusing on aquatic invasive species, but did not address terrestrial species.

### ***MNRG Action Plan Development***

The MNRG assembled an interagency team composed of representatives from 10 of its member agencies to develop this *Action Plan* (see Appendix G, *MNRG Action Plan Work Group*). The work group reviewed each major section of the National Invasive Species Management Plan as well as other applicable plans pertaining to invasive species prevention and control to determine the relevant elements for the *Action Plan*. The work group used the National Invasive Species Management Plan as the foundation for its own *Action Plan* development.

This *Action Plan* parallels the National Invasive Species Management Plan, the purpose of which "...is to provide a blueprint for federal action (in coordination with other nations, States, local and private programs) to prevent the introduction of invasive species, provide for their control, and minimize their economic, environmental, and human health impacts." The national plan was not intended to encompass every useful agency program or activity dealing with invasive species, but to emphasize the most important actions that could be taken toward building upon and enhancing existing programs. Similarly, the *MNRG Action Plan* was developed to leverage current efforts addressing terrestrial invasive species in the Great Lakes basin among MNRG agencies to maximize efficiencies.

The major elements of the National Invasive Species Management Plan and, consequently, the MNRG's *Action Plan*, are the following:

- *Leadership and Coordination*
- *Prevention*
- *Early Detection and Rapid Response*
- *Control and Management*
- *Restoration*
- *Cooperation*
- *Research*
- *Data Management*
- *Education and Public Awareness*

For each element of the *Action Plan*, action items and measurable results have been identified. Additional agency partners will be included in the assessment and prioritization of actions in the *Action Plan*, which was developed with the knowledge that recommended actions will require revision and refinement after institution of the proposed Great Lakes Terrestrial Invasive Species Council (GL-TISC) and will need to reflect relevant legislative changes through time.

The *Action Plan's* appendices include supporting material to assist the MNRG leadership in obtaining a clear understanding of the issues and recommendations being addressed in this *Action Plan*.

## ***Organization and Approach of this Document***

The organization and approach in this *Action Plan* closely parallels that of the *National Invasive Species Management Plan* written by the National Invasive Species Council (NISC) in 2001 (<http://www.invasivespeciesinfo.gov/docs/council/mpfinal.pdf>), but focuses on terrestrial invasive species in Great Lakes basin. MNRG's development of this *Action Plan* supports the goals and requirements of Executive Order 11312 of February 3, 1999, on Invasive Species (<http://www.invasivespecies.gov/laws/execorder.shtml>), and the Great Lakes Regional Collaboration ([http://www.gllrc.us/documents/GLRC\\_Strategy.pdf](http://www.gllrc.us/documents/GLRC_Strategy.pdf)). Executive Order 13340, which created the Great Lakes Regional Collaboration, may be found in Appendix E.

This *Action Plan* is written for the primary audience of the signatories of the Great Lakes Regional Collaboration; however, its primary purpose is to serve as a vehicle to facilitate improved federal, state and local cooperation and collaboration in addressing invasive species from a regional perspective.

It is the intent of the MNRG that all action items identified in this *Action Plan* support and enhance ongoing efforts to coordinate prevention and control activities regarding terrestrial invasive species in the Great Lakes basin. It is the MNRG's philosophy that implementation of this plan will fill important coordination gaps in preventing and controlling terrestrial invasive species, rather than duplicate current activities in the Great Lakes basin.

## ***Definition of Invasive Species***

For the purpose of this *Action Plan* an invasive species will be defined as follows:

*“An invasive species is defined as a plant or animal, including its seeds, eggs, spores or other biological material that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm.” (Executive Order 13112)*

## ***Background on Invasive Species***

As global trade and travel have increased, so too has the introduction of non-indigenous species around the world. While many of these non-indigenous species do not have adverse effects on the areas in which they are introduced, some become aggressive colonizers in their new ranges, disrupting ecosystem function, reducing biodiversity and degrading our nation's natural areas. Today, thousands of invasive plants, animals and pathogens have infested millions of acres of U.S. lands and waters.

Invasive species are one of the greatest threats to our natural resources. At present, 400 of the 958 species listed as threatened or endangered by the federal government are known to have been negatively affected by invasive species (Wilcove *et al.* 1998). Invasive species can damage native habitats by altering hydrology, fire frequency, soil fertility and other ecosystem processes. Some invasive species can also be harmful or poisonous to humans or livestock and can have negative impacts on agriculture.

In addition to causing environmental damage, invasive species have a large economic cost as well. It is estimated that invasive species cost the American public more than \$138 billion per year in agriculture losses and control costs (Pimentel *et al.* 2005). Invasive species can also hamper recreational opportunities by reducing access, degrading the quality of recreational areas and altering the aesthetic beauty of scenic natural areas.

# *Section II*

## *The Action Plan*





# *Action Plan for Addressing Terrestrial Invasive Species Within the Great Lakes Basin*

## **MNRG Action Plan Goal**

The goal of the MNRG's *Action Plan* is to “... **apply [the MNRG's] existing resources to establish a team charged with developing an Action Plan, [and] to effectively coordinate and develop inventories, mapping and treatment of terrestrial invasive species for the Great Lakes basin**” by promoting increased collaboration and efficiency among federal and non-federal partners in the basin. Through its action items, the plan also helps define the appropriate role of the MNRG in addressing the threat from terrestrial invasive species in the Great Lakes basin.

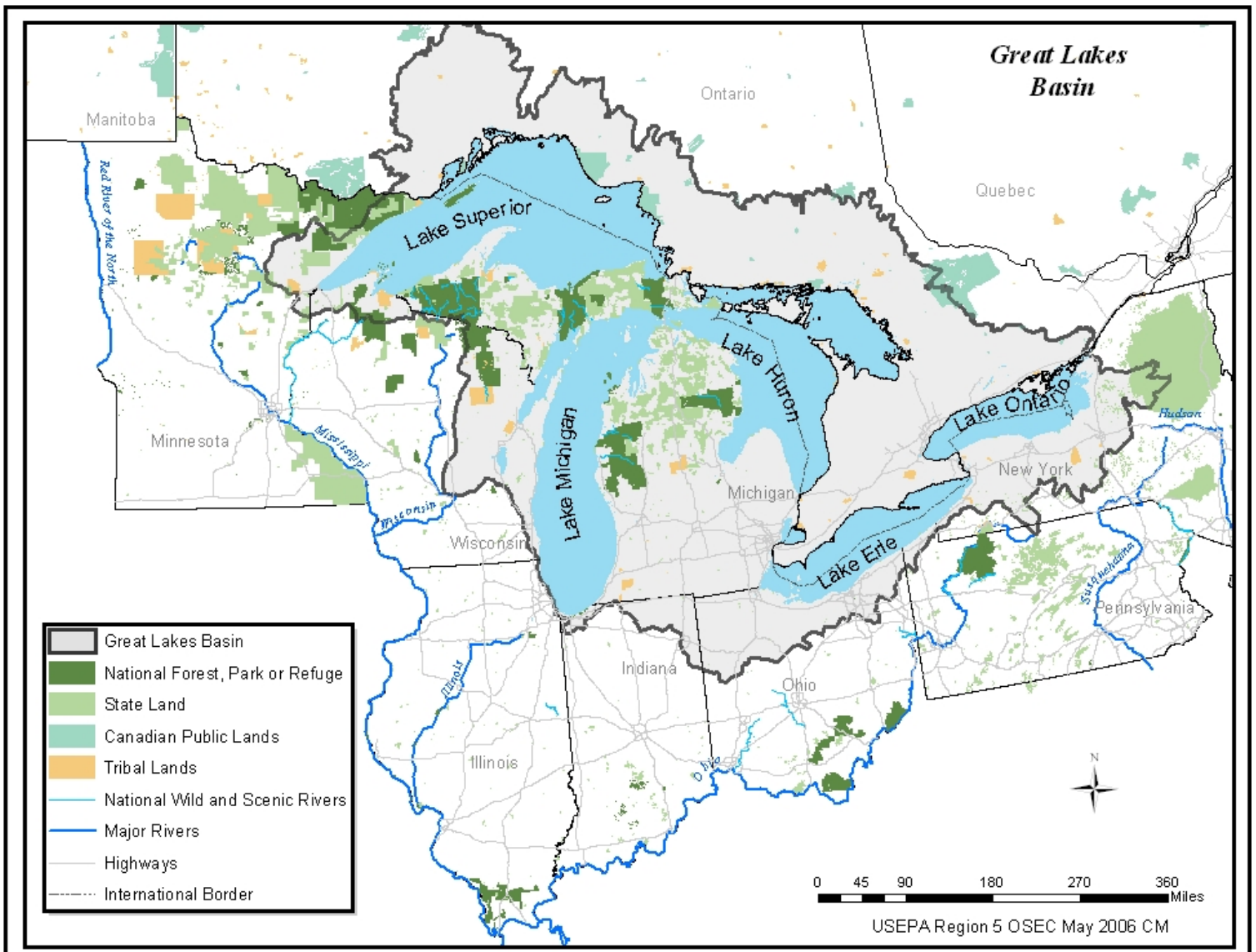
## **Geographic Scope of the Action Plan**

This *Action Plan* addresses invasive species issues primarily within the Great Lakes basin, including lands in Pennsylvania and New York as well as the Canadian provinces of Ontario and Quebec (see Fig. 1 below). The *Action Plan* has, however, been designed to be expandable to the entire MNRG region over time (see Fig. 2 below), requiring only minor adjustments for variations in regional ecology, individual species priorities, applicable partners and public concerns. The ecological communities and ecosystems are primarily terrestrial in nature from the shores of the Great Lakes inland. These communities will include land along transportation routes, public lands, riparian corridors of Great Lakes tributaries, islands, wetlands, uplands and associated plant communities. Aquatic nuisance species that live in the water column are not included.

## **Definition of Invasive Species**

For the purpose of this *Action Plan* an invasive species will be defined as follows:

*“An invasive species is defined as a plant or animal, including its seeds, eggs, spores or other biological material that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm.” (Executive Order 13112)*



**Figure 1: Great Lakes Basin**

# Midwest Natural Resources Group Region

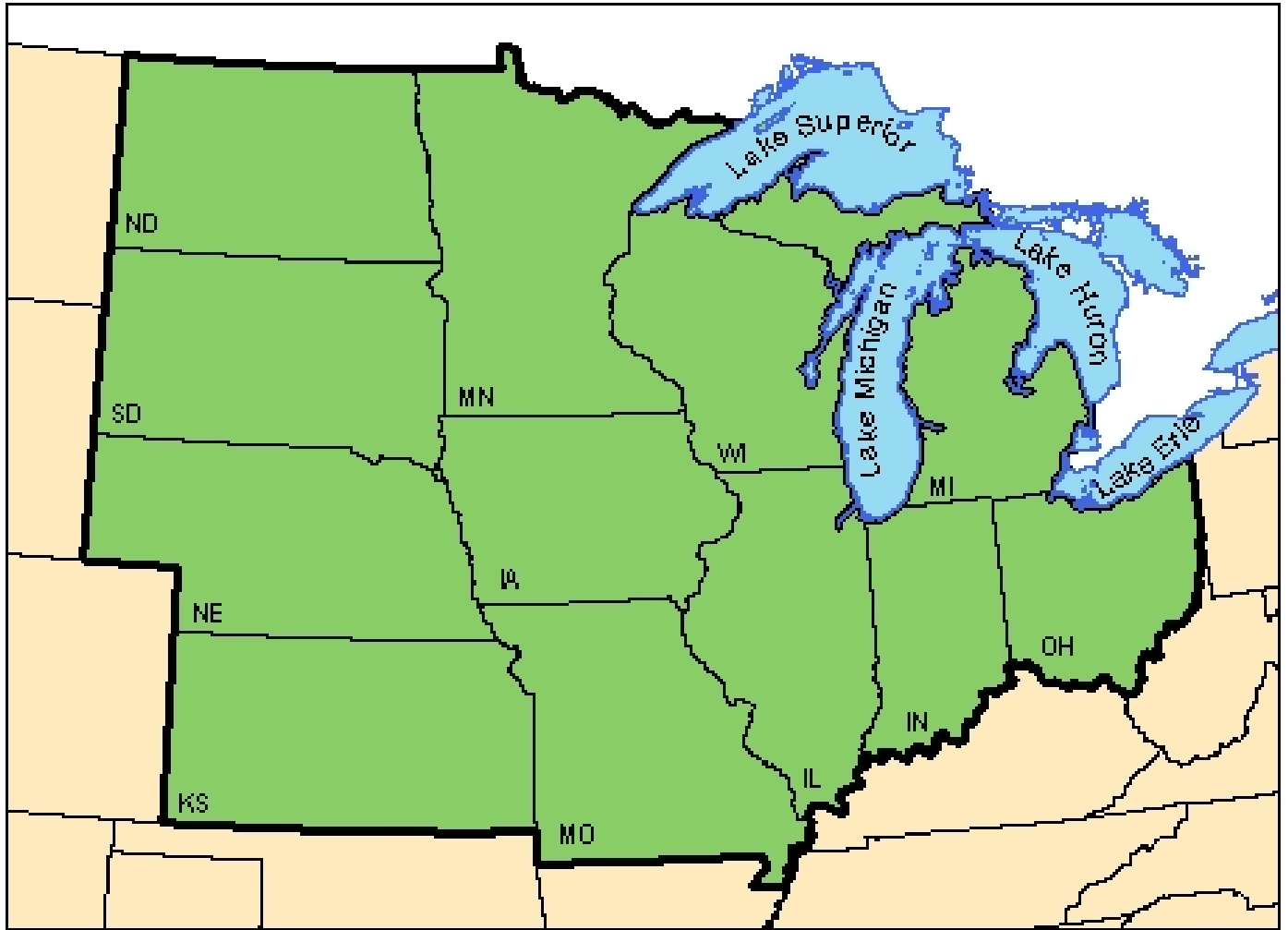


Figure 2: MNRG Region

# ***Overview of Action Plan Elements***

## **Leadership and Coordination**

To reduce further introduction and spread of terrestrial invasive species, stakeholders must renew their commitments to addressing terrestrial invasive species in the Great Lakes basin and establish structures and authorities for continuity.

## **Prevention**

Prevention is the first line of defense against the introduction and establishment of invasive species. Preventing additional introductions of terrestrial invasive species into the Great Lakes basin, either from beyond or within the basin, is more cost-effective and provides greater protection of natural resources than subsequent long-term management and control programs for invasive species.

## **Early Detection and Rapid Response**

Early detection and rapid response efforts to contain or eradicate newly invading species are important because even the most dedicated prevention efforts will not stop the introduction of all invasive species. Early detection, rapid assessment and rapid control efforts for new populations of invasive species greatly improve the likelihood of species eradication and eliminates the need for long-term management and control programs.

## **Control and Management**

Some existing invasive species can be controlled or even eradicated. Other species may be beyond any meaningful control but may be confined to tolerable levels. When invasive species appear to be permanently established, the most effective action may be to prevent their spread or lessen their impacts.

## **Restoration**

Restoration is an important part of site-specific prevention and control strategy for fighting invasive species. By eradicating invasive species and restoring native vegetation in a particular habitat, ecosystem functions may be restored and further invasions can be monitored.

## **Cooperation**

The MNRG partners address invasive species issues in a variety of programs, including monitoring, mapping, control, supervision of construction or mitigation contracts, environmental compliance and regulations, data sharing and increased public awareness. Beyond sharing human or fiscal resources, cooperation may include sharing professional expertise, methodologies, protocols for treatment; using the media to display information to increase awareness of issues; and adding special provisions in contracts to raise awareness of and promote adherence to phytosanitary standards.



## **Research**

Effective control of invasive species requires research. Resource managers need the research community to provide them with sound management strategies and tools to combat invasive species, including detailed site assessments and scientific data on the inter-relationships of the species involved in a particular ecosystem. Research also provides a sound basis for regulatory policy changes and non-regulatory approaches to prevention.

## **Data Management**

Federal agencies and their partners need effecting mechanisms for sharing invasive species information. Providing complete information in a timely manner is essential for making decisions on preventing and controlling the spread on invasive species.

## **Education and Public Awareness**

Identify opportunities for promoting education and raising public awareness at all levels of government on terrestrial invasive species problems, with an emphasis on the Great Lakes basin.

# Leadership and Coordination



# *Action Plan Elements*

## ***Leadership and Coordination***

In May, 2003, eight MNRG agency senior executives signed a Memorandum of Agreement (MOA), “*A Collaborative Agreement for Meeting the Threat of Invasive Species*,” establishing their agencies’ commitments to working together to prevent and control non-native species by prudent application of current laws and regulations, while maintaining the missions of the parties involved. The success of this MOA will depend upon strong leadership by an established body with the authority to ensure coordination among the parties involved. To successfully prevent and control non-native species in the Great Lakes basin, the MNRG *Action Plan* team has identified several leadership and coordination actions that must occur.

### **Action Item 1: Update and revise the 2003 MNRG Invasive Species MOA.**

The 2003 MOA must be updated to include new, critical partners and new vehicles to ensure successful leadership, coordination, continuity, and accountability for the actions necessary in the Great Lakes basin.

#### **Measurable Results:**

A revised MOA signed by all parties critical to its successful implementation.

### **Action Item 2: Establish and authorize a Great Lakes Terrestrial Invasive Species Committee (GL-TISC)**

A Great Lakes Terrestrial Invasive Species Committee will be established (potentially as part of the revised MOA of Action Item 1) with the authority and commitment to ensure actions which all MOA parties agree to support are completed. The GL-TISC should refer to the recommendations and guidance in the General Accounting Office report “*Lessons Learned from Three Recent Infestations May Aid in Managing Future Efforts*” (GAO-006-353).

#### **Measurable Results:**

The GL-TISC is in place and has the expertise, authority and support to accomplish mutually agreed upon actions.

**Action Item 3: Identify the legal authorities and policies of all MOA signatories and parties critical to the success of this endeavor, and identify any conflicts and/or necessary additional authorities**

The GL-TISC will investigate the invasive species control and management authorities and policies of each MOA signatory and other parties critical to success, identify any conflicts among these authorities, and make recommendations for additional authorities needed to address invasive species in the Great Lakes basin.

**Measurable Results:**

A document identifying the authorities and policies of all MOA signatories and other critical parties, conflicts among these authorities, and recommendations for needed authorities that do not presently exist.

**Action Item 4: Pursue and publicize funding opportunities**

The GL-TISC will prepare and publicize pertinent information about existing potential sources for funding needed to complete the identified tasks of this action and implementation plan. Information available through <http://www.invasivespeciesinfo.org> will be enhanced to specifically address funding opportunities in the Great Lakes basin.

**Measurable Results:**

A document is completed and available for all interested parties identifying potential sources of funds to address invasive species control and management in the Great Lakes basin.

**Action Item 5: Encourage the nomination of Midwestern members to the National Invasive Species Advisory Committee (ISAC)**

The GL-TISC will encourage MOA signatories and other appropriate partners to nominate people with expertise and interest in invasive species problems of the Midwest states to the National Invasive Species Advisory Committee. Having Midwestern representatives on the ISAC will help draw attention and potential support to addressing invasive species problems of this area.

**Measurable Results:**

Letters of support for people with expertise and interest in invasive species problems of the Midwestern states are submitted to the appropriate parties as members of the National Invasive Species Advisory Committee.



**Action Item 6: Create a working relationship with the National Invasive Species Council to ensure that they understand Midwestern invasive species issues.**

The GL-TISC will keep the National Invasive Species Council informed of progress in implementing the *Action Plan* and will seek the national council's assistance whenever appropriate.

**Measurable Results:**

Frequent communication occurs between the GL-TISC and the National Invasive Species Council .

**Action Item 7: Prepare annual status reports of accomplishments in addressing all action items of this plan.**

The GL-TISC will prepare annual reports to inform the MNRG and partners about the status of addressing each action item in this plan.

**Measurable Results:**

Annual status reports on each of the action items in this plan are prepared and distributed to MNRG members and partners.

# Prevention



## ***Prevention***

Prevention is the first line of defense against further introduction and establishment of invasive species and is the most efficient and cost-effective strategy to minimize their negative effects over the long term. Federal agencies have the responsibility to prevent species introductions at a variety of geographic scales: from the national scale, to prevent initial introductions into the country, to the regional and local scales, to prevent secondary introductions of established species. Education is paramount to prevention and is addressed in the *Education and Public Awareness* element of this plan.

### **Action Item 1: Identify sources of invasive species-free products and commit to using them on publicly managed lands and on federally funded or permitted projects.**

Infested building, packing, restoration and other materials (e.g., mulch, seed, gravel, topsoil, firewood, wood products and packing materials) can introduce invasive species. To prevent agency activities from inadvertently introducing invasive species, agencies should commit to using invasive species-free products (certified invasive species-free where possible) on publicly managed lands, as appropriate. Additionally, sources of invasive species-free products should be shared and maintained among the MNRG agencies and partners, fund recipients and permittees, including through the MNRG's GL-TISC.

#### **Measurable Results:**

MNRG agencies sign an MOA committing them to use invasive species-free products; and an up-to-date list of invasive species-free products and materials is available to all MNRG agencies and partners.

### **Action Item 2: Institute and maintain a list of priority invasive species for targeted prevention.**

Because prevention efforts are more effective and efficient when high-risk species are identified before they are introduced, the MNRG should adopt, adapt or develop and periodically update a list of priority invasive species for targeted prevention efforts. The initial species list should be revised after the institution of a risk-based species screening tool (**Action Item 4**, this element) by the GL-TISC.

#### **Measurable Results:**

Develop, maintain, update regularly and refine a list of priority invasive species using the species screening tool after it has been developed and is ready for implementation (see **Action Item 4**, this element).

**Action Item 3: Identify and interdict pathways of invasive species introduction on publicly managed lands.**

Pathways by which invasive species are introduced onto publicly managed lands in the Great Lakes basin (e.g., use of seed contaminated with invasive species, not cleaning field gear between sites and using inappropriate species for revegetation) will be identified. Once identified, the GL-TISC will suggest actions to reduce the risk of invasive species introductions from each pathway (e.g., non-regulatory codes of conduct, Best Management Practices, or Hazard Analysis and Critical Control Points).

**Measurable Results:**

- (1) Pathways for potential invasive species introduction have been identified; and
- (2) Actions to minimize risk for each pathway have been identified and are available to MNRG agencies.

**Action Item 4: Institute risk-based invasive species screening tools to identify potential invaders.**

The inherent risk from potentially invasive species varies with the species' ability to become established and spread. Because of this, the MNRG's GL-TISC will adopt, adapt or develop risk-based species screening tools to identify potentially invasive species in the Great Lakes basin. Implementation of such tools will facilitate more effective and efficient prevention efforts that target species with the highest risk of becoming invasive if introduced.

**Measurable Results:**

- (1) MNRG agencies and partners adapt or develop invasive species screening tools;
- (2) The GL-TISC will adopt the final screening tool; and
- (3) The screening tool is made available to MNRG member agencies.

**Action Item 5: Adopt, adapt or develop Best Management Practices for invasive species**

MNRG agencies will adopt, adapt or develop best management practices (BMPs) for invasive species as appropriate. States, federal agencies and others are developing Best Management Practices to prevent the unintentional spread of invasive species for specific practices such as movement and sale of firewood, forestry practices and rights-of-way management. All regional offices of MNRG agencies and their partners are encouraged to adapt and/adopt these BMPs.

**Measurable Results:**

- (1) The GL-TISC endorses a suite of BMPs.
- (2) The MNRG's member agencies implement these BMPs.
- (3) The MNRG promotes the use of these BMPs with partners.



# Early Detection and Rapid Response



## ***Early Detection and Rapid Response***

Even the best prevention efforts will not stop all invasive species introductions. Early detection and rapid response (EDRR) efforts may help contain or eradicate recently introduced species before they spread widely beyond the point of introduction. Because an invasive species is more likely to become a permanent resident in an ecosystem once it becomes established, EDRR efforts are typically far less costly than those of long-term invasive species management programs. As a result of the timely response required for EDRR, cooperation, coordination and pre-planning among federal agencies, states, other partners, and the public to deal with recently introduced species are required for any EDRR effort in the Great Lakes basin.

### **Action Item 1: Establish a communication structure to disseminate invasive species information.**

When a new population of an invasive species is discovered, prompt information sharing is needed to enable rapid response. The GL-TISC needs an easy-to-use and inexpensive interagency communication structure, such as a list serve, an electronic bulletin board or an e-mail tree to disseminate early detection information.

#### **Measurable Results:**

- (1) Establish a list of individuals to notify when early detection of an invasive species occurs in the Great Lakes basin; and
- (2) Establish a communication structure to alert all MNRG agencies, states and other partners of the early detection of invasive species.

### **Action Item 2: Identify and update the MNRG priority invasive species list to facilitate early detection and rapid response.**

Monitoring of invasive species would be more efficient if cooperating MNRG agencies target some early detection and rapid response efforts for terrestrial invasive species in the Great Lakes basin at the same suite of species. Therefore, GL-TISC should develop and maintain list(s) of high priority invasive terrestrial species for early detection and rapid response, with input from states. This list will take into account differing agency authorities and sub-regional priorities for early detection.

#### **Measurable Results:**

Develop and regularly update list(s) of priority invasive species for targeted early detection and rapid response in the Great Lakes basin.



**Action Item 3: Identify agency actions for specific invasive species.**

Early containment or eradication of newly invading species would be more efficient if MNRG agencies coordinate activities within and among agencies, states and other partners, and commit to specific actions for priority identification of invasive species by the GL-TISC (see **Action Item 2**, this element). The level and form of early detection and rapid response effort would vary by agency because of differing agency roles and responsibilities, and by individual species because of differing distribution patterns in the Great Lakes basin. Coordination may involve control or eradication of infested areas, monitoring of non-infested areas, and education of agency staff and/or the public by appropriate MNRG agency staff led by the GL-TISC.

**Measurable Results:**

- (1) Controlled invasive species populations (number, area, location); and
- (2) Monitored populations (number, area, location).

**Action Item 4: Adopt, adapt or develop an Early Detection Rapid Response plan.**

Detecting and responding quickly to new invasions are the most effective and efficient means of managing the spread of invasive species. Efficient quick response by federal agencies would be fostered if the GL-TISC adopted, adapted or developed a common early detection rapid response plan.

**Measurable Results:**

An Early Detection Rapid Response plan is adopted, adapted or developed for the Great Lakes basin to respond to newly invading terrestrial invasive species.

# Control and Management



## ***Control and Management***

Control and management are not a one-time effort. To succeed they require unprecedented cooperation and coordination at all levels of government and non-government partnerships.

Once invasive species are established--accidentally or intentionally--agency land managers are responsible for their control under EO 13112 and under state and local laws. Traditional control methods include cultural, mechanical and chemical means. Currently, prescribed burns and bio-control measures are also used, sometimes in combination with the others. The idea that the protocol should match the problem site evokes an ecological approach and uses a combination of all the tools. This integrated management approach is generally accepted by all agencies--at federal, state and local levels--across the country.

Once invasive species control has been accomplished, reintroducing native species to restore the site can prevent reestablishment of invasive species. However, until native seed sources and animal populations are expanded to fill agency demand, compromises are likely. The added complication of an infested seed bank or genetic strain that remains after control will require years of monitoring and management efforts.

### **Action Item 1: Post current control methods on a Web site clearinghouse.**

Existing methods, links, lessons learned and related regulations should be accessible in a central location for quick reference by all agencies to facilitate rapid action to control invasive species and minimize or eliminate duplication of effort.

#### **Measurable Results:**

Post current invasive species control methods to an appropriate website clearinghouse in 2006. Dedicate funds and/or staff to maintain this control information.

### **Action Item 2: Agencies should prioritize and fund invasive species control efforts.**

Without increased communication and agreement regarding prioritization of invasive species control efforts, many agencies will continue to work at cross purposes, wasting time and money. Cooperatively prioritizing a target list of invasive species would be a significant first step toward achieving more effective control efforts. The establishment of cooperative teams should follow. An excellent example of a regional, interagency, multi-state cooperation is the Greater Yellowstone Area Committee on Weeds and its team efforts to control and eradicate weeds from the Yellowstone area.

**Measurable Results:**

Agency staff should be encouraged and supported to cooperate in prioritization and control efforts for invasive species at the local level with other government and non-government entities.

**Action Item 3: Streamline the National Environmental Policy Act (NEPA) process for invasive species management.**

Rapid response is critical in combating invasive species; however NEPA for invasive species management can be quite time-consuming. Streamlining NEPA, through the development of a Categorical Exclusion for certain invasive species control actions, for example, would provide agencies with important tools for rapidly responding to invasive species problems.

**Measurable Results:**

New, streamlined NEPA regulations for invasive species management are available.

**Action Item 4: Explore the creation of an interagency agreement to facilitate invasive species management along highway corridors that border agency lands.**

Create an interagency agreement to allow invasive species control by state Departments of Transportation (DOTs) along highways that border or cross agency-owned property boundaries. Establishment of further partnerships across rights-of-way fences should be encouraged.

**Measurable Results:**

An interagency agreement – including federal, state, tribal and local governments – is drafted and signed to facilitate invasive species management across agency boundaries.

# Restoration



## **Restoration**

*“Restoring native plant communities can reduce the risk of future invasions in areas where control has reduced or eliminated invasive species.”* (NISC 2001). This is also true for animal populations. Ecological information and restoration techniques are improving all the time. Many MNRG partners are engaged in restoration activities, and need to share successful site-specific prevention and control strategies to prevent invasive species from causing greater environmental disturbances.

**Action Item 1: Encourage collaboration among MNRG partners to share existing restoration protocols, Best Management Practices (BMPs) and contract specifications relating to invasive species.**

**Measurable Results:**

Items are posted to an appropriate Web site in 2006.

**Action Item 2: Identify plant species that should or should not be used for revegetation, restoration or mitigation projects within particular ecosystems. Cooperatively develop a list of regional native seed and plant sources for the region and distribute to all applicable states.**

**Measurable Results:**

Lists are posted to an appropriate Web site in 2006.

**Action Item 3: Encourage development of monitoring programs to track the control of invasive species and the re-establishment of native vegetation for restoration and mitigation projects. Jointly prepare and distribute relevant guidelines.**

**Measurable Results:**

Guidelines are prepared and delivered to agencies, partners and volunteers as they're approved.

**Action Item 4: Ensure that federally funded restoration and mitigation projects “do not spread” or do not establish invasive species (as stated in EO 13112) by using appropriate native species to the greatest extent practicable for these projects. Provide a list of appropriate and practical native species to all states within the Great Lakes basin.**



**Measurable Results:**

All state and regional agencies are provided with copies of *Roadside Use of Native Plants*, a reference with native species lists for each state.

**Action Item 5:** Promote an ecosystem and watershed approach to restoration projects. EO 13112 requires federal agencies to “...provide for restoration of native species and habitat conditions in ecosystems that have been invaded.” Identify non-native species threats within the Great Lakes basin.

**Measurable Results:**

Distribute a list of non-native species threats to public agencies and private sector organizations and councils at all levels.

# Cooperation



## **Cooperation**

The MNRG partners address invasive species issues through a variety of programs, including monitoring, mapping, control, supervision of construction or mitigation contracts, environmental compliance and regulations, data sharing and increased public awareness. Cooperation must exist beyond sharing human or fiscal resources. Cooperation is built through open communication to share professional expertise, methodologies, protocols for treatment, media to increase the awareness of issues, and through special provisions in contracts to raise awareness of and promote adherence to regulations, including phytosanitary standards on solid wood packaging material.

### **Action Item 1: MNRG Action Plan adopts the St. Louis Code of Conduct.**

The “Declaration of Invasive Plant Species,” also known as the “St. Louis Code of Conduct,” was created by representatives from federal and state agencies, conservation groups and members of the nursery industry. These principle statements are consistent with the goals of the MNRG *Action Plan* and are adopted by the working group.

(<http://www.centerforplantconservation.org/invasives/governmentN.html>)

#### **Measurable Results:**

A letter of endorsement is sent from the MNRG to the Center for Conservation stating the MNRG’s support of the Code of Conduct. This letter would be posted to the Center for Conservation’s Web site and would join 31 other letters of support to adopt the Code of Conduct. This letter would be posted to the MNRG Web site as well.

### **Action Item 2: MNRG supports the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW).**

Sixteen federal agencies formed a Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW), which was established through a Memorandum of Understanding (MOU) signed by agency leadership in August 1994 to promote international efforts to combat invasive weeds. The committee also promotes *Weeds Across Borders*, an effort to raise awareness of invasive species issues and the need for collaborative efforts to address them.

#### **Measurable Results:**

(1) A letter of endorsement from the MNRG to the FICMNEW committee that demonstrates their leadership is being put in place in the field; and

(2) The MNRG presents an exhibit or professional paper describing MNRG’s *Action Plan* at the 2008 *Weeds Across Borders* meeting to be hosted in the Great Lakes region. This action would also support other *Action Plan* objectives.

**Action Item 3: Link the MNRG Action Plan to the MNRG Web site.**

Web sites can be an effective tool for distributing information in the MNRG's *Action Plan*. A link to the MNRG Web site should be made as easy as possible to facilitate easy posting of information or developments from the MNRG *Action Plan*.

**Measurable Results:**

- (1) The MNRG *Action Plan* is linked to the MNRG Web site. This link would also include valuable links to other important websites of relevant partners and programs of regional and national importance; and
- (2) A template exists to guide the posting of information relative to respective *Action Plan* elements. Initially, the *Action Plan* team could share responsibility for reviewing and approving information for posting and updating *Action Plan*-related information until the GL-TISC has been established by the MNRG.

**Action Item 4: Create an exchange program between MNRG agency invasive species staff and other relevant organizations.**

An exchange program for MNRG agency staff associated with the *Action Plan* would allow an exchange of ideas and methodologies. This exchange program could be international or between agencies. It could be designed to present more effective ways to conduct invasive species inspections, apply treatments and complete monitoring, for example. Participation of subject-matter experts who have access to other technologies or practices can benefit all participants to improve the effectiveness of their contributions toward any of the *Action Plan*'s elements.

**Measurable Results:**

- (1) The MNRG's *Action Plan* is presented at the *Weeds Across Borders* international conference in 2008;
- (2) The MNRG's *Action Plan* is presented at the *Second National Conference on Ecosystem Restoration* in Kansas City, Mo., in April 2007; and
- (3) Individuals who participated in an exchange program for combating invasive species and comparing invasive species issues present trip reports to the MNRG leadership.

**Action Item 5: MNRG agency personnel should be encouraged to actively participate in local and regional invasive species collaborations.**

Many groups are currently engaged in invasive species control across the region and nation, yet not everyone is aware of the other's existence or work. This *Action Item* is an attempt to remedy that situation for mutual benefit and greater efficiency and effectiveness in addressing invasive species control. MNRG agencies gain improved efficiency and effectiveness in communicating and addressing invasive species threats and issues in the Great Lakes basin and the Midwest thanks to wider professional collaborations

**Measurable Results:**

- (1) Five MNRG agencies are co-signers of the Northwoods Cooperative Weed Management Area in 2006; and
- (2) Develop a hierarchy of national and international working groups to share critical information about species occurrences in the Great Lakes region.

**Action Item 6: The MNRG actively promotes greater awareness of international cooperation toward invasive species control.**

International standards are in effect with regard to solid wood packaging material. Enforcement of those standards would help ensure that steps are being taken to reduce new pests to the North American continent. Under this action, efforts to raise awareness of products shipped with solid wood packaging that may be contaminated with invasive species will help make the transition to products that are shipped on or within treated materials, as recommended by the National Plant Protection Organization, for example, in order to reduce the potential for introducing potentially invasive species. The GL-TISC may promote several recommendations from the General Accounting Office report "Lessons Learned from Three Recent Infestations May Aid in Managing Future Efforts" (GAO-006-353).

**Measurable Results:**

- (1) Invite members of federal and state agencies, local government or nongovernment organizations (e.g., Animal Plant Health Inspection Service, Midwest Invasive Plant Network, Central Plant Board, state invasive species councils, weed cooperatives) to join the GL-TISC.
- (2) Business practices or contract language are developed that address U.S. Department of Agriculture regulations for phytosanitary standards for solid wood packaging material.  
(<http://www.aphis.usda.gov/ppg/pim/standards>);
- (3) The MNRG's GL-TISC, and all MNRG agency staff who work with invasive species, are provided with a subscription and/or access to the "Phytosanitary Alert" Web site and receive relevant invasive species information accordingly.

**(4)** Develop special-provisions language to address phytosanitary standards for solid wood packaging that would be included in agency procurement contracts. Interorganizational phytosanitary standards have been established and incorporated into MNRG member agency contract specifications for products and supplies that may be delivered on solid wood pallets or within potentially contaminated containers.



# Research



## **Research**

Targeted research to fill key information gaps in the life histories of invasive species, predict potential invaders and their ranges, assess the effects of invasive species on invaded ecosystems, and develop detection, monitoring, assessment and control methods of incipient and established invasive species continue to advance our management capabilities. Research also provides a sound basis for regulatory policy changes and non-regulatory approaches to prevention. Because federal agencies and their partners conduct a variety of research on federal lands, it is important that data are collected on these lands using comparable methods, and are able to be shared as efficiently as possible.

### **Action Item 1: Identify research needs for terrestrial invasive species that are now or may become associated with the Great Lakes basin.**

To maximize the impact and efficiency of research efforts on terrestrial invasive species, research should target the most important information gaps. Greater efficiencies will be realized if federal agencies addressing terrestrial invasive species issues adopt a common list of research needs and build on other research efforts in the Great Lakes basin whenever feasible.

#### **Measurable Results:**

- (1) Inventory efforts to prioritize terrestrial invasive species research needs in the Great Lakes basin (e.g., recent survey by MIPN); and
- (2) Based on these resources and further input from the GL-TISC, prioritize and make widely available research needs in the basin.

### **Action Item 2: Compile list of current federal research units and terrestrial invasive species projects, including information on study methods, sites, and dependent and independent variables, within the Great Lakes basin.**

Collaboration and data comparability could be improved while minimizing duplication of research efforts if MNRG agencies and partners shared information on current and recently completed research projects on terrestrial invasive species in the Great Lakes basin. Key to improving comparability of data and results is using standard units of measure and sampling methods across studies, where appropriate.

#### **Measurable Results:**

- (1) Compile a list of federal research units and terrestrial invasive species projects within the Great Lakes basin and make available to MNRG agencies, states and other partners; and
- (2) Compile a database with information on research methods, study sites and units of measures from on-going and completed studies and make available to MNRG agencies, states and other partners.

**Action Item 3: Provide a means for dissemination of invasive species-related research information.**

In addition to sharing information about ongoing research projects (*Action Item 2*, this element), there is a need to share the results of recently concluded research in a format accessible to a variety of user groups (including decision makers, resource managers, docents and others in public education and outreach, school teachers, recreational groups, and the general public). Such venues might include MNRG sponsorship of research symposia, electronic media or other outreach materials.

**Measurable Results:**

- (1) Identify effective venues for sharing research results among MNRG agencies and soliciting content from scientists; and
- (2) Make recent research results widely available to MNRG agencies, states and other partners.

**Action Item 4: Use existing partnerships to conduct invasive species-related research and provide technical support.**

Encourage MNRG agencies to use existing research partnerships (*e.g.*, Cooperative Ecosystems Studies Units) to conduct high priority research on terrestrial invasive species in the Great Lakes basin and to provide technical support to resource and management agencies. In addition, these partnerships should be used to synergistically leverage research resources committed by federal agencies for this type of research in the basin.

**Measurable Results:**

Create an inventory of relevant existing research partnerships including information on each partnership and make it widely available to MNRG agencies.

# Data Management





## ***Data Management***

Currently, sharing invasive species data among federal agencies and partners is inefficient or impractical for a variety of reasons. Key barriers are incompatible database formats and lack of agreement on what data should be collected. Shared data resources would provide more complete information to support decisions related to planning, implementing and evaluating actions needed to prevent and control the spread of invasive species. The ability to share data could lead to cost savings by eliminating duplicative efforts and reducing the time needed to retrieve and analyze information.

### **Action Item 1: Establish data collection standards specifying what data should be collected (minimum) along with the corresponding units of measurement.**

Potential source examples are as follows:

- Plants – NAWMA, TNC, WIMS, USGS, NRCS
- Animals – Forest Health Protocols (USFS)

#### **Measurable Results:**

Data collection standards for invasive plants and animals have been developed and are available for reference.

### **Action Item 2: Encourage development of a mechanism to allow transfer of invasive species data between data management systems within and among agencies.**

This includes:

ITAP, NISC, FICMNEW and MNRG

#### **Measurable Results:**

A data transfer protocol is established between the MNRG and other appropriate organizations as a first step toward addressing this *Action Item*.

### **Action Item 3: Identify relevant data management systems at the national, regional and state levels that contain information on terrestrial invasive species occurring within the Great Lakes basin.**

#### **Measurable Results:**

Develop a list of invasive species data management systems and distribute it among the appropriate partner organizations.

**Action Item 4: Promote and enable the sharing of invasive species data among the MNRG and its partners.**

**Measurable Results:**

Information about requesting or accessing invasive species data is made available to MNRG participants and partners.



# Education and Public Awareness



## ***Education and Public Awareness***

Effective education and public awareness will help promote all aspects of this plan. Raising public awareness is key to tying together the actions of this plan. Education is needed at all levels of government--along with coordination with states and the general public--to define the magnitude and urgency of the invasive species problem. Continued dialogue with agency leaders, local officials and land owners is needed to cultivate cooperation and partnerships to address this issue. A combination of marketing and outreach would help ensure that the Great Lakes basin remains a healthy place to live, recreate and do business.

### **Action Item 1: Encourage the MNRG to promote and share existing educational resources with partners and the public.**

Some examples of existing educational resources are:

- *Invasive Plants of the Upper Midwest* (purchase)
- *Invaders of the Forest Curriculum* (free)
- Midwest Invasive Plant Network (MIPN) website provides links to other educational resources
- PowerPoint presentations
- Brochures
- Exhibits/displays/kiosks

#### **Measurable Results:**

A list of available resources and their sources will be posted on the MNRG Web site.

### **Action Item 2: Encourage agencies to promote the MNRG's Action Plan through public education opportunities.**

Agencies are currently participating in many venues that offer educational opportunities and outreach efforts, such as:

- Use university students and government interns to promote invasive species control.
- Use field exercises to identify invasive species, map locations and other efforts.
- Post information on volunteer Web sites, e.g., <http://www.volunteer.gov/gov>.
- Participate in annual National Science Teachers Association workshop – highlight invasive species educational resources listed on the MNRG website.
- Participate in annual National Public Lands Day event.
- Participate in professional conferences, trade shows and applicable invasive species-related organizations.

**Measurable Results:**

Invasive species activities are facilitated, hands-on invasive species stewardship projects are being taught, and educational resources on invasive species are available at government events.

**Action Item 3: Promote internal agency invasive species training.**

Continue invasive species education for federal employees through interagency workshops and field exercises.

**Measurable Results:**

Conduct an annual invasive species workshop among MNRG agencies.

**Action Item 4: Link the MNRG website to the InvasiveSpeciesInfo.gov Web page.**

This is a task for the MNRG Communications Committee. Such a link would make it easier for the public to find the information they are seeking.

**Measurable Results:**

InvasiveSpeciesInfo.gov and the MNRG website are linked together and will include an “MNRG page” on the invasive species website.

**Action Item 5: Promote an “Invasive Species Awareness Month” for the Great Lakes basin and the Midwestern states.**

This would help educate the public about the threat from invasive species and promote the urgency and magnitude of invasive species issues.

**Measurable Results:**

Commemorate “Invasive Species Awareness Month” across the Great Lakes basin and the Midwestern states.

**Action Item 6: Create a Public Service Announcement (PSA) for all agencies to promote greater invasive species awareness in the Great Lakes basin.**

PSAs can be used prior to and during the “Invasive Species Awareness Month.” Examples of advertising venues include:

- Billboards
- Videos
- Other organizations’ PSAs
- Mascot

**Measurable Results:**

Professionally produced PSAs – possibly including a mascot – that promote greater invasive species awareness are have been created and distributed to the public through a variety of media across the Great Lakes basin.



# *Section III*

## *Appendices*



# *Appendix A*

## *Glossary of Terms*

**Early Detection Rapid Response (EDRR):** Coined by FICMNEW as a line of defense against invasive plants. It means simply to spot and control before plants spread and cause economic and environmental losses. This has yet to be fully implemented.

**Ecosystem:** A complex community of organisms and the non-living factors in the environment that affect them.

**Executive Order(EO):** A White House mandate with the weight of law. Both Presidents Carter and Clinton wrote EOs on invasive species. Subsequent presidents can choose to keep or throw out previous EOs.

**Invasive Plant Council:** The National Invasive Plant Council (NIPC) was established by EO13112. The EO encouraged the creation of State level councils for interagency coordination.

**Invasive species:** An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. (EO13112)

**Mitigation:** To restore, establish, enhance or preserve an ecosystem for the purpose of providing compensation for unavoidable impacts.

**Native species:** With respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.

**Noxious weed:** A federal or state law that gives an invasive plant legal standing. Historically each law maintains a weed list that is deemed harmful to agriculture, environment, and/or human health. Most plants on these lists are invasive species.

**Restoration:** A multidisciplinary approach to repair of land disturbances with the goal of reestablishment of an appropriate native plant cover that is site specific. Restoration is used in wetland, grassland and forest mitigation.

**Risk Assessment:** An evaluation of the likelihood of an action causing harm to an ecosystem (or the environment). (EPA)

**St. Louis Declaration on Invasive Plant Species:** A three day gathering of experts and stakeholders from around the world was held in St. Louis, Mo., in [year]. The workshop attendees agreed to six findings and six principles on which a Voluntary Code of Conduct was based.

**St. Louis Code of Conduct:** Written in 2001 for voluntary endorsement by government, nursery professionals, the gardening public, landscape architects, and botanic gardens and arboreta. Currently there are 44 endorsements. ([www.centerforplantconservation.org/invasives/codes](http://www.centerforplantconservation.org/invasives/codes))



**Watershed:** The area that drains to a common waterway, such as a stream, lake, estuary, wetland, or even the ocean. (EPA)

**Weeds Across Borders:** A biennial invasive plant conference for information-sharing among decision-makers from Canada, Mexico, and the United States.

**Other terms already defined in the EO13112 document in Appendix D**

Alien species, Control, Federal agency, Introduction, Native species, Species, Stakeholders, and United States.

## ***Appendix B***

### ***Acronyms Used in this Plan***

APHIS:	Animal and Plant health Inspection Service
APIPP	Aquatic Invasive Plant Project
ANSTF	Aquatic Nuisance Species Task Force
BLM:	Bureau of Land Management
BMP	Best Management Practices
CENR	Council on Environment and Natural Resources
FICMNEW	Federal Interagency Committee on the Management of Noxious and Exotic Weeds
EPA:	Environmental Protection Agency
FWHA:	Federal Highway Administration
GYA:	Greater Yellowstone Area
HAACCP	Hazard Analysis and Critical Control Point
ITAP:	Invasive Terrestrial Animals and Plants
MIPN:	Midwest Invasive Plant Network
MOA:	Memorandum of Agreement
MOU:	Memorandum of Understanding
NAWMA:	North American Weed Management Association
NEPA:	National Environmental Policy Act of 1969
NISC	National Invasive Species Council
NPS:	National Park Service
NRCS:	Natural Resources Conservation Service
TNC:	The Nature Conservatory
USACE:	US Army Corps of Engineers
USFS:	USDA Forest Service
USFWS:	US Fish and Wildlife Service
USGS:	US Geological Survey
WIMS	Weed Information Management System

# ***Appendix C***

## ***References***

**Canadian Invasives web site**

<http://www.hww.ca/hww2.asp?id=220>

**Midwest/Canada Invasive Species Initiative Plan**

<http://tncweeds.ucdavis.edu/products/library/mw-canadaplan.doc>

**Nature Conservancy**

<http://tncweeds.ucdavis.edu/>

**Adirondack Park Invasive Plant Partnership**

<http://adkinvasives.com/Aquatic/Program/Program.html>

**AIS: AIS Strategy submitted to the Collaboration [includes appendices]**

<http://www.aisstrategyteam.org/documents/complete%20AIS%20Submission.pdf>

**FS: US Forest Service**

[http://www.fs.fed.us/foresthealth/publications/Invasive\\_Species.pdf](http://www.fs.fed.us/foresthealth/publications/Invasive_Species.pdf)

**GL: Great Lakes Regional Collaboration**

[http://www.glrc.us/documents/GLRC\\_Strategy.pdf](http://www.glrc.us/documents/GLRC_Strategy.pdf)

**MIPN web: The Midwest Invasive Plant Network**

[www.MIPN.org](http://www.MIPN.org)

**NAWMA: North American Weed Management Association**

<http://www.nawma.org/documents/Position%20Papers/model%20Act.doc>

**NISC: NISC National Management Plan, 2001**

<http://www.invasivespeciesinfo.gov/council/mpfinal.pdf>

**NPS: National Park Service**

<http://science.nature.nps.gov/im/monitor/invasives/index.cfm>

**NY State: New York State Invasive Species Plan**

<http://www.dec.state.ny.us/website/dfwmr/habitat/istf/istfreport.html>

**TNC Midwest-Canada: Midwest/Canada Invasive Species Initiative Plan**

<http://tncweeds.ucdavis.edu/products/library/mw-canadaplan.doc>

**TNC NE: The Nature Conservancy (northeast planning)**

<http://tncweeds.ucdavis.edu/>

**NISC National Invasive Species Management Plan, 2001**

[www.invasivespeciesinfo.gov/docs/council/mpfinal.pdf](http://www.invasivespeciesinfo.gov/docs/council/mpfinal.pdf)

### **Great Lakes Regional Collaboration**

[www.glrc.us/documents/GLRC\\_Strategy.pdf](http://www.glrc.us/documents/GLRC_Strategy.pdf)

### **AIS Strategy submitted to the Collaboration**

[www.aisstrategyteam.org/documents/complete%20AIS%20Submission.pdf](http://www.aisstrategyteam.org/documents/complete%20AIS%20Submission.pdf)

### **New York State Invasive Species Plan**

[www.dec.state.ny.us/website/dfwmr/habitat/istf/istfreport.html](http://www.dec.state.ny.us/website/dfwmr/habitat/istf/istfreport.html)

### **US Forest Service**

[www.fs.fed.us/foresthealth/publications/Invasive\\_Species.pdf](http://www.fs.fed.us/foresthealth/publications/Invasive_Species.pdf)

[www.fs.fed.us/r9/wildlife/nnis/FS](http://www.fs.fed.us/r9/wildlife/nnis/FS)

### **North American Weed Management Association**

[www.nawma.org/documents/Position%20Papers/model%20Act.doc](http://www.nawma.org/documents/Position%20Papers/model%20Act.doc)

### **National Park Service**

<http://science.nature.nps.gov/im/monitor/invasives/index.cfm>

[http://science.nature.nps.gov/im/monitor/invasives/invasives\\_References.cfm](http://science.nature.nps.gov/im/monitor/invasives/invasives_References.cfm)

[http://science.nature.nps.gov/im/monitor/invasives/invasives\\_SpAssess.cfm](http://science.nature.nps.gov/im/monitor/invasives/invasives_SpAssess.cfm)

### **Nature Conservancy**

<http://tncweeds.ucdavis.edu/>

<http://tncweeds.ucdavis.edu/products/library/mw-canadaplan.doc>

[www.nature.org/wherewework/northamerical/states/ohio/science/art6279.html](http://www.nature.org/wherewework/northamerical/states/ohio/science/art6279.html)

### **The Midwest Invasive Plant Network**

[www.MIPN.org](http://www.MIPN.org)

### **Adirondack Park Invasive Plant Partnership**

<http://adkinvasives.com>

### **Greater Yellowstone Area (could not find www.GYA.org)**

[www.fhwa.dot.gov/environment/greeneroadsides/win05pd.htm](http://www.fhwa.dot.gov/environment/greeneroadsides/win05pd.htm)

## **INVASIVE PLANT REFERENCES**

Czarapata, Elizabeth J. 2005. *Invasive Plants of the Upper Midwest, an Illustrated Guide to Their Identification and Control*. The University of Wisconsin Press, Madison.

MIPN, 2005. *Why Should I Care about Invasive Plants?* The Midwest Invasive Plant Network, Lafayette, Indiana.

FHWA, 2003. *Common Roadside Invasives, A roadside field guide to showy herbaceous weeds*. The Federal Highway Administration, Washington D.C.

Forest Service, et al, 2006. *Dangerous Travelers, Controlling Invasive Plants Along America's Roadways*. San Dimas, California.

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Pimentel, D., R. Zuniga, & D. Morrison. 2005. *Update on the environmental and economic costs associated with alien-invasive species in the United States*. Ecological Economics 52 (3): 273-288.1

Wilcove D.S., Rothstein D., Dubrow J., Phillips A., Losos E., 1998. *Quantifying threats to imperiled species in the United States*. BioScience 48:607-615

## **NATIONAL INVASIVE PLANTS WEBSITES**

[www.invasivespeciesinfo.gov](http://www.invasivespeciesinfo.gov)

The National Agriculture Library is a good first stop.

[www.plants.usda.gov](http://www.plants.usda.gov)

Maintains the **National Plant Database Project**.

[www.nawma.org](http://www.nawma.org)

Offers mapping standards and other land managers' information

[www.natureserve.org](http://www.natureserve.org)

Provides assessment protocol and ranking of U.S. invasive plants.

[www.nps.gov/plants/aliens](http://www.nps.gov/plants/aliens)

The **Weeds Gone Wild** site of the Plant Conservation Alliance, with weed profiles.

[www.TNC.weeds@ucdavis.edu](mailto:www.TNC.weeds@ucdavis.edu)

TNC's **Wildland Invasive Species Program** offers decision-maker years of land management experience regarding problem plants, control methods, a power point presentation you can use, a press release template, how to utilize volunteers.

[www.fhwa.DOT/roadsides](http://www.fhwa.DOT/roadsides)

The **Federal Highway Administration** (FHWA) website provides vegetation management information for highway managers and the lands they cross.

## **CENTERS OF INVASIVE PLANT INFORMATION**

[www.mipn.org](http://www.mipn.org)

Home to the Midwest Invasive Plant Network and clearinghouse.

[www.uni.edu/irvm](http://www.uni.edu/irvm)

The Integrated Roadside Vegetation Management homepage for the new National Vegetation Center at the University of Northern Iowa.

## **STATE INVASIVE PLANT COUNCILS**

Indiana Invasive Plant Assessment Working Group – <http://www.in.gov/dnr/invasive/species/>

Michigan Invasive Plant Council – <http://forestry.msu.edu/mipc/>

Minnesota Invasive Species Advisory Council – <http://www.mda.state.mn.us/misac/>

Ohio Invasive Plants Council – <http://www.oipc.info>

Invasive Plants Association of Wisconsin – [www.ipaw.org](http://www.ipaw.org)



# ***Appendix D***

## ***Executive Order 13112 of February 3, 1999***

### **Invasive Species**

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.), Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990, as amended (16 U.S.C. 4701 et seq.), Lacey Act, as amended (18 U.S.C. 42), Federal Plant Pest Act (7 U.S.C. 150aa et seq.), Federal Noxious Weed Act of 1974, as amended (7 U.S.C. 2801 et seq.), Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), and other pertinent statutes, to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause, it is ordered as follows:

#### **Section 1. Definitions**

- (a) "Alien species" means, with respect to a particular ecosystem, any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem.
- (2) "Control" means, as appropriate, eradicating, suppressing, reducing, or managing invasive species populations, preventing spread of invasive species from areas where they are present, and taking steps such as restoration of native species and habitats to reduce the effects of invasive species and to prevent further invasions.
- (c) "Ecosystem" means the complex of a community of organisms and its environment.
- (d) "Federal agency" means an executive department or agency, but does not include independent establishments as defined by 5 U.S.C. 104.
- (e) "Introduction" means the intentional or unintentional escape, release, dissemination, or placement of a species into an ecosystem as a result of human activity.
- (f) "Invasive species" means an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.
- (g) "Native species" means, with respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.
- (h) "Species" means a group of organisms all of which have a high degree of physical and genetic similarity, generally interbreed only among themselves, and show persistent differences from members of allied groups of organisms.
- (1) "Stakeholders" means, but is not limited to, State, tribal, and local government agencies, academic institutions, the scientific community, non-governmental entities including environmental, agricultural, and conservation organizations, trade groups, commercial interests, and private landowners.
- (10) "United States" means the 50 States, the District of Columbia, Puerto Rico, Guam, and all possessions, territories, and the territorial sea of the United States.

## **Section 2. *Federal Agency Duties***

- (1) Each Federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law, (1) identify such actions;(2) subject to the availability of appropriations, and within Administration budgetary limits, use relevant programs and authorities to: (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; (v) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and (vi) promote public education on invasive species and the means to address them; and (3) not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, pursuant to guidelines that it has pre-scribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions.
- (2) Federal agencies shall pursue the duties set forth in this section in consultation with the Invasive Species Council, consistent with the Invasive Species Management Plan and in cooperation with stakeholders, as appropriate, and, as approved by the Department of State, when Federal agencies are working with international organizations and foreign nations.

## **Section 3. *Invasive Species Council***

- (a) An Invasive Species Council (Council) is hereby established whose members shall include the Secretary of State, the Secretary of the Treasury, the Secretary of Defense, the Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Transportation, and the Administrator of the Environmental Protection Agency. The Council shall be Co-Chaired by the Secretary of the Interior, the Secretary of Agriculture, and the Secretary of Commerce. The Council may invite additional Federal agency representatives to be members, including representatives from sub-cabinet bureaus or offices with significant responsibilities concerning invasive species, and may prescribe special procedures for their participation. The Secretary of the Interior shall, with concurrence of the Co-Chairs, appoint an Executive Director of the Council and shall provide the staff and administrative support for the Council.
- (b) The Secretary of the Interior shall establish an advisory committee under the Federal Advisory Committee Act, 5 U.S.C. App., to provide information and advice for consideration by the Council, and shall, after consultation with other members of the Council, appoint members of the advisory committee representing stakeholders. Among other things, the advisory committee shall recommend plans and actions at local, tribal, State, regional, and ecosystem-based levels to achieve the goals and objectives of the Management Plan in section 5 of this order. The advisory committee shall act in cooperation with stakeholders and existing organizations addressing invasive species. The Department of the Interior shall provide the administrative and financial support for the advisory committee.

**Section 4. *Duties of the Invasive Species Council***

The Invasive Species Council shall provide national leadership regarding invasive species, and shall:

- (a) oversee the implementation of this order and see that the Federal agency activities concerning invasive species are coordinated, complementary, cost-efficient, and effective, relying to the extent feasible and appropriate on existing organizations addressing invasive species, such as the Aquatic Nuisance Species Team, the Federal Interagency Committee for the Management of Noxious and Exotic Weeds, and the Committee on Environment and Natural Resources,
- (b) encourage planning and action at local, tribal, State, regional, and ecosystem-based levels to achieve the goals and objectives of the Management Plan in section 5 of this order, in cooperation with stakeholders and existing organizations addressing invasive species,
- (c) develop recommendations for international cooperation in addressing invasive species,
- (d) develop, in consultation with the Council on Environmental Quality, guidance to Federal agencies pursuant to the National Environmental Policy Act on prevention and control of invasive species, including the procurement, use, and maintenance of native species as they affect invasive species,
- (e) facilitate development of a coordinated network among Federal agencies to document, evaluate, and monitor impacts from invasive species on the economy, the environment, and human health,
- (6) facilitate establishment of a coordinated, up-to-date information-sharing system that utilizes, to the greatest extent practicable, the Internet; this system shall facilitate access to and exchange of information concerning invasive species, including, but not limited to, information on distribution and abundance of invasive species; life histories of such species and invasive characteristics; economic, environmental, and human health impacts; management techniques, and laws and programs for management, research, and public education, and
- (7) prepare and issue a National Invasive Species Management Plan as set forth in section 5 of this order.

**Section 5. *Invasive Species Management Plan***

- (a) Within 18 months after issuance of this order, the Council shall prepare and issue the first edition of a National Invasive Species Management Plan (Management Plan), which shall detail and recommend performance-oriented goals and objectives and specific measures of success for Federal agency efforts concerning invasive species. The Management Plan shall recommend specific objectives and measures for carrying out each of the Federal agency duties established in section 2(a) of this order and shall set forth steps to be taken by the Council to carry out the duties assigned to it under section 4 of this order. The Management Plan shall be developed through a public process and in consultation with Federal agencies and stakeholders.
- (b) The first edition of the Management Plan shall include a review of existing and prospective approaches and authorities for preventing the introduction and spread of invasive species, including those for identifying path-ways by which invasive species are introduced and for minimizing the risk of introductions via those pathways, and shall identify research needs and recommend measures to minimize the risk that introductions will occur. Such recommended measures shall provide for a science-based process to evaluate risks associated with

introduction and spread of invasive species and a coordinated and systematic risk-based process to identify, monitor, and interdict pathways that may be involved in the introduction of invasive species. If recommended measures are not authorized by current law, the Council shall develop and recommend to the President through its Co-Chairs legislative proposals for necessary changes in authority.

- (c) The Council shall update the Management Plan biennially and shall concurrently evaluate and report on success in achieving the goals and objectives set forth in the Management Plan. The Management Plan shall identify the personnel, other resources, and additional levels of coordination needed to achieve the Management Plan's identified goals and objectives, and the Council shall provide each edition of the Management Plan and each report on it to the Office of Management and Budget. Within 18 months after measures have been recommended by the Council in any edition of the Management Plan, each Federal agency whose action is required to implement such measures shall either take the action recommended or shall provide the Council with an explanation of why the action is not feasible. The Council shall assess the effectiveness of this order no less than once each 5 years after the order is issued and shall report to the Office of Management and Budget on whether the order should be revised.

**Section 6. *Judicial Review and Administration***

- (1) This order is intended only to improve the internal management of the executive branch and is not intended to create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies, its officers, or any other person.
- (b) Executive Order 11987 of May 24, 1977, is hereby revoked.
- (c) The requirements of this order do not affect the obligations of Federal agencies under 16 U.S.C. 4713 with respect to ballast water programs. (d) The requirements of section 2(a)(3) of this order shall not apply to any action of the Department of State or Department of Defense if the Secretary of State or the Secretary of Defense finds that exemption from such requirements is necessary for foreign policy or national security reasons.

// S// William J. Clinton

THE WHITE HOUSE,  
*February 3, 1999*

# Appendix E

## Executive Order 13340 of May 18, 2004 Establishment of Great Lakes Interagency Task Force and Promotion of a Regional Collaboration of National Significance for the Great Lakes

29043

Federal Register  
Vol. 69, No. 98  
Thursday, May 20, 2004  
Title 3—

### The President

#### Executive Order 13340 of May 18, 2004 Establishment of Great Lakes Interagency Team and Promotion of a Regional Collaboration of National Significance for the Great Lakes

By the authority vested in me as President by the Constitution and the laws of the United States of America, and to help establish a regional collaboration of national significance for the Great Lakes, it is hereby ordered as follows:

**Section 1. Policy.** The Great Lakes are a national treasure constituting the largest freshwater system in the world. The United States and Canada have made great progress addressing past and current environmental impacts to the Great Lakes ecology. The Federal Government is committed to making progress on the many significant challenges that remain. Along with numerous State, tribal, and local programs, over 140 Federal programs help fund and implement environmental restoration and management activities throughout the Great Lakes system. A number of intergovernmental bodies are providing leadership in the region to address environmental and resource management issues in the Great Lakes system. These activities would benefit substantially from more systematic collaboration and better integration of effort. It is the policy of the Federal Government to support local and regional efforts to address environmental challenges and to encourage local citizen and community stewardship. To this end, the Federal Government will partner with the Great Lakes States, tribal and local governments, communities, and other interests to establish a regional collaboration to address nationally significant environmental and natural resource issues involving the Great Lakes. It is the further policy of the Federal Government that its executive departments and agencies will ensure that their programs are funding effective, coordinated, and environmentally sound activities in the Great Lakes system.

**Sec. 2. Definitions.** For purposes of this order:

(a) “Great Lakes” means Lake Ontario, Lake Erie, Lake Huron (including Lake Saint Clair), Lake Michigan, and Lake Superior, and the connecting channels (Saint Marys River, Saint Clair River, Detroit River, Niagara River, and Saint Lawrence River to the Canadian Border).

(b) “Great Lakes system” means all the streams, rivers, lakes, and other bodies of water within the drainage basin of the Great Lakes.

**Sec. 3. Great Lakes Interagency Task Force.**

(a) Task Force Purpose. To further the policy described in section 1 of this order, there is established, within the Environmental Protection Agency for administrative purposes, the “Great Lakes Interagency Task Force” (Task Force) to:

(i) Help convene and establish a process for collaboration among the members of the Task Force and the members of the Working Group that is established in paragraph b(ii) of this section, with the Great Lakes States, local communities, tribes, regional bodies, and other interests in the Great Lakes region regarding policies, strategies, plans, programs, projects, activities, and priorities for the Great Lakes system.

(ii) Collaborate with Canada and its provinces and with bi-national bodies involved in the Great Lakes region regarding policies, strategies, projects, and priorities for the Great Lakes system.

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(iii) Coordinate the development of consistent Federal policies, strategies, projects, and priorities for addressing the restoration and protection of the Great Lakes system and assisting in the appropriate management of the Great Lakes system.

(iv) Develop outcome-based goals for the Great Lakes system relying upon, among other things, existing data and science-based indicators of water quality and related environmental factors. These goals shall focus on outcomes such as cleaner water, sustainable fisheries, and biodiversity of the Great Lakes system and ensure that Federal policies, strategies, projects, and priorities support measurable results.

(v) Exchange information regarding policies, strategies, projects, and activities of the agencies represented on the Task Force related to the Great Lakes system.

(vi) Work to coordinate government action associated with the Great Lakes system.

(vii) Ensure coordinated Federal scientific and other research associated with the Great Lakes system.

(viii) Ensure coordinated government development and implementation of the Great Lakes portion of the Global Earth Observation System of Systems.

(ix) Provide assistance and support to agencies represented on the Task Force in their activities related to the Great Lakes system.

(x) Submit a report to the President by May 31, 2005, and thereafter as appropriate, that summarizes the activities of the Task Force and provides any recommendations that would, in the judgment of the Task Force, advance the policy set forth in section 1 of this order.

(b) Membership and Operation.

(i) The Task Force shall consist exclusively of the following officers of the United States: the Administrator of the Environmental Protection



Agency (who shall chair the Task Force), the Secretary of State, the Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Housing and Urban Development, the Secretary of Transportation, the Secretary of Homeland Security, the Secretary of the Army, and the Chairman of the Council on Environmental Quality. A member of the Task Force may designate, to perform the Task Force functions of the member, any person who is part of the member's department, agency, or office and who is either an officer of the United States appointed by the President or a full-time employee serving in a position with pay equal to or greater than the minimum rate payable for GS-15 of the General Schedule. The Task Force shall report to the President through the Chairman of the Council on Environmental Quality.

(ii) The Task Force shall establish a "Great Lakes Regional Working Group" (Working Group) composed of the appropriate regional administrator or director with programmatic responsibility for the Great Lakes system for each agency represented on the Task Force including: the Great Lakes National Program Office of the Environmental Protection Agency; the United States Fish and Wildlife Service, National Park Service, and United States Geological Survey within the Department of the Interior; the Natural Resources Conservation Service and the Forest Service of the Department of Agriculture; the National Oceanic and Atmospheric Administration of the Department of Commerce; the Department of Housing and Urban Development; the Department of Transportation; the Coast Guard within the Department of Homeland Security; and the Army Corps of Engineers within the Department of the Army. The Working Group will coordinate and make recommendations on how to implement the policies, strategies, projects, and priorities of the Task Force.

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(c) Management Principles for Regional Collaboration of National Significance. To further the policy described in section 1, the Task Force shall recognize and apply key principles and foster conditions to ensure successful collaboration. To that end, the Environmental Protection Agency will coordinate the development of a set of principles of successful collaboration.

**Sec. 4. Great Lakes National Program Office.** The Great Lakes National Program Office of the Environmental Protection Agency shall assist the Task Force and the Working Group in the performance of their functions. The Great Lakes National Program Manager shall serve as chair of the Working Group.

**Sec. 5. Preservation of Authority.** Nothing in this order shall be construed to impair or otherwise affect the functions of the Director of the Office of Management and Budget relating to budget, administrative, regulatory, and legislative proposals. Nothing in this order shall be construed to affect the statutory authority or obligations of any Federal agency or any bi-national agreement with Canada.

**Sec. 6. Judicial Review.** This order is intended only to improve the internal

management of the Federal Government and is not intended to, and does not, create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or in equity by a party against the United States, its departments, agencies, instrumentalities or entities, its officers or employees, or any other person.

***//s// George W. Bush***

THE WHITE HOUSE,

*May 18, 2004.*

[FR Doc. 04-11592

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**Appendix F**

**MNRG Letter  
to the  
Great Lakes Regional Collaboration**



**Midwest Natural Resources Group**

Steven Johnson, Chair  
Interagency Task Force  
Great Lakes Regional Collaboration  
c/o U.S. Environmental Protection Agency  
1200 Pennsylvania Ave., NW  
Washington, DC 20004

Dear Mr. Johnson:

At the recent Annual Meeting of the Midwest Natural Resources Group (MNRG), a request was forwarded to our group asking us to address the impacts of terrestrial invasive species on the ecosystem health of the Great Lakes. We received this request because, while the current proposed invasive species strategy under consideration has a strong emphasis on controlling aquatic invasive species, there appears to be a gap to address the impacts of terrestrial invasive species.

We believe this is a reasonable request and the MNRG will apply our existing resources to establish a team charged with developing an Action Plan, to effectively coordinate and develop inventories, mapping and treatment of terrestrial invasive species for the Great Lakes basin. The plan, to be developed by May 1, 2006, will include an approach to:

1. Defining MNRG's involvement and role to support existing infrastructure and initiatives focused on terrestrial invasive species;
2. Coordinating and facilitating resource sharing such as professional expertise, data bases and training;
3. Providing a web-based Internet source for exchange of scientific information, and
4. Coordinating a collaborative public education and outreach on terrestrial invasive species.

We appreciate the opportunity to assist the GLRC in improving the health of the Great Lakes basin and look forward to working on this key component of that effort. Should you have any questions, feel free to contact John Sowl of my staff at 402/661-1872 (John\_Sowl@nps.gov) or Stephen Schlobohm of the U.S. Forest Service at 715/685-2655 (sschlobohm@fs.fed.us).

Sincerely,

Ernest Quintana, Chair  
Midwest Natural Resources Group  
National Park Service

cc:

MNRG Senior Managers  
MNRG Planning Committee  
Thomas Skinner, Regional Administrator, EPA, Region 5  
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# **Appendix G**

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# ***Appendix H***

## ***“St. Louis Code of Conduct”***

What has come to be known as the **St. Louis Code of Conduct** was written in 2001 for voluntary endorsement by government, nursery professionals, the gardening public, landscape architects, and botanic gardens and arboreta. Currently there are 44 endorsements. ([www.centerforplantconservation.org/invasives/codes](http://www.centerforplantconservation.org/invasives/codes))

### **Voluntary Codes of Conduct for Government February 2002**

1. Require risk assessment for government-led or financed plant introductions to ensure that no new harmful plant species are introduced, intentionally or unintentionally.
2. Do not distribute existing holdings of invasive plant species to areas where they can potentially do harm; eliminate these holdings or maintain new or existing holdings using appropriate safeguards.
3. Coordinate and facilitate collaboration in databases, early warning systems, monitoring, and other means of preventing invasive plant species problems.
4. Lead and fund (subject to budgetary considerations) the development of environmentally sound methods to control harmful invasive plant species, seek control of such species on public lands and promote their control on adjacent private lands.
5. Develop and promote the use of non-invasive plant species within all government units and to the public.
6. Facilitate, lead, coordinate and evaluate public outreach and education on harmful invasive plant species.
7. Encourage that employees and management participate in ongoing training programs on invasive plant species.
8. Foster international cooperation to minimize the risk of the import and export of potentially invasive plant species.
9. Develop partnerships and incentive programs to lessen the impact of invasive plant species and provide non-invasive restoration materials.
10. Provide a forum for regular evaluation of the effectiveness of these voluntary codes of conduct towards preventing the invasive plant species problem.
11. Enforce invasive plant species legislation at all levels.