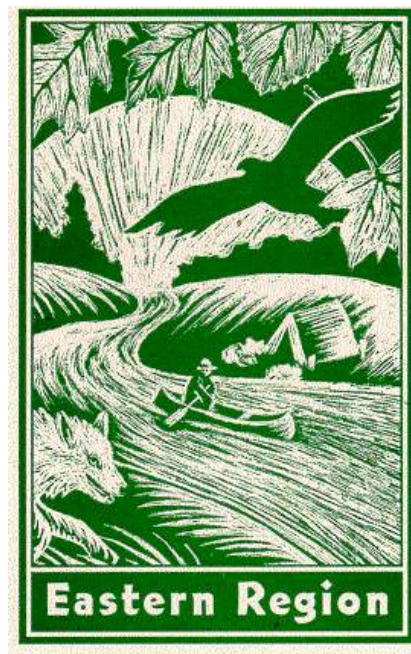


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***Non-Native Invasive Species Framework***  
*for*  
***Plants and Animals***  
*in the U.S. Forest Service, Eastern Region*



*April 11, 2003*

*R9 Regional Leadership Team*

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## **Acknowledgements**

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*Copies available at: <http://www.fs.fed.us/r9/wildlife/nnis/>*

## Introduction

The *purpose* of this document is to provide an interdisciplinary framework to implement Non-native Invasive Species (NNIS) management programs on Eastern Region (R9) National Forests. This framework identifies the *goal/vision* and *objectives* for NNIS management, as well as associated actions to accomplish the stated objectives.

The *definition* of NNIS is 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).

There are a number of *laws, regulations and policies* that relate to NNIS management on National Forest system lands. They can be found on the R9 NNIS website and associated links at <http://fsweb.r9.fs.fed.us/departments/nr/nnis/index.shtml>. The principles of FSM 2080 can be interpreted broadly to accomplish the objectives of Executive Order 13112 for plants and animals.

## Goal of R9 NNIS Programs

The R9 NNIS Goal/Vision is “ The Eastern Region is implementing appropriate and successful invasion prevention measures to maintain intact ecosystems on each national forest and grassland. Populations of non-native invasive plants and animals are managed by an efficient program of prevention and control. Impacts of management activities are considered and mitigation that is likely to be effective is included in project planning. Cooperative relationships with states, counties, organizations, tribes and other landowners are developed to implement integrated pest management. Integrated coordination between resource managers is occurring.”

R9 NNIS programs tier to *objectives* based on the high priority management actions identified by the National Invasive Species Council (NISC 2001):

- ◆ *Leadership and Coordination*
- ◆ *Prevention*
- ◆ *Early Detection and Rapid Response*
- ◆ *Control and Management*
- ◆ *Restoration*
- ◆ *Cooperation*
- ◆ *Research*
- ◆ *Information and Education*

The Eastern Region will take an active leadership role, facilitating cooperation and coordination between other government entities and partners to achieve mutual NNIS goals on national forest system and surrounding lands.

## Objectives and Management Actions

### A. Leadership and Coordination

The R9 NNIS Steering Committee (SC) and Working Group (WG) were established in 2002. The purpose of the Steering Committee is to provide leadership to reach the R9 NNIS Goal/Vision. The purpose of working groups chartered by the steering committee is to draft this Framework and other associated NNIS-related documents to institutionalize NNIS programs on R9 forests.

FSM 2080.42-1, 43-1, and 44-1 outline direction and responsibilities of Regional, Forest and District NNIS Coordinators. It is expected that these individuals will play a key role in implementing this Framework and associated plans. Collaboration with partners, Research Stations and State and Private Forestry and tribes is expected.

#### Priority actions:

1. Designate NNIS Coordinators at regional and forest levels to provide leadership to implement this framework in cooperation with other government entities and partners. (*Line Officers by January 2003*)
2. Draft A R9 FSM 2070/2080 Supplement that includes plants and animals as well as NRIS protocols and new regulations/orders, i.e. Plant Protection Act 2000, Executive Order 1999, etc. (*RO NNIS Coordinator by FY04*)
3. Monitor effectiveness of this framework. (*RO NNIS Coordinator by March 2006*)

### B. Prevention

“The first line of defense for invasive species is prevention. The most cost-effective approach to combating invasive species is to keep them from being established in the first place” (NISC 2001). Prevention measures include but are not limited to, equipment cleaning, use of NNIS-free materials, NNIS prevention methods in fire management as well as development of Best Management Practices (BMP’s) and contract clauses (USDA 1998).

FSM 2080.44.6 outlines the responsibilities of Line officers to determine the risk of NNIS introduction or spread as part of the NEPA process for proposed actions. Risk Assessments are to be included for any ground disturbing activities (FSM 2080.03). An example of a NNIS Risk Assessment is found in Appendix A.

Manual direction 2080.42-7, 42-8, .43-10, .44-8, .44-10, and .81-03 further outline the appropriateness of forest orders, contract and permit clauses and provisions for contractors and permittees to prevent the spread of NNIS. FSM 2080.42-6, .43-6, .44-7, .81-2 and 81-3 outline that NNIS-free material is to be used and transported on National Forest system lands.

#### Priority actions:

1. Charter Equipment Cleaning Working Sub-group to address implementation of equipment cleaning clauses in R9. (*SC/WG subgroup for timber in FYY03, other program areas in FY04*)
2. Charter Native Species Working Group to outline state plant and animal native species/weed free laws and sources of such material to be used in NNIS management on respective national forests. Also identify native species production priorities for the region, including production

potential at Toumey Nursery, Oconto River Seed Orchard and other local sources. (SC/WG subgroup by FY04)

3. Develop NNIS and Forest Plan “Lessons Learned” document that includes NNIS status and threats, native species emphasis and includes NNIS in Annual Forest Monitoring Reports. (R9 Deputy Director of Planning and R9 NNIS Coordinator, FY03)
4. Develop Regional NNIS training plan for plants and animals to be offered at ESRU or other venues , including abbreviated versions for RLT, FLT’s, as well as regional and forest program manager meetings. (RO NNIS Coordinator and FHP Staff by FY04)
5. Encourage weed free forage for use in all wilderness areas in FY03 and on all national forest system lands in FY05 as outlined in national Strategy. Identify the availability and encourage development of local weed-free forage (Forest Supervisors, Forest NNIS Coordinators by FY05)

### ***C. Early Detection and Rapid Response***

“When prevention fails, invasive species must be detected and dealt with before they become established and spread” (NISC 2001). Forests will maintain a list of potential and documented NNIS. NNIS inventory will follow NRIS protocols.

#### Priority actions:

1. Continue to update R9 NNIS field guides, adding animals and designing online versions (R9 NNIS Coordinator, Research and FHP)
2. NNIS identification and Terra Training (RO and Forest NNIS Coordinators, and FHP in FY03-04 and beyond as needed)
3. Develop suggested NNIS risk/prioritization process (Working Group in FY03)
4. Develop list of NNIS on or adjacent to forest and inventory priority species. Include NNIS in IMPP and BFES. (NNIS Coordinators, Line Officers and Steering Committee, FY 03 and beyond)
5. Monitor high-risk entry points and ground disturbing activities and apply treatment if needed. (Forest/District NNIS Coordinators and Contracting reps by FY 04-05)

### ***D. Control and Management***

The Eastern Region will work cooperatively with other government entities, partners and tribes to “Reduce established invasive species populations and limit their spread to dramatically decrease the associated economic and ecologic impacts they cause” (NISC 2001).

Along with prevention, Forest Service policy (FSM 2080.1-3, 2080.82-2) is to use Integrated Pest Management for NNIS, including biological, mechanical and chemical methods. Appropriate NEPA analysis is expected for NNIS control.

FSM 2081.2 outlines the following priorities for NNIS management:

- ◆ First priority – Prevent the introduction of new invaders
- ◆ Second priority – Conduct early treatment of new infestations
- ◆ Third priority – Contain and control established infestations

Priority actions:

1. See B3 above
2. Provide the tools to accommodate herbicide treatment as part of Integrated Pest Management to address NNIS priorities, i.e. Herbicide Toolkit, Lake States Herbicide Agreement Modification, Pesticide Applicator and NEPA training. *(SC and WG subgroup of Patty Beyer, Michelle Frank, Rita Beard, R9 NEPA staff FY03-04)*
3. Forest NNIS Coordinator present NNIS management priorities to FLT and budget teams *(Forest NNIS Coordinators in FY03 and beyond)*
4. Forests implement priority NNIS prevention and control measures using multi-funding, partnerships, agreements and volunteers. *(Forest Supervisors, ongoing)*

**E. Restoration**

“Restoring native plant communities can reduce the risk of future invasions in areas where control has reduced or eliminated invasive species” (NISC 2001). R9 forests have a general awareness of the Executive Order and Manual (FSM 2081.03) direction to use native species but limited source material and genetic/provenance issues are limiting factors for plants and animals.

Priority Actions:

1. See B2 above
2. Seek to remove and reduce NNIS from all Forest Service administrative sites (structures, trailheads, recreation areas, boat landings, recreation summer homes etc.) by restoring native species. *(Regional Forester/Forest Supervisors/Forest NNIS Coordinators by FY05)*

**F. Cooperation**

R9 will collaborate with tribes, state agencies, landowners, local governments, universities and other Federal agencies to coordinate programs for the prevention and control of NNIS (FSM 2082). A listing of potential NNIS partners is included in Appendix B. Appendix C summarizes state tools for NNIS for states including R9 national forests and prairies.

Priority actions:

1. Using examples from other Regions, establish Memoranda of Understandings and cooperative agreements (FSM 1580 and 2082.1-2) as needed to facilitate cooperative management of NNIS on national forest system and surrounding lands. *(Forest and District NNIS Coordinators by FY 04-05)*
2. Work with Forest and Regional Partnership Coordinators to develop and implement priority NNIS management actions (see C2) on National Forest System lands. *(NNIS Coordinators, R9 and Forest Partnership coordinators by FY 04 and beyond)*

3. Work with utility companies and outfitters to establish NNIS partnerships in managing NNIS. (*R9 Special Uses and NNIS Coordinators, FY04*)
4. Establish and maintain working relationships with Forest Service Research and State and Private Forestry to identify mutual priorities for NNIS at regional and forest levels. (*R9 and Forest NNIS Coordinators, FY04 and beyond*)

## **G. Research**

“In order for any invasive species program to be successful it must be based on sound science” (NISC 2001). Northeastern Research Station (NE), North Central Research Station (NC) and Northeastern Area State and Private Forestry (NA) have jointly developed a strategic framework, *Exotic Invasive Species: A Strategic Plan*, that outlines a vision, goals and activities needed to better address technology and scientific information needs for invasive species management in the East. NE and NC have 10 research units with scientists researching various aspects of invasive pests. NA has forest health specialists at several locations in the Region that provide technical assistance on NNIS. The Forest Service research programs address insects, pathogens, and invasive plants, but do not specifically address research on other NNIS animals.

### Priority actions:

1. Work collaboratively with research institutions especially NE, NC, NA to obtain scientific information and technical assistance to implement this strategy. (*RO NNIS Coordinator, Research Liaison, NA Liaison, FY03 and beyond*)
2. Query forests and provide Regional Forester with briefings on R9 NNIS status and information gaps to discuss with Research Station Directors and State and Private Forestry to achieve mutual priorities. (*RO NNIS Coordinator in FY03 and beyond*)
3. Designate a research liaison to work with NE, NC, and NA to coordinate scientific information and technology needs. (*RO NNIS Coordinator, FY04 and beyond.*)

## **H. Information and Education**

There is a wealth of NNIS information available including the National Invasive Species Council’s website [www.invasivespecies.gov](http://www.invasivespecies.gov). R9’s intranet ([www.fs.fed.us/r9/departments/nr/nnis](http://www.fs.fed.us/r9/departments/nr/nnis)) and the future internet ([www.fs.fed.us/nnis](http://www.fs.fed.us/nnis)) sites will be maintained by the Regional Office to provide all current R9 NNIS information.

The scope of NNIS issues in R9 is not widely recognized by the public. Information and Education efforts and ultimately collaboration in prevention is likely the most effective tool available. A communications plan is found in Appendix D.

### Priority Actions:

1. Develop and maintain R9 NNIS webpages (*RO NNIS Coordinator and Web manager in FY03 and beyond*)
2. Make implementation of the Communications Plan a priority (*SC, PCR Director and NNIS Coordinators, FY03 and beyond*)

## References

Environmental Law Institute. 2002. Halting the Invasion: State Tools for Invasive Species Management. Environmental Law Institute, Washington DC. 112 pp plus cd rom. (Available at <http://www2.eli.org/research/invasives/index.cfm>)

Executive Order 11312 of February 3, 1999 - Invasive Species. 1999. (Available at <http://www.invasivespecies.gov/laws/execorder.shtml>)

National Invasive Species Council. 2001. Meeting the Invasive Species Challenge: National Invasive Species Management Plan. 80 pp. (Available at <http://www.invasivespecies.gov/council/mpfinal.pdf>)

USDA Forest Service. 1995. National Forest Resource Management Amendment 2000-95-5, Zero Code 2080 Noxious Weed Management. (Available at <http://fsweb.wo.fs.fed.us/directives/fsm/2000/2080.rtf>)

USDA Forest Service. 1998. Stemming the Invasive Tide: Forest Service Strategy for Noxious and Noninvasive Plant Management. Washington DC. 31pp. (Available at [http://www.fs.fed.us/r6/weeds/fs\\_strat\\_doc.pdf](http://www.fs.fed.us/r6/weeds/fs_strat_doc.pdf))



## **Appendix A: NNIS Risk Assessment**

*USFS Region 1 plant example; a similar approach can be used for animals.*

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### **FACTOR 1: *Likelihood of Undesirable Plant Species, Including Noxious Weeds Species, Spreading to Project Area:***

- NONE (0): Undesirable plants, including noxious weed species not located within or immediately adjacent to the project area. Project activity is not likely to result in the establishment of undesirable weed species on the project area.
- LOW (1): Undesirable plant species present in areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of undesirable plants into the project area.
- MODERATE (5): Undesirable plant species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with undesirable plant species even when preventative management actions are followed. Control measures may be essential to prevent the spread of undesirable plants or noxious weeds within the project area.
- HIGH (10): Heavy infestations of undesirable plants are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of undesirable plants on disturbed sites throughout much of the project area.

### **FACTOR 2: *Consequence of Undesirable Plant Establishment in Project Area***

- LOW (1): None. No cumulative effects expected.
- MODERATE (5): Possible adverse effects on site and possible expansion of infestation within project area. Cumulative effects on native plant community are likely, but limited.
- HIGH (10): Obvious adverse effects within the project area and probable expansion of undesirable plants, including noxious weed infestations to areas outside the project area. Adverse cumulative effects on native plant community are probable.

## Risk Rating Procedure

**Step 1.** Identify level of likelihood and consequence of adverse effects (Factors 1 and 2, previous page) and assign values according to the following:

None: 0  
 Low 1  
 Moderate 5  
 High 10

**Step 2.** Multiply level of likelihood times consequences (Factor 1 x Factor 2).

**Step 3.** Use the value resulting in step 2 to determine Risk Rating and action as follows:

	<b>Risk Rating</b>	<b>Action</b>
0	NONE	Proceed as planned
1-10	LOW	Proceed as planned. Initiate control treatments on undesirable plant populations that get established in the area.
25	MODERATE	Develop preventative management measures for the proposed project to reduce the risk of introduction or spread of undesirable plants into the area. Monitor the area for at least 3 consecutive years and provide for control of new infestations.
50-100	HIGH	Modify project design <b>and</b> implement preventative management measures for the proposed project to reduce the risk of introduction or spread of undesirable plants into the area. Monitor the area for at least 5 consecutive years and provide for control of new infestations. Consider moving or dropping project to avoid impacts.

## Appendix B: Potential R9 NNIS Partners

State	Name/Title	Employer	Address	City	Zip Code	Phone	email
IL		IL Dept. of Agriculture	POB 19218 State Fairgrounds	Springfield	62794-9281		
IL		TNC Field Office	118 South Michigan Ave Suite 900	Chicago	60603	362 580-2100	<a href="mailto:gehnis-lester@tnc.com">gehnis-lester@tnc.com</a>
IL	Kay Havens	Chicago Botanic Garden	1000 Lake Cook Road	Glencoe	60022		
IL	Mr. Mike Conlin, Chief of Forest Mgmt	Division of fisheries ILDNR	524 S. Second St.	Springfield	62701	217-782-6424	<a href="mailto:mcolin@dnrmail.stateil.us">mcolin@dnrmail.stateil.us</a>
IL	Illinois Native Plant Society	Forest Glen Preserve	20301 E. 900 North Road	Westville	61883		<a href="http://www.linhs.uic.edu/inps">www.linhs.uic.edu/inps</a>
IL	Mr. Dan Thomas, President	G.L. Sport Fishing Council	P.O. Box 297	Elmhurst	60126	630-941-1351	
IL	Ms. Mary F. Wilson, Science Director	Great Lakes Program The Nature Conservancy	8 S. Michigan	Chicago	60603	312-759-8017	<a href="mailto:mwilson@tnc.org">mwilson@tnc.org</a>
IL	Mr. Ed Michael	Great Lakes United	223 Barberry Road	Highland Park	60035	847-831-4159	<a href="mailto:71750.1477@compuserve.com">71750.1477@compuserve.com</a>
IL	Mr. Rodney W. Horner, ANS Coord	IL DNR	29557 E. CR, 2400N	Manito	61546	309-968-6837	<a href="mailto:Rhorner@dnrmail.state.il.us">Rhorner@dnrmail.state.il.us</a>
IL	Ms Pat Charlebois, Assoc. Res Scientist	IL-IN Natural History Survey--- IL-IN Sea Grant	400 17th St.	Zion	60099	847-872-0140	
IL	Pete Jackson	Illinois DNR	100 West Randolph Street Suite 4-300	Chicago	60601	31814-4747	<a href="mailto:pjackson@dnrmailstate.il.us">pjackson@dnrmailstate.il.us</a>
IL	Dan Schmoker	Illinois DNR, Division of Forest Resources	600 North Grand Avenue West, Box 19225	Springfield	62794-9225	217-782-2361	<a href="mailto:dschmoker@dnrmail.state.il.us">dschmoker@dnrmail.state.il.us</a>
IL	Mr. Cameron Davis, Executive Director	Lake Michigan Federation	220 S. State Street Suite 2108	Chicago	60604-2103	312-939-0838	<a href="mailto:LMF002@aol.com">LMF002@aol.com</a>
IL	Dr. John Dwyer, USDA FS R&D	Managing Forest Environments for Urban Populations Res Unit	845 Chicago Avenue	Evanston	60202	847-866 9311	
IL	Eric Ulaszek, NTGP NNIS Coordinator	Midewin National Tallgrass Prairie	P. O. Box 88 30071 South SR 53	Wilmington	60481	815-423-6737 x211	<a href="mailto:eulasek@fs.fed.us">eulasek@fs.fed.us</a>
IL	Beth Shimp, NF NNIS Coordinator	Shawnee National Forest	901 South Commercial	Harrisburg	62946	618-253-1053	<a href="mailto:eshimp@fs.fed.us">eshimp@fs.fed.us</a>
IL		U.S. EPA Region 5	77 W. Jackson	Chicago	60604		<a href="mailto:ZAR.Howard@epa.gov">ZAR.Howard@epa.gov</a>
IN	Indiana DNR, Invasive Species Mgr		402 West Washington St Room 267	Indianapolis			
IN	Kirk Larson NNIS Coordinator	Hoosier National Forest	811 Constitution Avenue	Bedford	47421	812-275-5987	<a href="mailto:kwlarson@fs.fed.us">kwlarson@fs.fed.us</a>
IN	Julia Wickard	IN Commission of Agriculture Natural Resources & the Env				317-232-8778	<a href="mailto:jwickard@commercel.in.state.us">jwickard@commercel.in.state.us</a>
IN	Mr. Randy Lang, Fisheries Biologist	IN Div. Of Fish & Wildlife	402-W. Washington IGCS273W	Indianapolis	46204	317-232-4094	<a href="mailto:lang@fw.dnr.state.in.us">lang@fw.dnr.state.in.us</a>
IN	Ms. Julie Stumpf	IN Dunes Nat. Lakeshore U.S. Geological Survey	1100 N. Mineral Springs Rd	Porter	46304	219-926-7561 x336	<a href="mailto:julie-stumpf@aps.gov">julie-stumpf@aps.gov</a>
IN	Dan Ernst	Indiana Division of Forestry	402 West Washington St	Indianapolis	46204-2748	317-232-4101	<a href="mailto:dernst@dnr.state.in.us">dernst@dnr.state.in.us</a>
IN		Indiana Native Plant & Wildflower Society	2602 S 600W	Morgantown	46106		
IN	Mr. Noel Pavlovic	Lake Michigan Ecological Research Station U.S. Geological Survey	1100 N. Mineral Springs Rd	Porter	46304	219-926-7501	<a href="mailto:nowl_pavlovic@usgs.gov">nowl_pavlovic@usgs.gov</a>
IN	Mr. Tom Horvath,	Lake Michigan Ecological	110 N. Mineral Springs Rd	Porter	46304	219-926-8331	<a href="mailto:Tom_Horvath@mps.gov">Tom_Horvath@mps.gov</a>

	Aquatic Ecologist	Research Station U.S. Geological Survey					
IN	Ellen Jacquart	TNC Field office NNIS Midwestern Initiative	1505 N. Delaware Street Suite 200	Indianapolis	46202	317-951-8818	
IN	Ron Overton	USDA Forest Service, Purdue University	1159 Forestry Blvd.	West Lafayette	47907-1159	765-496-2242	roverton@fs.fed.us
MA	Chris Matrick	New England Wildflower Society	180 Hemenway Road	Framingham	01701-2699	508-877-7630	
ME	Don Cameron, Ecologist/Botanist	Dept. of Conservation, Maine Natural Areas Program	State House Station 93	Augusta	04333-0093	207-287-8401	<a href="mailto:don.s.cameron@state.me.us">don.s.cameron@state.me.us</a>
ME	Kathy Nitschke, Stewardship Coord.	Dept. of Conservation, ME Forest Service	22 State House Station	Augusta	04333-0022	207-287-1073	<a href="mailto:kathy.nitschke@state.me.us">kathy.nitschke@state.me.us</a>
ME	Main	Josselyn Botanical Society	566 N. Auburn Road	Auburn	4210		
ME	John McPhedran, Coordinator	Maine Dept. of Env. Protection, Invasive Aquatic Species Prog	17 State House Station	Augusta	4333	207-287-6610	
ME	Russell Danner, Fish Biologist	Maine Dept. of Inland Fisheries & Wildlife, Fish Health Lab				207-287-2813	<a href="mailto:grdanner@prexar.com">grdanner@prexar.com</a>
MI	Mike Ripley	Chippewa Ottawa Fishery Management Authority	179 W. 3 Mile Rd	Sault Ste. Marie	49783	906-632-0072	
MI	Ms. Marg Dochoda, Fishery Biologist	G. L. Fishery Commission	2100 Commonwealth Blvd. Suite209	Ann Arbor	48105	734-741-2077	
MI	Mr. John Gannon	GL Science Center U.S. Geological Survey	1451 Green Rd	Ann Arbor	48105	734-214-7237	<a href="mailto:john_e-gannon@usgs@gov">john_e-gannon@usgs@gov</a>
MI	Miles Flack, Exotic Specialist	GLIFWC Michigan				715-682-6619	<a href="mailto:miles@glifwc.org">miles@glifwc.org</a>
MI	Mr. Matt Doss	Great Lakes Commission	400 Fourth Street	Ann Arbor	48103	734-665-9135	<a href="mailto:mdoss@glc.org">mdoss@glc.org</a>
MI	Don Schlosser, Fisheries Biologist	Great lakes Science Center U.S. Geological Survey	1451 Green Rd	Ann Arbor	48105	734-994-3331 x223	
MI	Mike Lanasa, NNIS Coordinator	Hiawatha National Forest	2727 Lincoln Road	Escanaba	49829	906-789-3379	<a href="mailto:mianasa@fs.fed.us">mianasa@fs.fed.us</a>
MI	Alix Cleveland, NNIS Coordinator	Huron Manistee National Forest	1755 South Mitchell Street	Cadillac	49601	231-775-5023 x8729	<a href="mailto:acleveland@fs.fed.us">acleveland@fs.fed.us</a>
MI	Bob Heyd	MI DNR	1990 US Hwy 41 South	Marquette	49855	906-228-6561	
MI	Mike Penskar, Botanist	MI Natural Features Inventory	Madison Building, 5th floor, Box 30028	Lansing	48909	517 373-1552	<a href="mailto:penskarm@michigan.gov">penskar@michigan.gov</a>
MI	Mike Klepinger, Aquatic Nuisance Species Coord	MI Sea Grant	334 Natural Resources	E. Lansing	48824	517-353-5508	<a href="mailto:klep@pilot.msu.edu">klep@pilot.msu.edu</a>
MI	Michigan	Michigan Botanical Club	7951 Walnut Avenue	Newaygo	49337		<a href="http://michbotclub.org">michbotclub.org</a>
MI	Kathie Arney, Stewardship Coord	Michigan DNR	PO Box 30452	Lansing	48813	517-241-9051	<a href="mailto:arneyk@state.mi.us">arneyk@state.mi.us</a>
MI	Cara Boucher	Michigan DNR, Forest Mineral & Fire Mgt. Division	Box 30452	Lansing	48909-7952	517-353-3354	<a href="mailto:boucherc@dnr.state.mi.us">boucherc@dnr.state.mi.us</a>
MI	Robert Schutzki, Chair	Michigan Invasive Plant Council				517-353-5487	<a href="mailto:schutzki@msu.edu">schutzki@msu.edu</a>
MI	Biological Control Program	Michigan State, Center for Integrated Plant Systems					<a href="http://www.cips.msu.edu/biocontrol/index.htm">http://www.cips.msu.edu/biocontrol/index.htm</a>
MI	Tom Nalepa	NOAA GL Environ Res Lab	2205 Commonwealth Blvd	Ann Arbor	48105-1593	734-741-2285	<a href="mailto:nalepa@glerrl.noaa.gov">nalepa@glerrl.noaa.gov</a>
MI	Ian Shackleford, NNIS Coordinator	Ottawa National Forest				906-932-1330	<a href="mailto:jshacklefor@fs.fed.us">jshacklefor@fs.fed.us</a>
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MI	David Reid, Ass't to the Director	Senior Physical Scientist NOAA/GLERL	2205 Commonwealth Blvd	Ann Arbor	48105-2945	734-741-2019	<a href="mailto:reid@glerl.noaa.gov">reid@glerl.noaa.gov</a>
MI	Jennifer Manville, MI Tribal Liaison	U.S. EPA Region 5	400 Broadman Ave.	Traverse City	49684	231-922-4769	<a href="mailto:manville.jennifer@epa.gov">manville.jennifer@epa.gov</a>
MN	Minnesota Native Plant Society	220 Bio. Sci. Center, University of Minnesota	1445 Gortner Avenue	St .Paul	55108-1020		
MN	Ray Newman, NNIS Coordinator	Chippewa National Forest	Route 3 Box 244	Cass Lake	56633	218-335-8620	<a href="mailto:rwnewman@fs.fed.us">rwnewman@fs.fed.us</a>
MN	Olin Phillips, Forestry Section Manager	Minnesota DNR, Division of Forestry	500 Lafayette Road	St. Paul	55155-4044	651-296-5971	<a href="mailto:olin.phillips@state.mn.us">olin.phillips@state.mn.us</a>
MN	Chuck Dale, Weed & Seed Unit Coord	MN Dept. of Ag., Agronomy & Plant Protection	90 West Plato Blvd	St Paul	55107	651-296-6123	<a href="mailto:charles.dale@state.mn.us">charles.dale@state.mn.us</a>
MN	Peter Dziuk, Terrestrial invasive species program	MN Dept. of Ag., Agronomy & Plant Protection	90 West Plato Blvd.	St. Paul	55107	651/296-3343	<a href="mailto:peter.dziuk@state.mn.us">peter.dziuk@state.mn.us</a>
MN	Anne Selness, Shade Tree & Invasive Species Unit Coord/MN Invasive Species Advisory Council Co-chair	MN Dept. of Ag., Agronomy and Plant Protection	90 West Plato Blvd	St Paul	55107	651-296-8448	<a href="mailto:annemarie.selness@state.mn.us">annemarie.selness@state.mn.us</a>
MN	Jay Rendall, Exotic Species Prog Coord/MN Invasive Species Advisory Council Co-chair	MN DNR, Exotic Species Program	500 Lafayette Rd	St. Paul	55155	651-297-1464	<a href="mailto:jay.rendall@dnr.state.mn.us">jay.rendall@dnr.state.mn.us</a>
MN	Bob Jacobson, Ecological Assistance & Planning Unit	MN DOT - Office of Environmental Services	395 John Ireland Blvd Mail Stop 620	St Paul	55155	651-284-3767	<a href="mailto:robert.jacobson@dot.state.mn.us">robert.jacobson@dot.state.mn.us</a>
MN	Douglas Jensen, Center Coordinator	MN Sea Grant Exotic Species Information Center	2305 East Fifth Street	Duluth	55812-1445	218-726-8712	<a href="mailto:djensen1@d.umn.edu">djensen1@d.umn.edu</a>
MN	Carol Mortensen, Botanist	Natural Resources Program	Leech Lake Reservation	Cass Lake	56494	218-335-7428	
MN	Jack Greelee, NNIS Coordinator	Superior National Forest	Laurentian District, 318 Forestry Road	Aurora	55705	218-229-8817	<a href="mailto:jackgreenlee@fs.fed.us">jackgreenlee@fs.fed.us</a>
MN	Jennifer Juzwik, Project Leader	USDA FS, Research, Rapid Systems for Disease Resistance & Control of Diseases Research Unit	1992 Folwell Ave	St. Paul	55108	612-649-5111	<a href="mailto:jjuzwik@fs.fed.us">jjuzwik@fs.fed.us</a>
MN	Michael Conno, Group Leader - FHP Entomologist	USDA FS, State & Private Forestry, Northeastern Area, St. Paul Field Office	1992 Folwell Ave	St. Paul	55108-1099	651-649-5180	<a href="mailto:mconnor@fs.fed.us">mconnor@fs.fed.us</a>
MO	Paul Nelson and Ross McElvain, NNIS Coordinator	Mark Twain National Forest	401 Fairgrounds Road	Rolla	65401		
MO	Missouri	Missouri Native Plant Society	P.O. Box 20073	St Louis	63144-0073		<a href="http://www.missouri.edu/~umo/herb/monps">www.missouri.edu/~umo/herb/monps</a>
MO	Jimmy Williams	MO Dept of Ag, Plant Industries Div, Noxious Weed Program	P.O. Box 630	Jefferson City	65102	573-751-5502	<a href="mailto:Jimmy_Williams@mail.mda.state.mo.us">Jimmy_Williams@mail.mda.state.mo.us</a>
MO	Brian Brookshire	MO Dept of Conservation-Forestry Division	2901 West Truman Blvd Box 180	Jefferson	65102-0180	573-751-4115	<a href="mailto:brooks@mail.conservation.state.mo.us">brooks@mail.conservation.state.mo.us</a>
MO	Rob Lawrence,	MO Dept of Conservation-	2901 West Truman Blvd	Jefferson	65102-0180		<a href="mailto:lawrer@mail.conservation.state.mo.us">lawrer@mail.conservation.state.mo.us</a>

	Entomologist	Forestry Division	Box 180				
MO	Tim E. Smith, Botanist	MO Dept. of Conservation, Natural History Division	P.O. Box 180	Jefferson City	65102-0180	573-751-4115	<a href="mailto:smitht2@mail.conservation.state.mo.us">smitht2@mail.conservation.state.mo.us</a>
NH		New Hampshire Lakes Assoc	5 South State St	Concord	3301	603-226-0299	<a href="mailto:info@nhlakes.org">info@nhlakes.org</a>
NH	Amy Smagula, Exotic Species Coord	Dept. of Environmental Services	6 Hazen Drive POB 95	Concord	03302-0095	603-271-3503	<a href="mailto:asmagula@des.state.nh.us">asmagula@des.state.nh.us</a>
NH	Bob Edmonds	New Hampshire Coop Ext. Service	121 Taylor Hall UNH Cooperative Extension	Durham	03824	603-862-2619	<a href="mailto:bob.edmonds@unh.edu">bob.edmonds@unh.edu</a>
NH	Jennifer Bofinger, Forest Entomologist Pathologist	NH Division of Forests & Lands	172 Pembroke Rd	Concord	03302-1856	603-271-7858	<a href="mailto:jbofinger@dred.state.nh.us">jbofinger@dred.state.nh.us</a>
NH	Karen Bennett	UNH Cooperative Extension	131 Main St Room 212, Nesmith Hall	Durham	03824	603-862-4861	<a href="mailto:karen.bennett@unh.edu">karen.bennett@unh.edu</a>
NH	Bernie Raimo, Entomologist	USDA FS, State & Private Forestry, Northeastern Area, Durham Field Office	P.O. Box 640	Durham	03824-0640	603-868-7708	<a href="mailto:braimo@fs.fed.us">braimo@fs.fed.us</a>
NH	Leighlan Prout, NNIS Coordinator	White Mountain National Forest	719 Main Street	Laconia	3247	603-528-8783	<a href="mailto:lprout@fs.fed.us">lprout@fs.fed.us</a>
NY	Mr. Mike Wiemer	Aquatic Nuisance Species U.S. Fish & Wildlife Service	405 North French Rd. Suite 120A	Amherst	14228	716-691-5456	
NY	Niagara Frontier Botanical Society	Buffalo Museum of Science	1020 Humboldt Parkway	Buffalo	41211		<a href="http://www.acsu.buffalo.edu/~insrisg/botany/">http://www.acsu.buffalo.edu/~insrisg/botany/</a>
NY	Suzanne Maloney, Executive Director	Invasive Plant Council of New York State	415 River Street, 4th Floor	Troy	12180	518-271-0346	<a href="mailto:smaloney@tnc.org">smaloney@tnc.org</a>
NY	Bruce Williamson	New York DEC, Division of Lands & Forests	625 Broadway	Albany	12233	518-402-9425	<a href="mailto:bewillia@gw.dec.state.ny.us">bewillia@gw.dec.state.ny.us</a>
NY	Jerry Andritz	New York DEC, Division of Lands & Forests	625 Broadway	Albany	12233	518-402-9425	<a href="mailto:gjandrit@gw.dec.state.ny.us">gjandrit@gw.dec.state.ny.us</a>
NY	Jason Denham, Forester	New York Department of Environmental Conservation	525 Brodway	Albany	12233-4253	518-492-9425	<a href="mailto:jpedenham@gw.dec.state.nu.us">jpedenham@gw.dec.state.nu.us</a>
NY	Mr. Timothy J. Sinnott, Biologist	New York Department of Environmental Conservation	Room576, 50 Wolf Road	Albany	12233-4756	518-457-0758	<a href="mailto:txsinnot@gw.dec.state.ny.us">txsinnot@gw.dec.state.ny.us</a>
NY	New York Flora Assoc	New York State Museum	3132 CEC	Albany	12230		<a href="http://www.nyflora.org/">http://www.nyflora.org/</a>
NY	New York	NY State Dept of Agriculture and Markets	1 Winners Circle Capitol Plaza	Albany	12235	518-457-3880	
NY		The Finger Lakes Native Plant Society of Ithaca	532 Cayuga Heights Rd,	Ithaca	14950		
OH		Ohio State Dept. of Agriculture Division of Plant industry	8995 East Main Street	Reynoldsburg	430678		
OH	April Moore, NNIS Coordinator	Allegheny National Forest	Spiridon Bldg PO 847	Warren	16365	814-723-5180 ext 231	<a href="mailto:amoore02@fs.fed.us">amoore02@fs.fed.us</a>
OH		Cincinnati Wildflower Preservation Society	9005 Decima St.	Cincinnati	45242		
OH	David L. Gorchov, Associate Professor	Dept. of Botany, Miami University		Oxford	45056	513-529-4205	<a href="mailto:gorchodl@muohio.edu">gorchodl@muohio.edu</a>
OH	Brian McCarthy, Associate Professor	Dept. of Plant Biology, Ohio University	317 Porter Hall	Athens	45701-2979	740-593-1615	<a href="mailto:mccarthy@ohio.edu">mccarthy@ohio.edu</a>
OH	Ohio DNR	Fish Mgt. E Research	1840 Belcher Drive	Columbus	43224	614-265-6345	<a href="mailto:gary.isbell@dnr.state.oh.us">gary.isbell@dnr.state.oh.us</a>
OH		Native Plant Society of Northeastern Ohio	640 Cherry Park Oval	Aurora	44202		<a href="http://communities.msn.com/NativePlantSocietyofNortheastOhio">communities.msn.com/NativePlantSocietyofNortheastOhio</a>
OH	Jennifer Windus	Ohio Division of Natural Areas	1889-Fountain Sq. Court	Columbus	43224-1331	614-265-6468	

		& Preserves	Bldg.F-1				
OH	Tom Berger	Ohio DNR, Division of Forestry	1855 Fountain Square	Columbus	43224	614-265-6706	tom.berger@dnr.ohio.gov
OH		Ohio Native Plant Society	6 Louise Drive	Chargin Falls	44022		
OH	Rick Gardner	TNC Ohio Field Office	6375 Riverside Drive Suite 50	Dublin	43017	614-717-2770	
OH		Wayne National Forest	13700 US Highway 33	Nelsonville	45764		
PA	Pennsylvania	Botanical Society of Western Pennsylvania	5837 Nicholson St	Pittsburgh	15217		
PA	Michelle Frank, R9 Pesticide Coord	NE Area State and Private Forestry	11 Campus Drive, Suite 200	NewTown Square	19073	610-557-4113	mfrank@fs.fed.us
PA	Phil Rodbell	NE Area State and Private Forestry	11 Campus Drive, Suite 200	NewTown Square	19073	610-557-4113	<a href="mailto:prodbell@fs.fed.us">prodbell@fs.fed.us</a>
PA	Michael Blumenthal, Chief of Forest Health Section	PA DNRC, Bureau of Forestry, Division of Forest Pest Management	208 Airport Dr	Middletown	17057	717-948-3941	
PA	Mr. Eric Obert, Associate Director	PA Sea Grant	Penn State Erie, Station Road	Erie	15563	814-898-6420	<a href="mailto:ecol@psu.edu">ecol@psu.edu</a>
PA	Wilbur Mountain, Botanist	Penn. Dept. of Agriculture	2301 N. Cameron St.	Harrisburg	17110-9408	717-772-5209	
PA		Pennsylvania Native Plant Society	P.O. Box 281	State College	16804-0281		<a href="http://www.pawildflower.org">www.pawildflower.org</a>
PA	Betsy Lyman, Asst Dir of Science & Stewardship	TNC (NNIS in PA)	500 N 3rd St	Harrisburg	17101	717-232-6103	<a href="mailto:blyman@tnc.org">blyman@tnc.org</a>
VT	Tim Morton, Asst County Forester		100 Mineral Street, Suite 304	Springfield	3168	802-885-8825	<a href="mailto:tim.morton@anr.state.vt.us">tim.morton@anr.state.vt.us</a>
VT	Mary Beth Deller NNIS, Coordinator	Green Mountain Finger Lakes National Forest	231 North Main Street	Rutland	5701	802-767-4261	<a href="mailto:mdelle@fs.fed.us">mdelle@fs.fed.us</a>
VT	Scott Pfister, President, Eastern Region	National Plant Board Vermont Agency of Natural Resources	103 South Main Street	Montpelier			<a href="http://www.anr.state.vt.us">www.anr.state.vt.us</a>
VT	Brian Stone, Chief of Forest Management	Vermont Dept of Forest, Parks & Recreation	103 South Main St, Bldg 105	Waterbury	05676	802-241-3675	bstone@fpr.anr.state.vt.us
VT	Craig A. Duablon, Landscape Architect	VT Agency of Transportation, Maintenance & Aviation Division	National Life Bldg., Drawer 33	Montpelier	05633	802-527-5448	Craig.Dusablon@state.vt.us
VT	Vermont Noxious Weed Coord	VT Dept of Agriculture, Food, & Markets	116 State Street Drawer 20	Montpelier	05620-2901	808-828-2416	
VT	Kathy Decker, Resource Protection Tech	VT Dept. of Forests	1229 Portland Street, Suite 201	St. Johnsbury	05819-0117	802-751-0117	<a href="mailto:kdecker@fpr.anr.state.vt.us">kdecker@fpr.anr.state.vt.us</a>
WI	Melissa Wolfe, Assoc Env Consultant	Alliant Energy/Riverland Conservancy	4902 North Biltmore Ave	Madison	53718-2148	608-458-3609	<a href="mailto:melissawolfe@alliantenergy.com">melissawolfe@alliantenergy.com</a>
WI	David Beckman, Biologist		110 E. Headquarters Road	Fort McCoy	54656	608-388-5374	<a href="mailto:david.beckmann@emh2.mccoy.army.mil">david.beckmann@emh2.mccoy.army.mil</a>
WI	Invasive Plant Assoc. WI						<a href="http://www.ipaw.org">www.ipaw.org</a>
WI	Ken Solis	Active Volunteer w/ Milwaukee County Weed-Out				414-423-1709	
WI	Rebecca Wertime	Alliance for Chesapeake Bay				717-236-8825	<a href="mailto:rwertime@acb-online.org">rwertime@acb-online.org</a>
WI	Kim Mello, Wildlife Biologist	BCRMT/DTM-Ft McCoy WI		Ft. McCoy		608-388-5766	mellok2emh2.mccoy.army.mil
WI	Linda Parker, NNIS	Chequamegon-Nicolet Forest	1170 4 <sup>th</sup> Avenue South	Park Falls	54552	715-762-5168	<a href="mailto:lrparker@fs.fed.us">lrparker@fs.fed.us</a>

	Coordinator						
WI	Ms. Kelly Karns, Plant Cons Prog Mgr	Endangered Resources DNR	WI Box 7921	Madison	53707-7921	608-267-5066	<a href="mailto:kerns@dnr.state.wi.us">kerns@dnr.state.wi.us</a>
WI	Kelly Kearns, Plant Cons. Program	Endangered Resources Program WIDNR	101 S Webster St,	Madison	53703	608-267-5066	<a href="mailto:Kelly.Kearns@dnr.state.wi.us">Kelly.Kearns@dnr.state.wi.us</a>
WI	Jonathan Gilbert, Wildlife Biologist	Great Lakes Indian Fish & Wildlife Commission	P.O. Box 9	Odanah	54861	715-682-6619	<a href="mailto:jgilbert@gliwx.org">jgilbert@gliwx.org</a>
WI	Mr. Miles Falck	Great Lakes Indian Fish & Wildlife Commission	P.O. Box 9	Odanah	54861	715-682-6691	<a href="mailto:miles@glifwc.org">miles@glifwc.org</a>
WI	Mr. Byron N. Karns, Biological Technician	National Park Service	P.O. Box 708	St.Croix Falls	54024	715-483-3284 x616	<a href="mailto:Byron_Karns@nps.gov">Byron_Karns@nps.gov</a>
WI	Eater Chapman, Director	National Plant Board President- Central GLIFWC	POB 9	Odanah	54861		
WI	Mike Gardner, Sigurd Olson Env Inst	Northland College	222 Leahy Dr.	Ashland	54806	715-682-1489	
WI	Brent Haglund, Executive Director	Sand County Foundation	Sand County Foundation	Baraboo		608-244-3511	
WI	Nancy Braker	TNC WI Field Office	633 West Main Street	Madison	53703	608-251-8140	<a href="mailto:nbraker@tnc.org">nbraker@tnc.org</a>
WI	Mr. Tom Busiahn, Supervisory Fishery Biologist	U.S. Fish & Wildlife Ser	2800 Lake Shore Drive E.	Ashland	54806	715-682-6185	<a href="mailto:tom_busiahn@fws.gov">tom_busiahn@fws.gov</a>
WI	Thomas D. Brock, Professor Emeritus	University of Wisconsin - Madison	1227 Dartmouth Road	Madison	53705	608-238-5050	<a href="mailto:tdbrock@facstaff.wisc.edu">tdbrock@facstaff.wisc.edu</a>
WI	Dr. Anders W. Andren, Director	University of Wisconsin - Sea Grant Institute	Goodnight Hall, Floor 2 1975 Willow Drive	Madison	53706-1177	608-262-0905	<a href="mailto:awandren@seagrant.wisc.edu">awandren@seagrant.wisc.edu</a>
WI	Joshua Dein, Vet Med Officer	USGS/BRDNWHC-Mad WI				608-207-2450	<a href="mailto:joshua.dein@usgs.gov">joshua.dein@usgs.gov</a>
WI	Mr. Phil Moy, Fisheries Specialist	WI Sea Grant UP-Manitowoc	705 Viebahn St.	Manitowoc	54220	920-683-4697	<a href="mailto:pmoy@uwc.edu">pmoy@uwc.edu</a>
WI	Botanical Club of Wisconsin	Wisconsin Academy of Arts, Sciences and Letters	1922 University Ave.	Madison	53705		
WI	Richard Stark, Bureau of HwyOperations	Wisconsin Department of Transportation				608-266-3943	<a href="mailto:richard.stark@dot.state.wi.us">richard.stark@dot.state.wi.us</a>
WI	Eunice Padley	Wisconsin DNR	101 S Webster St, PO Box 7921	Madison	53707-7921	608-261-6459	<a href="mailto:eunice.padley@dnr.state.wi.us">eunice.padley@dnr.state.wi.us</a>
WI	Linda DePaul	Wisconsin DNR	101 S Webster St, PO Box 7921	Madison	53707	608-266-2388	<a href="mailto:depaul@mail01.dnr.state.wi.us">depaul@mail01.dnr.state.wi.us</a>
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WI	Kelly Kearns	Wisconsin DNR - Bureau of Endangered Resources	101 S Webster St, PO Box 7921	Madison	53707-7921		<a href="mailto:Kelly.Kearns@dnr.state.wi.us">Kelly.Kearns@dnr.state.wi.us</a>
WV	Charles Coffman	Dept. of Agriculture	1900 Kanawha Blvd	East Charleston	25305	304-558-2212	<a href="mailto:ccoffman@ag.state.wv.us">ccoffman@ag.state.wv.us</a>
WV	Donald Trisel	Div. of Science & Math, Fairmont State College	1201 Locust Avenue	Fairmont	26554-2470		<a href="mailto:dtrisel@mail.fswv.edu">dtrisel@mail.fswv.edu</a>
WV	James Warren	Division of Forestry	1900 Kanawha Blvd	East Charleston	25305	304-558-2788	<a href="mailto:jwarren@gwmail.state.wv.us">jwarren@gwmail.state.wv.us</a>
WV	Colin Voigt, Liaison to Nat Tng Chtr	Dol/BLM		Shepards		304-876 7464	<a href="mailto:colin.voigt@blm.gov">colin.voigt@blm.gov</a>
WV	Harry Pawelczyk, NNIS Coordinator	Monogahela National Forest	200 Sycamore Street	Elkins	26241	304-636-1800	<a href="mailto:hpawelczyk@fs.fedl.us">hpawelczyk@fs.fedl.us</a>
WV	Dr. Cindy Huebner	NA Research Station	180 Canfield St	Morgantown	26505-3180	304-285-1582	



WV	Brian MacDonald, Nongame Director	State of West Virginia Natural Heritage (botanist Paul J. Harmon)					
WV	Arlyn Perkey	USDA Forest Service	180 Canfield St	Morgantown	26505-3101	304-285-1523	aperkey@fs.fed.us
WV	Dr. Berry Crutchfield, Pest ID Lab	West Virginia Dept of Ag	1900 Kanawha Blvd E	Charleston	25305		
WV	Dr. Shawn Clark	West Virginia Dept of Ag	1900 Kanawha Blvd E	Charleston	25305		
WV	Gary Gibson, Noxious Weed Coord	West Virginia Dept of Agriculture	1900 Kanawha Blvd. East, State Capitol	Charleston	25305	304-558-2212	ggibson@AG.state.wv.us
WV	John Warren	West Virginia Division of Forestry	1900 Kanawha Blvd. East, State Capitol	Charleston	25305-0180	304-558-2788	jwarren@gwmail.state.wv.us
WV	James Riggs, Maintenance Division	West Virginia Division of Highways	1900 Kanawha Blvd. East, Bldg. 5	Charleston	25305-0430	304-558-3243	jriggs@dot.state.wv.us
WV	Norris Angus, Engineering Division	West Virginia Division of Highways	1900 Kanawha Blvd. East, Bldg. 5	Charleston	25305-0430	304-558-2885	nangus@dot.state.wv.us
WV		West Virginia Native Plant Soc	P.O. Box 75403	Charleston	25375-0403		
<b>NATIONAL /REGIONAL CONTACTS</b>							
	Nancy Strayer					614-265-6466	
	David Snyder	Dept. of Env Protection				609-984-0097	
	Steve Handel, Director	Director, Center for Urban Restoration Ecology				732-932-4516	
	Duane Heater	EPA				321-886-6399	
	Bonnie Harper-Lore, Plant Community Ecologist	Federal Highway Administration	400 7th St. SW, RM 3240	Washington D.C.	20590	651-291-6104	bonnie.harper-lore@fhwa.dot.gov
	Dick Lindenmuth, National Invasive Species Cord. Act.	Forest and Rangelands Staff USDA-FS	Auditors Bldg. Bldg A Suite 343	Ft. Collins	80526-1891		
	Matt Doss	Grt Lakes Comm-GLPanel on Aq Nuis Species					mdoss@glc.org
	Art Grover, President	Mid-Atlantic Exotic Pest Plant Council					aeg2@psu.edu
	Martin Bowles	Morton Arboretum				630-719-2422	
	Grant L Jordan	NE Weed Science Society				315-587-2140	acdsgi@computer-connectoon.net
	Dr. Robert Haack, USDA Forest Service R&D	Stress Effects on Tree-Insect- Natural Enemy Interactions Research Unit	Stephes S. Nisbet Bldg., 1407 S. Harrison Rd				
	Nancy Braker	The Nature Conservancy				608-251-8140	nbraker@tnc.org
	Nancy Lizette Berlin, Acting R9 NNIS Coordinator	USDA Forest Service Eastern Region	310 West Wisconsin Avenue Suite 500	Milwaukee	53203	414-297-1868	nberlin@fs.fed.us
	Michael Ielmini, WO NNIS Coordinator	USDA Forest Service Washington Office		Washington DC		202.205.1049	
	Rita Beard, National Rangeland Ecologist	USDA-FS Forest and Rangelands Service		Fort Collins CO		970.295.5745	
	Michelle Frank	USDA-FS FHP				610.557.4113	

## Appendix C: Summary of R9 State Tools for NNIS

Source: The Environmental Law Institute. 2002. *Halting the Invasion: State Tools for Invasive Species Management*. Environmental Law Institute, Washington DC. 112 pp plus cd.

Tools	IL	IN	ME	MI	MN	MO	NH	NY	OH	PA	VT	WV	WI
<b>Id threats</b>	p				Invasive Species Advisory Committee								a
<b>Detection Tools<sup>1</sup></b>	Inspections	Survey and monitor specific spp., inspections	Survey a,d Inspections, p	Inspections	Survey a,d,i Inspections	Survey d, inspections d	Inspections, w, a, p, d	Inspections, d	Inspections, a, p	Survey d, inspections p, d	Survey d, inspections	Survey p,d, inspections a, d	Survey forest pests, a,d inspections
<b>Import/ introduction/ release requirements</b>	Permit: w, a, d	Permit: w, a, aquatic plants	Permit: w,	<b>Permit: Aquaculture Prohibited: <i>Lythrurum</i></b>	Permit: w, a, p		Permit: w, a,		List of restricted items, p	Permit: a, d	Permit: w, a	Permit: w, a, p	Permit: fish, wildlife
<b>Quarantines</b>	Land, p, d.	p, d	w	p	Land, p	w, p		Forest land, vegetable plants, forest pest insects	W, gypsy moths, pine shoot beetle	Oak, vegetable plants, European chafer, barberry		a	Wildlife, plants and plant pests by judge's order, gypsy moths
<b>Education</b>	p	p,d			a		As funding allows		Ohio Boat Operators Guide				a
<b>Permits and licences</b>	w	w, a, aquatic plants	w, marine resources, shellfish, aquaculture	Salmonids,	Required	<i>Salmonidae</i> , Purple loosestrife	w, a	w, a	Triploid white amur, aquaculture , purple loosestrife, multiflora rose	w, a, d		<b><i>Salmondia</i> e, Noxious weed transport</b>	W, a,
<b>Bonds and insurance</b>	w			w									
<b>Post-release monitoring</b>							Required for fish from a wild source (zebra mussel concern)						
<b>Transportation and Shipping requirements</b>	Permit: a, p		Aquatic plan restrictions	Plant inspection and certification for several species.	Yes	Salmonidae by permit.	Controlled species by permit only	w, a		a	a	Permit: p	
<b>Emergency powers</b>	Director may remove or inspect, a, p			Commissioner may exterminate d, p.		Commission may destroy plants	Dept. must develop emergency protocol (aquatic plants)	Commissioner may destroy weeds, insects, diseases	Director may treat or dispose	Department of Agriculture may control weeds.	Commisio ner may eradicate d		
<b>Control and management authority</b>	Director, Department of Conservation, Director of	Director, Div. of Fish and Wildlife; State Board of	Dept of Conservation, Natural Areas Division;	Director of the DNR, Commissioner of Noxious	Commissioner of Natural Resources	State Veterinarian, Director of the Department of	Commissioner of Agriculture, Food and Markets;	Commissioner, Department of Environmental Conservation	Chief of the Division of Wildlife, Department	Fish and Game Commission, Noxious Weed Committee,	Dept. of Fish and Wildlife, Dept. of	Commisio ner of Agriculture, Director of	Invasive Species Council (DNR)

<sup>1</sup> Options include survey, mapping, random inspections

Tools	IL	IN	ME	MI	MN	MO	NH	NY	OH	PA	VT	WV	WI
	Agriculture	Animal Health, Div. of Entomology & PlantPath. Nat. Resources Commission, Division of Forestry, county weed control boards	Commissioner of Ag. Food and Rural Resources; Commissioner of Marine Resources; State Horticulturist; Bureau of Forestry	Weeds, Director of Agriculture		Agriculture, County Commission, State Entomologist	Director, Division of Forests, State Entomologist, Commissioner of the Department of Agriculture		of Agriculture, Dept. of Natural Resources	Department of Agriculture	Env. Conservation, Agency of Nat. Resources, Ag. Food Markets, Dept. of Forests, Parks & Rec	the Division of Natural Resources	pending approval and funding
<b>Mgmt of bio-control agents</b>					Weeds						Under permit		
<b>Restoration policies</b>	Permit (mining)	Restore native species in wetlands			Permanent grass (weed free)				Coal mining revegetation requirements				
<b>Enforcement mechanisms</b>	Fines, Class B misdemeanor	Fines, class C violation.	Fines	Misdemeanor, fines, 30 days imprisonment	Misdemeanor, fines, liable for control costs	Misdemeanor, fines	Misdemeanor, fines, seizure	Seizure (w, a), fines, imprisonment	Seizure (w, p, d)	Misdemeanor, fines	Fines or imprisonment (a)	Misdemeanor, fines, imprisonment	Fines, imprisonment
<b>Specific funds</b>	Noxious Weed Control Fund		Pest Control Compact fund			County Noxious Weed Fund							
<b>Councils</b>	Aquaculture Advisory Committee,		Interagency Task Force on Invasive Aquatic Plants and Nuisance Species	Invasive Plant Council, Zebra Mussel Task Force	Comprehensive		Invasive Species Committee	Invasive Plant Council	Inter – organization Oversight Committee, OH Wildlife Council, OH Inv. Plant Working Group			WV Invasive Species Working Group	Invasive Plant Assoc of WI., Weed Law Tech. Advisory Committee, Governor’s Advisory Task Force on Inv. Species. Regional weed councils
<b>Plans</b>	Aquatic Nuisance		Invasive Species Prevention Plan (has not been formally indorsed or implemented)	Aquatic Nuisance Plan, Zebra Mussel, Lake Huron plan, Aquatic plan	Individual Species plans			Aquatic Nuisance Species	Aquatic Nuisance Species Prevention, Control and Abatement Plan				W, p, (not officially approved) d, a,
<b>Other, Notes</b>			ME Invasive Sp. Council no longer active. Primary/secondarynoxious weed lists.	Ballast water restrictions		Landowners must control noxious weeds	Committee has no State funding to carry out objectives.	Transport of water chestnut prohibited. Zebra mussels may be destroyed anytime.	Landowners responsible for noxious weeds upon notice.	Landowners must control weeds in a designated weed control area.	Noxious weed is not defined.		Only 2 noxious weeds, one nuisance plant. Proposed noxious weed law

Key: w- wildlife, a-aquatic life, p-plant, d-plant pest and diseases, i-insects

## Appendix D: R9 NNIS Communications Plan

*Ideally move from awareness to engagement first internally then externally*

<b>Objective:</b>	<b>Action:</b>	<b>Responsibility</b>
<b>Internal Awareness</b>	<ol style="list-style-type: none"> <li>1. NNIS booklets by subregion – include animals in next version</li> <li>2. NNIS intranet webpage and marketing</li> <li>3. NNIS brown bags at RO and forests</li> <li>4. Develop comm. toolkit (FAQ, Power-points, fact sheets, displays etc)</li> </ol>	<ol style="list-style-type: none"> <li>1. RO NNIS Coordinator, Research</li> <li>2. RO NNIS Coord/RO Webmaster</li> <li>3. RO and Forest NNIS Coordinators</li> <li>4. PCR ComTools, NNIS Coordinators, S&amp;PF, FHP</li> </ol>
<b>Internal Engagement</b>	<ol style="list-style-type: none"> <li>5. RF Memos – framework, FSM 2080, native vegetation</li> <li>6. Forest interpretive program toolkits</li> <li>7. Legislative contacts</li> <li>8. Success stories/Media releases</li> </ol>	<ol style="list-style-type: none"> <li>5. NNIS Steering Committee</li> <li>6. RO Interp staff/NNIS Coord.</li> <li>7. PCR/Line Officers/NNIS Coord</li> <li>8. RO and Forest PCR/NNIS Coord</li> </ol>
<b>External Awareness</b>	<ol style="list-style-type: none"> <li>9. Partner contacts to build collaboration</li> <li>10. Develop quality R9 NNIS internet page and forest templates including reporting forms</li> <li>11. Post R9 NNIS brochures online, market their use</li> <li>12. Develop local weather resistant NNIS posters for administrative sites (ranger stations, boat accesses, trailheads, recreation sites etc.)</li> <li>13. Develop NNIS learning stations for forest interp Programs</li> <li>14. Incorporate NNIS into forest visitor center interp. Programs</li> <li>15. Restore administrative sites with native species and use as demonstration areas</li> <li>16. Develop “leave no trace” NNIS education materials for Loggers, special use permittee’s, recreating public etc</li> </ol>	<ol style="list-style-type: none"> <li>9. RO Program Managers and NNIS Coordinator</li> <li>10. RO NNIS Coord/RO webmanager</li> <li>11. RO NNIS Coord/RO webmanager</li> <li>12. RO ComTools</li> <li>13. RO Interp/NNIS Coordinator</li> <li>14. RO and Forest Interp</li> <li>15. Line Officers/NNIS Coordinators</li> <li>16. RO ComTools</li> </ol>
<b>External Engagement</b>	<ol style="list-style-type: none"> <li>17. Meet with user groups, organizations, permittee’s and contractors to discuss mutual interests in NNIS</li> <li>18. Establish MOU’s, and Agreements to promote Partnership and volunteer agreements for NNIS priorities</li> <li>19. Emphasize forest partnerships with educational efforts of state and counties (SPF grants?)</li> </ol>	<ol style="list-style-type: none"> <li>17. NNIS Coordinators</li> <li>18. NNIS Coordinators and Program Mangers</li> <li>19. Line Officers, NNIS Coordinators Robin Morgan (S&amp;PF)</li> </ol>