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File Code: 1950
Date: 4 April 2005

Dear Interested Party:

I am writing to inform you of my final decision for the Ottawa National Forest Non-Native Invasive Plant Control Project Environmental Assessment. On April 4, 2005, I signed the Decision Notice and Finding of No Significant Impact (DN/FONSI) to implement Alternative 3, which is enclosed. The DN/FONSI is being sent to those who provided input on the project and to those who have requested to receive copies of project proposals and decisions on the Ottawa National Forest. The Environmental Assessment (EA) in its entirety is available for public review by appointment at the Bessemer Ranger District Office, 500 N. Moore St., Bessemer, MI. Please call (906) 932-1330 ext. 508. The EA is also located on the Forest Service website at www.fed.us/r9/ottawa/.

The DN/FONSI explains my rationale for reaching this final decision. A summary of comments received during the 30-day comment period and responses to those comments are located in the Project File, and are available upon request. Comments received on this public action are part of the public record and therefore, are available for public inspection upon request.

This decision is subject to appeal pursuant to 36 CFR 215. A written notice of appeal must be submitted within 45 calendar days after the Legal Notice is published in the Ironwood *Daily Globe*. However, when the 45-day filing period would end on a Saturday, Sunday, or Federal holiday, then filing time is extended to the end of the next Federal working day. The date of the publication of the Legal Notice is the only means for calculating the date by which appeals must be submitted, do not rely upon any other source for this information. The Notice of Appeal must be sent to: ATTN: Appeal Deciding Officer, Randy Moore; c/o USDA, Forest Service, Eastern Region; Gaslight Building, Suite 700; 626 East Wisconsin Avenue; Milwaukee, WI 53202-4616. The Notice of Appeal may alternatively be faxed to: 414-944-3963, Attn: Appeals Deciding Officer, USDA, Forest Service, Eastern Regional Office. Those wishing to submit appeals by email may do so to appeals-eastern-regional-office@fs.fed.us. Acceptable formats for electronic comments are text or html email, Adobe portable document format, and formats viewable in Microsoft Office applications. Hand-delivered appeals may be submitted at the above address between 7:30 and 4:00 pm CT Monday through Friday, except on Federal holidays. Appeals must meet the content requirements of 36 CFR 215.14 and will only be accepted from those who have standing to appeal as outlined at 36 CFR 215.13.

Detailed records of the environmental analysis are available for public review by appointment at the Bessemer Ranger District Office. Please call (906) 932-1330 ext. 508 to say when you would like to examine the records.

If no appeal is received implementation of this decision may occur on, but not before 5 business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 business days following the date of appeal disposition. USDA is an equal opportunity provider and employer.

If you need any additional information, please contact Ian Shackleford, Interdisciplinary Team Leader at the Bessemer District office at (906) 932-1330 ext. 508.

Sincerely,

/s/ Robert Lueckel

ROBERT LUECKEL
Forest Supervisor

Enclosure

DECISION NOTICE AND FINDING OF NO SIGNIFICANT IMPACT
for the
Ottawa National Forest Non-native Invasive Plant Control Project

USDA Forest Service
Ottawa National Forest
Gogebic, Ontonagon, Iron, Houghton, Baraga, and Marquette Counties, Michigan

The USDA Forest Service has prepared an Environmental Assessment (EA) for the Ottawa National Forest Invasive Plant Control Project (NNIP Control Project). The EA documents the environmental analysis that was completed, and discloses the environmental effects of the proposed actions and alternatives to those actions. The EA and a letter indicating a tentative selection of Alternative 3 was sent to interested publics requesting information and those who participated during the analysis process. These documents were released on January 8, 2005.

Development of the NNIP Control Project EA adheres to the requirements of the National Environmental Policy Act (NEPA), National Forest Management Act (NFMA), and the Council on Environmental Quality (CEQ) regulations at 40 CFR 1500-1508. The EA is tiered to the Ottawa National Forest Land and Resource Management Plan (Forest Plan), its Final Environmental Impact Statement (FEIS) and Record Of Decision (ROD), as well as subsequent Monitoring and Evaluation (M&E) Reports. These documents are hereby incorporated by reference as allowed by NEPA (40 CFR 1502.20). The EA is available by appointment for public review at the Bessemer Ranger District Office in Bessemer, MI (906-932-1330 ext. 508) and it is also located on the Forest Service website at www.fed.us/r9/ottawa/.

Forest Plan Direction

Forest Service direction concerning noxious weeds and invasive plants is contained within Forest Service Manual section 2080 and Executive Order 13112. Forest Service Manual section 2080 (USDA Forest Service 1995) gives an overall objective to "use an integrated weed management approach to control and contain the spread of noxious weeds[1] on National Forest System lands." Noxious weed prevention is to be scheduled in the following order:

1. First Priority: Prevent the introduction of new invaders,
2. Second Priority: Conduct early treatment of new infestations, and
3. Third Priority: Contain and control established infestations.

Executive Order 13112 (February 3, 1999) directs all Federal agencies to undertake the following actions:

[1] The Forest Service Strategy for Noxious and Nonnative Invasive Plant Management (USDA Forest Service, 1998) establishes that the Forest Service definition of noxious weeds encompasses invasive, aggressive, or harmful nonindigenous or exotic plant species. Except for Canada thistle, none of the high- or medium-priority invasive plants of the Ottawa National Forest have been officially designated as a Federal noxious weed or a State of Michigan noxious weed.

- Prevent the introduction of invasive species;
- Detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner;
- Monitor invasive species populations accurately and reliably;
- Provide for restoration of native species and habitat conditions in ecosystems that have been invaded;
- Promote public education on invasive species and the means to address them; and

There are also both a National Strategy and a Forest Service Strategy for dealing with invasive plants (FICMNEW, 1997; USDA Forest Service, 1998). These documents set forth the goals and objectives for invasive plant management by the Forest Service and other federal agencies.

The Ottawa National Forest Land and Resource Management Plan does not address invasive plants, except indirectly, where the Plan speaks to maintaining biological variety and habitat for wildlife, protecting rare plant sites and wetlands, providing a natural appearance of the landscape, using native grasses to reseed landings, and limiting use of chemicals for vegetation management purposes (Forest Plan Pages IV-2, 3, 11, 35, 44, 45, 99, 100).

The Ottawa National Forest (ONF) is currently in the process of revising its 1986 Forest Plan. The Notice of Intent for the revision process was published in the Federal Register on September 18, 2003. This revision effort is anticipated to be completed (e.g. a FEIS/ROD issued) in March of 2006. The Forest Plan is currently in its 19th year of implementation.

Background Information

The Deciding Official for this project is Robert Lueckel, Forest Supervisor for the Ottawa National Forest. This Decision Notice and Finding of No Significant Impact (DN/FONSI) documents the selection of control measures for NNIP infestations within the ONF.

The Forest Supervisor may decide to:

- Select the No Action Alternative
- Defer Activities
- Select All or Portions of Any Alternative for Implementation
- Prepare an Environmental Impact Statement

Three action alternatives and a no action alternative were evaluated in the EA. The proposed action and other action alternatives analyzed the use of several integrated pest management methods for treating non-native invasive plants, including hand-pulling, digging, cutting, the release of specific biological control insects, and the limited use of herbicides.

The NNIP Control Project is a Forest-wide proposal, and therefore includes portions of Gogebic, Ontonagon, Iron, Houghton, Baraga, and Marquette Counties, all in the western Upper Peninsula of Michigan.

Decision and Rationale for Selection of Alternative 3

Upon review of the ONF Non-Native Invasive Plant Control Project record file, which includes the EA, Biological Evaluation, and comments received during the scoping and 30-day comment periods, as well as the Forest Plan and Monitoring and Evaluation Reports; it is my decision to select Alternative 3 for implementation. Alternative 3 includes treating:

- Up to 200 acres of hand treatments (such as hand-pulling, hand-cutting, and digging) per year,
- Up to 150 acres of spot treatments with a propane weed torch per year,
- Up to 500 acres of mechanical treatments (such as cutting or mowing) per year,
- Up to 400 acres of land-applied herbicide application per year,
- Up to 150 acres of aquatic invasive plants treated with licensed aquatic herbicides per year, and
- Up to 10 separate release sites of USDA-approved biological control insects per year.

Treatments could occur wherever NNIP infestations are identified in the Ottawa National Forest. Some treatments would take place in forested stands, lakes, and wetlands. Other treatments would take place along roads and trails, in gravel pits, recreational sites, administrative sites, utility corridors, and special use areas. Treatment sites would include many of the sites shown in Figure 1-2 of the EA, although treatments would also take place at sites of other NNIP infestations discovered over the course of this alternative. All treatments would follow the design criteria listed in EA and included as an appendix to this decision notice. Follow-up monitoring would be performed to evaluate the success of the control activities.

The Proposed Action is intended to allow the use of integrated methods for the future treatment of invasive plant infestations. Forest staff would determine which NNIP infestations would be treated each year and the methods to be used, approved annually by respective District Rangers.

Proposed Manual and Mechanical Methods

Manual or mechanical methods would be the principal method of control for small spot infestations. Examples of hand tools that might be used include shovels, saws, axes, loppers, hoes, or weed-wrenches. Mechanical methods could include cutting with a string trimmer, chain saw, brush saw, aquatic harvester, or mower. Plowing or disking could be used in gravel pits or other heavily disturbed sites. Barriers such as black plastic or lake-bottom screens could be used to prevent growth of herbaceous NNIP species.

Small infestations of herbaceous NNIP species with shallow roots, such as garlic mustard and Eurasian water-milfoil, would typically be hand-pulled. Deeper-rooted herbaceous NNIP plants such as purple loosestrife would be dug up with a shovel or treated with herbicides. Larger infestations would be mowed or otherwise cut. Flower or seedhead removal can help contain or slow the spread of some infestations. Individual specimens or small groups of specimens of shrubby NNIP species such as exotic honeysuckle species, buckthorn species, and Japanese barberry would typically be either dug or treated with herbicides. Most large sites of shrubby

NNIP species cannot be practicably treated with manual or mechanical methods, and herbicides would likely be used.

Proposed Spot Treatments with a Propane Weed Torch

A propane weed torch would be used to spot-burn specific NNIP specimens. The Michigan Chapter of The Nature Conservancy has used propane weed torches to kill seedlings of buckthorn species where the adult plants have already been removed (Tu *et al*. 2001). The weed torch works not by starting a ground fire but by using the torch's flame to burn the target plant (Flame Engineering Inc. 2003). The weed torch would only be used after consulting with the Forest Fire Management Officer to determine fire danger and needed protection measures. The weed torch would be tested on different high-priority NNIP infestation sites as an alternative to herbicide use.

Proposed Chemical (Herbicide) Methods

Herbicides would be used at NNIP infestation sites where manual or mechanical means are cost-prohibitive or could result in excessive soil disturbance or other resource damage. All herbicides would be used according to manufacturer label direction (e.g., regarding rates, concentrations, exposure times, and application methods). In most cases, herbicides would be directly applied to the target NNIP plants using spot treatment. The spot treatment approach directs herbicides to target plants without exposing humans or impacting desirable vegetation or other non-target organisms. By using spot treatment rather than broad-scale application, herbicide drift would be greatly reduced. Techniques that could be used for spot treatment include spraying foliage using hand held wands or backpack sprayers, basal bark and stem treatments using spraying or painting (wiping) methods, cut surface treatments (spraying or wiping), and woody stem injections. No herbicides would be applied aerially. Only formulations labeled for wetland use would be applied in or adjacent to wetlands, lakes, and streams, and in certain soil and water table depth conditions in accordance with label direction.

Specific herbicides that could be used as appropriate include the following:

- **2,4-D** ([2,4-dichlorophenoxy] acetic acid) is a selective herbicide that controls invasive broadleaf herbaceous plants and woody seedlings, but does not harm certain monocots (including grasses).
- **Glyphosate** (N-[phosphonomethyl] glycine) is a non-selective, broad spectrum, systemic herbicide that is used to control many grasses, forbs, vines, shrubs, and trees.
- **Sethoxydim** (2-[1-{ethoxyimino}butyl]-5[-2-{ethylthio}propyl]-3-hydroxy-2-cyclohexen-1-one) is a selective herbicide used to control annual and perennial grasses (Tu *et al*. 2001). It has little or no impact on broadleaf herbs or woody plants.
- **Triclopyr** ([{3,5,6-trichloro-2-pyridinyl}oxy] acetic acid) is a selective herbicide that controls invasive, broadleaf herbaceous and woody plants, but does not harm certain monocots (grasses). It is particularly effective at controlling woody species with cut-stump or basal bark treatments.

- **Clopyralid** (3,6-dichloro-2-pyridinecarboxylic acid) controls many annual and perennial broadleaf weeds. It is particularly effective against members of the sunflower, nightshade, and knotweed families.
- **Fosamine ammonium salt** (FAS) (ethyl hydrogen [aminocarbonyl] phosphonate) is a selective herbicide that inhibits growth in undesirable woody species. It is commonly used for brush control (Tu *et al*. 2001).
- **Dicamba** (3,6-Dichloro-o-anisic acid) is a growth regulator effective against broadleaf species.
- **Endothall** (7-oxabicyclo [2.2.1] heptane-2,3-dicarboxylic acid) is a contact herbicide approved for use in lakes for the control of aquatic invasive plants such as Eurasian water-milfoil and curly-leaf pondweed (MDEQ 2004c).

See Table 2-1of the EA for additional information on the conditions under which each herbicide would be used.

Proposed Biological Control Methods

Biological control of NNIP infestations involves releasing specific insects or other organisms that feed on or parasitize specific target plant species. Most insects used as biological control agents are native to other parts of the world where the target plant species originally occurred naturally. All non-indigenous species used as biological control agents must be approved for release in the United States by the United States Department of Agriculture (USDA). An exception is the milfoil weevil, which is native to North America. Biological control methods generally suppress host NNIP populations, but do not necessarily contain or eradicate them. Biological control of plants is already a common practice on state, tribal, county, and private land in Michigan and Wisconsin.

Specific biological control agents (all of which are insects) that would be used as appropriate within the proposed treatments include:

- Black-margined loosestrife beetle (*Galerucella calmariensis*) for purple loosestrife;
- Golden loosestrife beetle (*Galerucella pusilla*) for purple loosestrife;
- Loosestrife root weevil *(Hylobius transversovittatus*) for purple loosestrife;
- Knapweed root weevil (*Cyphocleonus achates*) for spotted knapweed;
- Lesser knapweed flower weevil (*Larinus minutus*) for spotted knapweed
- Brown-legged leafy spurge flea beetle (*Aphthona lacertosa*) for leafy spurge;
- Black dot leafy spurge flea beetle (*Aphthona nigriscutis*) for leafy spurge;
- Milfoil weevil (*Euhrychiopsis lecontei*) for Eurasian water-milfoil.

Biological control can be effective on dense NNIP infestations occurring over large areas (Rees *et al.* 1996). Therefore, the use of biological control would be considered for large infestations where eradication using other methods is difficult to achieve due to costs or where the other methods could result in undesirable effects to non-target vegetation. Currently, all known sites of purple loosestrife and leafy spurge on the ONF are small enough that manual or chemical methods would be preferred over biocontrol. With this proposal, the option of biocontrol would be available if large infestations are found in the future.

Approval from USDA APHIS and the Michigan Department of Agriculture (MDA) would be required prior to release of the two proposed knapweed insect species. Although they have been approved by APHIS for use in the Unites States, and have been released in several states (including Minnesota and Wisconsin), they have not yet been released in Michigan. Each time a biocontrol insect is brought into a new state a permit is required. MDA approval for release of the purple loosestrife and leafy spurge insects would not be required if the insects were obtained from prior release sites within the State of Michigan.

Treatment protocol

The current proposal is intended to be programmatic in nature, to allow the use of integrated methods for the future treatment of invasive plant infestations. Forest staff would determine which NNIP infestations would be treated, and methods to be used. These decisions would adhere to the following guidelines:

1. The high-priority NNIP species listed in Table 1-1 of the EA would be the usual priority for treatment. For these high-priority species, order of site treatment and methods would be determined by infestation size, location sensitivity, potential for spread, treatment urgency, and other factors.
2. Medium priority NNIP sites are considered for treatment when particular infestations are identified to be of resource concern. Examples would include infestations at active gravel pits, trailheads, recreation sites, Wilderness areas, and high-quality natural areas. As acres of high-priority NNIP species are reduced, more attention would be given to medium-priority NNIP species sites.
3. Manual or mechanical methods would be the principle method of control for small spot infestations (typically less than 0.1 acre) of shallow-rooted species.
4. Herbicide use would occur at infestations where manual or mechanical means would be cost-prohibitive or result in excessive soil disturbance or other resource damage.
5. The use of biocontrol would be considered for large infestations where eradication would be difficult to achieve due to costs or undesirable effects of alternative control methods.
6. Prior to any treatments, actions covered by this EA would be reviewed by Forest staff in the areas of wildlife biology, botany, aquatics, soils, and cultural resources. When recommended by resource specialists, pre-treatment surveys for sensitive resources would be conducted. Treatments would be designed so as to minimize effects to associated resources. Treatment action pursuant to this EA would be approved by the District Ranger for the corresponding sites.

Decision Rationale

I have selected Alternative 3 for the following reasons:

- The actions achieve the original intent of the purpose and need for the proposal.

- The actions offered address one of the issues identified through the comment periods, specifically that the original proposed treatment limits were too limiting or conservative.

Purpose and Need for the Proposal:

The following is a brief summary of the purpose and need for the ONF Non-Native Invasive Plant Control Project. Detailed descriptions are located in the EA (pages 2-4).

Infestations of non-native plants increasingly threaten the integrity of the forest ecosystem and biodiversity on the Ottawa National Forest. Of particular concern are those non-native plants, termed non-native invasive plants (NNIPs) that are successful at invading natural habitats. Invasive plants can alter natural ecosystems in several ways, including replacing native species with exotic species, inducing changes in water or fire regimes, causing changes in soil characteristics, adding a new or displacing an existing wildlife food source, and altering erosion and sedimentation processes.

Given the current distribution of non-native invasive plants on the ONF (as depicted in Figure 1-2 of the EA), there is a need to implement an integrated program of NNIP control to protect the integrity of natural plant communities. The purpose of the program is to conserve and enhance native populations of animals and plants through the timely removal of NNIP infestations and to prevent the continued spread of NNIP infestations to intact natural habitats. The resiliency and integrity of natural communities on the Ottawa National Forest are compromised as long as NNIP infestations are allowed to continue to spread and to invade previously unaffected areas. Management of invasive plants will help prevent the Ottawa National Forest from becoming a source of infestations for surrounding lands and slow the spread of invasive plants in the western Upper Peninsula.

Alternative 3 was designed by the Interdisciplinary Team to meet the purpose and need of the proposal. The alternative was developed primarily to address an issue raised during the scoping period about the original treatment limits were too limiting to address increased opportunities or threats from NNIPs.

Issues: Issues are a point of discussion, debate, or dispute. Comments that served to drive the development of an alternative were considered as unresolved conflicts with the proposed action. Issues were identified with vegetative management, wildlife habitat management and transportation. A brief summary of the issues is provided in the following discussion. Detailed descriptions of the issues are located in the EA (pages 8 to 10).

<u>Issue 1: Treatment Limits</u>

Many commenters responded that arbitrary-seeming limits such as maximum acres, time limits, and maximum release requirements should be dropped. In particular, many respondents replied that annual acreage limitations for specific removal techniques were too limiting or conservative. In order to delineate a scope of action to evaluate in the EA, the Forest Service had to estimate upper quantitative treatment bounds, although these limits have been revised in the proposed alternatives. Alternative 3 was designed to address Issue #1.

Issue 2: Biological Control

Some commenters expressed disapproval of the proposed release of biological control insects. They suggested that releasing non-native insects to the ecosystem can cause unintended consequences, and should not be undertaken or should be a last option. Alternative 4 was developed to address this issue.

Public and Other Government Agency Involvement

Scoping Comment Period: Prior to the preparation of the ONF Non-Native Invasive Plant Control Project EA, an extensive public involvement effort was undertaken. A letter describing the proposal was sent to over 160 potentially interested parties for public comment on December 31, 2003. The legal notice was also published on December 31, 2003 in the Ironwood MI *Daily Globe.* There were 40 comments recorded from the scoping efforts. In addition, the project was listed in the *Ottawa Quarterly*, an Ottawa National Forest document being used to inform the general public of proposed projects. This publication is sent to approximately 300 individuals, groups, and public agencies and is also available via the internet.

The ONF Tribal Government Liaison spoke with representatives of the Lac Vieux Desert Band of Lake Superior Chippewa and Keweenaw Bay Indian Community, and encouraged the tribes to submit input relating to any possible tribal concerns. The ID team leader also spoke with the Great Lakes Indian Fish and Wildlife Commission to discuss the project proposal and sent scoping packages to the Sokaogon Chippewa Community Mole Lake Band, Bay Mills Indian Community, Bad River Chippewa, Red Cliff Chippewa, St. Croix Chippewa tribes, Mille Lacs Chippewa Tribe, and Lac du Flambeau Chippewa Tribe.

EA Comment Period: The 30-day, pre-decisional comment period for the EA began on January 8, 2005. The EA was sent to 98 interested publics requesting information and those who participated in the scoping process. Again, the EA was listed in the *Ottawa Quarterly.*

Eighteen comments were received regarding the EA, and the tentative selection of Alternative 3. These comments have been summarized and a response to comments was prepared by the Interdisciplinary Team. This documentation is located in the project record file and is available for review upon request.

U.S. Fish and Wildlife Service: Consultation with the U.S. Fish and Wildlife Service has occurred (ESA, Section 7(a)(2)), and they have concurred with the findings of the Biological Evaluation (1 February 2005 letter, located in project file).

Other Alternatives Considered and Rationale for Deciding Not to Implement Alternative

Alternative 1 – No Action: This alternative was developed in response to NEPA requirements [40 CFR 1502.14(d)] for a No Action Alternative. Alternative 1 serves as a baseline for evaluating other alternatives during the effects analysis for proposed actions. Invasive plant control treatments would continue as they have in recent years, primarily along roadsides or in recreation or administrative sites where such activities are already permitted. Separate NEPA

proposals would be prepared for future NNIP control in natural areas (National Forest sites other than administration sites, recreation sites, or roads). Herbicide use would be limited to recreation and administrative sites. No use of biological control insects would occur. Most of the large infestations in natural areas would go untreated.

Alternative 1 would not meet the purpose and need of the proposal (EA, pages 2 to 4). More specifically, this alternative would not allow the containment or suppression of non-native invasive plants on the ONF. Adverse effects would be likely in the areas of recreation, soil health, water quality, native plant diversity, and viability on some species of sensitive plants and animals.

Because the Ottawa National Forest Land and Resource Management Plan does not address invasive plants, Alternative 1 is consistent with the Forest's current direction and desired future conditions. However, some objectives discussed in the Forest Plan, such as maintaining biological variety and habitat for wildlife, protecting rare plants sites and wetlands, and providing a natural appearance to the landscape, would not be favored. Alternative 1 does not meet one of the objectives of Executive Order 13112 (February 3, 1999), specifically that to, "Detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner."

Alternative 2 – Proposed Action: The ID team developed the original proposed action utilizing information and data gathered from the ONF since invasive plant inventories and control began in 2001. The ID team considered the known distribution of invasive plants on the ONF, the biology of the exotic plants known to occur on the ONF, and Forest Service opportunities to control infestations. The integrated methods proposed, and the treatment limits for each (Table 1), were thought to be sufficient to allow rapid response of new infestations and containment and gradual reduction of large established infestations.

I did not select this alternative primarily because some of the actions proposed do not consider an issue identified during public scoping. Many commenters from the initial scoping responded that arbitrary-seeming limits such as maximum acres, time limits, and maximum release requirements should be dropped. In particular, many respondents replied that annual acreage limitations for specific removal techniques were too limiting or conservative. In order to delineate a scope of action to evaluate in the EA, the Forest Service had to estimate upper quantitative treatment bounds, although these limits were revised in Alternatives 3 and 4.

Alternative 4:

Alternative 4 was designed to address Issue #2, that of potential risks from the use of biological control. Some commenters expressed disapproval of the proposed release of biological control insects. They suggested that releasing non-native insects to the ecosystem can cause unintended consequences, and should not be undertaken or should be a last option.

I did not select this alternative because the Environmental Assessment showed a very low risk of adverse consequences from the use of biological control. All non-indigenous species used as biological control agents must be approved for release in the United States by the United States

Department of Agriculture (USDA), and only after extensive host-specificity testing overseas and in North America have been conducted. All of the proposed biological control insects have already been released in other areas of Michigan, Wisconsin, and Minnesota.

Alternative 4 would also not meet the purpose and need for some infestations. Spotted knapweed, for example, is already so abundant on the ONF, that the costs of addressing most infestations are prohibitive. Large Eurasian water-milfoil infestations may benefit from biological control if Lake partners are not supportive of manual or chemical methods, or if the Michigan Department of Environmental Quality (DEQ) does permit chemical treatments. Should large infestations of purple loosestrife or leafy spurge be found on ONF land in the future, biocontrol may offer a more effective method for weed control, with fewer adverse effects to site conditions.

Table 1. Comparison of Alternatives

Alternative	Manual and Mechanical Control (Acres Per Year)			Chemical Control		Biological Control Releases (per year)
	Hand Treatment	Weed Torch	Mechanical Treatment	Land Herbicide Treatment	Aquatic Herbicide Treatment	
Alternative 1	0	0	0	0	0	0
Alternative 2	100	100	300	300	100	5
Alternative 3	200	150	500	400	150	10
Alternative 4	100	100	300	300	100	0

Findings Required by Other Laws and Regulations

Numerous laws, regulations and agency directives require that my decision be consistent with their provisions. I have determined that my decision is consistent with all laws, regulations, and agency policy. The following summarizes findings required by major environmental laws:

NATIONAL FOREST MANAGEMENT ACT (16 USC 1600 ET SEQ.)

The National Forest Management Act (NFMA) and accompanying regulations require that several specific findings be documented at the project level. These are:

1. Consistency with Forest Plan (16 USC 1604(i)): The Ottawa National Forest Land and Resource Management Plan does not address invasive plants, except indirectly, where the Plan speaks to maintaining biological variety and habitat for wildlife, protecting rare plant sites and wetlands, providing a natural appearance of the landscape, using native grasses to reseed landings, and limiting use of chemicals for vegetation management purposes (Forest Plan Pages IV-2, 3, 11, 35, 44, 45, 99, 100). Alternative 3 is consistent with this general language. None of the current Forestwide and Management Area goals and objectives, or Standards and Guidelines are directly applicable to the control of invasive plant infestations.

Based upon review of the pertinent information, I find the actions and activities for Alternative 3 described in this decision, are consistent with the Forest Plan. I have determined the actions are appropriate and needed to help preserve forest health and plant diversity.

2) Suitability for Timber Production

Invasive plants are not expected to affect suitability for timber production on the ONF. Where large infestations do develop that may outcompete native tree regeneration, Alternative 3 would allow the invasive plants to be removed.

3) Sensitive Species

Federal law and direction applicable to Regional Forester Sensitive Species (RFSS) include the National Forest Management Act and the Forest Service Manual (2670). In making my decision, I have reviewed the analysis and projected effects on all sensitive plant and animal species listed as possibly occurring on the ONF (Biological Evaluation, pages 14-17). The Biological Evaluation (BE) concluded that Alternative 3 would have no impact on 70 of the 82 sensitive plants and animals known or suspected to occur on the ONF. For seven plants and five animals, the proposed actions may impact individuals, but would not likely cause a trend to federal listing or loss of viability. Page 99 of the BE states, "Alternatives 2, 3, and 4 would result in beneficial impacts associated with removing NNIP species from, and preventing the spread of NNIP species to, habitats upon which RFSS species depend. The resiliency and integrity of natural communities on the ONF would be protected against NNIP infestations, which would not be allowed to continue to spread and to invade previously unaffected areas." In contrast, taking no action (Alternative 1) may impact individuals for 57 of 82 sensitive species.

I concur with the findings documented for these species in the BE. Alternative 3 is not expected to cause a trend toward federal listing or loss of viability for any of the above mentioned species.

THE CLEAN WATER ACT AND STATE WATER QUALITY STANDARDS

If left untreated, the spread of invasive plants can have some adverse effects on water quality, as discussed in the EA. Alternative 3 would avoid these adverse effects by allowing for integrated management of NNIP infestations. The proposed treatments would likewise not threaten the water and riparian features of the ONF. All Forest Plan Standards and Guidelines (Forest Plan, p. IV-11 and Forest Plan, Amend. No. 2 (8/92), pages IV-34 to IV-36) and Michigan Best Management Practices, as well as site-specific protective design criteria (EA, pp. 16 to 19) and herbicide label direction would be followed. The analysis also indicates that implementation of this decision will not produce appreciable impacts on aquatic plants and animals (EA, pages 37-50). The Clean Water Act and State Water Quality Standards will be met.

THE ENDANGERED SPECIES ACT (16 USC 1531 ET. SEQ.)

As required by the Endangered Species Act (ESA), a Biological Evaluation was prepared addressing the potential effects to threatened or endangered species utilizing the project area. The analysis concluded that this decision is not likely to adversely affect any federally listed

animals. There is a low risk of disturbing bald eagle, Kirtland's warbler, wolf, and lynx nest or den sites from the proposed actions, particularly from loud activities such as the use of brush saws. Animals would be expected to temporarily vacate areas while treatments are ongoing. Informal consultation with the U.S. Fish and Wildlife Service has occurred (ESA, Section 7(a)(2)), and they have concurred with the findings of may affect, not likely to adversely affect federally-listed species, as determined in the Biological Evaluation (1 February 2005 concurrence letter from USF&WS Lansing Office, located in project file).

NATIONAL HISTORIC PRESERVATION ACT

Numerous archaeological sites and several historic landmarks lie within the Ottawa National Forest. All sites will be avoided and protected following the standards set forth under the guidelines of the Memorandum of Agreement between the USDA Forest Service and the Michigan State Historic Preservation Officer. The Treatment Protocol (EA Chapter 2) specifies that all annual treatments would be reviewed by a cultural resource specialist beforehand. If any unknown sites are found within proposed treatment areas, the project will be redesigned as necessary to avoid the site, or measures will be designed to mitigate the effects of the project on the site and submitted to the Michigan State Historical Preservation Office as required by law for their review and consultation. Any future projects will require additional cultural resource inventories prior to project implementation, ensuring compliance with section 106 of the National Historic Preservation Act, as amended (1999). Based upon analysis in the EA (pages 50-51), I determined that there are no direct, indirect, or cumulative effects to heritage resources from implementation of this decision.

WILD AND SCENIC RIVERS

The Ottawa National Forest contains seven Designated and Authorized Study Wild and Scenic Rivers: Black, Brule, Ontonagon, Paint, Presque Isle, Sturgeon, and Yellow Dog. Should any NNIP infestations occur within a Wild and Scenic River corridor, the proposed treatments would help restore habitat quality and plant diversity. Given the specified design criteria, none of the proposed treatments would adversely affect site conditions within the river corridors. No instream work is proposed as part of this project, therefore no Section 7 documentation has been prepared.

COMPLIANCE WITH REGULATIONS, AND POLICIES

I have considered the effects of this project on low income and minority populations and concluded that this project is consistent with the intent of the Environmental Justice Act of 1994, (EO 12898). The local community was notified of this project through the public participation process.

Finding of No Significant Impact

In order to determine the significance of an action, the regulations found in the NEPA Handbook, FSH 1909.15.65.1 states: "Significantly" as used in NEPA requires considerations of

both context and intensity. The ONF NNIP Control Project was considered in both context and intensity and the determination made for both follows:

FINDING OF NO SIGNIFICANT IMPACT

My review of the analysis prepared by the ID team indicates that the selected alternative, as described in Chapter 2 of the EA, best responds to the purpose and need for taking action and public concerns, and is consistent with management direction in the Forest Plan. Provisions of 40 CFR 1508.27 indicate project significance must be judged in terms of the project context and intensity. Based on a review of these provisions, I have determined it is not necessary to prepare an environmental impact statement for the selected alternatives. My rationale includes:

1. **Context**. Activities conducted as part of the selected action would be limited to areas within the ONF that have become infested with NNIP species. Strict limits have been placed on the amount of acres that would be treated annually using physical and chemical vegetation control procedures, and on the number of releases of specific insects used as biological control agents. Cumulative effects of past management activities, combined with the current proposal, and reasonably foreseeable future actions for each resource are evaluated in the EA (Chapter 3) and were considered in assessing the environmental effects of the selected alternative. The selected alternative is consistent with the management direction, standards, and guidelines outlined in the Forest Plan for the ONF. Therefore, from a regional and national perspective, the potential environmental effects of the selected alternative, as presented in the EA, are not significant.

2. **Intensity**. The intensity of activities in the selected alternative are outlined below:

   a. *Consideration of both beneficial and adverse impacts.* I considered beneficial and adverse effects potentially resulting from the selected alternative, as presented in Chapter 4 of the EA. These effects are within a range of effects identified in the ONF Land and Resource Management Plan Final Environmental Impact Statement (FEIS). Implementation of the selected alternative would result in a net overall beneficial effect (with no significant adverse impacts) resulting from controlling NNIP infestations on the ONF and preventing the spread of NNIP species to uninfested areas on the ONF, including habitats upon which RFSS species depend. Therefore, I have determined that the direct, indirect, and cumulative effects of the selected alternative are not significant.

   b. *Consideration of the effects on public health and safety.* This project does not involve national defense or security. The herbicides proposed for use as part of the selected alternative have been subject to rigorous laboratory and field testing under scientifically controlled conditions. The herbicides would be used in strict compliance with the manufacturer's label, which includes limits on the rates of active ingredient(s) that can be lawfully applied to treated areas and limits on the types of areas that can be treated. As a protective measure, project design criteria (presented in the EA and included as part of this decision) have been established and would be strictly followed to ensure the health and safety of application personnel (whether Government or contractor) and the public. I have therefore

determined that the selected alternative will have no significant effects on public health and safety.

c. *Consideration of the unique characteristics of the geographic area.* It is expected that implementation of the selected alternative would help protect native vegetation from the spread of NNIP species. It is also anticipated that native plant species would benefit from reduced competition with NNIP species and would recolonize areas where NNIP species have been killed. Actions would be implemented using design criteria developed to protect soil, water, visual, heritage, botany and wildlife resources. The selected alternative will not adversely affect any unique characteristics or areas including, historic features, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. Based on this information, I have concluded that the selected alternative will not have an adverse significant effect on unique resources.

d. *The degree to which the effects on the quality of human environment are likely to be highly controversial.* The effects on the quality of the human environment are not expected to be highly controversial. I believe we have addressed the known biological, social, and economic issues sufficiently to avoid scientific controversy over the scope and intensity of effects. All proposed herbicides are licensed for use in Michigan by the state Department of Environmental Quality and all label direction would be followed. All proposed biocontrol insects have been approved for release in the United States by USDA and are already in use in Michigan, Wisconsin, and Minnesota. The treatment area limits further reduce the potential for controversy. All actions implemented under the selected alternative are similar in type and intensity to activities which have occurred in the other similar areas in the recent past. Based upon my past experience on other ONF projects, I do not expect the effects of these actions on the quality of the human environment to be highly controversial. Although, I anticipate this decision will not be acceptable to all, there is general public support for the NNIP control activities included in the selected alternative. Therefore, I have determined that the effects as described for the selected alternative in the EA and supporting documentation in the project file are not likely to be highly controversial.

e. *The degree to which effects are highly uncertain or involve unique or unknown risks.* The herbicides proposed for use as part of the selected alternative have been studied under rigorous scientifically controlled conditions including both laboratory and field testing. When used according to their manufacturers' label, the proposed herbicides have a history of safe and successful use. The herbicides would be used in strict compliance with the manufactures' label.

All of the biological control agents have been studied under controlled scientific conditions and have a history of successful use in the Midwestern United States.

Because the selected alternative is similar to other past actions in similar environmental settings, its effects are expected to be reasonably similar. There are no unique or unusual characteristics about the areas subject to treatment or to the specific types of treatment activities that would indicate a high degree of uncertainty or that would involve unique or unknown risks to the human environment. Based upon knowledge of similar past actions,

and my professional and technical knowledge and experience, I am confident that we understand the effects of these activities on the human environment.

f. *The degree to which this action may establish a precedent for future actions with significant effects or represents a decision in principle about future considerations.* The selected alternative includes ceilings on the number of acres and number of biological releases that can be performed annually over the ten-year operating period. Furthermore, it is consistent with the Forest Plan developed for the ONF. The selected alternative does not constitute a decision in principle about future considerations. Therefore, the selected alternative does not establish a precedent for future projects with significant effects or represents a decision in principle about future considerations within the ten-year timeframe of this project.

g. *Consideration of the action in relation to other actions with individually insignificant but cumulative significant effects.* A cumulative effects analysis, by resource area, is presented in the EA. No individually significant effects were identified for the selected alternative in the ONF EA analysis. The cumulative effects of the selected alternative and other past, present, and reasonably foreseeable activities are not expected to be significant due to protective measures developed in the project design features and application of the ONF Forestwide Standards and Guidelines. I have therefore determined that there are no significant cumulative effects associated with the selected alternative.

h. *The degree to which the action may affect listed or eligible historic places.* None of the treatment activities performed as part of the selected alternative are expected to adversely affect listed or historic places eligible for inclusion in the National Register of Historic Places. If any historic or archaeological sites are discovered within the treated areas the Forest Service will contact the Michigan State Historic Preservation Office and take appropriate protective measures. Since this project meets federal, state, and local laws for protection of historic places, the selected alternative would not result in a significant impact on historic places.

i. *The degree to which the action may affect an endangered species or their habitat.* The Forest Service prepared a Biological Evaluation (BE) in conjunction with the EA. The BE is hereby incorporated by reference. With respect to Federally Listed Species, the BE concluded that for the selected alternative: "a determination of **not likely to adversely affect** is justified for each of the four federally listed species on the ONF as long as specific design criteria are followed." The same design criteria are presented in the BE and EA. There is no designated critical habitat on the ONF at this time.

If any federally proposed or listed animal or plant species are found at a later date or, if any new information relevant to potential effects of the project on these species becomes available, then activities under this project would be stopped and the Section 7 consultation process, as per the Endangered Species Act of 1973, as amended, would be reinitiated. Due to the above findings and conclusions, the Forest Service does not believe that the selected alternative would adversely affect endangered or threatened species, or their habitat. Consultation with the U.S. Fish and Wildlife Service has occurred (ESA, Section 7(a)(2)),

and they have concurred with the findings of the BE (1 February 2005 letter, located in project file).

j. *Whether the proposed action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.* Actions to be implemented under the selected alternative, described in the ONF EA, do not constitute a violation of federal, state, or local environmental protection laws. The project design criteria listed in Appendix A of this Decision Notice will assure compliance with these laws. The selected alternative also meets National Environmental Policy Act disclosure requirements.

APPEAL PROVISIONS AND IMPLEMENTATION

This decision is subject to appeal pursuant to 36 CFR 215.12. A written notice of appeal must be submitted within 45 calendar days after the Legal Notice is published in the Ironwood *Daily Globe*. However, when the 45-day filing period would end on a Saturday, Sunday, or Federal holiday, then filing time is extended to the end of the next Federal working day. The date of the publication of the Legal Notice is the only means for calculating the date by which appeals must be submitted; do not rely upon any other source for this information.

The Notice of Appeal must be sent to: Appeal Deciding Officer, Robert Lueckel; c/o USDA, Forest Service, Gaslight Building, Suite 700, 626 East Wisconsin Avenue, Milwaukee, WI 53202-4616. The Notice of Appeal may alternatively be faxed to: (414) 944-3963, Attn: Appeals Deciding Officer, USDA, Forest Service, Eastern Regional Office. Those wishing to submit appeals by email may do so to appeals-eastern-regional-office@fs.fed.us. Acceptable formats for electronic comments are text or html email, Adobe portable document format, and formats viewable in Microsoft Office applications. Hand-delivered appeals may be submitted at the above address between 7:30 and 4:00 pm CT Monday through Friday, except on Federal holidays. Appeals must meet the content requirements of 36 CFR 215.14 and will only be accepted from those who have standing to appeal as outlined at 36 CFR 215.13.

Detailed records of the environmental analysis are available for public review at the Bessemer Ranger District, 500 N Moore St., Bessemer, MI 49911. For more information, contact Ian Shackleford, ID team leader, at (906) 932-1330 ext. 508; 265-5139, FAX (906) 667-0007; or TTY (906) 663-4035.

If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

/s/ Robert Lueckel

Robert Lueckel
Forest Supervisor, Ottawa National Forest

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Appendix A (Design Criteria)

All action alternatives would adhere to Forest Plan management direction, established design criteria, herbicide labels, and assigned monitoring. In addition, the following site-specific design criteria would be implemented with all action alternatives.

Herbicide use:

1. All guidelines and mitigation measures presented in Forest Service Manual 2150, *Pesticide Use Management and Coordination*, and in Forest Service Handbook 2109.14, *Pesticide Use Management and Coordination Handbook*, would be observed. Also, compliance with all federal, state, and local regulations regarding herbicide use would be ensured.
2. Members of the public would be kept away from herbicide treatment areas until the herbicide dries (terrestrial applications) and labeled reentry requirements are met. Aquatic herbicide treatments would require the public be kept clear of the area during applications, in addition to other label requirements (Table A-2).
3. Notices would be posted near areas to be treated with herbicides.
4. Applicators would be trained to properly maintain application equipment to prevent leaks and to apply herbicide in a manner that minimizes drift.
5. Herbicide application would only occur when wind speeds are less than 10 mph, or according to label direction, to minimize herbicide drift.
6. Herbicides would be prepared and mixed at a staging area located near the vehicle to prevent accidental spillage in natural habitats
7. Weather forecasts would be obtained prior to herbicide treatment, and treatment activities would be halted, if needed, to prevent runoff during heavy rain events.
8. Only formulations approved for wetland use would be applied in sub-irrigated upland areas, or soils with a shallow, perched water table as identified from soils and ELTP information.
9. Herbicides would be applied only manually (e.g., using hand-held sprayers or painted on stumps, basal bark, or cut surfaces) in areas with sensitive plant species or very localized infestations.
10. Volatile herbicides (*e.g.* 2,4-D, triclopyr ester formulation) would not be applied during days of high temperatures (greater than 85º F), as the heat may cause some herbicides to vaporize and drift to areas outside of the site of application.
11. All private landowners, residents, and lake associations of affected lakes would be notified of plans for aquatic herbicide application.

Wildlife & TES species:

12. To protect nesting birds, thickets of invasive shrubs such as exotic honeysuckle and Japanese barberry would only be treated after August 1. Individual shrubs may be treated at any time if an inspection shows no nesting bird on or below the shrub. Herbaceous plants may be treated at any time.
13. If any rare species are observed during implementation of NNIP control activities (other than raptors flying by overhead or a wolf passing by), work will stop until the District Wildlife Biologist is consulted. Treatments will be revised as necessary to avoid impacts to the subject species.

14. No treatments should be conducted within 650 feet of known nests occupied by the northern goshawk, red-shouldered hawk, or bald eagle during the breeding season (April 1 to August 1). This distance represents a nest area of roughly 30 acres, centered at the nest.
15. Should peregrine falcons nest on the ONF, and should it be necessary to treat NNIP infestations using physical or chemical methods in the general vicinity of a nest, a wildlife biologist would be consulted for site specific recommendations to protect the nest.
16. Prior to initiating treatments in non-forested wetlands and lakes, check for the presence of black terns and trumpeter swans. Alert the District wildlife biologist and do not proceed with treatment if birds are discovered.
17. The use of herbicides should be avoided in wetlands known to be used as nesting or foraging habitat by the black tern or trumpeter swan unless a more detailed evaluation is completed.
18. No treatments should be performed within 650 feet of active black tern or trumpeter swan nests during the breeding season (April 1 to August 1).
19. Physical and chemical treatment activities within or immediately adjoining jack pine thickets potentially used by nesting Kirtland's warblers should be limited to manual efforts and non-motorized equipment during the nesting season.
20. Avoid herbicide use in wetlands with suitable amphibian breeding habitat, as determined by Forest wildlife staff during pre-treatment review.
21. To prevent potential effects to nesting four-toed salamanders, herbicides should not be sprayed in suitable wetlands in May or June. Suitable wetlands for the four-toed salamander are forested or scrub-shrub wetlands with perennial water, abundant moss, and moderate to basic pH. However, cut-stump herbicide applications in suitable wetlands during those months would be acceptable. Forest District biologists should be consulted prior to any treatments within areas known to be inhabited by the four-toed salamander.
22. It is recommended that riparian habitats be inspected for the wood turtle before physical or chemical treatments. Personnel working in riparian habitats should be trained to recognize the wood turtle and avoid trampling it. Do not conduct any NNIP treatments between May 20 and June 20 in known wood turtle nesting sites.
23. When work is conducted in areas containing rare or sensitive plant species, those plants would be flagged or marked, and operators would be trained to visually recognize the protected plants (see Section 4.4.3 and the Biological Evaluation).
24. Aquatic areas should be inspected for the possible presence of rare aquatic plant species before treatments are initiated in those areas.

Weed torch:

25. The weed torch would only be used after consulting with the Forest Fire Management Officer to determine fire danger and needed protection measures.

Manual control:

26. Use of mowing as a NNIP control should be timed to avoid spreading seeds (e.g. before seed set).
27. All control treatments should be timed to be most effective, based on the species phenology and life history.

Biological control:

28. Prior to the release of biological control agents targeting Eurasian water-milfoil, experts on Farwell's water-milfoil should be consulted regarding possible effects on that species. If information on the sensitivity of Farwell's water milfoil is not available, any decision whether or not to release that agent near waters inhabited by Farwell's water milfoil would have to balance the potential risk of direct injury to Farwell's water milfoil versus the indirect adverse effects to it and other aquatic vegetation caused by allowing Eurasian water milfoil to spread.

Other:

29. Motor vehicles associated with NNIP treatment (e.g., ORVs, passenger vehicles, tractors, riding mowers, etc.) would not be operated in wetlands while the ground surface is inundated or saturated, or in forested areas where the equipment is not capable of passage without damage to overstory (canopy) trees.
30. Following NNIP treatments, revegetate exposed soils promptly to avoid re-colonization by NNIP or potential soil erosion. For manual treatments that disturb the soil, tamp the soil down. Use only approved seed mixtures and weed seed-free mulch.
31. Retain native vegetation and limit soil disturbance as much as possible.
32. Fueling or oiling of mechanical equipment would occur away from aquatic habitats.
33. Equipment, boots, and clothing would be cleaned thoroughly before moving from treatment site to ensure that seeds or other propagules are not transported to other sites.
34. NNIP parts capable of starting new plants (seeds, rhizomes, etc.) need proper disposal. Plants may be piled and burned on site or bagged and moved off site. Bagged plants would either be incinerated or would receive standard garbage disposal. For large woody bushes that would be difficult to move, treatments will be scheduled prior to seed set as practical.