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Subject: Supplemental Information Report – Ottawa National Forest Non-Native Invasive Plant Control Project

To: Project Record

On April 4, 2005, then Forest Supervisor Robert Lueckel signed the Decision Notice for the Ottawa National Forest Non-native Invasive Plant Control Project . This project was analyzed in a January 2005 Environmental Assessment (the "Weed EA"). Ottawa National Forest (ONF) staff have been implementing this project for five years, treating invasive plant infestations across the Forest. This Supplemental Information Report (SIR) is a check to see if the EA, Decision, and control work are consistent with current information.

Forest Service Handbook 1909.15 Section 18.1 outlines the procedures for complying with 40 CFR 1502.9 for the preparation of supplemental information:

> If new information or changed circumstances relating to the environmental impacts of a proposed action come to the attention of the responsible official after a decision has been made and prior to completion of the approved program or project, the responsible official must review the information carefully to determine its importance. If, after an interdisciplinary review and consideration of new information within the context of the overall program or project, the responsible official determines that a correction, supplement, or revision to an environmental document is not necessary, implementation should continue. Document the results of the interdisciplinary review in the appropriate program or project file.

In accordance with FSH 1909.15 (18.1), this supplemental information report (SIR) has been prepared to document my review and consideration of new information and changed circumstances pertaining to management activities included in the EA/DN that have not yet been implemented.

Background

The Ottawa National Forest Non-native Invasive Plant Control Project is a programmatic, Forest-wide, project that covers invasive plant control work on the ONF in Gogebic, Ontonagon, Iron, Houghton, Baraga, and Marquette Counties, Michigan. This decision was completed under the 1986 Forest Plan.

The decision authorizes the treatment of non-native invasive plant (NNIP) infestations on the Ottawa National Forest. Plants proposed for removal include purple loosestrife (*Lythrum salicaria*), garlic mustard (*Alliaria petiolata*), Eurasian watermilfoil (*Myriophyllum spicatum*), Japanese barberry (*Berberis thunbergii*), exotic buckthorns (*Rhamnus frangula* and *R. cathartica*), exotic honeysuckles (*Lonicera morrowii, L. tatarica*, and *L.* X *bella*), and other invasive plants. The project decision is not limited to the

plant taxa specified in the document; rather it also includes new invaders that may become priorities for treatment . These plants are all non-native in North America, and their aggressive spread within the Ottawa National Forest poses resource concerns. The decision authorizes several integrated pest management methods for treating invasive plants, including hand-pulling, digging, cutting, release of specific biological control insects, and limited use of herbicides.

Alternative 3 was selected 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 priority NNIP infestations are identified on the Ottawa National Forest. Some treatments take place in forested stands, lakes, and wetlands. Other treatments take place along roads and trails, in gravel pits, recreational sites, administrative sites, utility corridors, and special use areas. Forest staff (usually the Forest Noxious Weed Coordinator) determine which NNIP infestations are to be treated each year and the methods to be used, and this list is submitted for review and approval by the District Rangers managing the districts where the infestations occur. Annual treatment plans are also reviewed by wildlife, botany, aquatics, soils, and heritage resources staff to ensure that design criteria protecting these resources are followed. If more than one pound of active ingredient would be used with a chemical application, the proposal is also reviewed by the Eastern Region Pesticide Coordinator (FSM 2151).

The Ottawa NF Non-native Invasive Plant Control Project decision is over 5 years old and warrants interdisciplinary review to determine if changed circumstances or new information require a correction, supplement, or revision to the analysis. New information and changed circumstances to be reviewed include the following:

- Completion of the Ottawa Land and Resource Management Plan (2006)
- Completion of the Ottawa's Wild and Scenic River Comprehensive River Management Plan and Amendment #1 to Forest Plan (2007)
- Amendments to the Michigan Natural Resource and Environmental Protection Act (Act 451 of 1994), Part 413: Transgenic and Nonnative Organisms
- Update to Regional Forester's Sensitive Species list (2/2011)
- Travel Management Changes
- Monitoring Results
- Need to expand weed control work on to adjacent or nearby ownerships to protect Forest resources and in line with All Lands Conservation.

This review is conducted following direction from Jim McDonald, Eastern Region NEPA Coordinator. See meeting notes from February 7, 2011 in project file, for Mr. McDonald's guidance. This SIR is organized following an Eastern Region review template.

New Information and Changed Condition Analysis and Findings

2006 Forest Plan

NNIP Direction
The Non-Native Invasive Plant Control Project's stated purpose and need is to implement an integrated program for control of non-native invasive plant (NNIP) infestations, using a combination of measures. Design criteria are included for resource protection, public safety, and worker protection (especially from pesticide application). The design criteria were based on specialist input, such as buffers around raptor nests and timing restrictions for herbicide used in salamander habitat.

The Ottawa 2006 Land and Resource Management Plan ("Forest Plan") gives a goal and four objectives for non-native invasive species on page 2-4 (Section 2080):

Goal 8. Through implementation of appropriate prevention, control and eradication measures for non-native invasive species, maintain intact ecosystems to prevent the displacement, decreased viability, or extirpation of native species.

Objective(s):

a) Use early detection and rapid response to identify new and limit the spread of non-native invasive species infestations.

b) Use integrated pest management in containment, control, or eradication efforts.

c) Limit the spread of non-native invasive species, focusing on areas where these species have high potential for establishment and spread or for serious environmental effects.

d) Increase Forest Service and public awareness of non-native invasive species.

Forest-wide Standards and Guidelines concerning NNIS are found on pages 2-12 and 2-13. They begin,

When treating non-native invasive species infestations, use permissible, appropriate, and effective methods, including manual, mechanical, fire, chemical, cultural, and biological control methods, in such a manner as to minimize undesired environmental effects.

Since invasive plants were not an issue for the 1986 Forest Plan, emerging as a resource concern after that decision, there was little text referring to NNIP. The 2006 Forest Plan drew on our experience with the Weed EA, and emerging information about NNIP control and treatment. Since both documents were being prepared about the same time, by the same people, consistency between the documents was assured. Based on review by Ottawa botanists Ian Shackleford and Susan Trull, there are no activities proposed or design criteria included in the Weed EA that are in conflict with direction in the 2006 Forest Plan.

Management Indicator Species
The 1986 Forest Plan included 13 management indicator species (MIS). The 2006 Plan reduced this number to four: ruffed grouse, American marten, cutleaf toothwort and the mayfly-stonefly-caddisfly index (EPT). Ruffed grouse is the only species common to both MIS lists. Therefore, possible effects to ruffed grouse from weed control activities were analyzed in the Weed EA. Design criteria were added to protect birds such as ruffed grouse, and the potential for harm was deemed low (see Table A-8, p. 72, of Weed EA).

The other three MIS were not specifically considered in the Weed EA. However, possible effects from weed control activities on American marten would be similar to those discussed in the Weed EA for black bear (a 1986 Plan MIS). Table A-8 (p. 71 of Weed EA) states that Alt. 3 (the selected alternative)

would have little direct effect on black bears and that the alternative could provide increased long term benefits to the food chain with greater indirect benefits to the black bear. Also, the biological evaluation (BE) for the Weed EA analyzed possible effects to two other carnivores, gray wolf and Canada lynx. The BE noted that the overall risk for Alt. 3 for these two carnivores was none (See Section 7.1 of BE). Therefore, we can extrapolate that the risks to American marten would be none to low.

The analysis in the Weed EA for three fish MIS speaks to effects on aquatic indicators such as EPT. Alt. 3 was expected to have little direct effect and possible benefits. Analysis in the biological evaluation (BE) for the Weed EA includes discussion of effects to rare dragonflies, whose larvae are aquatic like EPT; this analysis also provides information on possible effects to EPT. Some effects are possible but these are mitigated by use of design criteria. The BE concluded that Alternative 3 would have no impact on these aquatic insects or on rare fish species (see Table 8-1 of the BE). Therefore, we can extrapolate that the risks to EPT would be none to low.

The BE for the Weed EA analyzes effects to largeleaf toothwort (*Cardamine maxima)*, a rare congener of the more common MIS plant, cutleaf toothwort (*Cardamine concatenata*). Alt. 3 was determined to have no effects on the rare toothwort. The BE also discusses possible effects of weed treatments on hardwood forest habitat, the habitat of MIS cutleaf toothwort. The BE notes that there would be long-term beneficial effects with possible temporary and small adverse effects. From these analyses, we can extrapolate that the risks to cutleaf toothwort would be low.

Discussion provided in the Weed EA and BE thus shows that adverse effects to the current MIS suite, if any, would be minor and short-term. Thus the Weed EA is consistent with the Forest Plan with regard to MIS.

Changes in Management Areas

The 2006 Forest Plan made some changes in MA direction from the 1986 Plan, although Management Area direction is mostly silent on the topic of invasive species management. Direction under file code 3400, Forest Pest Management, for all three Wilderness areas calls for the Forest to "Obtain Regional Forester approval for all pesticide applications in Wilderness." So far manual methods have been sufficient, and we have not requested permission to apply pesticides in Wilderness areas. In addition, there is a guideline for Sturgeon River Gorge Wilderness and candidate Research Natural Area stating "Allow control actions for non-native invasive species to protect adjacent resources or the features for which the c[andidate] RNA was selected." Similar language is found for MA 8.3, (Special Interest Areas) where the Plan states, “Use control actions for non-native invasive species to protect the features for which the special interest area was established or adjacent resources.” The Weed EA directs integrated treatment and related activities Forest-wide with no variation among management areas. The intent is the same in both documents: integrated weed control to protect resources and features.

Other Forest Plan Topics

The Ottawa NF defined five topics as principal issues for the 2006 Forest Plan revision: off-highway vehicle (OHV) management, hardwood management, aspen management, long-lived conifer management and short-lived conifer management. Direction such as standards and guides developed relating to these issues is not related to NNIP management direction and the Weed EA is not in conflict with these topics.

Wild and Scenic River (WSR) Comprehensive River Management Plan and Forest Plan Amendment #1

Forest Plan Amendment #1 addresses management in wild and scenic river corridors (management area 8.1), and was prepared following completion of the comprehensive river management plan in July, 2007. The amendment directs that NNIP infestations in MA 8.1 are addressed using integrated pest management principles. Further, treatment should promote native plant community recovery and enhance river related resources. The Weed EA is consistent with this direction, since that decision also calls for integrated methods of weed control and promoting native plants.

Amendments to the Michigan Natural Resource and Environmental Protection Act

In June, 2005, the State of Michigan amended the Natural Resources And Environmental Protection Act (Act 451 of 1994), Part 413: Transgenic and Nonnative Organisms. Among other changes, they created new lists of prohibited and restricted aquatic plant species. Some of the species on the new lists (Eurasian watermilfoil, curly leaf pondweed, purple loosestrife, giant hogweed, Japanese knotweed) are of concern on the Ottawa, and had already been included on the Forest list, which is based on a risk assessment process. Most of the other newly-listed species are (so far) restricted to the Lower Peninsula and not of concern for the Ottawa NF. The listing of these species by the State does not affect the Weed EA since it is based on a Forest list of species of concern. Treatment sites are selected by the Forest annually, based on species priority, location and size of infestation, feasibility, and other factors, not based on whether or not the State lists the species.

Updates to Regional Forester's Sensitive Species List

The Eastern Region is in the process of revising its Regional Forester's Sensitive Species (RFSS) List, with finalization of the list scheduled for March or April, 2011. Minor annual updates to the list also have occurred subsequent to completion of the BE for the Weed EA. Assuming the latest draft list submitted to the Regional Forester will be the one finalized in March or April 2011, there are several taxa which were not previously analyzed, as shown in the table below. We can review the BE that was prepared for the Weed EA, and consider analysis provided for those species using similar habitats to the non-analyzed species listed in the table. Comparable species and the determinations reached for Alternative 3 (the selected alternative) of the Weed EA are shown in the table below.

Relative to Sensitive species, biological evaluations must arrive at a finding of effects on each species' population viability. The finding must be one of the following four statements: 1) "no impact", which may include beneficial impacts (NI); 2) "may impact individuals of a species but not likely to cause a trend to federal listing or a loss of viability" (MII); 3) "high risk of loss of viability in the planning area, but not likely to cause a trend toward federal listing" (HRLV); or 4) "likely to result in a loss of viability and a trend toward federal listing" (LRT). The abbreviations are used in the table below.

Scientific Name	Common Name	Typical habitat	Comparable Species or Group of Species that was analyzed in BE	Determinations reached for comparable set
Birds				
Gavia immer	Common loon	Fish-bearing waters	Trumpeter swan, bald eagle, cisco, lake sturgeon (lake or stream habitats)	NI swan, cisco, sturgeon; "May affect, not likely to adversely affect" for eagle. Also, loon was analyzed as an MIS in Weed EA: Table A-8 states "little direct effect" from Alt. 3.
Gastropods				
Vertigo bollesiana	Delicate vertigo	Forested boulders, outcrops, cliff faces, talus slopes	Laurentian bladder fern, Rocky Mountain sedge, large-leaved sandwort, prairie buttercup (rock habitats)	NI all
Vertigo paradoxa	Mystery vertigo	Forested boulders, outcrops, cliff faces, talus slopes	Laurentian bladder fern, Rocky Mountain sedge, large-leaved sandwort, prairie buttercup (rock habitats)	NI all
Insects				
Cicindela patruela	Northern barrens tiger beetle	Clearings in dry sandy soils of mixed oak/pine forest, sandy roads	Northern blue butterfly (terrestrial insect in dry, open habitats)	NI
Oeneis chryxus	Chryxus arctic	Open dry woodland, grassland, and pine barrens, larval host is poverty oats	Northern blue butterfly (terrestrial insect in dry habitats)	NI
Phyciodes batesii	Tawny crescent	Dry pastures and moister woodland openings, road edges	Northern blue butterfly (terrestrial insect in dry, open habitats), West Virginia (WV) white butterfly (terrestrial insect in moister and wooded habitats). Not directly comparable, as WV white needs closed canopies and tawny crescent does not, but provides a conservative determination.	NI, MII on WV White
Vascular Plants				
Botrychium simplex	Little grapefern	Openings, wetlands, shores, barrens, forest, disturbed ground	Western moonwort (also uses wide variety of habitats), pale moonwort	NI both

Scientific Name	Common Name	Typical habitat	Comparable Species or Group of Species that was analyzed in BE	Determinations reached for comparable set
Cypripedium parviflorum var. *pubescens*	Greater yellow lady's slipper	Mesic to dry forests, stream edges, lake shores, open and forested wetlands, prefers non-acid soils	Pale moonwort (openings, woodlands, edges), white adder's-mouth (wet areas), ricegrass (drier forest), Carey's smartweed (shores, wet spots)	NI all
Cypripedium reginae	Showy lady's slipper	Wet openings (such as within conifer swamps) with neutral or alkaline soils	Fairy slipper (coniferous wetlands), moor rush (open wetlands and openings in forested wetlands)	NI both
Galearis spectabilis	Showy Orchis	Moist spots in rich deciduous forest, apparently locally restricted to alluvial (generally clay or clay-loam) soil along the Ontonagon River in deep river valleys	Canadian and Cooper's milkvetches (large river corridors), large toothwort (mesic woods near streams),	NI all
Huperzia selago	Fir clubmoss	Varied moist habitats including ditches, borrow pits, lakeshores, swales, openings in mixed forest, seepy meadows or cutbanks, conifer swamps, along old roads, rocks or cliffs	White adder's-mouth (wet areas), Carey's smartweed (shores, wet spots), fairy slipper (coniferous wetlands), Laurentian bladder fern (rocks)	NI all
Lycopus virginicus	Virginia water horehound	Floodplains of larger rivers	Canadian and Cooper's milkvetches (large river corridors)	NI both
Silene nivea	Evening campion	Open banks and terraces of large rivers (e.g. Ontonagon)	Canadian and Cooper's milkvetches (large river corridors)	NI both
Sisyrinchium montanum var. *montanum*	Strict blue-eyed grass	Dry to moist open sites	Western and common moonworts (various openings), dwarf bilberry (dry openings), Carey's smartweed (shores, wet spots)	NI all
Thelypteris noveboracensis	New York fern	Moist woods, often near streams, seeps, and swamps	Large toothwort (mesic woods near streams), butternut (hardwoods, riparian forest)	NI both

Scientific Name	Common Name	Typical habitat	Comparable Species or Group of Species that was analyzed in BE	Determinations reached for comparable set
Zizia aptera	Meadow zizia	Dry to moist open sites, may favor calcareous soils	Western and comon moonworts (various openings), dwarf bilberry (dry openings), Carey's smartweed (shores, wet spots)	NI all
Viola novae-angliae ssp. *grisea*	New England violet subspecies	Open grassy areas in or at the edge of jack pine stands	Canadian rice-grass (dry forest), western and comon moonworts (various openings)	NI all
Viola novae-angliae ssp. *novae-angliae*	New England violet subspecies	Rock crevices along cold, rapidly flowing streams	Large toothwort (mesic woods near streams), Laurentian bladder fern, (moist rock), satiny willow (stream banks, rocky wet areas)	NI all
Lichens				
Anzia colpodes	Black-foam lichen	Trunks of hardwood trees in deciduous forest, often high up; possibly requires old growth	Goblin fern, broad beech fern (mesic hardwoods)	NI both
Stereocaulon pileatum	Snow lichen	On rocks, sunny or partially shaded locations, often near water	Laurentian bladder fern, Rocky Mountain sedge, large-leaved sandwort, prairie buttercup (rock habitats)	NI all
Sticta beauvoisii	Beauvois' spotted felt lichen	Shaded mossy rocks and bark	Laurentian bladder fern, Rocky Mountain sedge, large-leaved sandwort, prairie buttercup (rock habitats)	NI all
Bryophytes				
Frullania selwyniana	Liverwort species	Bark of white cedar in mesic, sheltered locations	Usnea lichen (conifer swamp), porthole lichen (cedar trees), ram's-head ladyslipper, pinedrops (conifer woods)	NI all
Orthotrichum ohioense	Moss species	Smooth hardwood tree bark in mesic forests, especially near streams	Goblin fern, broad beech fern (mesic hardwoods), large toothwort (mesic woods near streams), yellow ribbon lichen (forested wetlands)	NI all
Pylaisiadelpha tenuirostris	Moss species	Sheltered habitats, including rock (usually acidic), trunks and bases of trees, rotten logs and stumps	Laurentian bladder fern, Rocky Mountain sedge, large-leaved sandwort, prairie buttercup (rock habitats), three lichens (trees)	All NI

Scientific Name	Common Name	Typical habitat	Comparable Species or Group of Species that was analyzed in BE	Determinations reached for comparable set
Schistostega pennata	Luminous moss or goblin gold	Caves, cliff crannies, cavities in tip-up mounds and other dark places	Laurentian bladder fern, Rocky Mountain sedge, large-leaved sandwort, prairie buttercup (rock habitats), three lichens (trees)	NI all

As shown in the table, none of the comparable species was expected to be impacted by activities authorized under the project decision, except the West Virginia (WV) white butterfly. The WV white could be impacted because its larvae are more or less immobile on terrestrial vegetation (toothworts) which occur in areas where garlic mustard control may occur. The WV white benefits long-term from garlic mustard control since this invasive plant mimics toothworts, and female butterflies will oviposit on garlic mustard, but the plant is poisonous to the larvae (see BE for Weed EA, p. 57). The tawny crescent is less likely to occur in closed canopy hardwoods so there is less risk than for the WV white, but there could be some risk for larvae on vegetation in treatment areas.

The BE for the Weed EA reached an MII determination for 12 species of the 70 RFSS species considered (including likely-to-occur species). Reaching an MII determination for one of the additional species is comparable and consistent with the level of effects authorized by the decision for the Weed EA. Also, one of the species which received an MII determination in the Weed EA is no longer on the RFSS list. Thus the total tally of MII determinations remains 12.

Travel Management Changes

The 2006 Forest Plan prohibited the previously-allowed cross-country use of off-highway vehicles (OHVs) on the Forest. Since the Plan, annual motor vehicle use maps (MVUM) have illustrated further refinements to vehicle use on the Forest. These changes have no bearing on the Weed EA since it is a programmatic document, specifying species and treatment types but not listing infestation locations that may be along roads with changes in use. Furthermore, infestations can be treated whether or not they are easily accessed by an open road, since the weed crew can hike in with equipment to remote locations.

Monitoring Results

NNIP results shown in the annual monitoring and evaluation reports since the Weed EA was signed (reports for years 2007, 2008, and 2009 have been completed) include the acreage treated and efficacy of treatment (ranging mostly from "fair" to "good" depending on species and year of treatment). Monitoring has not shown a need to change weed treatment methods nor has monitoring reported new priority invaders. Thus, the Weed EA implementation program seems to be proceeding as described and planned. Monitoring also shows that the Weed EA treatment ceilings are sufficient for our current program of work (see table below).

Acres treated (rounded)	Annual Weed EA ceiling (acres unless specified)	2006	2007	2008	2009	2010
Manual	200	6	20	15	15	28
Weed torch	150	0	0	0	0	0
Mechanical	500	1	6	23	61	64
Terrestrial chemical	400	53	61	70	90	102
Aquatic chemical	150	20	11	66	35	58
Insect releases	10 biological control releases (at least 0.25 mi apart)	0	0	3	10	7

Work on Private Lands

After completion of the Weed EA, it became apparent that, to protect Forest resources, there is a need for NNIP control on private lands in the Western Upper Peninsula, within and outside the Forest's proclamation boundary. For example, we have mapped several infestations of high-priority invasive plants that occur on mixed ownership. Twenty-three acres of garlic mustard near Clearwater Lake occur on both National Forest System (NFS) and private land (Figure 1). Langford Lake has approximately 10% national forest frontage, and contains 313 acres of Eurasian watermilfoil (Figure 2). The NFS and private portions of these infestations are indistinguishable on the ground. Soil, vegetation, and topography are the same. Treating up to the property line would allow the plants on private land to quickly spread back to NFS land.

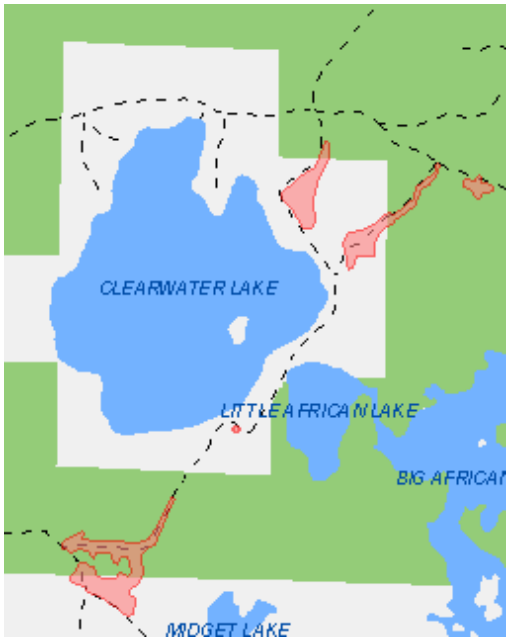

Figure 1. Garlic mustard infestation at Clearwater Lake (red polygons). NFS land is shown in green.

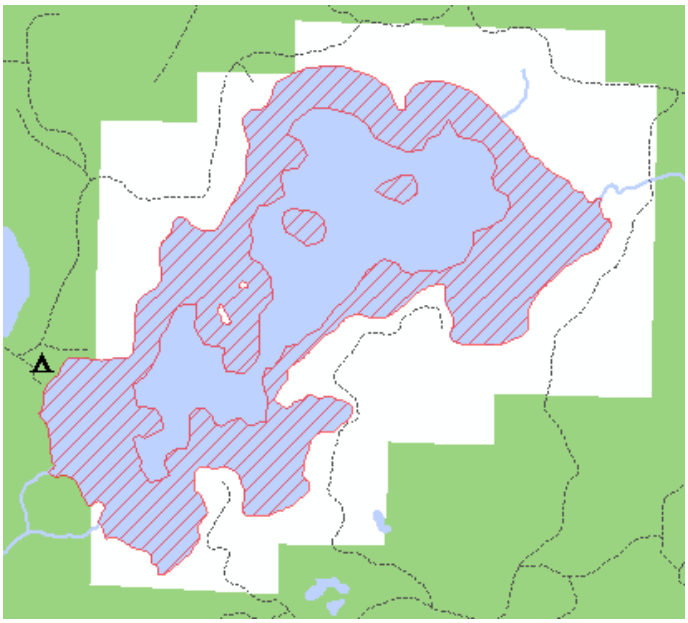

Figure 2. Eurasian watermilfoil infestation at Langford Lake (hatched area). NFS land is shown in green.

The Ottawa is an active member of the Western Upper Peninsula Cooperative Weed and Pest Management Area (CWPMA), a coalition established with over 20 partners. The Ottawa also works with partners who are not part of the CWPMA. Opportunities are increasing to share funding, labor, expertise, and other resources to conduct NNIP treatments across boundaries, in line with the "All Lands Conservation Approach" the Forest Service envisions.

The Weed EA decision authorizes federally-funded NNIP treatment on NFS lands. Similar methods and chemicals could be used on non-federal lands—with written landowner permission—to treat infestations. If federal funding is used, such as through a contribution to our partners in the CWPMA, or a Secure Rural Schools Title II (RAC) project, NEPA analysis is needed. Hence, we are reviewing the Weed EA for any changed circumstances that would mean the existing analysis is not applicable to nearby private lands.

The non-federal lands in the Western Upper Peninsula and adjacent Wisconsin are similar in vegetative composition to the Ottawa NF, mainly mesic northern hardwoods, with patches of dry northern forest, forested and open wetlands, and upland openings. Indeed, the 2006 Forest Plan FEIS Executive Summary (2006, p. i) notes that the Ottawa is "part of the largest contiguous block of northern hardwoods in the Lake States area…"

NNIP on non-federal lands in the Ottawa vicinity are similar to NNIP on the Ottawa: garlic mustard, Japanese barberry, glossy and common buckthorns, exotic bush honeysuckles, Eurasian watermilfoil, purple loosestrife, exotic thistles, and others. Ottawa botanists are aware of only two NNIP present in the western Upper Peninsula that occur solely on non-federal lands: paradise plant (*Daphne mezereum*) and giant hogweed (*Heracleum mantegazzianum*). It would be in the Forest's interest to control these small infestations before they reach NF land. A check of the Midwest Invasive Species Information Network (MISIN 2011) confirms that common priority NNIP on the Ottawa are the same as those on nearby ownerships.

Endangered, threatened and RFSS species are expected to be similar on the Ottawa and nearby private lands. Design criteria included in the Weed EA, such as buffering occupied raptor nests from herbicide treatment during the breeding season, or inspecting riparian habitats for wood turtles prior to physical or chemical weed treatments, would be applied to federally-funded private lands projects as well. Proposed federally-funded weed treatments on non-federal lands would be reviewed by ONF botanists and wildlife biologists for presence of rare species or other concerns, just as the annual slate of NFS weed treatment sites is reviewed.

Heritage resources on area private lands may be similar to those on the Ottawa, such as historic logging camps and homesteads. Federally-funded weed treatment sites on private lands would be reviewed by the Forest Archeologist prior to treatment and any needed design criteria could be applied. Note that there are no Michigan laws requiring a private land owner to protect heritage sites. If the weed treatment work was to be accomplished by an Ottawa weed crew and ground disturbance was proposed, a protective no-disturbance buffer might be implemented or a non-ground disturbing weed control technique used near the heritage site, as recommended by the Forest Archeologist.

Recreational uses on adjacent lands are similar to those on the Ottawa, since many of the adjacent lands are corporate timber land, held under the Commercial Forest Act, and open to hunting. Other nearby ownerships include state, county or township recreation areas with uses such as camping, hiking, nature watching, fishing, boating and other activities similar to recreation on the Ottawa. Other ownerships

often have additional lands available for OHV use, since the Ottawa has applied a travel management program and restricted some motorized uses in recent years. Some private lands are small acreage-residences, here the use is different from NFS lands. There are some small lots with garlic mustard or purple loosestrife infestations, which could be treatment priorities with the owner's written permission.

Federally-funded weed treatment projects on non-federal lands would be subject to the same protective restrictions for recreationists as on-Forest weed treatments, such as keeping members of the public away from chemically treated sites until the herbicide dries, or posting treated areas following label and/or permit direction. Treatment near trails and other recreational areas would require careful attention to public notification, which is also the case for on-Forest recreation sites needing weed treatment. For example, treatment at a trailhead by the summer weed crew can involve crew members stopping members of the public, explaining that a chemical treatment is occurring, and asking the visitors to take a different route or to wait 15-30 minutes until the chemical is dry. The Ottawa Recreation Program Manager is not aware of any recreational activity that would preclude the Forest from treating NNIP off NFS lands.

Soil types on ownerships near the Forest are similar to those on-Forest. Herbicide mobility and persistence is expected to be comparable to that on NFS soils, with the potential effects to be consistent with those described in the Weed EA and authorized in the decision. Herbicide labeling would be followed for all treatments, whether on-Forest or off. As the Weed EA noted (p. 35), when used according to label specifications, no substantial long-term impacts to groundwater or surface waters are expected from the eight herbicides approved under the Decision.

Lakes and streams on nearby ownerships are similar to those on Forest in terms of water quality and quantity. Applications of herbicides to lakes under private ownership, such as for control of Eurasian watermilfoil, are expected to have effects comparable to those discussed in the Weed EA for on-Forest lakes. Chemical applications to aquatic systems require a permit from the State of Michigan regardless of ownership (unless they are less than 10 acres, have no documented rare species, and have no outlet, in which case a permit may not be needed). The permit may specify additional design criteria to those specified by the herbicide label and the Weed EA decision.

Given that vegetation, water, soils, invasive plant species, rare species, recreation uses, and other factors are very similar among the Ottawa and other nearby land ownerships, there is no reason to expect that weed treatment methods or herbicide formulations would have different effects on non-federal lands from those effects described and authorized for NFS lands. The analysis of effects in the Weed EA thus is applicable to non-federal lands. The treatment ceilings authorized for Alternative 3 by the project decision could include work on private as well as national forest system land without affecting the conclusions reached relative to effects.

Weed EA Comment Summary Relative to Private Lands
There were eleven commenters on the Weed EA. Comments were supportive of the proposed activities. Two commenters suggested that annual treatment ceilings should not be included, while another commenter stated the limits were too high. Combined, the treatment ceiling areas represent less than 0.15 percent of the total NFS lands on the ONF.

Commenters suggested considering other chemicals and methods, and remarked on applicator safety concerns. There were also comments on monitoring treatment effectiveness as well as on the infestation treatment approval process (that is, an annual proposed slate of treatment sites prepared by

the Noxious Weed Coordinator, followed by review by wildlife, heritage, botany, soils, and aquatics staff, followed by review and approval or disapproval by the manager of the Ranger District where the infestation occurs). One commenter suggested the Forest should develop a property weed management plan. One commenter had specific recommendations for treating Langford Lake for Eurasian watermilfoil. Two commenters mentioned infestations on private lands and the need for treatment of these infestations. One commenter stated that NNIP should not be treated but left to grow as they will. The commenters did not raise concerns that effects would be different on non-federal lands.

In subsequent years, Ottawa staff periodically have heard comments about the invasive plants program from members of the public. Comments have been favorable, with the Forest's control efforts appreciated. If asked today, we expect most comments would be similarly positive to those received previously. Some commenters might be leery of federal funds being expended off federal property, or how such treatment might affect Forest or landowner liability. Use of federal funds for the Ottawa weed crew to work off Forest is authorized by the Wyden amendment (Public Law 109-54, Section 434). Work by our partners could proceed without Forest involvement; the projects become federalized by the use of federal funds such as those discussed by the Resource Advisory Committees (RAC) for Gogebic and Ontonagon Counties. The RAC project process included opportunities for public comment.

Overall, we believe there is public support for invasive plant treatments in the western Upper Peninsula.

Other Agency Invasive Plant Control Work on Private Lands

State and Private Forestry
Forest Service Manual 3420 provides direction for State and Private Forestry's forest health projects, which include work on non-federal lands. According to the manual, all projects must show potential to meet project objectives, be environmentally acceptable, and appropriately documented. Additional requirements included for non-federal lands relate to consent and participation by the entity having jurisdiction in order to be eligible for cooperative assistance. No additional environmental analysis is required for non-federal lands vs. that needed for federal lands (see FSM 3421.2.). Personal communication with Barbara Tormoehlen of the St. Paul office of State and Private Forestry (2/2011) confirms that S&PF conducts NEPA analysis and documentation for site-specific work on non-federal lands, but the degree and type of is different from FS documentation due to the FS administrative appeal process.

APHIS
The Animal and Plant Health Inspection Service (APHIS) also conducts federalized projects on non-federal lands. For example, the document "Field Release of the Gall Wasp, *Aulacidea subterminalis* (Hymenoptera: Cynipidae), for Biological Control of Invasive Hawkweeds (*Hieracium* spp.) in the Continental United States Environmental Assessment, February 2011" is shown on the APHIS website. A quick review of this document shows that APHIS does not distinguish effects of these insect releases by land ownership and that invasive plant control work can be conducted on non-federal lands.

Compliance with Other Regulations and Policies

The Environmental Justice Act of 1994 requires consideration of whether projects would disproportionately impact minority or low-income populations. Public involvement occurred for the non-native invasive plant control project in 2004 and 2005, and the results did not identify any adversely impacted local minority or low-income populations. We have considered the effects on low income and minority populations from expanding weed control work off-Forest and concluded that there would be no disproportionate effects and that this project is consistent with the intent of this Order (EO 12898).

Conclusion

Based on the interdisciplinary review of this project and findings listed above, I have determined that there is no new information or changed conditions within the scope of the original decision that warrant a correction, supplement, or revision to the EA. Direct, indirect, and cumulative effects, if analyzed today, are expected to be the same as those previously disclosed. No Forest Plan standards and guides would be exceeded. The environmental effects were adequately disclosed in the original project EA and remain valid. Therefore, a new decision is not necessary and remaining project activities may be implemented. Continued implementation of NNIP control projects on NFS lands and nearby lands of other ownerships is within the scope of the DN/FONSI, dated January 3, 2005 and may proceed, under the following conditions:

1) Treatment ceilings remain as
    - 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.
2) Treatment protocol (p. 15 of Weed EA) outlining annual proposal and review process, and design criteria listed in Appendix A of the Decision Notice are followed, including specialist review of proposed treatment sites on and off-Forest.
3) Landowner permission is obtained in writing for non-federal sites. Landowner must have requisite signatory authority or power of attorney. Liability, both to person and property, also must be spelled out in writing. The preferred method is that the non-Federal party holds the Forest Service harmless for any damage to persons or property. An alternative is that all parties agree they will be responsible for their own acts and results thereof.
4) Methods, equipment, chemicals, and biocontrol insects are used as outlined in the decision for the Ottawa NF Non-native Invasive Plants Control Project.

If these conditions cannot be met, additional review, environmental analysis, and documentation would be needed.

The findings in this SIR are not appealable under the Forest Service appeal regulations. Public scoping is not required; public notification will be provided with notification about RAC projects.

/s/ Keith B. Lannom

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cc: District Rangers
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Amy Amman, Soil Scientist
Bill Baer, Recreation Staff
Brian Bogaczyk, Wildlife Biologist
Mark Fedora, Supervisory Hydrologist
Ian Shackleford, Noxious Weed Coordinator, Botanist, ID Team Leader for 2005 Weed EA
Susan Trull, Botanist/Acting Forest Planner
Cari VerPlanck, Forest Archeologist
Marlanea French-Pombier, Biological Scientist/South Zone Environmental Coordinator

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