



United States
Department of
Agriculture

Forest
Service

Midewin National
Tallgrass Prairie

30071 South State Route 53
Wilmington, IL 60481

File Code: 1950

Date: May 31, 2002

Dear Friends and Partners of Midewin:

The 30-day public comment period for the Environmental Assessment for Herbicide Use for Invasive Plant Species and Noxious Weeds Control at Midewin National Tallgrass Prairie has passed, and I have made my final decision. Thank you to those who took time to comment on this project during the planning process.

Enclosed you will find the Decision Notice, which explains my decision to implement Alternative 2. Also enclosed is Appendix A, Response to Public Comments; these comments were received during the Environmental assessment comment period. The Environmental Assessment, the public comments received, and the project planning record are on file at the Midewin office.

I hope that you will continue to be involved with future planning efforts for Midewin National Tallgrass Prairie.

Sincerely,

/S/ JODI L NELSON (FOR):
Prairie Supervisor, Midewin
National Tallgrass Prairie



**Decision Notice
and
Finding of No Significant Impact
for
Herbicide Use for Invasive Plant Species and Noxious Weed Control**

**USDA Forest Service
Midewin National Tallgrass Prairie
Will County, Illinois**

Decision Summary

I have decided to approve the use of eight (8) herbicides for limited use to control invasive plants and noxious weeds at Midewin National Tallgrass Prairie. I believe implementing Alternative 2, with mitigation measures as described in the EA (p. 101), will achieve the purpose and need for the project. Herbicide use is consistent with the Midewin Land and Resource Management Plan (Prairie Plan) goals and objectives, and management area standards and guidelines.

Purpose and Need

The purpose of controlling invasive plant species and noxious weeds through use of herbicides on Midewin include the following:

- To facilitate the restoration of the tallgrass prairie ecosystem, herbicide use will occur in conjunction with other methods that include seeding, cultivation, hand pulling, mowing, cutting, and prescribed burning as part of Midewin's Integrated Pest Management (IPM) strategy.¹
- Invasive species and noxious weeds are a threat to management and restoration. In many areas, the existing native vegetation is heavily infested with non-native plant species. For example, exotic species such as Canada bluegrass, common teasel, common mullein, and sweet clover are invading rare dolomite prairie habitat. Reed canary-grass and common reed are aggressive invaders present in Midewin's marshes, sedge meadows, moist grasslands, and wet dolomite prairie. Invasive species such as these can form dense monotypic stands that can choke a wetland and displace desirable plant and animal species.
- Native invasive plants also pose a threat to management and restoration of native vegetation and grassland habitat. Native woody plants such as green ash, gray dogwood, hawthorns, smooth sumac, and sandbar willow are invading grassland

¹ Treatment methods will be determined by life history of target species, size of infestation, level of infestation, and compatibility with habitat objectives (Prairie Plan, p. 4-6).

and prairie communities, displacing desirable species and fragmenting grassland bird habitat.

- Invasive species and noxious weeds pose an increasing threat to native ecosystems and reduce the effectiveness of ecosystem restoration by competing with desired species for light, nutrients, and water. They alter habitat structure, contaminate native seed production, and alter hydrologic regimes in certain wetlands. Management of invasives will prevent Midewin from becoming an additional source of infestation for surrounding lands.

Scope of the Decision

Based on the information contained in the EA, I must decide:

- Whether the information contained in the EA document is sufficient to make an informed decision on the project or if additional information is needed.
- If the information supplied is sufficient to make an informed decision, I must decide if the project would have no significant impacts on the environment or if an Environmental Impact Statement (EIS) must be prepared.
- If the project would result in no significant impacts on the environment, I must decide whether to authorize invasive species control using herbicides.
- I must also decide:
 - Which acres and places to treat;
 - Which herbicide application system(s) to use;
 - What mitigation to use to minimize resource damage; and
 - Whether to close areas (temporarily) under treatment.

Public Involvement

Public participation in this project and decision was first invited in an October 31, 2001 scoping notice sent to approximately 500 individuals and organizations. On April 26, 2002, a letter requesting comments on the Environmental Assessment (EA) was made available to the public and interested parties. Hard copies of the EA were mailed to approximately 40 persons and organizations. Three persons responded with written comments on the EA. Information on the proposed use of herbicides to control invasive plant species and noxious weeds at Midewin was published in the Midewin Quarterly issues for Summer 2001, Fall 2001, and Winter 2002, and distributed to a mailing list of 640 persons expressing an interest in land management at Midewin.

Issues

The following four issues were compiled from both internal and external scoping comments and are discussed in Chapter Three of the EA: Affected Environment and Environmental Consequences. These issues are relevant because of their potential to affect the human environment. They were used in developing alternatives, analyzing environmental effects, and identifying necessary mitigation.

- **Issue 1:** Herbicide use is a reasonable tool to control native and nonnative invasive species and noxious weeds (EA, p. 6).
- **Issue 2:** Herbicides may impact Federal or state-listed threatened, endangered, and sensitive species, or other plant species of conservation concern (TES).

Application of herbicides may affect the Drummond Dolomite Prairie, a sensitive Midewin ecosystem supporting seven TES plant species that occur in this habitat (EA, p. 6).

- **Issue 3:** Herbicides may pose a potential threat to human health. If herbicides are not handled, applied, or stored properly they could present a human health hazard (EA, p. 7).
- **Issue 4:** Herbicides may have adverse effects on soil, water, non-target vegetation, and wildlife (EA, p. 7).

Decision

After consideration of the environmental effects analyzed in the Environmental Assessment (EA) for Herbicide Use for Invasive Plant Species and Noxious Weed Control, I have decided to implement Alternative 2. This decision will allow limited herbicide treatment in order to control invasive plant species and noxious weeds and facilitate restoration of tallgrass prairie habitats at Midewin.

This project includes ten areas within the approximate 15,189-acre Midewin National Tallgrass Prairie, fifteen miles south of Joliet and just north of Wilmington, Illinois. Please see the attached map for locations of the ten areas within which spot treatment of herbicides is planned under this decision.

Limited application of herbicides will involve the use of eight herbicides, the selection of which was based on research indicating that they have minimal environmental impacts (EA pp. 62, 64, 66, 69, 101).

1. **2,4-D** is a selective herbicide that controls invasive broadleaf herbaceous plants and woody seedlings, but does not harm certain monocots (including grasses).
2. **Glyphosate** is a non-selective, broad spectrum, systemic herbicide that is used to control many grasses, forbs, vines, shrubs, and trees.
3. **Pelargonic Acid** is a contact herbicide that controls small seedling annuals, biennials, or perennials.
4. **Sethoxydim** is a selective herbicide used to control annual and perennial grasses. It has little or no impact on broadleaf herbs or woody plants.
5. **Triclopyr** 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.
6. **Clopyralid** controls many annual and perennial broadleaf weeds.
7. **Fosamine ammonium salt (FAS)** is a selective herbicide that inhibits growth in undesirable woody species with minimal environmental impact.

8. **Imazapic** is a selective herbicide that controls annual and perennial grasses and some broadleaf weeds.

I have selected these eight herbicides in order to reduce threats to restoration efforts at Midewin, because many invasive species and noxious weeds have the potential to spread rapidly and out-compete desired native vegetation (EA p. 2).

My decision is to approve limited treatment within the 10 designated areas at Midewin. Not more than 500 total acres will be treated annually. None of the spot treatment areas are expected to exceed one acre in size, and most will be less than 1,000 square feet. The identified sites are listed below, within which the selected smaller areas will be treated to control invasive plant species and noxious weeds. In no case will entire tracts be treated with herbicides.

1. Drummond Dolomite Prairie Area (580 acres)
2. Grant Creek Prairie Annex Area (240 acres)
3. Doyle Creek Wetlands (410 acres)
4. Seed Production Areas (260 acres)
5. Foxglove Prairie (50 acres)
6. Blodgett Road (290 acres)
7. South Patrol Road (420 acres)
8. Prairie Creek Woods (230 acres)
9. Pastures and other agriculture grasslands (5,520 acres)
10. Spot treatment areas for new invasives (3,780 acres)

Implementation will occur as conditions warrant and in strict compliance with requirements that only certified, trained persons will be responsible for applying herbicides, that herbicide label directions and precautions will be followed, and that the mitigation measures outlined in the EA and in this decision are followed. Application methods approved in this decision include hand-held sprayers or wick applicators, as specified in the mitigation measures. Midewin is currently closed to unescorted public visitors, except in one small trail corridor. During herbicide application, areas to be sprayed will be posted, as outlined in the mitigation measures (EA p. 101), to warn anyone in the area of herbicide treatment activities.

Monitoring of herbicide use will be completed annually, and also on a daily basis during periods of herbicide application. Daily logs will be completed within 24 hours of herbicide application and will include information on the type of herbicide, total amount of the herbicide used, method of application, and location of treatment. This information will be consolidated in the annual Forest Service Pesticide Use Report. The Forest Service will monitor the re-growth in treated areas to ensure that resulting habitat is what

is intended. Appropriate monitoring techniques or other evaluations may be used as appropriate.

Rationale for the Decision

I weighed several factors in making my decision, including compliance with Federal and State laws; impacts on the physical, biological, and socioeconomic environment; and the public comments, issues, and concerns. No single factor was solely responsible for my decision. I selected Alternative 2 as the alternative that would best minimize adverse effects on the environment while meeting the purpose and need for the project. In making this decision, I also considered the direction and intent of the 1995 Illinois Land Conservation Act (ICLA) and the Midewin Land and Resource Management Plan (Prairie Plan) to promote the purposes for which Midewin was established.

- Herbicide application is expected to have a positive effect on desired plant and animal habitat. However, inadvertent damage to some non-target TES plant species (BE, p. 38, 39). I believe that adequate mitigation measures are prescribed and that no significant effects will result.
- Escorted public visitors and Midewin personnel will be inconvenienced on a temporary basis during the period of spraying. Posting will advise visitors of areas to avoid during periods of herbicide application (EA p. 102).
- Aquatic and wetland resources should not be affected when prescribed mitigation measures are implemented (EA p. 103).
- Protection of human health and safety will be achieved through careful implementation of mitigation measures, for instance the use of protective gear for applicators and proper disposal of herbicide containers (EA p. 101-103).

Mitigation Measures

The Environmental Assessment (p.101-104) outlines mitigation and monitoring measures that are in accordance with the Prairie Plan and that will be implemented as part of this decision. We anticipate that the mitigation measures listed below will be highly effective in assuring human safety and protecting the natural resources at Midewin:

- Notices will be posted near all areas treated with herbicides following the general guidelines on page 101 in the EA.
- Wind speeds will be less than 10 mph to minimize herbicide drift.
- Herbicide label directions will be carefully followed.
- Only certified personnel will apply herbicides.
- Protective gear will be worn by herbicide applicators per label direction.
- Grazing restrictions will be implemented per label direction.
- Herbicide containers will be disposed of per Forest Service Handbook (FSH) guidelines.
- Herbicides will be labeled and stored appropriately in accordance with label specifications, state and federal laws, and Forest Service regulations.

- Herbicides stored on-site will have Material Safety Data Sheets per FSH guidelines.
- Rinse water for cleaning or rinsing actions in conjunction with herbicide treatment will be disposed of according to Environmental Protection Agency regulations.
- Weather forecasts will be obtained prior to herbicide treatment, and treatment activities will be halted, if needed, to prevent runoff during heavy rain events.
- Areas to receive herbicide treatment will be surveyed first to ensure protection of TES plant species. If any sensitive plant species are located, then appropriate mitigation measures will be implemented.
- Temporary covers will be placed over sensitive plant species during nearby herbicide treatments, as needed.
- Only spot applications will occur in areas containing sensitive plant species to reduce the chance of inadvertent impacts.
- Herbicide application in areas containing known sensitive plant species will be conducted following site-specific mitigation measures.
- Herbicide application will not occur near active nest sites for sensitive bird species.
- Herbicide application near open water will consist only of herbicides registered for aquatic use and in accordance with guidelines for use in riparian areas.
- Livestock water resources will be protected by a 25-foot buffer area during herbicide application.
- Hand-held wands will be used for spraying within riparian areas.
- During days exceeding 85 degrees F., herbicides will not be applied in order to reduce the risk of drift outside the treatment site.

Consistency with the Midewin Prairie Plan

The activities outlined in this decision are consistent with the Prairie Plan Goals and Objectives for restoring tallgrass prairie habitat. My decision takes into account the restoration objectives for Midewin designed to conserve and enhance native vegetation and wildlife, improve or provide potential habitat for TES plant species, and control invasive plant species and noxious weeds through restoration of appropriate vegetation.

Other Alternatives That Were Considered in Detail

Alternative 1 (Proposed Action)

I did not select this alternative, which would have allowed the use of six herbicides within the ten areas designated for herbicide application at Midewin. As with the selected alternative (Alternative 2), not more than 500 acres would be treated annually, and no single treated area would exceed one acre in size; most areas would be less than 1,000 square feet. However, this alternative offers fewer choices. By allowing only six herbicides, this alternative would not facilitate treatment of weed infestations as effectively as Alternative 2, which allows for eight herbicides. The Forest Service would not be able to take advantage of FAS to control woody species, or imazapic to control

invasive plants and noxious weeds. Fewer tools would be available to achieve the desired restoration results at Midewin.

Alternative 3 (Exclude Drummond Dolomite Prairie from Herbicide Treatment)

I did not select this alternative, which would have excluded Drummond Dolomite Prairie from herbicide application. Prohibiting herbicide use from this area would make it extremely difficult to control the noxious weeds and invasive species that have become a management problem in the dolomite prairie. Weed control in this sensitive habitat has become a priority, because uncontrolled infestations are threatening to out-compete and displace native prairie plant species currently present on the dolomite prairie. Excluding this habitat from the benefits of herbicide application would not be consistent with the Prairie Plan's stated goals of restoring, enhancing, and maintaining dolomite prairie at Midewin.

Alternative 4 (No Action)

I did not select this alternative, which would have excluded the use of herbicides as a management tool at Midewin. Extensive portions of Midewin would be at continued risk for encroachment of invasive plant species and noxious weeds. The use of other IPM methods alone to stem the spread of undesired vegetation would likely prove unsuccessful over the long term. The enabling legislation for Midewin envisioned restoration of a tallgrass prairie rather than preservation of invasive and exotic plant species. The Prairie Plan guidelines further direct us to "prevent new or additional infestations of noxious weeds and invasive plant species." Additionally, herbicide treatment would be precluded as an effective tool to halt the acceleration of invasive vegetation onto adjacent land, including private agricultural property and the Des Plaines State Fish and Wildlife Area, where several state and Federal-listed threatened and endangered plant species are known to occur.

Finding of No Significant Impact

Based on the interdisciplinary environmental analysis, review of the National Environmental Policy Act (NEPA) criteria for significant effects, and knowledge of the expected impacts, I have determined that this action does not pose a significant effect upon the quality of the human environment and is not a major Federal action. Therefore, an Environmental Impact Statement is not needed for the limited use of herbicides to control invasive plant species and noxious weeds at the Midewin National Tallgrass Prairie. This determination is based on the following factors:

Context:

Alternative 2 is within the context of the 1995 Illinois Land Conservation Act, the legislation establishing Midewin (PL 104-106), to manage the prairie as part of the National Forest System under direction unique and specific to the management needs of the Midewin National Tallgrass Prairie ecosystem.

Herbicide use is also consistent with Midewin's Land and Resource Management Plan, which guides all resource management activities and sets programmatic direction for managing the land and resources of Midewin.

Intensity:

The severity of the environmental effects of proposed herbicide use, considered alone or cumulatively with other effects, was tested against the following ten criteria listed in the NEPA regulations, 40 CFR 1508.27:

1. In reaching my conclusion of no significant impact, I recognize that limited herbicide use may have some impact on the land. However, there are no significant effects, either individually or cumulatively, which would preclude implementation of herbicide application at Midewin to control invasive plant species and noxious weeds.
2. This action does not pose a substantial question of significant effect upon public health and safety. Concerns that were raised about public health and safety during the public scoping process or during the 30-day public review period for the EA are addressed through mitigation measures designed to prevent risks to the public or Midewin employees during application of herbicides (EA p. 101-103). I conclude that Alternative 2 does not pose a threat to public health and safety.
3. This project poses no significant adverse effects to prime farmlands, floodplains, wetlands, Wild and Scenic rivers, Wilderness Areas, or ecologically sensitive areas. At Midewin there are no Wilderness Areas and no Wild and Scenic rivers. This project will not significantly impact ecologically sensitive areas and wetlands and floodplains will not be adversely affected. I conclude that there will be no significant effects on unique resources.
4. The effects on the quality of the human environment are not expected to be highly controversial. I believe we have addressed the known significant biological, social, and economic issues sufficiently to avoid scientific controversy over the scope and intensity of effects. Based upon reports and discussions with professional resource specialists, there is agreement by my staff and other professionals consulted about the conclusions and effects identified in this analysis. I conclude the effects of this project do not represent a controversial impact upon the quality of the human environment, provided the mitigation measures are implemented.
5. There are no known effects on the human environment that are highly uncertain or involve unique or unknown risks.
6. No precedents are established as a result of the decision being made. Proposed herbicide treatments are specific to the Midewin National Tallgrass Prairie.

Future proposals for herbicide use within Midewin can be analyzed on their merits and implemented or not, independent of the actions currently proposed. Effects of this project are not significant and are mostly short-term in nature. I conclude that this action does not establish precedence for future actions with unknown or significant risks to the environment.

7. There are no known cumulative adverse effects associated with herbicide use when added to other past or reasonably foreseeable future actions implemented or planned at Midewin. Based on the discussion in the EA, I conclude that there will be no significant cumulative impacts.
8. The Forest Service archaeologist has reviewed and compiled information, and determined that heritage resources will not be impacted. Based upon this information I conclude this action will not cause loss or destruction of significant scientific, cultural, or historic resources.
9. The Biological Evaluation prepared for this project, which is available to the public at our office, found that although there could be unintended, adverse short-term effects to individual Federally-listed endangered or threatened plants (T/E) from herbicide use, long-term, overall effects will be positive. Implementation of mitigation measures will eliminate potential adverse effects that could result from limited herbicide use (BE, p. 38, 39). No significant impacts to any T/E plant species or their habitats are foreseen. Based upon the conclusions documented in the Biological Evaluation, I conclude that there will be no significant adverse effect on T/E species or their habitat determined to be critical under the Endangered Species Act. The US Fish and Wildlife Service (USFWS) concurred with this conclusion in their Biological Opinion that this project is not likely to jeopardize the continued existence of either the leafy prairie clover (Federally-threatened) or the eastern prairie white-fringed orchid (Federally-endangered), and that the project should prove beneficial to both species (USFWS, Biological Opinion May 29, 2002).
10. The actions in the decision do not violate Federal, state, or local laws or regulations imposed for the protection of the environment (EA, p. 64). Based on my review of the project and evaluation of permit requirements, I conclude that this project is in compliance with all applicable Federal, state, and local laws.

Findings Required By Other Laws

Herbicide application at the Midewin National Tallgrass Prairie is consistent with the Illinois Land Conservation Act of 1995, the Endangered Species Act, the National Historic Preservation Act, and other applicable laws, regulations, and Forest Service direction.

Project Implementation

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 filed, implementation may not occur for 15 days following the date of appeal disposition (36 CFR 215.10). Implementation means conducting any ground-disturbing actions described in this decision.

Appeal Rights

In accordance with 36 CFR 215.7(a), this decision is subject to appeal. Any Notice of Appeal of this decision must be submitted in accordance with 36 CFR 215.13 and must meet the content requirements of 36 CFR 215.14. Appeals should be addressed to the Regional Forester, Appeals Deciding Officer, Attn: 1570 Appeals, USDA Forest Service, 310 West Wisconsin Avenue, Suite 500, Milwaukee, WI 53203. Appeals must be received within 45 days of the date this decision is published in the *Joliet Herald*.

The Notice of Appeal must contain, as a minimum, the following information: a statement that the document is a Notice of Appeal filed pursuant to 36 CFR 215.7; the name, address, and telephone number of the appellant; the title and subject of the decision document; the date of the decision; the name and title of the Responsible Official; and an explanation of why the appellant objects to the decision. The Notice of Appeal must state the reason(s) for objecting, including issues of fact, law, regulation, or policy, and it must identify the specific change(s) in the decision that the appellant seeks.

Detailed records of the Environmental Assessment are available for public review at USDA Forest Service, Midewin National Tallgrass Prairie, 30071 S. State Route 53, Wilmington, IL 60481, during regular business hours. For additional information concerning this decision or the Forest Service appeal process, contact Enid Erickson, Environmental Coordinator, at the Midewin office at 30071 S. State Route 53, Wilmington, IL 60481 or at (815) 423-6370.

FRANK KOENIG, Prairie Supervisor

May 31, 2002
Date

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Appendix A:

**AGENCY RESPONSE TO PUBLIC COMMENTS CONCERNING
ENVIRONMENTAL ASSESSMENT**

Agency Response to Public Comments Concerning Environmental Assessment

Below are agency responses to the public comments received during the comment period for the Environmental Assessment for Herbicide Use for Invasive Plant Species and Noxious Weed Control at Midewin National Tallgrass Prairie. Letters received are available for review at the Midewin National Tallgrass Prairie office.

Comment 1 (email from Floyd Catchpole, Forest Preserve District, Will County):

Supports use of the eight selected herbicides analyzed under Alternative 2 to control weedy invasives at Midewin. Adds that the herbicides provide “maximal capabilities for addressing management concerns commonly encountered when restoring natural communities, while minimizing long-term impacts on the site. With over 15,000 acres to restore and manage, hand pulling weeds is not an option.”

Forest Service Response to Comment 1:

Thank you for your support of our proposal to use herbicides to control invasive plant species and noxious weeds at Midewin. We believe the selected herbicides will reduce many of the harmful effects of invasive vegetation and add effectively to those Integrated Pest Management tools (mowing, cutting, hand pulling, prescribed fire) currently in use.

Comment 2 (phone conversation with Karla Kramer and Mike Redmer, US Fish and Wildlife Service):

Herbicide use has the potential for causing unintended harm to some sensitive, individual plants because it is not possible to positively identify all individual plants prior to herbicide use. However, by eliminating invasive species near the Federally-threatened eastern prairie white-fringed orchid and the Federally-endangered leafy prairie clover, the recovery of these two species may be promoted because they will be allowed to expand unthreatened by competing invasive species.

Forest Service Response to Comment 2:

We agree that it is not possible to identify in advance of spraying all potential individual sensitive, threatened, or endangered plants that may need protection. Although mitigation measures have been designed to protect sensitive species, including the Federally-endangered leafy prairie clover and the Federally-threatened eastern prairie white-fringed orchid, short-term unanticipated harm to some individual plants might nevertheless occur. Such mitigation measures include changing the timing of herbicide treatments, refraining from herbicide treatments, selecting different herbicides, covering sensitive plants, and changing the area of herbicide application. We further agree that the overall, long-term effects on TES plants at Midewin, including the two Federally-listed plant species, will be positive as the result of controlling or eradicating competing invasive plant species

and noxious weeds. The Biological Evaluation completed for this Environmental Assessment has been revised to reflect our changed conclusions on the effects of herbicides analyzed in the EA (BE, p. 38, 39).

Comment 3 (Letter from John D. Rogner, US Fish and Wildlife Service):

Use of herbicides near known locations of the Federally-endangered leafy prairie clover and the Federally-threatened eastern prairie white-fringed orchid could affect these species. However, these species may also be affected by encroachment of “invasive or weedy species, which would be targeted by the proposed herbicide. Such applications, if done in an environmentally sensitive manner (e.g., minimizing or eliminating drift), may thus have a positive effect on the listed species.”

Forest Service Response to Comment 3:

Thank you for your support of our proposal to use herbicides to control invasive plant species and noxious weeds at Midewin. As stated under our response to the comment above, we believe there may be unintended effects or harm to individual TES plant species, including the leafy prairie clover and eastern prairie white-fringed orchid. We agree that the overall benefit to these species will outweigh the risk, and anticipate a positive long-term effect through control of invasive plants (BE, p. 38, 39).