



File Code: 1950-2

Date: September 27, 2006

Dear Friends and Partners of Midewin:

The Forest Service is requesting your comments on a proposal to initiate a prairie-wide habitat maintenance program at Midewin National Tallgrass Prairie. This proposal would help prevent further spread of invasive plants and reduce the potential for high intensity wildfires that may adversely affect native species or adjacent private property interests. By implementing the proposed treatments, Midewin will meet the desired future condition goals in the Prairie Plan for vegetation and habitat.

During implementation of this program the Forest Service will respond to expected outbreaks of invasive species and accumulated grassy and shrubby fuels across the prairie. The area to be treated by different methods includes the entire Midewin National Tallgrass Prairie and imminent land transfers, although only a portion of the Prairie will be treated in any one year. The proposal will allow Midewin to respond promptly to new threats with the identified treatments, improving our short and long term efficiency.

Purpose and Need

The purpose of establishing a broad prairie-wide habitat maintenance program is to meet the goals outlined in the Prairie Plan by implementing routine ecological management actions that protect habitat investments at Midewin.

There are several reasons that it is important to conduct routine habitat maintenance across the prairie. Invasive plant species have been increasing at Midewin on a yearly basis; there is almost no area completely free of invasive plants and some areas are already severely degraded by invasive species. If this trend is allowed to continue many existing native plant communities will disappear. Investments have been and are being made today by the Forest Service and its many partners to restore the prairie and grassland habitat at Midewin as directed by Illinois Land Conservation Act (ILCA). If invasive plant species are not controlled now, these major investments will be lost in the near future.

If left untreated for two or three years, open grassland habitat will soon become dense shrubland of non-native plants that is not suitable habitat for grassland birds. Reed canary grass and common reed are quickly covering almost 100% of many wetland sites, crowding out native plants and changing the habitat. Similarly, upland prairie areas are being invaded by teasel, Canada thistle and other invasive plants and will cover 20% or more of the restored or remnant prairies within three to five years, if no action is taken to control invasive plants. Abandoned fields and the numerous sites with old Army structures are already infested with invasive plants and need immediate treatment. Grazing pastures and hay fields likewise need periodic treatment of thistles or other invasive plants. Areas recently restored will need routine habitat maintenance until the native plants become established and can dominate over the weedy invasive plants.



Continued row cropping of the agricultural fields keeps these vast areas free of invasive plant species until resources are ready to convert to either grassland or native prairie habitat.

Work to control invasive plants and treat hazardous grassy fuels has already begun on several sites across the prairie. Over the past several years, six (6) environmental assessments and decision notices have been completed that authorize use of specific habitat maintenance activities on only few specific sites at Midewin. This proposal incorporates those specific activities and other treatments for use across the all of the Prairie to allow for a quicker response to new infestations and build up of hazardous fuel conditions.

Goals and Objectives

Habitat maintenance goals are based on the Prairie Plan goals and objectives. Specific goals for this proposal include:

- 1) Keeping the identified natural community remnants from deteriorating.
- 2) Improving or maintaining the quality of cool-season grass areas currently being managed for grassland wildlife.
- 3) Reducing the risk of invasive plant species (native and non-native) from spreading throughout Midewin and threatening ongoing and future restoration.
- 4) Reducing hazardous fuels that threaten Forest Service and adjacent private infrastructure and Midewin native plant communities.

The Midewin Land and Resource Management Plan (Prairie Plan) outlines the desired condition of a more natural appearing landscape through sound ecosystem management, including:

Goal 1: Sustain habitats and processes necessary to maintain the biological diversity of the tallgrass prairie and provide for multiple-use outputs.

Objective 2.4.7.c: Implement prescribed fire to restore fire as natural disturbance process.

Objective 2.4.7.d: Implement a grazing management program for grassland bird habitat.

Goal 2: Provide ecological conditions to sustain populations of native and non-native species of plants and animals and achieve objectives for Management Indicator Species.

Objective 2.4.9.b: Protect, manage, monitor and enhance all existing native vegetation remnants.

Objective 2.4.9.c: Reduce agriculture crops by approximately 150 acres/year and either restore to grassland or native habitat.

Goal 3: Reduce noxious weeds and exotic, invasive plant and animal species infestations and prevent new invader species from becoming established.

Objective 2.4.10.b: Reduce or limit expansion of noxious and invasive species, with emphasis on areas with high potential to spread.

Objective 2.4.10.c: Manage noxious weeds and invasive species in coordination with adjacent landowners, users, affected resources, and funding sources. (Prairie Plan pp. 2-5, 2-6).

In response to the Healthy Forests Restoration Act (HFRA) 2003, the Eastern Region of the Forest Service developed a “vision for the future”. One major goal is to protect ecosystems across man-made boundaries. Two mileposts of this goal are: 1) to restore all forests and prairie lands in the Eastern states to healthy and resilient native and desired non-native ecosystems as described in Forest Land and Resource Management Plans and Midewin’s Prairie Plan; and 2) to reduce the effects of invasive species and the risk of catastrophic wildland fires.

Fires were historically essential in maintaining the native grasslands and their ecosystems, keeping them from becoming dominated by non-native woody vegetation. With suppression of the natural fire regime in recent decades, undesired invasive plant species and noxious weeds have been able to flourish, resulting in a buildup of highly flammable shrubby fuels and crowding out native grasses and forbs. The former open lands around Midewin have been highly developed in recent years with industrial and urban uses. Reduction of “hazardous fuels” on a continuing basis is necessary to mitigate the impacts of fire in this wildland urban interface where Midewin is situated.

Treatments Proposed

To achieve these goals, specific actions are required to restore tallgrass prairie habitat and ecosystems and conserve and enhance native populations of fish, wildlife, and plants in accordance with Midewin’s establishing legislation, the Illinois Land Conservation Act.

Routine grassland habitat management can help control and eventually decrease the severity of invasive plant species problems. Routine hazardous fuels reduction can reduce the threat of uncontrolled fires in the wildland urban interface. Routine management activities include: mowing, prescribed fire, row crop production, grazing, small tree and shrub removal, large tree removal (only in identified native plant communities), and the use of herbicides. Each of these activities can reduce the threats of invasive plant species and hazardous fuels. Only portions of Midewin are proposed to be treated in any one year; however, the specific locations where management activities are applied may change from year to year, depending upon the exact location of the threats. Appropriate management activities will be prescribed based on the annual observed intensity of invasive plants species or accumulation of hazardous fuels. Once the invasive species are controlled, less area will need intensive annual treatment for invasive species. However, it is expected that these management activities will be needed for the long term to restore the prairie ecology at Midewin.

Desired Condition

The Prairie Plan outlines the desired condition for Midewin as a more natural-appearing landscape. Populations of noxious weeds and invasive plant species are reduced or eradicated. Upland prairie and wet prairies will be restored including removal of non-native hedgerows and trees. Grazing and mowing may be used to aid in the restoration process. The grassland habitat will be a mixture of pasture grasses and forbs and some native plants. Changes in the riparian corridors along the streams include reduction of shrubs and of tree canopy width and density. However, tree species composition in this habitat will remain much the same as it is today. The desired condition for the savanna habitat has groupings of open grown bur oak, white oak, and shagbark hickory with variable canopy cover from 5% to 50%. The savanna understory may include a shrub layer and will have a variety of herbaceous plants found in both prairie and

woodland communities. The woodland areas have a desired condition with two or three distinct vegetative layers. One, a variable tree layer with 50% to 100% canopy cover, and an underlayer of shrubs, vines and understory trees, and finally a forest floor of herbaceous or flowering plants. (Prairie Plan pp. 2-3, 2-4).

The desired condition for hazardous fuels as described in the National Fire Plan is a trend or move towards more naturally occurring fuel conditions. The Prairie Plan Objective 2.4.7.c. is to implement prescribed fire to restore fire as a natural disturbance process for the prairie ecosystem.

Existing Condition

Invasive plant species are found throughout Midewin in all types of habitats. Some species pose a more immediate threat than others. For instance, autumn olive, bush honeysuckle, garlic mustard, reed canary grass, common reed grass, teasel, Canada thistle, bull thistle, leafy spurge, crown vetch, bird's foot-trefoil, and sweet clovers are all aggressive and rapidly spread, crowding out the native plants. Newly arriving invasive species such as purple loosestrife which are not a current threat on Midewin, or only pose a minor threat today, may create future problems in different locations from year to year, requiring the ability to be flexible in prescribing a set of treatments to apply as soon as we have identified a critical infestation.

The native vegetation remnants are high priority areas to maintain before they lose more native plant species. Currently 793 acres are identified as native vegetation remnants within Midewin (see [Figure 1](#) & [Figure 2](#)). These areas include: prairie (black-soil prairie and dolomite prairie), wetlands (sedge meadow, marsh, and seeps), woodlands (savanna, and upland forest). Approximately 40 additional acres of dolomite prairie and marsh will need treatment upon completion of a land transfer from ExxonMobil Corporation, creating a total of 833 acres of native vegetation remnants at Midewin.

The second priority is the approximately 1500 acres of wetland and upland prairie currently being restored. These areas are still new restorations with young plants competing with aggressive invasive species.

Approximately 5200 acres of cool season grass pastureland are currently in a grazing or hay rotation for grassland wildlife management (see [Figure 3](#)). Additional acres (approximately 150 acres per year) will be converted to grassland from row crops in the coming years to reach the goal of 6690 acres of grassland bird habitat as identified in the Prairie Plan. The pastures and hay fields can quickly become infested with Canada thistle and invasive woody or shrubby plants, reducing the available pasture and changing the habitat.

Currently 3556 acres are in row crops (soybeans or wheat) authorized under Special Use Permits. Continued row crop production keeps invasive plant species out of the crop fields until they can be planted with native prairie species or converted to pastures. The acres in row crops are being phased out or converted to grassland bird habitat (grazing pastures) or restored prairie at approximately 150 acres per year following direction in the Illinois Land Conservation Act, Midewin's enabling legislation. It will take many years before the Forest Service has the capacity to restore all the fields now under row crops.

Abandoned fields divided by old hedgerows of osage-orange trees or clumps of other non-native trees are scattered throughout the prairie, along with numerous large sites with old Army structures that are already infested with a variety of invasive plants, shrubs and non-native trees.

The buildup of fine fuels has occurred on grasslands at Midewin, resulting from seasonal drying and accumulations of dead grasses. This can affect fire behavior by causing higher intensity fires. Midewin is currently classified under Fire Regime II, Condition Class 3, which means that natural plant communities have been significantly altered from their natural range and have a high risk of losing key ecosystem components. This qualifies Midewin under the Healthy Forests Restoration Act as a federal landholding requiring fuels treatment emphasis. As tallgrass prairie habitats are restored at Midewin the classification will change to Condition Class 2, with fire regimes that have been moderately altered from their natural range and have a reduced, moderate risk of losing key ecosystem components.

The area surrounding Midewin is expected to become rapidly urbanized. Industrial plants, petrochemical plants and warehouses are already adjacent to Midewin with additional industrial facilities planned for construction in the next few years. Midewin is a wildland area next to an urbanized environment resulting in an interface where invasive species may easily be introduced and uncontrolled wildland fires could have disastrous impacts to life and property.

Proposed Action

The US Forest Service is proposing to develop a program of routine habitat maintenance actions to manage native vegetation remnants, wildlife habitat, and to protect tallgrass prairie restoration investments. Several ecological management actions are needed to preserve existing natural communities, improve restoration projects, control the spread of invasive plant species and noxious weeds, control the encroachment of woody vegetation into existing native prairie habitat, and reduce hazardous fuels. Investment today will reduce the long term costs of restoring further degraded habitats.

Management actions proposed to preserve existing native vegetation remnants and maintain unfragmented and restored habitats will include mowing, prescribed burning, treating invasive species and noxious weeds with authorized herbicides or hand removal, and continuing with grazing and agricultural row crops. Invasive small trees and shrubs that are less than 6 inches dbh (diameter breast height) will be removed. The 833 acres of existing native vegetation remnants will have large invasive trees removed (trees larger than 6 inches dbh).

The actions described above would be applied to National Forest System lands across the prairie and would also be applied to those lands that are scheduled for transfer to the US Forest Service from the Army or other entities within the next five years (see [Figure 4](#)). Areas proposed for routine maintenance activities include identified native vegetation remnants, roadsides, non-wooded areas, old farmsteads and fields, restored wetland and upland prairies, areas with existing or future grazing and agricultural permits, and abandoned Army infrastructure sites.

Some of these activities are currently being implemented in several locations at Midewin under previous decisions and environmental assessments including:

- *Blodgett Road/South Patrol Road Wetland Restorations* (2000)
- *Continued Agricultural Land Use from 2001 through 2005* (2001)
- *Managing Vegetation with Prescribed Fire* (2001)
- *Herbicide Use for Invasive Plant Species and Noxious Weeds Control* (2002)
- *Grant Creek/Hoff Road and Mola Restoration Projects* (2002)
- *Drummond Floodplain/Middle Grant Creek Restoration* (2003)

This proposed action would permit these habitat maintenance actions to all of Midewin National Tallgrass Prairie not just a few locations and would allow the continuation of agricultural uses of row crops and cattle grazing on the sites shown in [Figure 3](#). This is our best effort to anticipate the spread of invasive species and buildup of hazardous fuels based on historical conditions and changes on the landscape since the Forest Service took over management of Midewin in 1997. As the Army transfers additional lands in the next few years, the treatments identified will also be applied to those lands without further analysis (see [Figure 4](#)).

Proposed Annual Treatments

TREATMENT	Estimated Acres Per Year
Entire Tract Mowing	6000
Spot Mowing	500
Brush Mowing	2000
Individual Tree Removal	833*
Hand removal	200
Prescribed Fire	4000
Grazing	6000
Row Crop Production	3560
Herbicides	4000

NOTE:

The actual areas treated each year will change based on the observed need for invasive species control or fuel reduction.

** The invasive trees on the native vegetation remnants would be removed gradually over several years.*

The same piece of ground may receive two or more treatments in any one year. For example, the newly restored upland prairie may be spot mowed to treat thistle, then spot treated with herbicide, and later treated by a prescribed fire all in the same year. Likewise, areas that are grazed will be spot mowed and may also get a spot treatment of herbicides.

Specific Actions Proposed

Entire tract mowing is used for habitat structure management. The vegetation is mowed and left on site or removed as hay. This type of mowing is most often done by a farm tractor pulling a large rotary mower. Entire tract mowing is typically done between August 15th and April 15th to avoid harming ground-nesting wildlife. By keeping the mower set low to the ground and mowing over the entire tract, small invasive trees and shrubs, some late season herbaceous invasive plant species, and hazardous fuels can be controlled or reduced temporarily. Usually, this kind of mowing is necessary once every two or three years; although when infestations are more severe, annual mowing may be necessary. Up to 6000 acres would be “entirely mowed” on an annual basis.

Spot mowing to control invasive plant species is defined as mowing small, isolated areas, usually no more than a few acres. “Spot mowing” may need to be conducted during the nesting period of ground-nesting wildlife to cut the flowering heads of weeds such as Canada thistle before they set seed. Impacts to wildlife are minimized by mowing only small areas and keeping the mowing blades high off the ground. This kind of mowing is done yearly or whenever a problem with invasive species is discovered. Up to 500 acres would be spot mowed yearly at Midewin.

Brush mowing of invasive woody vegetation (trees and shrubs) that are less than six inches dbh require the use of a more specialized piece of equipment with a front-mounted rotary mower or drum mower. Approximately 2000 acres per year with scattered invasive trees and shrubs less than six inches dbh will require this specialized treatment over the next five to ten years. These areas are scattered throughout the Prairie. After the initial “mowing of the invasive woody trees and shrubs”, the rest of the tracts would be mowed with a regular tractor and mower. Occasionally, follow up mowing with more specialized equipment may be necessary following the initial treatment.

Tree removal techniques for larger invasive trees (greater than six inches dbh) within the 833 acres identified as native vegetation remnants would depend on the sensitivity of the remnant and the time of year. Several hundred trees would be individually identified for removal. In areas with less sensitive soils and plant species, the trees may be removed by a feller/buncher machine and the woody material chipped. The stumps would be ground down to six inches below the ground, depending on the sensitivity of the area. In more sensitive areas the trees would be girdled and the cut surface treated with an herbicide to kill the tree. The trees would be left standing to slowly decay over time. In woodlands and savanna native vegetation areas, only selected invasive trees would be removed to allow for the regeneration of more desirable tree species. Tree removal activities on the 833 acres would happen gradually over several years, following a decision to approve this proposal.

Hand removal of invasive plant species consists of pulling or cutting stems or flower heads by hand. The cut material is then removed to a compost pile for disposal or left in the field. Garlic mustard and small cottonwood seedlings are easily pulled from the ground during moist soil conditions. Teasel flowering heads can be removed by cutting prior to seed set. “Hand removal” is typically used in conjunction with other treatment methods and by large groups of volunteers. Approximately 200 acres each year would be treated in this fashion. Small trees and shrubs may

be removed by hand using a chainsaw or handsaw on vegetation less than six inches dbh. However, usually over 75% of the targeted invasive species are less than three inches dbh.

Prescribed fire consists of a controlled burn to mimic natural fire regimes that can no longer occur because of fragmentation of landscapes. Prescribed fire is used to control invasive trees, shrubs, and herbaceous plants; reduce hazardous fuels; and stimulate native herbaceous vegetation. Stimulating native vegetation increases the competitive edge of native vegetation over invasive non-native vegetation. Typically “prescribed fire” is used during the dormant plant season (October through April) to avoid harm to wildlife and plants during the growing season. Occasionally areas may need to be burned during the growing season to control some invasive plants.

During the growing season prescribed burns are on small tracts, typically not over 200 acres. Approximately 1500 acres are currently burned by “prescribed fire” each year at Midewin, and this acreage is expected to increase when additional areas are restored and as “prescribed fire” replaces other restoration tools such as mowing. Up to 4000 acres would be treated with prescribed fire on an annual basis.

Grazing is used at Midewin as a management tool to control the grass heights for grassland wildlife. Because different species of grassland wildlife prefer different grass heights, managed grazing can provide the preferred grass heights. Grazing is also an effective means of controlling some invasive plant species. Cattle will browse on some trees and shrubs, thereby limiting plant growth. Herbaceous plant species are also sometimes grazed or trampled in such a fashion that their growth becomes limited. Managed cattle grazing can provide necessary habitat and also control invasive plant species. Currently, 5198 acres are under authorized grazing permits, and an additional 767 acres of pasture will be ready for grazing within the next two-three years, (see [Figure 3](#)). The locations of grazing pastures will slowly shift over the next decade toward the areas identified in the Prairie Plan for grassland bird habitat, primarily towards the east side of Midewin. Short term or intermittent grazing may be necessary on some restored prairie areas of the west side to control invasive species and to increase biodiversity on the prairie.

Row crop production is another tool used to control the spread of invasive species. The Illinois Land Conservation Act, Midewin’s enabling legislation, directs that row crops are to be phased out and the land restored to native vegetation or agricultural uses must serve resource management purposes. Continued row crop production keeps invasive plant species out of the crop fields until the fields can be planted with native prairie species. It will take many years before the Forest Service has the capacity to restore all the fields now under row crops. If row crop production ceased, the crop fields would soon grow up into invasive species that would rapidly spread across Midewin and onto neighboring private lands. Additionally, row crops can facilitate preparation of seed beds for planting native species. Crops at Midewin are usually limited to a wheat and soybean rotation, but oats may be substituted for wheat. Roundup-Ready soybeans would be used with several applications of Roundup herbicide throughout the growing season to control weeds. The number of acres in row crop production will gradually decrease, although for the next several years no new conversions (from row crop to pasture or restored prairie) are planned, due to the pressing need to address invasive species elsewhere at Midewin.

Herbicide application is a management tool that is used to control invasive plant species. Eight different herbicides were approved for use at Midewin in 2002 when the Decision Notice was signed for the *Herbicide Use for Invasive Plant Species and Noxious Weeds Control* environmental assessment. The following herbicides are currently applied to control invasive plants at Midewin and this proposal would continue their use as needed:

- 2,4-D
- Glyphosate
- Pelargonic acid
- Sethoxydim
- Tricolopyr
- Chlopyralid
- Fosamine
- Ammonium salt of imazapic

Foliar or cut surface treatment would be used, depending on the species being treated and herbicide used. Most areas needing herbicide application would receive a spot treatment. Spot treatment is defined as applying herbicide to individual plants or small groups of plants and occasionally using a small boom sprayer mounted on an ATV or similar vehicle. Spot treatment areas would generally be less than one acre in size.

Occasionally an entire field may need to be treated with a boom sprayer or with a larger farm herbicide spreader. An application on a large tract or field would only occur on rare occasions to prepare sites for planting of native prairie and would not exceed 300 acres in size at any one time.

Potentially, all fields and tracts (not including the fields under row crops) at Midewin would need an herbicide treatment. In the past few years approximately 1500 acres per year have been spot treated with herbicide. Up to 4000 acres may need herbicide application on an annual basis to keep invasive plant species under control. The actual area or acres receiving herbicide is a small fraction of the total tract size, since most tracts only have localized areas of infestation at this time.

The Forest Service at Midewin will control most invasive plant species through a combination of the management tools described above. For example, the control of teasel may consist of spot foliar herbicide treatments on rosettes in the early spring, followed by the removal of early flowering heads on missed plants by either foliar spraying of an herbicide or cutting off the stalk at the ground by hand.

These complementary habitat management tools are all necessary to reach the ecosystem goals of the Prairie Plan. No one habitat management tool alone will provide the means to reach the desired future condition of a restored prairie ecosystem and grassland bird habitat.

Public Involvement Requested: Your comments on this proposal will help us to determine the key issues or concerns about this project and feasible alternatives that we should consider in the environmental assessment.

1. Is there any information about the project areas that you believe is important in the context of the proposed activities and which the Forest Service might have overlooked?
2. For you or the group you represent, what are the potential effects of this proposal about which you are particularly concerned?
3. Are there reasonable alternative ways to meet the desired condition or purpose and need (the rationale for conducting activities) for which you would like the Forest Service to develop and analyze the environmental effects?
4. Are there issues and concerns which you believe are important and would like to have addressed during the NEPA process? If so, please include your rationale for why they should be analyzed.

We will review and consider all public comments received during this public input period. As the Prairie Supervisor, I will be the deciding official for this project. At this time, I do not believe that these actions will have a significant impact on the environment based on current information and similar activities conducted in the past. However, the effects of the proposed activities on the biological, cultural, and socio-economic environment, including water, air, soils, sensitive species, federally threatened and endangered species, hazardous materials, recreation, and heritage resources will be analyzed in order to make a final determination.

In accordance with Forest Service regulations at 36 CFR 215, this information is being made available to the public for a 30-day comment period prior to my decision on whether or not to proceed with the proposed action. In order to be considered, comments must be substantive, or specific to the actions that are proposed. Please be sure to include your name, address, organization represented, and title. Each individual or representative of a group or organization that submits comments must sign or provide for verification of identity. Please include the title of the document you are commenting on and specific facts and supporting reasons regarding your comments for me to consider.

The opportunity to comment ends 30 calendar days following the date of publication of a legal notice in the Herald News. The publication date in the Herald News is the exclusive means to calculate the comment period. Because the regulations prohibit extending the length of the comment period, no comments will be accepted after the 30-day comment period ends.

Written, facsimile, hand-delivered, oral, and electronic comments will be accepted. Written comments must be submitted to Logan Lee, Prairie Supervisor, Midewin National Tallgrass Prairie, 30239 South State Route 53, Wilmington, IL 60481. Hand-delivered comments will be accepted at the address above during regular office hours, from 8 AM to 4:30 PM, Monday through Sunday. Oral comments may be provided at the Midewin Supervisor's Office during

normal business hours via telephone (815) 423-6370 or in person. Electronic comments must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), and Word (.doc) to comments-eastern-midewin@fs.fed.us.

Copies of my decision will be mailed to those submitting comments and to those who request copies. If you have any questions about the proposed action or the purpose and need, please contact Bill Glass, Project Leader, at the address above, by [email](#), or by phone at (815) 423-6370. Thank you for your interest in activities at the Midewin National Tallgrass Prairie.

Sincerely,

A handwritten signature in cursive script that reads "Renee C. Shaker".

(for) LOGAN LEE
Prairie Supervisor,
Midewin National Tallgrass Prairie