



United States  
Department of  
Agriculture

Forest  
Service

Midewin National Tallgrass  
Prairie

3007 South State Route 53  
Wilmington, IL 60481  
(815) 423-6370

---

**File Code:** 1950-1

**Date:** December 7, 2001

**Route To:**

**Subject:** Drummond Floodplain Restoration

**To:** Friends and Partners of Midewin

The Forest Service at Midewin National Tallgrass Prairie (Midewin) is proposing to conduct restoration work on Jackson Creek, its floodplain, and the associated Drummond Dolomite Prairie in the lower part of the creek's watershed. This project would continue ongoing restoration of the tallgrass prairie ecosystem at Midewin. During this initial public comment period, we are providing you with information on the proposed restoration work and invite you to send us your comments.

The proposed project area is located within the western portion of Midewin in portions of Sections 22, 23, 24, 25, 26, and 27, T.33 N., R.9 E., Will County, Illinois, and includes a portion of lower Jackson Creek and adjacent floodplain areas. The site is traversed by Drummond Road and lies just west and north of the Deer Run Industrial Park, once a TNT manufacturing area within the former Joliet Army Ammunition Plant (JAAP). The site is bounded on the south by an abandoned rail bed, on the west and north by the property line of the Forest Service and the Burlington Northern/Santa Fe Railroad (BNSF RR), and on the east by the riparian area of Jackson Creek and the railroad spur linking the Deer Run Industrial Park to the BNSF RR. Please see the attached map for specific site location information.

The terrain of the project area is level to slightly sloping on the outwash plain. Most of the soils in the project area are hydric soils that formerly supported wet prairie and other natural wetlands. The project site includes many shallow soil areas over dolomite that once supported extensive dolomite prairie communities, today a rare ecological community and a high priority for restoration management under the proposed Land and Resource Management Plan for Midewin.

At present, the vegetation in the project area is mostly a mix of grasslands dominated by non-native, cool-season grasses, and wetlands dominated by native and non-native vegetation. Existing dolomite prairie plant communities or species are present within and adjacent to the project area. There are also scattered thickets of woody vegetation, with more extensive stands along Jackson Creek. Most of this vegetation is dominated by invasive species (both native and non-native), such as green ash, hackberry, Osage-orange, hawthorn, and Amur honeysuckle. The wooded areas associated with Jackson Creek include degraded remnants of native savanna, upland woodland, floodplain forest communities, and a great deal of successional vegetation

Available information indicates that prior to agriculture and arsenal development, most of the site's natural landscape consisted of wet prairie, sedge meadows, and marshes, although some wooded areas were present along Jackson Creek. Sometime during the onset of agricultural activities between 1830 and 1940, this area was drained and attempts were made to convert the land to agricultural uses. Invasive shrubs and trees have invaded much of the area, changing the structure of grasslands, wetlands, savannas, and woodlands. Presently, this area provides



breeding and foraging habitat for a variety of grassland and wetland bird species. Some dolomite plant species survive, especially toward the western end of the project area.

**Existing conditions** are expected to change as the recently-constructed stormwater system of the adjacent Deer Run Industrial Park discharges into the project area at two points: (1) a pre-existing outfall, or outlet, where runoff will pass through a wetland (former stream channel) into Jackson Creek, and (2) a new outfall where waters will be dispersed onto the outwash plain. The stormwater will constitute a significant portion of the water supply to the outwash plain and will partially define the quality and extent of potential wetlands in the area. These outfalls will be used to replace some of the surface runoff that once reached the outwash plain, but has been diverted into drainage structures both during and before Army presence. Some of the proposed actions discussed below address restoration of the Drummond floodplain in terms of adapting to these changes in the stormwater system as well as to changes in the structure of the floodplain in order to improve conditions for long-term management.

In addition, past construction of the connecting rail line across the floodplain has altered the routes of water movement and reduced the storage capacity of the floodplain. Culverts installed under this rail line as part of the industrial park's stormwater system will allow floodwaters from Jackson Creek to pass under it. Existing roads and rail beds on the floodplain also limit the storage and movement of floodwaters, and their removal is expected to improve floodplain and habitat conditions.

The project area includes a stretch of Jackson Creek that was channelized in the past, eliminating a long meander. Persistent, severe erosion has occurred since that time as the result of the stream's confinement in the constructed channel. Downstream areas also exhibit persistent bank erosion on meander bends.

Jackson Creek supports a high-quality aquatic community of fish species, freshwater clams and mussels, and a variety of macro-invertebrates. Vegetation in the Jackson Creek riparian corridor around the meander cut-off consists mostly of successional stands of trees, with an understory of native and non-native shrubs and forbs, often dominated by Amur honeysuckle, reed canary-grass, and garlic mustard.

The **Purpose and Need**, or rationale, for the Drummond floodplain restoration project is to restore hydrological and ecological connections across the landscape, so that hydrological functions, topography, soils, vegetation, and habitat more closely approximate the pre-development conditions, to the extent possible. Restoration of the Drummond floodplain will facilitate our goal to restore the tallgrass prairie ecosystem at Midewin in order to conserve and enhance native populations of fish, wildlife, and plants in accordance with the Illinois Land and Conservation Act of 1996. Establishing sound restoration management practices and appropriate responses to environmental changes that have occurred or are expected to occur as a result of developing the arsenal and adjacent industrial park are needed.

Floodwaters from Jackson Creek need to pass with ease toward the rail spur and through culverts to allow dispersal across the outwash plain. Flood depths and velocities in the channelized reach of Jackson Creek need to be reduced, and the severe, persistent erosion along the creek should be eliminated so that the erosion becomes a process of natural, balanced channel adjustment. The over-bank stream flow should be able to recharge surrounding wetlands, while floodplain storage would help reduce downstream flooding and improve the water quality. Stormwater from Deer

Run Industrial Park should supply existing wetlands with an appropriate quantity of water and be adequately dispersed across the outwash plain in order to recharge the area and support future wetland restoration.

Native vegetation is absent or suppressed in much of the project area. If left unattended, the existing dolomite prairie and wetland communities may continue to decline, largely because of encroachment by invasive plants. Likewise, the loss of valuable grassland bird habitat needs to be prevented.

Based on the planning and implementation of similar restoration efforts, we anticipate that **Issues and Concerns** may include potential adverse impacts on adjacent private lands as the result of changes to the hydrology within the project area. There may be concern that nearby remnants of native vegetation will be adversely impacted, and there is the need for protection of an historic cemetery. These preliminary issues, as well as others expressed during this public scoping process, will be addressed in the Environmental Assessment (EA) for this project:

- Engineering designs should not promote adverse impacts to connected lands by changes to the hydrology in the project area. Included are adjacent Army lands and private farmland west of the project area.
- A stable, high quality stream and riparian area should be created along Jackson Creek.
- Existing aquatic resources need to be protected, including the diverse fauna in Jackson Creek. Breeding populations of amphibians should be considered.
- Impacts on existing wetlands and remnants of native vegetation need to be considered and avoided, particularly dolomite prairie species. Remnants of existing native vegetation should be protected and managed to improve their quality.
- Adverse impacts on federally endangered and threatened species, state endangered and threatened species, and Regional Forester sensitive species need to be avoided. Adverse impacts on existing bird populations need to be avoided.
- Heritage resources within or adjacent to the proposed project area need to be protected.
- Project actions should not affect future recreational opportunities or scenic quality.

**Proposed Actions** within the Drummond floodplain project area include the following:

- Create a floodplain bench along Jackson Creek and improve hydrological conditions through removal of the Drummond Road spur and establishment of appropriate native vegetation along the bench. Stabilize eroding banks of Jackson Creek using erosion netting, root wads, willow cuttings, and other techniques that emulate natural channel structures. Improved storage and dispersal of floodwaters should reduce scouring and erosion along the channel's stream banks and stream bed; construct a shallow swale to improve floodwater transport.
- Remove Drummond Road east from West Patrol Road to the rail line (1/2-mile); provide for a vehicle turn-around/parking spot. Revegetate with native plants.

- Remove ballast (gravel fill material) from abandoned rail beds and regrade as needed; revegetate with appropriate native plants.
- Survey for drain tiles and remove if any are located through excavation and removal, or disable by breaking sections of the tile lines.
- Implement an Integrated Pest Management approach to control exotic (non-native) grasses and herbaceous cover. Methods may include mechanical treatments (i.e. mowing and disking), prescribed fire, competition from native plants, and herbicide applications. Herbicide treatment will consist of spot foliar spraying with backpack sprayers or small vehicle-mounted sprayers. Only approved herbicides commonly used in natural areas management to control invasive species and noxious weeds will be considered, including glyphosate, triclopyr, clopyralid, pelargonic acid, and/or sethoxydim. Spot treatment of new infestations during and following the restoration work may be necessary. Cut stumps may be treated with an herbicide approved for this purpose, such as glyphosate or triclopyr, to prevent re-sprouting. Both of these herbicides are commonly used in natural areas management to control woody plants from re-sprouting after cutting.
- Cut woody vegetation with hand tools (e.g. chainsaws) and remove (e.g. chipping and removal or burning). Remove undesired understory components of the Jackson Creek riparian corridor woodlands, including non-native shrubs and trees (Amur honeysuckle, Osage-orange, and multiflora rose).
- Monitor areas to determine results of management (herbicide application, prescribed burning, etc.) prior to enhancement of native vegetation remnants.
- Plant appropriate native species to restore wetland, prairie, and savanna vegetation. The timing, types, and amounts of plant materials (seeds, plugs, transplants) will be limited by availability. Further over-seeding and planting will be used to enhance restorations during the following 3 to 5 years.
- Utilize prescribed burning, mowing, and possibly grazing after the initial invasive species control actions to manage the restored prairie, wetland, and savanna.
- Protect and enhance existing native vegetation remnants; protect and maintain aquatic resources that occur within the existing channel.

The Midewin Land and Resource Management Plan is in the final stages of development, and restoration objectives are contained in all action alternatives developed for the Plan. Standards and Guidelines in the Plan include the use of the management tools identified above as appropriate means to restore tallgrass prairie habitat at Midewin. A program of long-term monitoring of restoration results will be implemented in order to assure the success of actions to protect and improve the restored communities at Midewin.

With this letter, we are initiating the procedures required of the Forest Service by the National Environmental Policy Act (NEPA). We will complete an Environment Assessment (EA) for the proposed activities during the next few months. You have been contacted as part of the public

involvement process. Your comments on the proposed action will help complete the EA. Please consider the following questions and respond to any or all of them in writing by January 7, 2002.

1. Is there any information about the project area (Midewin) 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 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, in addition to the ones listed above, which you believe are important and would like to have addressed in the EA? If so, please include your rationale for why they should be analyzed.

We will review and consider comments received during this public input period. We will then develop and analyze alternatives to this proposal, and analyze other environmental effects. We will also analyze a "No Action" alternative as required by NEPA regulations. As the Prairie Supervisor, I will be the deciding official for this project. At this time, I do not believe that the proposed activities will have a significant impact on the environment based on similar activities conducted in the past. However, we will analyze the proposed activities' effects on the biological, cultural, and socio-economic environment, including water, air, soil, sensitive species, federally threatened and endangered species, hazardous materials, recreation, and heritage resources, in order to make a final determination. You will have an opportunity to review and comment on the analysis we conduct when I release the Environmental Assessment. My final decision, issued after comments have been reviewed and addressed, will be administratively appealable under 36 CFR Part 215.

If you have any questions about the proposed activities or the Purpose and Need, please feel free to contact Enid Erickson, Midewin Environmental Coordinator, at the address above, by email at [eerickson@fs.fed.us](mailto:eerickson@fs.fed.us), or by phone at (815) 423-6370. Please submit your written comments by January 7, 2002 to Enid Erickson at the address above. Thank you for your interest in activities at the Midewin National Tallgrass Prairie.



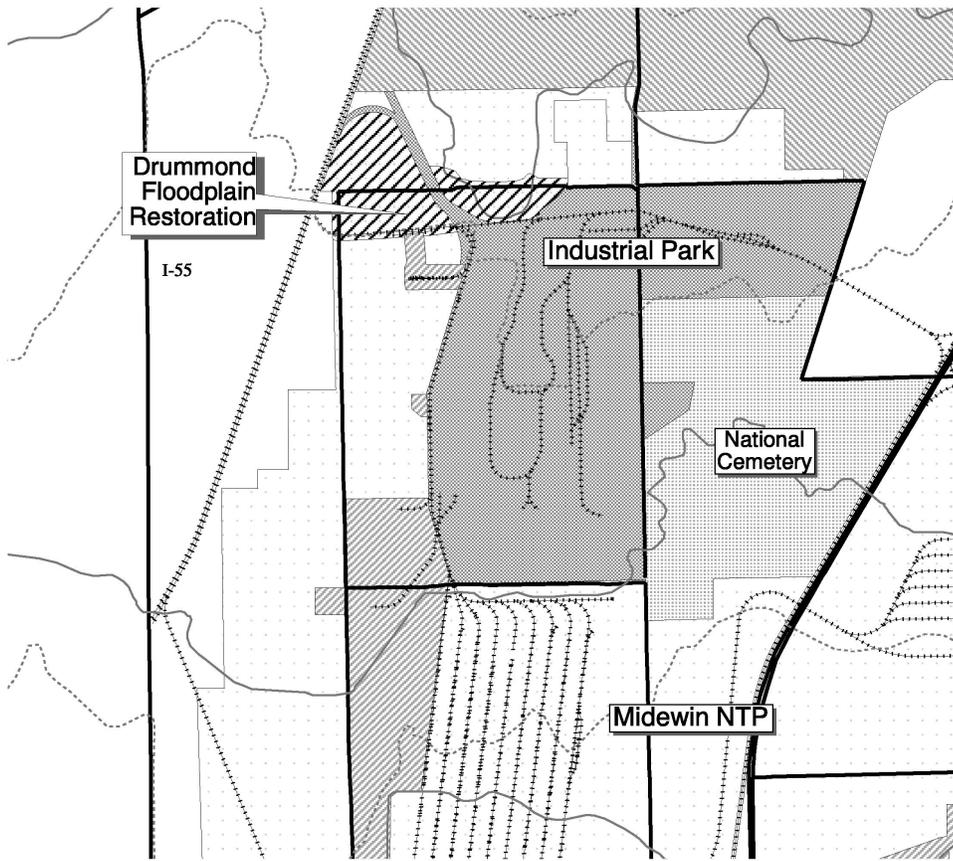
FRANK KOENIG  
Prairie Supervisor, Midewin  
National Tallgrass Prairie

# Midwin National Tallgrass Prairie

## Drummond Floodplain Restoration Project Location

### LEGEND

-  Drummond Floodplain Restoration
-  Watershed
-  Stream
-  Railbed
-  Road
-  Land Ownership
-  Midwin NTP
-  Industrial Park
-  Army Inholdings
-  Army Training Area
-  National Cemetery



0.5 0 0.5 1 1.5 2 2.5 3 Miles

