Prairie Learning Center Project
Comment Package
Midewin National Tallgrass Prairie
Will County, Illinois
Section 6, T33N, R10E and Section 31, T34N, R10E

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1.0 - INTRODUCTION
The Forest Service at the Midewin is proposing to construct a Prairie Learning Center and related features on Illinois State Route 53 in the vicinity of the existing Iron Bridge Trailhead, north of the Midewin Supervisor’s Office (see Figure 1). The majority of the site is located in the northern portion of Section 6, T33N, R10E with the remainder in the southern portion of Section 31, T34N, R10E. The proposal will develop a recreational outdoor facility that will provide a gathering area, require low levels of staffing, be accessible and usable year around, provide historical interpretation, and facilitate natural resource educational programs and resources.

The Prairie Learning Center Project fulfills items in the Midewin Land and Resource Management Plan (Prairie Plan). The prairie plan guides management activities on Midewin to meet the intent of the Illinois Land Conservation Act, as well as to meet requirements of the National Forest Management Act (NFMA).

1.1 - Background
A publically design competition was held to generate ideas and to identify a concept design for an outdoor / open-air Prairie Learning Center Project. Amenities such as but not limited to restrooms, outdoor/ open air learning area, trails, parking, viewing area, information area, energy, storage, etc. were also presented in the concept design. This concept was used with other input and comments in identifying the Project footprint on the land for the Prairie Learning Center.

1.2 - Purpose and Need for Action
The Prairie Learning Center (PLC) Project purpose is to provide an outdoor recreation and education experience to visitor. These opportunities would help visitors learn about the importance of prairie habitat, the relationship the habitat has wildlife and rare prairie plants, view re-developed prairie remnants, and learn about Pre-Euro America indicative of the area. Establishing the PLC will support two objectives of the Prairie Plan:

- Provide opportunities to easily view and experience the prairie landscape
- Provide for the public enjoyment of historical and cultural heritage resources.

The PLC project will so meet of the intent of the Illinois Land and Conservation Act that established Midewin. This act included two specific purposes for Midewin that applies to the PLC project:

- To provide opportunities for scientific, environmental, and land use education and research and
- To provide a variety of recreation opportunities that are not inconsistent with the preceding purposes."

The introduction of the PLC will help address several recreation, visitation and capacity needs on the Prairie. Additional issues identified were, increased public demand, lack of outdoor learning area, changes in public access, trail development, residual tourism traffic, and new interpretation sites.
**Increased public demand:** Creation of the PLC will help Midewin adjust to the changes in educational and recreational opportunities in the area. As part of the Chicago Regional area development plan, several projects have highlighted the educational experiences and resource interpretation amenities offered on the unit. Many of these projects have points of interest at Midewin. These projects offer viewing of the beneficial ecological changes occur at Midewin National Tallgrass Prairie. As more projects are implemented at Midewin, then identified on the Regional area development plan for development including Midewin, the number of Chicago area residents pursuing outdoor recreation will increase because of the proximity and diversity of activities on the Prairie. Developing good relationship with future visitors is critical to the success of the PLC. Special parameters will need to developed to that consider visitor response, asses the environmental setting offered, and adapt to changes in aesthetic and recreational experiences.

**Lack of stationary learning area:** Consistent places to conduct educational programs are limited and often inhibit exposure to true outdoor education learning. People visiting Midewin to participate in various learning and service projects centered on environmental education. Facility spacing at the Supervisors office is limited, scheduling for large groups can be difficult especially when multiple activities and meeting are occurring in the same space. Last minute changes to learning areas can put a strain on the learning experience for all visitors. This can be especially challenging when making accommodations for visitors with disabilities. The addition of the PLC at Midewin will expand the capacity of recreational and educational programs. Having a stationary, reliable outdoor place that also gives individuals the opportunity to conduct more interactive projects with nature and have fun and excitement learning about prairie plants and animals. This learning area can also be enjoyed by all visitor seeking improved facilities and services for orientation, interpretation and environmental education.

**Public access changes to the prairie:** Over the past 5 years, the available areas for public access for recreation (hiking, hunting, and trail walking) have increased at Midewin. One example is the additions of access locations like the Wauponsee Trail Parking Lot and the completion of the trail system from Iron Bridge to River Road.

**Trail Development:** Currently there several miles of trail to be built within Midewin’s boundaries and; there are two proposed trails that will connect or have trail heads located at the PLC location. Connecting the trail system would help meet goals within the prairie plan. Having the PLC at trail heads or access locations gives visitors additional activities outside of the PLC amenities. This would then help increase the average recreational experiences because visitor can then enjoy full day activities. The proposed trail additions from neighboring projects (IL- 53 trail, and Prairie overlook trail) would connect the PLC with the supervisor’s office without vehicle usage. This will help streamline the visitors and increase the likelihood of increased traffic to the supervisor’s office. The trails would also follow the perimeter fencing for the location of the proposed Bison Establishment project; offering unique and rare experiences with Historic elements no longer common to Illinois.
Tourism traffic from neighboring Attractions (Historic Rte 66 and proposed Bison Establishment) - Midewin is divide by Historic Rte. 66, an internationally recognized highway corridor that provided one of the first east to west travel in the US. Visitors travel this route because of the historical significance, distinguished landmarks. Currently no landmarks exist between the Joliet Speedway and the Wilmington Giant Gemini. The bison establishment area will also be located within viewing distance from this historic route and will attract more visitors to the PLC parking areas, hence increasing the likelihood of further exploration towards the PLC.

Interpretative Opportunities: Historic cultural sites exist around the proposed PLC location. These sites holds unique and rare characteristics that help describe and provide insight on Pre-European Era prosperities present before the establishment of Midewin. Because of the proximity to the PLC location, these sites can be easily accessed by visitors and offer resource interpretation unique in the area.

Access Proximity, Site capacity, and sound barriers: On the western side of Midewin, the Iron Bridge Trailhead is one of two access points for the public. This location, although familiar to current visitors lacks the capacity to accommodate a continued increase in visitors. Capacity is an ongoing issue, but offering additional programs and services can help offset stressors to the amenities currently available while increasing visitors and offering unique learning experiences. Consideration must also be placed on sound as a result of increased visitor traffic. Determining a location that is improves access, facilities and considers sound are critical elements that will help improve the overall viewing experience of the prairie.

1.3 – Desired Condition

The desired condition for the Prairie Learning Center project is to provide a facility that orients visitors to Midewin. It will be appoint where visitors learn about the current and historic prairie attributes and the intricacies of prairie landscape while drawing minimal resources from the earth. Three desired conditions were developed in conjunction with four prairie plan objectives and goals. All goals favor additional recreational programs and facilities that will increase visitation and help gain awareness and appreciation of the prairie ecosystem. Each applicable plan objective is listed below the desired condition for the project. The desired conditions for the PLC project are:

 Desired Condition 1: Develop recreation facilities and programs that are informative and educational offering a safe, efficient, and environmentally sound structure. The facility is designed to provide a continuous flow between the parking lot and the prairie landscape so that while it draws people to its amenities, it never seems to intrude upon the landscape that it occupies. The facility functions with year around occupation and availability with low maintenance needs. Facility constructed materials selected worked in harmony with the native prairie soil and prairie landscape. Power for lighting and other electrical needs are provided using renewable resource and energy saving instruments. In the winter captured summer solar energy would provide the tools necessary to heat the facility.
Applicable Prairie Plan Objectives and Goals- (Prairie Plan 2.5.1) - Recreational opportunities provided, focus on educational experiences and resource interpretation. Recreation facilities are constructed, located and improved as needed to provide safe, efficient, and environmentally responsible experiences and opportunities. New facilities, built to universal accessibility standards, provide recreation opportunities to people with disabilities.

Desired Condition 2: Improve the knowledge of the prairie ecosystem by increasing the availability of visitor recreational, educational and interpretative opportunities. Additional interpretive exhibits are placed throughout the facility to educate visitors about native Midwest landscape and allow for additional exploration of the historic landscape. Within the structure there learning areas for individuals giving resource lessons and presentations that expose them to multiple facets of the prairie. A kiosk provides critical information to visitors so they can learn more about the education/recreation/interpretative possibilities on Midewin.

Applicable Prairie Plan Objectives and Goals-Prairie Plan Objective 2.5.3 (a) Provide improved visitor facilities and services for orientation, interpretation and environmental education opportunities that enable people to develop an understanding and appreciation of the prairie ecosystem and resources and their role in sustaining those resources.

Desired Condition 3: Develop recreation program and resources that is responsive to customer needs, and provide good aesthetic and recreational experiences that include diverse audiences. The Prairie Learning Center site will be a full-service facility that will provide for the needs of all visitors whether it’s their first visit of they have visited the prairie landscape several times. Trails connections for all trails within the PLC project area will be located in the overflow parking area. The southern edge of the parking lot provides visitors with information about the prairie habitat while also creating a breezeway for visitors recreating on the trails. Picnic tables in the overflow parking lot allow expended visitation by multi-generational families that will have access points where prairie remnants can be viewed and explored when trail walking is not applicable for users. Several guided tours within a short-distance of the parking lot will offer family oriented activities to show visitor difference prairie resources.

Applicable Prairie Plan Objectives and Goals
Prairie Plan Goal 1 (2.5.2): – Plan and manage the recreation program and recreation resources to provide for health and cleanliness, safety and security, facility conditions, permit administration, responsiveness to customers, environmental settings, aesthetics and recreational experiences, and restoration of natural appearing landscapes

Prairie Plan Objective 2.5.3 (j) Expand recreational and environmental education programs to a diverse audience, including people from urban areas, people with disabilities, and different age groups.

2.0 ALTERNATIVES, INCLUDING THE PROPOSED ACTION

This chapter describes and compares the alternatives, the No Action and the Proposed Action, considered for the Prairie Learning Center Project.
2.1 - Alternative 1 - No Action
This alternative has no proposed actions. Natural processes and human activities would continue. The Prairie Plan and other current management plans would continue to guide activities and management of the project area. Other decisions in this project area on activities and management would continue.

This alternative provides a baseline upon which to compare the effects of the action alternatives 2, and 3. If this alternative is selected, the opportunity to implement the proposed action would be deferred at this time, but would be available for consideration in the future.

Figure 1. Alternative 2- Proposed Action. The proposed action includes constructing a learning center, a new road, and an expanded parking lot and picnic area. This includes a conceptual of the location of the prairie learning center, and the new constructed road. Alterations to design may occur once the design phase of the project begins.

2.2 - Alternative 2 - The Proposed Action
The proposed action is to construct the Prairie Learning Center Project at the Iron Bridge Trailhead location. The Project as shown on the map (See Figure 1) includes the following:
Prairie Learning Center and Associated Amenities. This seven acre area includes the following facilities and amenities:

- Outdoor and Open-air Prairie Learning Center. A new structure will be developed. The structure will cover approximately 10,000 square feet. Construction of the facility will impact approximately three acres. The proposed Prairie Learning Center structure will contain the following needed facilities, features, and/or amenities.
  
  o **Gathering Area.** These areas are integral to the Prairie Learning Center structure for environmental education and other activities.
  
  o **Interpretive Signs and Exhibits.** These amenities are integral to the Prairie Learning Center for the purposes of educating the public about Midewin, prairie and prairie restoration and the recreation activities available here. They will be located on the walls of the Prairie Learning Center, constructed display areas within the PLC and/or on adjacent retaining walls. Interpretive signs constructed with single or double post support systems may also be installed at points of interest along sidewalks or trails.
  
  o **Restroom Facilities and Support Infrastructure.** Vault toilets will be located in the Prairie Learning Center with vaults located below the PLC structure. A hardened surface access route will be provided to vault clean-outs. Up to .5 acres could be used for development of the access route.

A municipal water source may be developed in the future. At that time vault toilets may be converted to flush toilets.

- **Water Facilities and Support Infrastructure.** No wells will be constructed as part of this project. A potable water tank housed within the PLC will provide water for hand washing sinks and administrative use. Treatment facilities for waste water generated from these uses would include a septic tank and leach field. An access route will be constructed for septic and water tank treatment. Up to one acre could be utilized outside of the PLC structure for treatment facilities.

A municipal water source may be developed in the future. The municipal water would replace the water tank. Water lines would be routed through the utility corridor. Septic tanks and leach fields would continue to be used and be upgraded as necessary to accommodate the new system or a sanitary waste water line may be installed in the utility corridor connecting the PLC with a municipal wastewater system. The septic tank and leach field developed for sinks and administrative use would also be used and upgraded as necessary for flush toilets or a sanitary waste water line may be installed in the utility corridor connecting the PLC with a municipal wastewater system.
Photo Voltaic Power. Photo voltaic Power will provide power for the Prairie Learning Center. PV panels will be installed on the roof structure of the PLC. A battery bank to store power will be located inside the PLC.

Alternative Heating Sources. There are three options for alternative heating sources to ensure year around visitor usage. One or a combination of these technologies will provide needed heat to the Prairie Learning Center.

- **Solar thermal panels.** The solar thermal solution envisions harvesting solar thermal energy from roof mounted evacuated tube panels and storing it in an underground insulated water tank. It’s estimated that a 3,500 gallon tank would provide heat for 3.5 days.

- **Biomass Boiler.** The biomass solution will store thermal energy in an underground insulated storage tank from periodic firings of a boiler fueled with either local wood, densified grass briquettes, or biomass pellets. It’s estimated that a 3,500 gallon tank would provide heat for 3.5 days.

- **Geothermal Heating with Interseasonal Thermal Store.** Instead of utilizing traditional geo-thermal heating that requires extensive electrical energy to operate a refrigerant compressor, a geothermal system that utilizes an interseasonal thermal storage tank will be employed. This interseasonal thermal storage tank will be charged in the summer when solar insolation is abundant for later extraction for space heating in winter. Roof mounted flat plate solar thermal panels, oriented toward the summer sun, and would harvest solar energy that would be stored in an insulated underground vault filled with soil or water. The vault may be up to 20,000 cubic feet in volume and located within the proposed area of the PLC polygon. For future maintenance purposes, the vault tank will not be located underneath the PLC structure. The vault would be constructed within the till layer of the soil. Effectively, this solution seeks to double the efficiency of a typical geothermal system by raising the temperature of the geothermal field significantly. Unlike a geothermal system that relies on the cyclical rejection and extraction of heat introduced from the heat pump itself, this system will extract heat that has been banked during the previous summer.

Retaining Walls and Fences. Retaining walls constructed of concrete, rammed earth or segmental retaining wall units would be installed adjacent to the PLC as needed to make abrupt changes in grade and/or for interpretive purposes. Wood, PVC, metal, recycled product, or concrete fences would be installed adjacent to sidewalks and/or trails to help direct visitors along the way.
• **Parking Lot.** A new paved parking lot will be developed adjacent to the Prairie Learning Center and cover approximately 1.5 acres. The lot will be designed to accommodate approximately 20 passenger cars and 10 RV’s, buses or 10 cars with trailers. The parking lot will be surfaced with asphalt, concrete, or a similar material.

• **Information Kiosk.** An information kiosk will be centrally located to provide information to people accessing Midewin’s trail system. Less than .1 acres will be developed for this amenity.

**Existing/Overflow Parking and Picnic Area.** This nine acre area includes the following facilities and amenities:

• **Trailhead and overflow parking.** The existing parking lot will be expanded to include picnic area and additional parking availability. This parking lot will also accommodate overflow parking for the Prairie Learning Center. This lot will accommodate approximately 20 passenger vehicles and 10 RV’s, and buses or vehicles with trailers. The single vehicle parking lot will be hardened with asphalt, concrete, or similar material. The RV/bus/vehicle with trailer lot will be gravel surfaced to provide the best footing for horses that access Midewin’s trails from this lot. Approximately 2 acres will be developed for these facilities.

An additional area will be developed as temporary parking for large events. This area may be converted to permanent parking in the future. This hardened surface area will be designed to accommodate a mix of single vehicles, RV’s, buses, and vehicles with trailers. Approximately 2 acres will be developed for these facilities.

• **Picnic Area.** Hardened trails will provide access to fifteen hardened surface picnic sites. Single and double units will be constructed but no large group units will be developed. All will have picnic tables and some may have pedestal grills and/or picnic shelters. Approximately 5 acres will be developed for these facilities.

• **Information Kiosk.** An information kiosk will be centrally located to provide information to people accessing Midewin’s trail system. Less than .1 acres will be developed for this facility.

• **Restroom facilities.** A two riser vault toilet will be installed in this area to accommodate trail and picnic area users. No potable water or flush toilets will be provided at this location.

**Transportation/Utility Corridor.** This 5 acre area includes the following facilities and amenities:

• **Existing Road to Remain.** The existing road will be widened and paved to accommodate the heavier traffic loads expected with the Prairie Learning Center.
Appropriate modifications for drainage, i.e. drainage ditches and culverts may be required. The existing road will be constructed/reconstructed on approximately 1 acre.

- **Existing Road to Obliterate.** Portions of the new road will be obliterated to accommodate new traffic patterns and to protect other resources. Road obliteration will take place on up to .5 acres.

- **New Road.** A new road will be added to connect the existing road to the Prairie Learning Center Parking lot. The new road will be two lanes with shoulders. Appropriate drainage will be included. The construction of the new road will be developed on approximately 1.25 acres.

- **Utility Corridor.** A utility corridor will be established to allow for any utilities including sewer, water, communications and electric for the purposes for the administrative site. Utilities will be routed on the south side of the entrance road. The utility corridor will be developed within approximately 1 acre.

- **Prairie Learning Center Gateway.** A new gateway will be constructed near the existing perimeter fence as an identifying feature for the Prairie Learning Center adjacent to the road. The gateway will be constructed of concrete, stone and/or steel. A steel gate will be constructed to allow for temporary closures of the Prairie Learning Center site as necessary. It will be developed on approximately .5 acres.

**Activities common to all development areas.** The following activities are contained in all three development area shown on the map.

- **Sidewalks, Pathways, and Access Points.** Sidewalks and pathways will be developed to connect the various facilities together. The use of existing routes will be used where possible. Existing routes may be removed and new routes constructed where needed. These routes will be hardened with asphalt or concrete or made of other similar material. Appropriate drainage structures will be constructed as needed.

- **Wayfinding and Interpretive Signage.** New wayfinding signage will be constructed to assist in directing visitors around the site. Interpretive signs constructed with single or double post support systems will be installed at points of interest along sidewalks or trails.

- **Stormwater Management.** Stormwater management facilities will be developed on approximately 3 acres of land. These site improvements such as retention areas, water gardens, and culverts will be constructed to reduce impacts from the construction of impermeable surfaces on the hydrology of the site. These storm water facilities will be constructed completely within the polygons shown on the map.

- **Bicycle Racks and Picket Lines.** Racks for bicycles and picket lines for horses will be installed where needed to ensure safe placement of bikes and horses. It’s likely that there
will be bicycle racks and picket lines positioned near the trailhead and near the Prairie Learning Center.

- **Seeding and Landscaping.** Native trees, shrubs, plugs and seeds will be planted throughout the area for aesthetic, educational and soil stabilization purposes. Non-native turf grasses will be planted in high impact areas such as the picnic area.

- **Field Drain Tile.** During construction of the facilities listed above, it’s possible there may be field drain tile that will need to be located, removed, repaired, maintained, replaced or installed. Field tile may be day lighted in some locations to provide for proper stormwater management.

- **Vegetation removal.** Existing vegetation will be removed based on the construction needs. Non-native and native trees, shrubs, and vegetation of all sizes may be removed.

- **Land Re-contouring.** Recontouring would consist of reshaping the land as needed for the construction of facilities within this alternative. Recontouring will occur within the development areas as needed to meet the engineering requirements of the facilities, or adjacent to the PLC to create the desired architectural experience adjacent to the structure.

- **Accessible Design.** All facilities in this alternative will be developed to meet Americans with Disability Act, Architectural Barriers Act and Accessibility Guidelines for Outdoor Developed Areas and other applicable guidelines.
2.3 - Alternative 3 - The Prairie Overlook Alternative

The Prairie Overlook Alternative is the same as the “Proposed Action Alternative” except that a prairie overlook is added to accommodate visitors looking for a raised overlook to view the prairie and possible future bison in the area located to the south/southeast of the Prairie Learning Center. The prairie overlook will be wholly contained in the area designated for “Prairie Learning Center and Associated Amenities” shown on the map in figure 2 of this document. All facility and amenity development remain the same as the explanation above except the following should be added to the section regarding “Prairie Learning Center and Associated Amenities”.

- Prairie Overlook. A multi-story prairie over look facility approximately 50’ tall will be developed adjacent to Prairie Learning Center on the western end of the Prairie Learning Center. It will be an open air, roofed structure constructed to allow a 360 degree view from its uppermost viewing platform. This facility will be developed on approximately .5 acres.
Opportunity to Comment

This is the formal 30-day public comment period. Comments concerning this project must be postmarked or received within 30 calendar days following the publication of this notice in The Herald News, Joliet, Illinois. The publication date in the Herald News is the exclusive means for calculating the comment period. Only those who submit timely and substantive comments will have the standing to appeal. Identification of the individual or organization that authored the comment(s) is necessary for appeal eligibility. Each individual or representative from each organization submitting comments must either sign the comments or verify their identity upon request.

Individuals and organizations desiring eligibility to appeal must provide the following information: 1) Name and physical mailing address; 2) Title of the proposed project *(Environmental Assessment: Prairie Learning Center Project)*; 3) Comments on the proposed project, along with supporting reasons that should be considered in reaching a decision; and 4) Signature or other verification of identity upon request.

Comments may be submitted Monday through Friday 8:00am to 4:30pm, either by phone (815) 423-6370 or in person; and must be received by the close of business on April 18, 2013. All written comments must be postmarked or received by the comment period end date stated above.

Please mail written comments ATTN: Prairie Supervisor, Midewin National Tallgrass Prairie; 30239 State Route 53 Wilmington, IL

Send fax comments to (815) 423-6376 or submit e-mail comments to: comments-eastern-midewin@fs.fed.us. Acceptable formats for electronic comments are: email message, plain text (.txt), rich text format (.rtf), and Word (.doc) applications.