

Midewin National Tallgrass Prairie Interpretive Master Plan

February 2002

prepared by

The Resource Connection

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I started with surprise and delight. A world of grass and flowers stretched around me, rising and falling in gentle undulations, as if an enchanter had struck the ocean swell, and it was at rest forever .

We passed whole acres of blossoms all bearing one hue, as purple, perhaps, or masses of yellow or rose; and then again a carpet of every color intermixed, or narrow bands, as if a rainbow had fallen upon the verdant slopes. When the sun flooded this mosaic floor with light, and the summer breeze stirred among their leaves the iridescent glow was beautiful and wondrous beyond anything I had ever conceived . . .

Eliza Steele, near Joliet, Illinois, in 1840, from her book, Summer Journey in the West

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1.0 Introduction

1.1 Executive Summary

Midewin National Tallgrass Prairie is a special place, where people and the prairie restore each other. This seemingly simple theme, like the prairie ecosystem itself, is in truth a study in complexity. It encompasses centuries of human history overlaid on a tapestry of biological diversity that's been here, diminished, and will be back.

Midewin National Tallgrass Prairie is the first site so designated in our nation. It sprawls over 19,000 acres near Joliet, Illinois with a history that ranges across geologic time to include Native American settlement, agricultural use, and development as an army ammunition plant. The site was recently turned over to the USDA Forest Service to manage jointly with the Illinois Department of Natural Resources. The desired condition of the property is to restore the prairie environment to the greatest extent possible, while allowing the public to enjoy the property in a variety of ways including hiking, hunting, and wildlife watching. Visitors will be encouraged to discover the site through a network of pedestrian, equestrian and bicycle trails.

It is important to remember that the entire property need not be interpreted for visitors to have a complete experience. In fact, placing interpretation throughout the site may strain financial resources, interfere with restoration activities, and actually diminish the experience for some visitors who come to the site for its sense of solitude and vastness. It is recommended that permanent interpretive features be strategically placed close to a Visitor Center from which most visitors will begin their Midewin experience. To accommodate repeat visitors and to focus interpretation where it will do the most good, other interpretive features will be portable (either hand-held by visitors or in trailers moved into place along trails by Midewin staff). Environmental education will also be an important part of the Midewin experience for thousands of schoolchildren from within 100 miles of the site, encouraging conservation of natural resources and awareness of our cultural history by this and future generations. This interpretive plan serves as a long range planning perspective for future interpretation and environmental education opportunities at Midewin.

1.2 Purpose of this Plan

In 2000, the USDA Forest Service contracted with The Resource Connection to develop a master plan for interpretation at Midewin National Tallgrass Prairie. This plan documents the process and recommendations made for interpretation and environmental education at Midewin. It is intended to provide general guidelines for further development of Midewin's interpretation and environmental education programs. It is not intended to provide design details for any interpretive media. Recommended elements will require specific planning and design as they are selected for implementation.

It should be recognized that Midewin is in a constant state of change, especially now in the early years of the restoration effort. At the time this plan was prepared, processes to develop the USDA Forest Service's Land and Resource Management Plan and an extensive marketing plan were also underway. This plan reflects information from those planning efforts to the greatest extent possible; however, because neither process was complete when this plan document was prepared, it may be necessary to adjust recommendations in this plan to reflect the realities represented by those plans when they are completed and approved.

In any case, it is highly recommended that this plan, which resulted from a year-long effort, be considered a dynamic document to be revisited at least every three to five years to ensure that new information and ways of thinking are incorporated as needed.

1.3 The Planning Process for Interpretation and Environmental Education

Interpretation and environmental education are often considered two sides of the same coin, but there are important differences in these two approaches. Environmental education is a planned curriculum that supports statewide educational objectives. Although it may include a site visit, classroom activities are also usually involved. The audiences for environmental education programs are organized school classes (K-university) and youth groups working toward a specific goal, such as Scouts working towards a badge. Interpretation, on the other hand, addresses the "casual visitor" or outreach contacts with the general public.

The National Association for Interpretation defines interpretation as "a communication process that forges emotional and intellectual connections between the interests of the visitor and the inherent meanings of the resource." Why is that important? When done well, interpretation can accomplish many things. By enhancing the visitor experience and increasing visitor knowledge, it can help achieve management objectives for Midewin. People tend to protect and conserve the things they care about and they care about the things they understand. The challenge at Midewin National Tallgrass Prairie is to help visitors understand the complexities of restoring a prairie ecosystem on land that has undergone many changes and use patterns.

How do we do that? Interpretive audiences have special requirements that must be met for interpretation to be successful. Interpretive audiences are looking for an enjoyable experience. Although learning something new may be important to them, increasing their own knowledge is usually not the primary motivation for participation in interpretive activities or visiting an interpretive site. More often, these audiences are looking for something interesting to do. They have chosen to be here, so the interpretive program must

provide something to attract and hold their interest. It must relate to something within their experience, provide opportunities that appeal to a variety of learning styles and participation levels, and meet the visitors' desire and ability to pay with either time or dollars.

Interpretation has been described by Sam Ham in *Environmental Interpretation* as a way to translate scientific knowledge into a language that the average person can easily understand. This concept is an important one for a site like Midewin. We cannot and should not hope to make every visitor an expert on prairie restoration or other biological or historical aspects of the property; however, we can increase their overall understanding and thereby increase their support for Midewin and the conservation of our natural and cultural heritage on a broader basis. Studies have shown that people tend to remember themes and forget facts, so interpretation efforts should relate to a central theme that people can embrace and remember when they leave Midewin. The theme provides a framework for the many stories to be told through a main idea that we want people to take home in their heads and their hearts.

Planning for the interpretation and environmental education programs at Midewin involved a process specific to this site. Initial steps included establishing goals and objectives that support the overall mission and purpose of Midewin, and gathering information about significant resources (natural, cultural, and operational) through meetings, document research, and on-site observations. At key points during the process, planning workshops were held with interested citizens, staff, and representatives from like-minded organizations and agencies in the area. The information gathered was then analyzed to determine its implications for the interpretation and environmental education programs. Once the analysis was complete, a thematic framework emerged and plans for specific media were developed that will tell the stories and accomplish the goals and objectives previously stated. Finally, action steps and cost estimates were determined for implementation of the plan.

2.0 Midewin National Tallgrass Prairie

2.1 Summary of Significant Resources

Midewin has a wealth of resources that will support interpretation and environmental education efforts. Many natural and cultural resources are still being inventoried and cataloged. Lists of plants, animals, archeological sites, and other inventories exist in other documents and will not be included in this plan. Instead, a brief summary is offered to highlight the resources that are likely to be most significant for the development of the interpretation and environmental education programs. Readers who desire more detail may want to refer to the “Analysis of the Management Situation” document dated July 1999. Additionally, the Midewin National Tallgrass Prairie Land Use Plan and Draft Environmental Impact Statement present additional detail and information.

2.1.1 Natural Resources

For interpretive planning purposes, natural resources are defined as flora, fauna, soil, hydrological or geological aspects of the site. Midewin’s rich natural history heritage offers vestiges of a prairie past that has been significantly altered in the past century through farming and use of the site as an ammunitions plant. Once covered by glaciers that sculpted its underlying geological features, the land now known as Midewin evolved into a tallgrass prairie dotted with wildflowers. Prior to the 20th century, the landscape included bison, elk, prairie chickens, and wolves. When the land went under the plow, the character of the landscape changed and many of the larger animal species were extirpated.

Today, only small pockets of true prairie remain on the site, although much of the landscape is covered with rolling grasslands. One of these pockets represents a rare habitat known as “dolomite prairie,” one of only a small number of such areas known in North America. Four forested areas occur within the boundaries of Midewin: Starr Grove, Prairie Creek Woods, Jackson Creek Woods, and Lost Grove.

Wildlife still roams the site’s diverse habitats. White-tailed deer, coyotes, red-tailed hawks, red-winged black birds, northern leopard frogs, meadowlarks, and wild turkey are common. Twenty-six plant and animal species found within the Midewin boundaries are recognized as sensitive species by the USDA Forest Service, three species are classified as federally Endangered and Threatened, and three additional species are listed by the State of Illinois as Endangered or Threatened. Restoration of the Midewin prairie ecosystem also presents regionally significant opportunities to re-establish grassland bird species, declining in recent

years because of conversion of suitable habitat to other uses such as agriculture and urbanization.

The site includes four streams that feed into the nearby Des Plaines and Kankakee Rivers: Prairie Creek, Grant Creek, Jackson Creek, and Jordan Creek. Before agriculture changed the character of the prairie, seeps were common and much of the area was considerably wetter than it is today. Many of these wetter areas are now drained because of ditches and tiles installed by farmers. A few ponds were also created by military workers during the site's ammunition plant days. These ponds still exist and now provide habitat for waterfowl and other species.

Perhaps Midewin's most significant natural resource is simply its size. With approximately 19,000 acres, Midewin is the largest contiguous unit of public land in the region. Consequently, it offers unique opportunities for re-establishment of the prairie ecosystem and associated wildlife and plant species.

2.1.2 Cultural Resources

For purposes of interpretive planning, cultural resources are defined as those elements associated with the human history of the site. Midewin has undergone a series of land use changes forming a sequence that can be generally characterized by four time periods:

Presettlement: Although it is known that Native Americans traversed the site, little evidence of their presence remains. Most recently, the Potawatomi culture would have been most likely to have connections with Midewin. One small burial mound site has been located, but may not be appropriate for interpretation due to concerns over potential vandalism of the site.

Agricultural: In the mid to late 1800s, several homesteads and farms became established in the area now known as Midewin. Although records of land ownership and the locations of farms are available, little evidence of these activities are still visible with the exception of several cemeteries, foundation remains, and Osage orange fencerows. Drainage tiles from this era can still be found throughout the site. It is possible that some of the old farmsteads served as stops along the Underground Railroad during the Civil War era. Additional research is ongoing to establish the actual location of any such safe houses.

Ammunitions plant: Beginning in 1940 and lasting approximately 50 years, Midewin was home to an army ammunition plant with over 1100 associated buildings or structures including manufacturing buildings, bunkers, administrative and service buildings, load-assemble-pack rail lines, power houses, and other miscellaneous structures. The Army has begun demolition of many of these structures, but many still remain and will remain in place.

Restoration: Since its designation as the nation's first tallgrass prairie, human use of the site has been directed towards restoration of the presettlement prairie. Administrative offices are housed in one of the few remaining historic farmhouses. A new administrative office complex is currently being constructed on the same site.

2.1.3 Operational Resources

Midewin is a unit of the USDA Forest Service; however, it is operated in cooperation with the Illinois Department of Natural Resources in a successful partnership of staffing, operations, and maintenance.

Midewin is part of the Prairie Parkland, an area of approximately 40,000 acres that includes twenty-two adjacent or nearby properties owned and operated by state, local, corporate and private entities within twelve miles of Midewin. The Prairie Parkland alliance allows management decisions to protect, restore, and manage the largest prairie ecosystem east of the Mississippi River.

In addition to its paid staff, Midewin has established a substantial volunteer force that assists with specific duties of cleanup, tour guiding, resource inventories, and restoration activities. Volunteers are in the process of establishing a 501c3 organization that will serve as a support group for activities at Midewin.

2.2 Existing Programs

Due to concerns about visitor safety while the site still contains remains of the Joliet Army Ammunition Plant, interpretive programs on-site have been limited to guided tours and volunteer work days. Volunteers are actively involved in seed collecting and planting activities. The Mighty Acorn program offers environmental education opportunities to 3rd through 8th grade students. Off-site programs have been offered at area special events, schools, and group meetings.

2.3 Organizational Goals

Enabling legislation for Midewin (1995 Illinois Land Conservation Act) establishes four purposes for the site:

- 1) to manage the land and water resources of Midewin in a manner that will conserve and enhance the native populations and habitats of fish, wildlife, and plants;
- 2) to provide opportunities for scientific, environmental, and land use education and research;
- 3) to allow the continuation of agricultural uses of lands within Midewin consistent with section 2916(b);
- 4) to provide a variety of recreation opportunities that are not inconsistent with the preceding purposes.

In accordance with those purposes, the proposed Midewin Land and Resource Management Plan sets forth several goals that relate directly to development of interpretation and environmental education programs, including the following:

Goal 1 – 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.

Objectives:

- a) Provide 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.
- b) Provide non-motorized recreation opportunities.
- c) Provide a campground, picnic area, and dispersed campsites.
- d) Provide a network or system of trails and identified areas safe from environmental hazards or risks for non-motorized recreation or environmental education opportunities.
- e) Provide the following approximate trail miles by type of use:
 - Hiking only trails – 20 miles
 - Bicycle and hiking use trails – 5 miles
 - Equestrian and hiking use trails – 5 miles

- Multiple use (hike, bicycle, equestrian) – 18 miles
- f) Provide opportunities to easily view, learn about, and experience the prairie landscape.
 - g) Improve and maintain naturally appearing landscapes especially when viewed from trails, roadways, and visitor or administrative facilities.
 - h) Identify recreation capacities and appropriate use allocations for commercial and non-commercial recreation uses and identify or provide management strategies to implement when capacity is exceeded.
 - i) Provide for the public enjoyment of historical and cultural heritage resources.
 - j) Provide recreational and environmental education programs to a diverse audience, including people from urban areas, people with disabilities, and different age groups.
 - k) Provide programs that motivate participants to action through stewardship and volunteer opportunities.
 - l) Pursue and implement environmental education partnerships with other agencies and organizations.

2.4 Issues and Concerns

The following issues and concerns were identified through interviews with Forest Service staff and three workshops involving stakeholders. Some of these issues and concerns will be resolved with the approval of the preferred alternative of the Land and Resource Management Plan, while others have been addressed in this plan (see section 6.0 – Interpretation and Environmental Education Media Recommendations).

2.4.1 Interpretive Program

- a) Midewin's interpretive niche must be identified to determine what stories are best told at Midewin and how those stories should be told.
- b) An appropriate balance between the stories of prairie restoration, past human uses of the site, and natural history must be achieved.
- c) The best location for a Visitor Center, if necessary and appropriate, must be determined.
- d) Recommendations of the Interpretive Master Plan should be in conformance with the Final Land Use Plan. If not, either the Interpretive Master Plan or the Land Use Plan will need to be amended.
- e) The interpretive program and environmental education program must complement one another.
- f) The potential for developing an Interpretive Association must be investigated.
- g) Midewin's interpretive programs should complement those developed for the I & M Heritage Corridor.
- h) When planning for interpretive facilities, there must be a balance between accommodating visitor needs and comfort with the reality of the harsh prairie climate.
- i) Recreational and interpretive programs must avoid catering to special interests and should seek a balance between competing user groups.
- j) There are numerous environmental education and interpretive efforts underway within the region. Care must be taken not to duplicate messages and to coordinate Midewin's efforts with other areas.

2.4.2 Site Access and Orientation

- a) Public access must be appropriate and complementary to the interpretive experience.
- b) Visitors need to move throughout the site so that they may experience and come into close proximity with the natural and cultural resources.
- c) Development of both sides of the unit, split by State Highway 53, must be done in such a way that visitors can safely cross Highway 53.
- d) The Interpretive Master Planning process should develop a well-crafted, balanced, integrated approach with the unit's recreation program.

2.4.3 Miscellaneous

- a) The Heritage Corridor may need to be expanded to include MNTP.
- b) It may be possible to develop linkages to transportation corridors in the area.
- c) Transportation of goods and services is an important aspect of the Midewin story.
- d) Lodging and other tourism support facilities in the area are lacking.
- e) There may be opportunities to “package” Midewin’s interpretive and recreation programs with existing or potential tourism programs.
- f) It will be important to involve a large number of people in the prairie restoration efforts at Midewin.
- g) There may be opportunities to develop linkages (cooperative programs) between Midewin’s interpretive program and other institutions.
- h) Midewin should provide interpretation and environmental education for people from the inner-city region of Chicago. This is an important constituency that rarely has the opportunity to experience and learn about the natural world.
- i) There may be areas within the Midewin NTP that should be totally set aside from public use and access to protect wildlife and plants from human intrusion.
- j) The level of public use (numbers of people) that begin to diminish the quality of the interpretive experience must be determined.
- k) Interpretation and public use of the Midewin NTP must be in conformance with and complement the four legislative purposes for the establishment of the National Tallgrass Prairie.

- l) Solitude and vastness are important aspects of the prairie story and experience. How can visitors truly appreciate and/or experience solitude and the vastness of the prairie in this “island” surrounded by sights and sounds of human intrusion (i.e. aircraft, cars, buildings.)
- m) The level of appropriate user fees for interpretation should be investigated.
- n) Interpretation and recreational developments at Midewin should be subordinate and complementary to the landscape to avoid the “amusement park” syndrome.
- o) Staffing and budgetary resources allocated to interpretation could compete with restoration and resource management efforts.
- p) There is a perception of a greater demand for interpretation and environmental education than can reasonably be met.
- q) Visitor impacts to the natural and cultural resources should be minimized.

3.0 Market Analysis

The development of a marketing plan was underway concurrently with the development of this plan by a different consulting group. Results of the marketing group's effort are incorporated into this Interpretive Master Plan. Details concerning market segments, visitor demographics, visitor preferences, etc. may be found in the "Marketing Research Data Report, Market Survey, Midewin National Tallgrass Prairie."

3.1 Complementary and Competitive Facilities and Programs

3.1.1 Geographic Scope

A 100-mile radius from Midewin was selected for this review, based on a drive of an hour-and-a-half to two hours each way, plus time to explore the Midewin site. A few sites farther than 100 miles are included because of significant features or easy access to Midewin by freeway.

3.1.2 Review Sources

Sites and descriptions were obtained largely through the Internet, Chicago Wilderness lists, the IAPD/IPRA park district directory (*), American Automobile Association (AAA) directories, and related lists. Follow-up telephone calls were made to some but not all sites. Several key sites were visited in person. Interpretive literature was obtained from selected sites.

3.1.3 Organization of Information

Appendix A includes a table of interpretive sites/programs lists sponsoring agencies, site names and descriptions, telephone numbers with contact personnel in some cases, presence of a nature center or visitor center, presence of an environmental education program, presence of a prairie on-site, and indication of interest in cooperating (CW indicates membership in Chicago Wilderness). Sites are divided into three categories:

- Within a 60-mile radius, probably the sites most likely to compete or cooperate.
- Within a 60-100 mile radius, extending to the next most likely participants
- More than 100 miles away, identifying several significant sites.

Within each category, sites are listed by County to provide a context of location, distance, and relationship.

3.1.4 General Observations

Based on interpretive literature and telephone interviews, it appears that most agencies provide similar interpretive services -- the most common form being personal leadership of public tours, Scouts and other youth groups, school groups, environmental education units, and classes.

Nearly all sites have at least some kind of re-created prairie, however small, or are in the process of developing one. Some have significant remnants of original prairie.

Most trails have no interpretation. Trail leaflets are sometimes provided. Interpretive signs on trails are less common and sometimes described as "old."

Exhibits in nature centers and visitor centers vary, including permanent exhibits, temporary exhibits, and traveling exhibits.

Personnel at most nature centers are at least somewhat aware of Midewin National Tallgrass Prairie and are interested in cooperating, but are not sure how. Some reported that they are already cooperating with Midewin, mentioning Pat Thrasher specifically.

3.1.5 Competitive Interpretive Sites

Criteria that may help identify competitive sites include size, quality of habitats, quality of interpretation, and site recognition. Other possible criteria may include opportunity for developing interpretive themes around changing land uses including Native American use, early settlement/agriculture, military support operations, and eventual natural habitat protection/restoration. If documentation could be achieved, a connection with the Underground Railroad could be meaningful, as there are very few documented and interpreted sites of this nature.

Size: Midewin is significantly larger than other sites. Its large size is one of its unique advantages. Three other fairly large prairie expanses are: Goose Lake Prairie (Grundy County), Fermi Laboratory Prairie (Kane County), and Nachusa Grasslands (Lee County).

Vegetative Quality: There are sites, too numerous to mention, with better overall vegetative quality than Midewin. These include the many Illinois Nature Preserve designations (not listed here) and certain high-quality prairie re-creations such as the Schulenberg Prairie at The Morton Arboretum. Many county forest preserve districts also have examples of woodlands, wetlands, and prairies. Midewin, however, is unique in having existing special habitat for grassland birds. It also harbors important remnants of rare dolomite prairie. Midewin's size also sets Midewin apart from other prairie sites within the region. Midewin is by far, the largest public land unit in the region and offers the greatest opportunity for developing large, contiguous areas for grassland dependant plant and animal species.

Quality of Interpretation: Certain sites were identified in this review as having high quality interpretive facilities and/or programs. They include:

Cook County Forest Preserve District nature centers (see table)

The Grove (Glenview Park District, Cook County)
Spring Valley Nature Sanctuary (Schaumburg Park District, Cook County)
The Morton Arboretum (Lisle, DuPage County)
Garfield Farm (LaFox, Kane County)
Will County Forest Preserve District sites (see table)
Heller Nature Center (Park District of Highland Park)
Glacial Park (McHenry County Conservation District)

Site Recognition: Many sites listed in this review are well known to the public locally and/or regionally. Midewin, however, will probably enjoy a higher level of visibility because of its affiliation with the U.S. Forest Service and the concomitant descriptions/designations on nationally distributed literature and maps. In combination with Midewin's other strengths, this visibility is likely to be an advantage.

Interpretive Potential: Most existing interpretive sites present much the same themes -- Amerindians, Prairie, Woodlands, Wetlands, Restoration, Early Agriculture/Farm Life, Grassland Birds, etc., each adapting these to the specifics of their individual sites. These same themes pertain to Midewin, but with one additional unique and important theme: military support operations.

3.2 Interpretive Implications

Given its large size, its significant vegetative and wildlife habitat, and its affiliation with the U.S.D.A. Forest Service, Midewin has the potential to stand in a class by itself among prairie sites. Careful planning, leadership, funding, and continuous nurturing of public involvement can lead to the fulfillment of its goals in prairie reestablishment, habitat improvement, and interpretation, and to its public value as an educational and research facility.

What will make Midewin stand out as a “destination point” while the restoration effort is underway may well be the quality of its interpretive features. Although many sites investigated discuss prairie restoration in a cursory fashion, Midewin offers the opportunity to illustrate the ongoing process in a way that no other site has attempted. Interpretive media must reflect the needs and desires of the targeted market segments, but should focus on that which makes this place unique – its vast size and the restoration effort underway.

4.0 Programmatic Guidelines

Programmatic guidelines provide direction for the planning and implementation of interpretive media and programs. Additionally, programmatic guidelines provide the parameters within which the program will be developed. The following guidelines were identified in part through interviews with Midewin NTP staff:

4.1 Entry and Orientation

- a) A primary, highly prominent, central feature (such as a Visitor Center) will be used to orient visitors to the MNTP, restoration efforts, visitor attractions, interpretation, activities, and learning opportunities.
- b) Visitors will be able to find their way to the main orientation feature (Visitor Center) from nearby communities and regional circulation corridors.
- c) Upon entering the grounds, visitors will be able to easily navigate their way to the primary orientation feature (Visitor Center) using the primary internal circulation corridor.
- d) Visitor services such as restrooms, drinking water, or vending machines (where appropriate) will be prominently identified and located in central locations.
- e) Visitors will be able to safely navigate their way to and through trails, or other features.
- f) The arriving visitor will be presented a clear means for making choices. Entry to the facility and use of its programs, exhibits, and trails will be obvious and natural.
- g) The entry into MNTP will be highly visible and confined to several specific visitor entry points.
- h) First time visitors will be directed to a main orientation area such as a Visitor Center. Here, the visitor will be provided an overview of the Midewin experience and places to go as well as things to do and see.
- i) The entry will be designed to provide a “threshold” experience. The visitor will have the feeling of passing through a portal as they enter this special place. Visitors will feel as if they are entering into a wild and wonderful environment. Passage through the portal, which may be a landscape feature or the Visitor Center itself, will develop within visitors a sense of expectation, discovery, and wonder.

- j) The implementation of a visitor fee system is strongly encouraged. Well-defined and controlled visitor entry into the unit will facilitate the collection of user fees. Proceeds can then be put back into the maintenance and operation of visitor programs.
- k) The use of an automated ticket dispensing system should be investigated.
- l) A “season pass” or multiple entry pass will provide an important service for “regulars” who routinely enter the area for recreation or hunting.

4.2 On-Site Experience with Midewin

Visitors will be afforded the opportunity to closely interact with Midewin's natural and cultural resources. In this manner, visitors will be able to use the full array of senses to experience the prairie setting and to develop an awareness of human influences through time.

4.2.1 Vehicular Circulation

- a) The visitor's interpretive experience will begin as they enter the grounds.
- b) Vehicular use will be restricted to a route or routes designed to allow visitors access to interpretive resources and recreational facilities such as picnic areas, trailheads, and the Visitor Center.
- c) Vehicular access into other areas of the MNTP will be restricted in order to preserve a sense of the open spaciousness and solitude of the prairie.

4.2.2 Pedestrian Circulation

- a) Prominent and informative trailhead signing will be used to introduce visitors to unique experiences and opportunities expected along the trail. Trailhead signing will also be used to prepare the visitor for the experience.
- b) Recreational and/or interpretive trails will be an important part of the visitor experience.
- c) A trail system will be designed to offer a spectrum of trail experiences from short, easy hikes to more demanding, primitive, longer distance treks for the more hardy visitor seeking exploration and physical challenge.
- d) Some trails will also be designed to provide barrier-free access to meet the intent of the Americans with Disabilities Act (ADA).
- e) Interpretive or visitor access trail standards will be defined in terms of the visitor experience. Forest Service Recreation Opportunity Spectrum standards will be applied when developing interpretive or access trails.

4.3 Personal and Non-Personal Services

- a) At least 20% of the personal services program offerings in any given year will be new offerings. Initial emphasis will be on improving visitor appreciation and knowledge of the unit's resources and offered activities.
- b) Interpretive programs will be evaluated annually for their life-cycle performance. Overall program attendance, exclusive of special events, should increase by at least 10% per year or achieve capacity. Individual programs will be tracked for both participation and cost/benefit (visitor and managerial benefits versus cost to provide).
- c) Interpretive programs will relate to the function, purpose, and mission of the USDA Forest Service and the Midewin National Tallgrass Prairie (MNTP).
- d) Interpretive programs will express the theme and storylines specific and/or relevant to MNTP.
- e) Every visitor will, in some form or fashion, have an interpretive experience.
- f) Interpretation should invoke a feeling, spirit, and expectation of discovery and an appreciation for the on-going prairie restoration efforts. The MNTP needs to have places for people to find solitude and discover engaging resources.
- g) The interpretive process will be used to involve visitors with Midewin's prairie restoration efforts.
- h) The interpretive process will be used to instill within visitors an understanding of their relationship to the landscape, prairie resources, and past history of the site.
- i) Thematic development will be based on the dynamics of prairie ecosystems, prairie restoration, and past human use and settlement of the site.
- j) Interpretation will express that the MNTP is a place for prairie AND people.
- k) A portion of the interpretive media will be designed to be portable and changeable. Interpretation will need to change as the resource matures or changes occur. Also locations may change as management (restoration) is applied to different areas.
- l) The interpretive program at MNTP will be family oriented. Children's activities will be provided. Visitors with special needs will be accommodated.

- m) The interpretive program will be relevant for different levels of understanding, learning styles, and abilities. In short, there will be something for everyone.
- n) Children's activities and programs that lead them out into the grounds will be developed to give them the challenge of seeking, finding and doing.
- o) Interpretive facilities must stand out, be recognizable but not obtrusive.
- p) Visitors will recognize that the USDA, Forest Service and Illinois DNR work together as stewards of the area.
- q) Visitors will willingly comply with rules and regulations because they understand the need for regulations and the reasons behind them.
- r) Visitors will recognize the MNTP as a special place requiring special behavior on their part to reduce adverse impacts to plants and animals.
- s) Interpretive media will reveal hidden nuances, invoke interest, and encourage responsible use of the MNTP.

4.4 Site Departure

Visitors will experience a logical conclusion to their Midewin interpretive experience. An Interpretive Association or Friends Group sales outlet will provide visitors the means for purchasing additional information such as field guides so that they may further their study and discovery of Midewin's resources.

5.0 Thematic Guidelines

5.1 Central Theme Statement

Interpretive media designed around a central theme tends to have a greater impact on visitors, allowing them to internalize and personally relate to information and experiences. The central theme is the thread tying together the individual story lines and interpretive opportunities within the project area, giving continuity to the delivery of the individual stories. Additionally, the theme is the most important idea or concept the visitor should comprehend. In some cases, the central theme statement will dictate a design feature or title that may visually or physically convey the theme to visitors. If the central theme is adequately communicated to visitors in a number of ways, it is what the visitor will remember most about the site and what they will tell others when asked about the site.

At Midewin National Tallgrass Prairie, thematic expressions should convey that this is a place where people can connect with the past and look towards the future, using the land as a linkage to both. It offers opportunities to experience wide-open spaces and will eventually offer a glimpse into the prairie as it used to be. It is an excellent example of environmental stewardship and the relationship of people to the land over time. All these elements can be put simply into the following sentence:

*Midewin is a special place,
where people and the prairie restore each other.*

5.2 Subthemes and Storylines

Subthemes relate to the central theme and provide specific focus to the interpretive stories. Subthemes are an organizational tool used to ensure that all appropriate stories are noted and communicated.

Storylines are the specific facts, ideas, principles, and concepts woven together to communicate the central theme and subthemes.

Following are suggested subthemes and storylines for the Midewin National Tallgrass Prairie. The subthemes are arranged according to priority (based on evaluation by planning workshop participants) and approximate percentages of effort that should be afforded to each in specific media development.

5.2.1 The Tallgrass Prairie Ecosystem (25%)

Subtheme:

The tallgrass prairie ecosystem is a complex and biologically diverse ecosystem. The tallgrass prairie is rapidly disappearing due to conversion of large tracts of prairie to agriculture or urbanization.

Storylines:

- a) Structure of the tallgrass prairie, components and types of plants and animals making it a Tallgrass Prairie. Define what a tallgrass prairie is and how it differs from other types of grassland ecosystems.
- b) Interrelationship of various types of habitats – grasses, savannas, groves. Special emphasis on Burr Oaks, fire resistant, clay soil tolerant.
- c) Prairie soils – most of biomass is underground in a true prairie ecosystem. (Upside down rain forest analogy.) How soils were formed and why they are so fertile.
- d) Ecotones – how ecotones provide important habitat, explain the importance of ecotones and how they contribute to biodiversity.
- e) Historic and present day role of fire in the tallgrass prairie ecosystem. Explain use of prescribed fire to mimic past, natural processes.
- f) Biodiversity – what it is, why it is important and an indicator of environmental health. Explain the relationship between biodiversity and Threatened and Endangered species concerns and management.
- g) Threats to the tallgrass prairie and description of the vast amounts of prairies lost.

5.2.2 Restoration of a Tallgrass Prairie (25%)

Subtheme:

Few native natural prairie tracts currently exist within the Midewin National Tallgrass Prairie. The Forest Service, Illinois Department of Natural Resources and their partners and cooperators have a massive undertaking ahead of them to restore Midewin to a natural prairie ecosystem.

Storylines:

- a) Native prairie restoration – techniques, species used, seed production, etc.
- b) Wetland restoration, past practices such as drain tiles and techniques and importance of restoring wetlands to previous conditions.
- c) Restoring hydrology of natural drainages, and importance to prairie restoration.
- d) Agriculture as a management tool and use in prairie restoration.
- e) Past prairie remnants, nuclei for seed production and restoration efforts.
- f) Prairie groves – techniques to restore, why important to overall prairie restoration efforts.
- g) Savannas – techniques to restore, why important to overall prairie restoration efforts.
- h) Tie between restoration of the prairie and providing quality habitat for prairie dependent animal and bird species such as grassland birds.
- i) On-going studies and management – for example the butterfly transects, population-monitoring, inventories.
- j) Use of grazing as a management tool and the role of grazing in prairie restoration efforts.
- k) Invasive species – what they are, impacts to the native prairie environment, what people can do to help fight the problem.
- l) Management dilemmas posed and decisions that must be made to restore Midewin to a true, historically accurate, tallgrass prairie ecosystem – for example, the effects on loggerhead shrikes of eliminating non-native Osage orange trees.
- m) Backyard prairie plantings – how visitors can plant native prairie plants, benefits of native plant gardening.
- n) Getting involved with Midewin National Tallgrass Prairie restoration/management – volunteer opportunities, support for environmental and educational partners and cooperators, becoming a support constituent.

5.2.3 Plants and Animals of Midewin National Tallgrass Prairie (15%)

Subtheme:

Many plants and animals find suitable habitat in the tallgrass prairie ecosystem. In fact, many plants and animals are uniquely suited to cope with environmental conditions and factors found within the tallgrass prairie.

Storylines:

- a) Mammals of the Tallgrass Prairie – species, habitat requirements, management efforts specific to Midewin, how to best observe. Include adaptations specific to prairie conditions and that allow them to be successful competitors for space and nutrients.
- b) Birds of the Tallgrass Prairie – species, habitat requirements, management efforts specific to Midewin, how to best observe. (Includes stories such as prairie chickens versus Asian pheasants, importance of prairie ecosystems to neo-tropical migrants). Include adaptations specific to prairie conditions and that allow them to be successful competitors for space and nutrients
- c) Plants of the Tallgrass Prairie – species, habitat requirements of higher profile species, management efforts to maintain viable populations, (restoration is another subtheme), adaptations specific to prairie conditions and that allow them to be successful competitors for space and nutrients.
- d) Insects of the Tallgrass Prairie – types and variations, unusual insects, adaptations, unique contributions to the prairie ecosystem, introduce concept of “niche”.
- e) Dolomite Prairie – rare and unique natural community, what it is, how formed, why rare, contributions to biodiversity.
- f) Threatened and Endangered Species – Identification of species, factors contributing to population declines, impacts to current and future prairie management, actions taken to stabilize populations and manage for T&E species.

5.2.4 Human Use and Settlement of the Midewin Area (10%)

Subtheme:

Humans have had an extreme influence on the tallgrass prairie as evidenced in the area now known as the Midewin National Tallgrass Prairie.

Storylines:

- a) Why people throughout time settled in the area and in particular, the tallgrass prairie.
- b) Known Prehistoric use and settlement of the area.
- c) Historic Native American use and settlement of the area.
- d) Euro-American settlement, and early/late farming.
- e) Des Plaines River and influences of river on settlement, commerce, and development of the area.
- f) Condemnation and purchase of farmsteads for military armament production.
- g) Development of the area for the Joliet Army Ammunition Production Plant. TNT production.
- h) Phase out of TNT production and legislative creation of the Midewin National Tallgrass Prairie.
- i) Evidences of past use and settlement – Osage orange hedgerows, homestead foundations, historic cemeteries, stone fences, churches and school houses in area, TNT production facilities (management dilemma as to what to do with all the old buildings – preserve for future observation or eliminate to restore the naturalness and aura of the native prairie), early Native American burial mounds.
- j) The future – a restored prairie, place for plants and animals, and human observation, relaxation, and study.

5.2.5 Orientation to Recreation, Interpretive, and Learning Opportunities at the Midewin National Tallgrass Prairie (10%)

Subtheme:

There are many fun and exciting things to do, places to explore, and things to learn about at the Midewin National Tallgrass Prairie.

Storylines:

- a) Recreational activities such as hiking trails, bicycling, etc.
- b) Hunting
- c) Watchable Wildlife – wildlife observation opportunities, techniques, ethics.
- d) Camping in the area
- e) Environmental education at Midewin
- f) Interpretive programs and facilities
- g) Responsible use of Midewin’s resources (Leave No Trace)

5.2.6 Stewardship of the Midewin National Tallgrass Prairie (5%)

Subtheme:

The USDA Forest Service and Illinois Department of Natural Resources ensure that cultural and natural resources of the Midewin National Tallgrass Prairie are maintained for sustainability and environmental health.

Storylines:

- a) USDA Forest Service, Illinois Department of Natural Resources -- Mission, functions, and involvement with stewardship activities for the Midewin National Tallgrass Prairie.
- b) Local involvement by area schools.
- c) Chicago Wilderness – Mission, overview of how Midewin National Tallgrass Prairie compliments Chicago Wilderness goals and objectives.
- d) Partnership with Chicago Field Museum, Brookfield Zoo, and others.
- e) Role of volunteers in stewardship and restoration efforts.

5.2.7 Prairie Wetlands and Riparian Corridors (5%)

Subtheme:

Prairie wetlands and riparian areas provide sustenance and life sustaining water for a myriad of plants and animals, contributing to the biodiversity and health of the environment.

Storylines:

- a) Plants and animals common to wetlands and riparian areas.
- b) Role of wetlands and riparian areas in the prairie ecosystem.
- c) Acre per acre, wetlands are the most biologically productive natural systems found.
- d) Wetlands and riparian areas within today's Midewin National Tallgrass Prairie were heavily impacted by human influences during and prior to the ammunition production era. Streams were channelized, wetlands were drained with tiling for agriculture, and chemical pollution virtually eliminated plants and animals in flowing creeks and streams.
- e) Importance of wetlands and riparian areas to the natural environment and prairies in particular. Function of wetlands – habitat, improve water quality, help prevent flooding, etc.)

5.2.8 Geology (5%)

Subtheme:

Geologic forces have had a profound influence on the natural and cultural history of the area and the eventual tallgrass prairie.

Storylines:

- a) Glacial influences, moraines, pot-holes with poorly drained soils becoming eventual wetlands, how present day landscape was formed.
- b) Kankakee torrent – what it was, how caused and how it influenced today's terrain and prairie habitats.
- c) Limestone beds and relationship to dolomite prairie.
- d) Exposed soil horizons found in creek beds giving some evidence of geologic and organic history.
- e) Presence of sand and gravel ridges running parallel to edge of moraine resulting in record of melt water and torrents as glaciers melted.

- f) Existing interface between glacial till uplands and an outwash plain – resulting influences on Midewin Prairie habitats.
- g) Des Plaines River and geologic influences on the area.
- h) Development of today’s rich, fertile soils from glaciation and bedrock. Role of glacial action in developing the rich, fertile soils making the area an agricultural powerhouse of the Midwest. Explain relationship between glaciation, deposition of glacial till, formation of prairie soils, establishment of plants and animals, all of which led to settlement and land use patterns seen today.

6.0 Interpretation and Environmental Education Media Recommendations

6.1 Entry Experience

Public entry to Midewin will be available at three locations. (Other entry locations may be established as need dictates such as during hunting seasons.) The primary public entry will be near the Visitor Center (see section 6.2). This entry experience will create a portal or gateway landscape feature that identifies it as the primary access point to the property. The entry feature should convey a sense that the visitor is entering a special place and prepare the visitor mentally and emotionally for the experience that lies ahead.

One secondary public access point will be located at the Administrative Center (see section 6.3) and another will be located at the Environmental Education Center (see section 6.4). Each of these entry points should include a sign that identifies the site and managing agency; however, as secondary entrances, they will not require the same treatment given to the primary access point near the Visitor Center. Public access at the administrative site will be given particular scrutiny as the potential for conflict between visitors and heavy equipment needs to be addressed.

In compliance with the Land and Resource Management Plan, other entry points may be made available to staff and volunteers so that they can complete resource management functions. Additional public access may also be provided to hikers entering the site from the regional trail on the eastern boundary and to other recreational users (such as hunters) where appropriate; however, it is strongly recommended that the vast majority of visitors to the site be encouraged to enter the site at the primary Visitor Center entry. This limitation will help in monitoring visitor movement throughout the site, partially eliminate the need for parking lots scattered throughout the site, eliminate the need for traffic control within the site, and eliminate the need for duplicating services on the east and west sides of the site.

6.2 Visitor Center

The Visitor Center will be the hub of public activity at Midewin. Here, visitors will be able to find information about the past, present, and future of the site, through interaction with staff, volunteers, exhibits, trails, demonstration areas, and other interpretive media. The Visitor Center will provide a common location for beginning the Midewin experience,

whether visitors choose to interact with the site on foot, by tram, by bicycle or on horseback. The Visitor Center complex will include basic services (phone, restrooms, water, food and gift concessions), indoor and outdoor exhibit areas, trailheads for pedestrian and bicycle trails, and access to tram tours. Equestrian users will be encouraged to visit the Visitor Center complex before experiencing Midewin on horseback. Access to equestrian trails will be via connector trails from concessionaire provided facilities.

It will be critical to design the Visitor Center complex in such a way that the varied activities and experiences do not intrude on each other, but that allows visitors to select easily from the array of options open to them. Concentrating activity in this one area will satisfy those visitors who have only a short time to spend, but allow those who want a longer and richer experience to access the site in a variety of ways and leave the activity of the Visitor Center behind them as they venture out on the trails. Trailheads can be established with minimal facilities and will allow visitors to access other portions of the site.

6.2.1 Location

The Visitor Center complex will be located on the east side in the area of the old railroad bridge and an historic homestead site. This location offers several advantages. It is near an existing grove of trees which provide shaded areas for picnicking, yet has open fields nearby which can be developed for parking areas. The proximity to the railroad bridge offers pedestrian and tram access to the west side. It offers easy access from the highway. From a thematic standpoint, the location is adjacent to interesting historic and natural features and so offers opportunities for interpretation of the overall story of Midewin on a relatively short loop walking trail.

6.2.2 Space Program

The following square footage requirements are displayed to correspond with visitation estimates projected in the “Marketing Research Data Report, Market Survey, Midewin National Tallgrass Prairie.” Additional buildings or structures that may be required within the Visitor Center complex (but not necessarily attached to the main building) might include a queuing/boarding area for tram tours, additional greenhouses or volunteer work stations. Private concessionaires will be encouraged to provide equestrian facilities on nearby private land rather than within the Midewin boundaries.

Based on estimated visitation provided by the marketing study, it is highly recommended that a visitor center be constructed in the initial years to handle the needs of the significant numbers of people anticipated. If limited funding is available for construction and operation, the following space program could provide adequate service for estimated visitation in the initial phase identified by the marketing study. Expansion could be addressed through a phased strategy or full build-out could be accomplished in a single construction period, as indicated in Section 7.

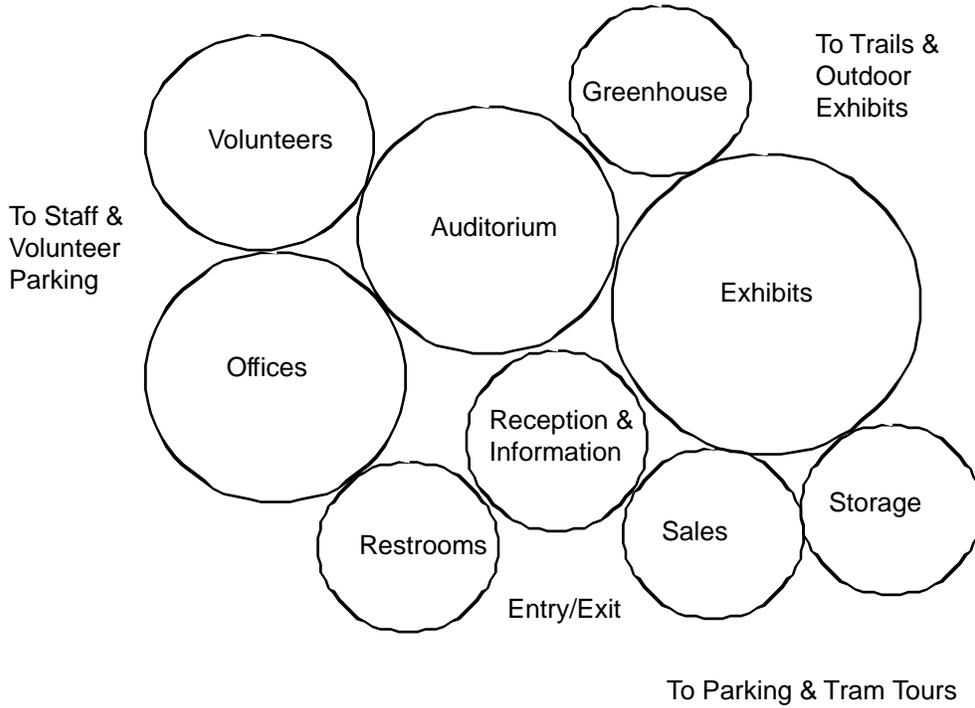
Estimated Visitation 472,000 Persons Annually (Initial Years)

Offices (interpretation & program staff)	1000 sq. ft.
Exhibits	1750 sq. ft.

Restrooms (with access from lobby and outside)	500 sq. ft.
Storage (office supplies, sales items, janitorial supplies, misc.)	500 sq. ft.
Auditorium (may be multipurpose space)	1000 sq. ft.
Information/Reception	500 sq. ft.
Sales	500 sq. ft.
Prairie view window (with seating)	200 sq. ft.
Greenhouse	500 sq. ft.
Volunteer room (work space with kitchenette)	750 sq. ft.
Mechanical/circulation	800 sq. ft.
TOTAL SQUARE FOOTAGE REQUIRED	8000 sq. ft.

6.2.3 Functional Relationships

It should be noted that this diagram includes only the visitor center building and immediate environs. If possible, a “hitching post” with a half-hour time limit should be made available near the Visitor Center building so that equestrians can participate in activities or exhibits as desired. Linkages to other trails within the region should be considered.



6.3 Administrative Center

6.3.1 Current Plans

The (soon to be constructed) Administrative Center's main function will be to house offices for all staff other than program staff housed at the Visitor Center. Initially, this Center will serve as a temporary welcome center with displays that interpret the prairie ecosystem; however, when the main Visitor Center (see 6.2) is constructed, visitor access to this building will be limited to seeking specific information from and interaction with Midewin staff.

6.3.2 Future Visitor Interaction

It is recommended that limited resources be allocated to outdoor visitor programming and exhibits at this site in anticipation that the main Visitor Center (see 6.2) will be open to the public relatively soon (within five to eight years). When the Visitor Center is open, fewer visitors will have need to enter this building and maintaining a strong visual attraction here will create confusion for first-time visitors. This complex should be clearly marked as an administrative and research center so that visitors without specific needs will not use this site as a primary entry. Limited access to the interior of the site will be allowed from the Administrative Center once the Visitor Center is open to the public. It is not anticipated that visitors will use this site to access the trail system, although a trail linkage (hiking, biking, and equestrian) will be provided to the Visitor Center. Since the public will still be allowed access to this building, public parking and facilities (restrooms, water, phone, etc.) will need to continue to be provided.

6.3.3 Adaptive Reuse of Planned Exhibit Gallery

The exhibit gallery currently planned for the Administrative Center can be reused in a number of ways once the Visitor Center is open. Perhaps the strongest recommendation is to create a library or resource center here which will be of use to research staff as well as the few visitors who have a desire for deeper knowledge about the prairie ecosystem. This space could contain computer links to other prairie sites, archival material, and other research and reference tools, allowing it to become a "center of excellence" for prairie restoration knowledge. The exhibits currently planned can be adapted for use as traveling exhibits and promotional pieces for Midewin to be set up at other regional museums or visitor centers, shopping malls, fairs, and other appropriate venues.

6.4 Environmental Education Center

This facility will provide a place away from the general public where scheduled group activities can be accomplished without interference with or from casual visitors or trail users. Initially, the facility will be open by appointment only for schools, special workshops, youth groups, and others (such as participants in the Mighty Acorns program). As such, it need only contain classroom and storage spaces. However, as the popularity and programs of Midewin grow, there may be an opportunity to create a residential facility to support longer term programming which would require dormitories or cabins and additional office/administrative space as part of this complex.

The Midewin staff recommends that an environmental education center be considered part of a long term planning horizon, with specific details to be considered in the next Land and Resource Management Plan cycle.

6.4.1 Location

Four locations could effectively serve the Environmental Education Center. As planning and development of the site continue, the optimum site will no doubt become apparent. Under consideration are:

Location Option One: near the existing northeast entrance to the site. Advantages to this location include easy access to natural and cultural features, existing entry and roadways, and proximity to poured concrete slabs which could be used as bases for dormitories or classrooms. A concern at this site is the possibility of a commuter rail terminus across the street from the proposed entry. Although this could create parking and safety issues, it could also provide easy access for schoolchildren from communities along the light rail from Chicago.

Location Option Two: near the proposed Visitor Center in a “campus” style. Advantages to this location include consolidation of buildings and staff with the Visitor Center. Other sites with similar campus approaches tend to be dissatisfied with combining the general public with scheduled school programs, citing overcrowding, confusion of casual visitors, and abuse of facilities and exhibits by school groups.

Location Option Three: near Doyle Lake on the south side of the property. Advantages to this location include proximity to a significant water feature and easy access. A concern at this site (which may be turned into a programming “plus” with a creative approach) is proximity to the county landfill.

Location Option Four: near existing seedbeds along River Road. Advantages to this location include easy access near an existing educational feature. A concern at this site is that many visitors will travel this road on their way to the Visitor Center. There is likely to be significant confusion for visitors trying to find the primary site access near the Visitor Center

if signing is not carefully implemented at the entrance to the Environmental Education Center.

6.5 Visitor Movement and Access Throughout Site

In accordance with the Land and Resource Management Plan, visitors will be able to move through the site in one of four ways:

- 1) **Pedestrian trails** will be developed in a loop system departing from and returning to the Visitor Center. The loop system will include a short (1/2 mile) universally accessible trail, as well as a variety of longer loops that offer two-hour to day-long hikes on both the east and west sides of the site. Pedestrian trails may also be linked to existing trails on the perimeter of the site.
- 2) A **tram** will be operated by a concessionaire to conduct tours of the site, departing from and returning to the Visitor Center complex. Tours will be developed for the east and west sides, with access to the west side provided over the railroad bridge. The tram will offer tours in response to demand, with more tours running on peak days and fewer or no tours running on days without high visitation. The concessionaire must address issues of weather and visitation extremes.
- 3) **Equestrian trails** will be provided mainly on the east side with several on the west side. These trails will need to be clearly marked and riders cautioned to remain only on marked trails to avoid trampling of restored areas. Alternatively, the site could be opened only to guided rides offered by a concessionaire.
- 4) **Bicycle riders** will be able to use marked multipurpose trails open to bicycles (see section 2.3).

Other motorized and non-motorized vehicles will be prohibited throughout the site, except for special tour permits and restoration/maintenance crews. This approach will minimize road maintenance and disturbance to plants, animals, and visitors throughout the site.

It should be noted that recreational uses such as hunting and camping will require parking and possibly access routes into the site. Because the location of these activities may change from time to time, a moveable “iron ranger” self-pay system could be implemented for these users. Interpretive services addressed to these users will require flexibility (such as personal programs, a moveable blind with interpretive panels, or publications) rather than wayside exhibits or other permanent interpretive features.

6.6 Interpretive Facility and Media Recommendations

6.6.1 Directional Signs

Directional signs throughout the site will be designed to reinforce thematic guidelines previously established for Midewin. Directional signs will need to be placed at every decision point on entry roads and internal trails and roadways to allow ease of movement and avoid circulation problems, especially around the Visitor Center complex.

6.6.2 Visitor Center Exhibits

Visitor Center exhibits will communicate the central theme through a variety of interesting and interactive multi-sensory methods. Exhibits will be designed to pique the visitors' interest and encourage them to experience the prairie first-hand. Exhibits will show perspectives of the prairie that cannot be easily seen outside. The focus will be on increasing the visitors' appreciation of the complexities of the prairie ecosystem and the specific history of Midewin rather than on simple identification of plant and animal species or panoramic views that can be seen on the grounds. Exhibits will be universally accessible, will meet the Midewin thematic guidelines, and be low maintenance through durable construction. Exhibits will be designed to be changeable to reflect the changing nature of the prairie restoration effort and to serve as a continuing attraction for the high number of repeat visitors expected. It is recommended that an interpretive planner be involved in the architectural planning and design phases for the Visitor Center to ensure that thematic guidelines are incorporated into the structure and surrounding site, as well as helping the architect to design an appropriate space for indoor exhibits. As design of the building is taking place, an exhibit plan should be completed with details for indoor exhibits. Following are some examples of exhibits that might be included:

Prairie Champions Wall -- This prominent exhibit will provide a place for visitors to contribute to an ongoing checklist of plant and animal species seen at Midewin. In addition to the checklist, the exhibit will provide index cards and pencils so that people can write their expectations or impressions of Midewin and then tack the cards to a bulletin board for others to view.

Sounds of the Prairie – A darkened room with headphones and a state-of-the-art three-minute stereo presentation of prairie sounds will give visitors a heightened sense of the sounds of the prairie through a 24-hour period. Visitors will be encouraged to listen for similar sounds as they travel throughout the trails or tours.

Building a Prairie – This holographic map and diorama with accompanying light and sound show will visually illustrate the changes that Midewin has undergone in the last two hundred years, including modern restoration efforts.

Site Orientation Map and Opportunity Matrix -- This large base map will be designed to be changeable so that it can be kept current as buildings are demolished or built, agricultural areas are restored to prairie, and to illustrate current (daily or weekly) “hot spots” of restoration activity. In conjunction with this map will be an opportunity matrix that suggests several ways to experience Midewin depending on how much time the visitor has (for example, someone who has only an hour might want to experience the exhibits and nearby demonstration gardens, while someone who has half a day might choose to take a guided tour, participate in a program, and visit the demonstration gardens). The matrix will consider various types of interests and opportunities (birding, plants, history, etc.).

Human History – This exhibit will feature a variety of artifacts from various periods of human history (see section 2.1.2) with an audio component that relates short stories about the artifacts (preferably taken from actual journals whenever possible) rather than simply identifying them with labels. Artifacts can be displayed in a series of dioramas rather than simply shown in cases.

Taking Steps Toward Restoration – This exhibit will include interactive stations that illustrate the various steps involved in restoring the prairie. Some stations might allow visitors to collect or clean seeds. Seeds would drop down into a box and a mounted stopwatch would allow visitors to see how long it actually takes to collect or clean seeds. Other stations might involve visitors in making decisions about what areas to restore and how through a video voting program. The exhibit will include a component that demonstrates how what’s beyond the boundaries of Midewin affects the restoration effort. All stations should encourage visitors to participate in restoring the prairie through a variety of programs and volunteer opportunities.

Prairie Cam – This exhibit will allow visitors to view selected areas by remote video camera. It might also link to a global internet view of certain bird species as they migrate from country to country at different times of the year. The exhibit will include a visitor-activated fiber optic map that shows the migration routes of selected species to demonstrate the global linkages to Midewin.

Glacier Glide -- This exhibit will allow visitors to manipulate a tabletop “glacier” and see the results of that movement on the landscape. Computerized maps will show how glacier movement directly affected the Midewin landscape.

Prairie Restores People -- This changing exhibit will explore changing attitudes towards prairie through art, literature, scholarship, and research. The display will be designed so that new examples can be shown on a regular basis.

Videos – A selection of short videos will be offered with topics ranging from basic orientation to specific historical events, restoration efforts, or plant and animal species (see section 5.2 for suggested storylines).

Kids Corner – This section of the exhibit gallery will include exhibits specifically designed for young children. It might include an exhibit that allows children to experiment with different types of seed dispersal (big Velcro seeds that stick on clothes, “helicopter” seeds, etc.). A cross-section of a plant from roots to crown will allow children to see how they

measure up to several different species of common prairie plants. A square foot of soil will be magnified to show the variety of living organisms underground.

6.6.3 Trail Signs and Wayside Exhibits

Interpretation along designated trails will consist of a variety of trail signs and wayside exhibits. Trail signs are generally considered two-dimensional pieces with text and images, while wayside exhibits are generally three-dimensional objects permanently placed along trails or in demonstration areas. Wayside exhibits might include sculptures, interactive play areas (such as a children's playground with crawl-through ground squirrel or pocket gopher tunnels), or mapscapes, portable viewing blinds, etc. Interpretive signs will follow established guidelines for print materials at Midewin.

Because trails throughout the site may be subject to significant changes as restoration activities take place, it is recommended that interpretive signs and wayside exhibits be permanently located only on the loops closest to the Visitor Center that are not subject to frequent change. Portable wayside exhibits, such as a moveable viewing blind, should be considered for use along trails in the interior of the site.

Trails, signs, and wayside exhibits to consider include:

Half-mile loop (universally accessible) – This loop, closest to the Visitor Center, will include an overview of the Midewin property. It will loop by the historic homestead remains, through a wooded area, past the demonstration gardens and into the grassland. A wetlands or riparian feature could be added to provide another glimpse of a prairie habitat. Three to five signs will adequately convey the overview of Midewin, while each demonstration garden will require its own sign to describe what is being demonstrated. The loop will take about one-half to one hour to experience.

One-mile loop – This loop will include a portion of the half-mile loop, but will extend the visitor's time to a one to two hour experience. It is recommended that no signs be placed along this trail, but a number of themed brochures be developed for a prairie "notebook" that would allow visitors to select their own interest area for interpretation (see section 6.6.5 for details). Coupled with the recommended audio tours, these options will provide adequate and appropriate interpretation for this trail.

Viewing Blind – This portable viewing blind can be delivered to any site within the property by trailering it to whatever location seems most appropriate for a given day. The blind will be designed with a ramp entrance to allow universal accessibility. The blind will include two interpretive signs: one that describes the ethics and techniques of wildlife viewing and one that describes various species that might be seen around Midewin. The location of the Viewing Blind will be indicated on the map in the visitor center on any given day.

Restoration Discovery Trailer – Like the portable viewing blind, this trailer can be moved throughout the site to provide a hands-on experience for visitors. The trailer will include features such as microscopes, seed screens, and other activity stations that will allow visitors

to interact with restoration activities wherever they may be taking place. The location of the Discovery Trailer will be indicated on the map in the visitor center on any given day.

Children’s Play Area – The children’s play area will be located adjacent to a picnic area near the Visitor Center. The play area will include thematic structures, perhaps encouraging children to take a “bug’s eye” view with enlarged prairie plants, insects or birds to be used as climbing or slide structures and pocket gopher “burrows” for crawling through. An interpretive sign will provide parents with creative ideas for explaining the diversity of the prairie to their children along a short “discovery trail” incorporated into the children’s play area.

Demonstration Gardens – A variety of demonstration gardens will be planted near the Visitor Center. These gardens will encourage visitors to take home ideas that can be applied to their own backyards. Demonstration gardens might include native plant landscaping, pollinator garden, year-round color garden, etc.

Outdoor Orientation – A kiosk outside the Visitor Center will provide visitors with basic information about Midewin at times when the Visitor Center is closed. This feature could also be incorporated into the Administrative Center site immediately.

6.6.4 Audio Tours

A variety of audio tours can be developed for Midewin that follow the suggested storylines (see section 5.2). For ease of maintenance, the easiest audio tour system would be to create a series of CD’s that can be checked out by visitors along with a CD player system with limited volume control. Instead of being keyed to a specific spot, the CD script would give an overall view of a particular trail or storyline, so that the visitors can play it as they walk and decide for themselves how much or how little they want to hear.

6.6.5 Publications

Publications to be developed might include simple three-fold brochures, a checklist booklet of species designed specifically for Midewin, or coffee-table type books prepared especially for this site. Simple, easy to reproduce publications can be offered as free handouts, while the more colorful and in-depth books could be offered for sale through a cooperating association sales outlet.

Activity & Coloring Book – This 16 to 24 page booklet will provide a variety of children’s activities and coloring pages related to the prairie. Activities might include crossword puzzles, word search puzzles, scavenger hunt (children would draw or mark off what they find rather than actually collecting the items), and matching items.

Prairie Journal – This book will include quotes and inspirational messages about the prairie and its restoration, as well as pencil sketches or watercolors of prairie plants and animals, with plenty of white space for visitors to record their own observations of Midewin.

Visitor Orientation – The standard “Midewin brochure” will provide visitors with a regularly updated informational piece that includes rules, locations of trails, opportunities for participation in program and volunteer activities, and other background information.

Plant/Animal Resource Guide – A series of resource guides developed specifically for Midewin that details the plant and animal species found here historically and currently will assist visitors in identifying species on-site.

Making Midewin – This coffee-table history of Midewin will chronicle the transitions of the property, including modern restoration efforts, through high-quality photographic images and essays.

Perimeter Tour – This brochure will detail the history of Midewin from a variety of vantage points located along the perimeter. This piece will allow people who want to drive around the perimeter on existing roadways outside the boundaries of the property to get an overview of the project from a different perspective.

Prairie Notebook – This notebook, or box, will provide a system for collecting a series of leaflets produced on a variety of topics (see section 5.2 for potential storylines). New leaflets can be offered on a monthly or quarterly basis, encouraging visitors to return to add to their collection. Annual editions that include all leaflets offered in the preceding year could be offered for sale as a prepackaged piece for one-time visitors. These leaflets can be used as trail brochures for the interior trails which are not interpreted with signs.

6.6.6 Guided Tours

In addition to offering trails for visitors to walk at their own pace, guided tours can be offered on walking trails, tram tours, bicycle trails, and horseback trails. Guided tours can provide a “Living Visitor Center” experience by taking groups to specific areas of the prairie where something interesting is happening on a given day. Consequently, tour routes will be in a constant state of change, appealing to repeat visitors.

It is recommended that all guides for walking, tram, bicycle, and horseback tours become Certified Interpretive Guides through the National Association for Interpretation training program. This training provides 32 hours of instruction in interpretive philosophy and technique that helps guides communicate more effectively with visitors. In addition to the CIG training, volunteers, staff or concessionaires who will be leading tours should be fully trained in the content of Midewin natural and cultural history by resource specialists familiar with Midewin’s unique characteristics. Some guided tours that might prove popular include:

- Habitat Sampler (dolomite, riparian, wetlands, grasslands)
- Human History
- Cemeteries
- Watchable Wildlife

6.6.7 Other Program Opportunities

In addition to guided tours, other scheduled program activities can be offered to attract visitors in traditionally lower use times or to channel visitor concentrations during higher use times. Interpretive programs, unlike scheduled environmental education activities, must appeal to an audience who chooses to participate; therefore, they must be enjoyable to attract and hold the interest of the casual visitor. Programs might range from single half-hour presentations to half-day workshops or an ongoing series of program sessions. If camping areas are implemented, campfire programs could also be offered. Suggested programs include:

- nature photography, art or drawing
- ethno-botany
- landscaping with native plants
- plant and wildlife identification and monitoring
- birding
- prairie burning
- living history or 1st person characters (Burly Bur Oak or historical characters)

Special interest “clubs” could be developed that would meet on a regular basis over a long period of time, allowing participants to become specialists in various aspects of the prairie. Midewin staff would be available for occasional guidance and the groups would also share information among themselves. These people would then be a resource for interpretation, teaching and monitoring at Midewin. They would have the opportunity to use Midewin facilities as a meeting/learning place and could give back by sharing their information with others as guides and/or using their expertise at Midewin and the rest of the Prairie Parklands (see section 6.6.6).

6.6.8 Special Events

Special events offer an opportunity for attracting large crowds with specific interests to Midewin. Care must be taken when planning special events that such events do not create the potential for damage to the resource. Living history re-enactments can be incorporated into a special events program rather than attempting to recreate historical structures on-site.

Some ideas for special events might include:

- Restore Yourself, Restore Your Prairie (journal writing and art activities combined with restoration activities)

- Eliza Steele Day (historical events reflecting the settlement period)
- The Prairie Underground (soil conservation and native plantings)

Possible partnerships with other agencies, universities, youth groups, etc. can be investigated as potential sponsors or deliverers of special events. Conducting a special event in conjunction with a notable date or the volunteer program might also prove successful in promoting participation.

6.6.9 Roving Interpretation

In addition to scheduled programs and tours, high use times might benefit from the use of roving interpreters. These interpreters may be staff or volunteers who make themselves available along trails and demonstration areas so that visitors can have informal contacts with someone who is able to help them understand more about Midewin.

6.6.10 Other Recommendations

Other miscellaneous interpretive opportunities include:

AM Radio Transmitter – A low-wattage radio transmitter will allow visitors driving past the site to tune into their car radio to hear a message about Midewin’s current status, history, or upcoming activities.

Interactive Website – Midewin’s website should be updated regularly and include pages with interactive activities for children and adults. A “prairie restoration” simulation could be offered that will allow visitors to the website to make decisions that would hypothetically affect the prairie. An ongoing visitor survey page could also be added to collect information about what visitors would like to see or do while on-site, or to collect “journal entries” from people who have visited.

Discovery Packs – A daypack containing field guides, binoculars, bug boxes, hand lens, etc. will be made available to visitors of all ages. The packs will be checked out at the Visitor Center and returned there when visitors are through with their experience; however, similar packs should be available for sale in the gift shop.

Horseback/Bicycle Patrols – To help maintain safety and security of visitors while on interior trails, horseback or bicycle patrols should be considered. Volunteers who participate in this program should be trained in first aid, conflict resolution, resource information, and interpretation.

6.8 Fee Structure

Fees for interpretive programming are appropriate and highly recommended for participation in the Midewin experience. Occasional “no-fee” days can be provided to allow universal access to the site. An appropriate fee structure was, at the time this plan was written, being investigated and incorporated into the marketing plan, so specific fees are not addressed here. However, it should be noted that consideration should be given to developing a fee structure that covers actual operating costs associated with programs rather than simply determining what the market will bear, particularly in the case of special events or environmental education programs.

7.0 Operations Plan

7.1 Project Phasing

The restoration of Midewin National Tallgrass Prairie will take place over several decades. The interpretive features included in this plan may also take several years to implement. Phases of development should logically respond to available funding, staffing and visitation; however, the following stages of development are recommended to provide general guidance. To ensure consistency with the “Marketing Research Data Report, Market Survey, Midewin National Tallgrass Prairie,” phasing recommended by this report will adopt the time frames, “initial years, middle years, and fully developed” as used in that report. For details regarding this time frame breakdown, please reference the Market Survey Report.

Phase One (Initial years)

Viewing Blind (portable)

Restoration Discovery Trailer

Publications

- Activity/Coloring Book

- Prairie Journal

- Visitor Orientation

- Plant/Animal Resource Guide

- Making Midewin

- Perimeter Tour

- Prairie Notebook (each leaflet)

AM Radio Transmitter

Audio Tours

Certified Interpretive Guide Training (ongoing through all phases)

(optional if funding allows: Planning, Design and Construction of Visitor Center)

Phase Two (Middle years)

Planning & Design of Visitor Center Building/Grounds/Exhibits (alternatively: planning, design & construction of Visitor Center expansion)

Planning & Design of Children’s Play Area

Planning & Design of Demonstration Gardens & Signs

Planning & Design of Interpretive Loop Trails

Phase Three (Fully developed)

Construction (expansion) of Visitor Center Building/Grounds/Exhibits

Fabrication & Installation Trail Signs (5)

Construction of Children’s Play Area

Fabrication of Demonstration Garden Signs
Construction of Outdoor Orientation Kiosk
Construction of Interpretive Loop Trails

7.2 Staffing Recommendations

Increases in visitation will require increases in staffing to support appropriate levels of interpretation and environmental education. It is recommended that the following positions be provided for adequate support of the program when the entire plan is in place. Funding availability and actual visitation figures will be the benchmarks for determining when it is necessary to adjust the staffing schedule.

Recreation Program Supervisor – This position will be responsible for the overall recreation program at Midewin, including supervision of interpretation and environmental education coordinators.

Interpretation Coordinator – This position will be responsible for developing the interpretive program, including planning or contracting for new exhibits, publications, and signs; training interpretive staff and volunteers; volunteer recruitment and assignment; and supervision of interpretive staff. This position is directly responsible to the recreation program supervisor.

Environmental Education Coordinator – This position will be responsible for developing the environmental education program, including coordination and scheduling of schools; training teachers; and creating new curriculum units. This position is directly responsible to the recreation program supervisor.

Interpretive Staff – This position will be responsible for delivery of interpretive programs and support as needed for other interpretive functions (updating the website or AM radio transmissions, for example). This position is directly responsible to the interpretation coordinator. Number of positions needed will depend on levels of visitation and numbers of programs to be delivered.

Environmental Education Staff – This position will be responsible for delivery of environmental education programs on-site and off-site (outreach). This position is directly responsible to the environmental education coordinator. Number of positions needed will depend on levels of visitation and numbers of programs to be delivered.

Appendices

Appendix A – Complementary and Competitive Sites Table

Appendix B – Planning Maps