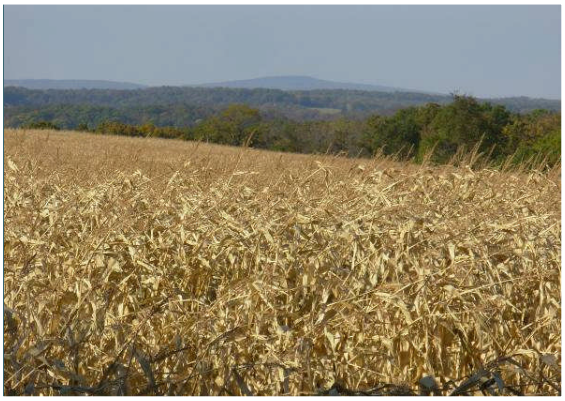

Master Plan

Black Earth Creek Wildlife Area Sunnyside Unit

February 2011

Dane County Parks
Always in Season

Town of Middleton

Acknowledgements

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Executive Summary

The Black Earth Creek Wildlife Area-Sunnyside Unit is well known in the Town of Middleton as the Sunnyside Seed Farm and was owned by farm safety expert Randall Swanson and his family for many years.

The property was purchased by Dane County with the help of its partners the Town of Middleton and the Natural Heritage Land Trust in 2004 and 2005. Dane County received a WDNR Habitat Areas grant to acquire the property. The grant was awarded with conditions that require the land to be used primarily for wildlife habitat. Public recreation is allowed that is compatible with a Wildlife Area.

The BECWA-SU is located along USH 14 between the City of Middleton and the Town of Cross Plains. Access to the property has been from field roads that intersect USH 14 and Low Road. Wisconsin and Southern Railroad tracks run along USH 14, further bisecting the property.

The property extends from the lowlands along Black Earth Creek, a Class I trout stream, to high, glaciated ridges, encompassing 292 acres. The most level and gently rolling lands are currently farmed. The steep hillsides support deciduous woodlands. Varied topography creates many microclimates with the potential for a diverse wildlife habitat. An uncommon "goat prairie" has survived just above the rock cut on USH 14. The hilltops provide sweeping views of Middleton, Madison, and the Black Earth Creek Valley.

Three public meetings were held during the course of the master plan project. The public was encouraged to submit comments and ideas to the Dane County Parks Department.

The Master Plan recommends improving public access by creating two small off-road parking lots (one off of USH 14 and one off of Low Road) and providing management paths that serve as access for maintenance and emergency vehicles, firebreaks for controlled burn units, logging paths, and public hiking paths. Kiosks with maps, notices, and information about special features are recommended at the parking lots.

An easy pedestrian trail and boardwalk can be created in the portion of the property between Low Road and USH 14 that would provide overlooks of three recently created wetland scrapes and a prairie restoration. The trail would also pass by the former farmstead site and could connect to the north side of USH 14 through an existing cow tunnel if the tunnel is improved.

Management paths north of USH 14 traverse the steep wooded hillsides and divide different habitat types. The WDNR prepared a Forest Stewardship Management Plan for the property. The plan and this master plan recommend creating large sweeps of different habitat types such as prairie/grassland, oak woodland, savanna, and wetlands. This involves removing small, fragmented woodlots and practicing selective logging to favor oak species. Over time the sharp woodland edges should soften as young oak trees and other natives germinate in the better light conditions.

Recreational uses include all types of hunting, trapping and fishing; hiking, nature study, cross-country skiing, snowshoeing, berry and mushroom picking, and similar low-impact activities. Motorized recreational vehicles and bicycles are not allowed into the Wildlife Area. The railroad corridor could potentially serve a multi-use trail along USH 14 connecting Middleton to Mazomanie.

Grant conditions limit they types of recreation that is compatible with wildlife habitat. Potential expansion of BECWA-SU was considered to improve public access and buffer the Wildlife Area from the surrounding residential areas. Land to the north and east could provide an easier, less steep route for an entrance road. This gently rolling land would be more appropriate for a larger entrance area with some facilities and a regional trailhead connecting to Town of Middleton and Dane County trails.

Land to the east could potentially accommodate more active types of nature-based recreation such as mountain bike trails, disc golf, a dog exercise area, and snowmobile trails that were requested at the three public input sessions.

Land to the west of BECWA-SU to Rocky Dell Road contains more goat prairies and could be a potential expansion area for the Wildlife Area. Dane County only purchases land or easements from willing sellers and expansion of the property would depend on negotiations with adjacent property owners.

Dane County Parks is responsible for ongoing operations and maintenance of the Black Earth Creek Wildlife Area – Sunnyside Unit. To minimize operations costs Dane County Parks will rely heavily on partnerships, volunteers and farmers under a cropland leasing program to assist with future maintenance needs. The development of a Friends group for the site is strongly encouraged and could help advance the implementation of this master plan and assist with operations and maintenance.

Introduction

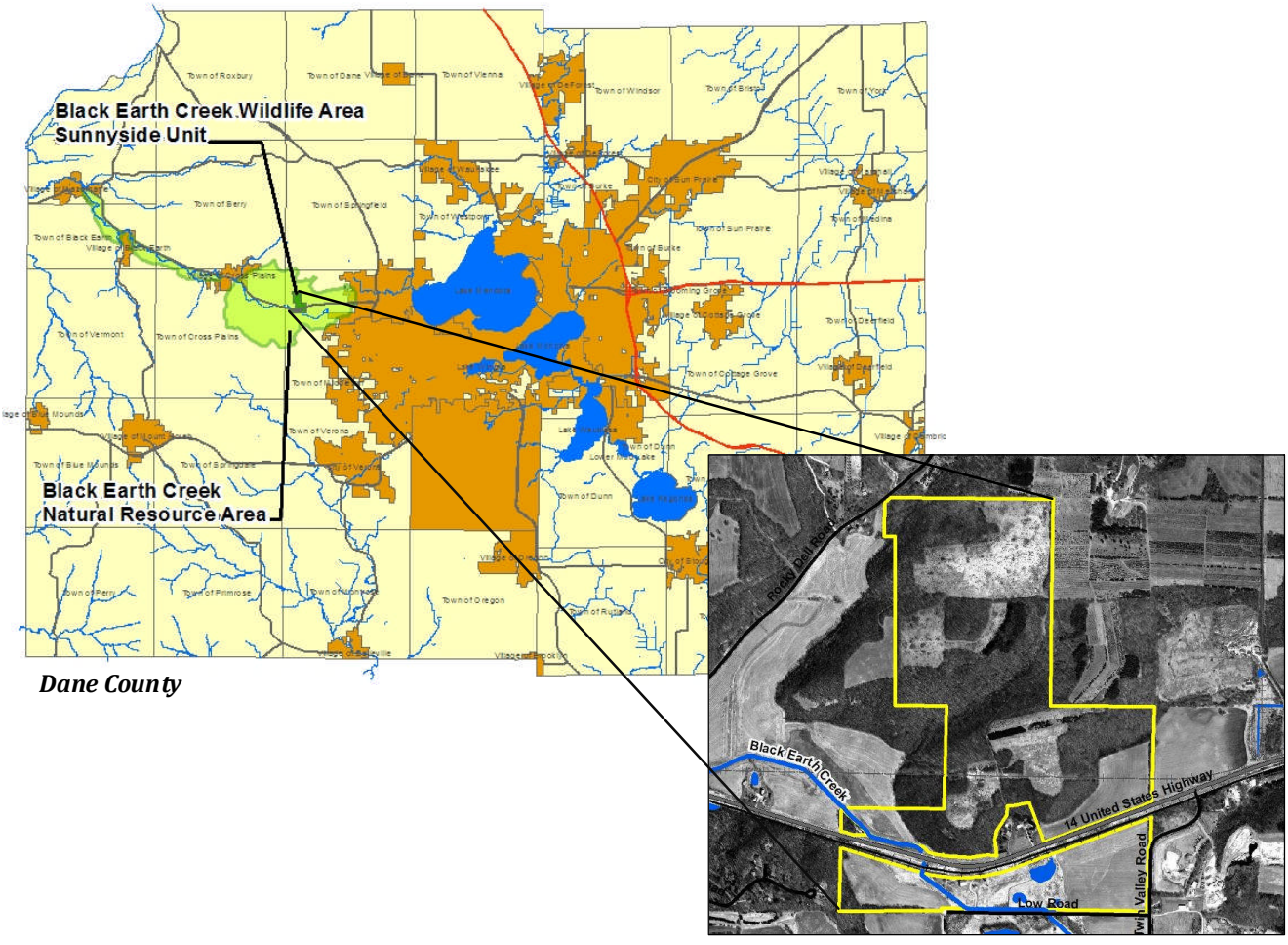
The Black Earth Creek Wildlife Area-Sunnyside Unit (BECWA-SU) property sits at the western edge of the Wisconsin glacial advance, which shaped the unique topography and waterways of this region. The 292-acre property is located in the Town of Middleton along USH 14 between the City of Middleton and the Town of Cross Plains (Figure 1). It lies within the Black Earth Creek Natural Resource Area, the boundary of which mirrors the Black Earth Creek watershed. Black Earth Creek, running across the southern portion of BECWA-SU, is well known for its excellent trout fishing and outstanding water quality.

History and Background

The BECWA-SU property was purchased by Dane County in 2004 and 2005 to protect and improve the water quality of Black Earth Creek and to enhance wildlife habitat. It was purchased from the Swanson family who operated the Sunnyside Seed Farm on this site.

The Town of Middleton generously contributed $1.25 million toward the $5.3 million acquisition cost, plus $100,000.00 for master planning and preliminary site development. The Natural Heritage Land Trust secured a $1,875,416.00 WDNR Stewardship Habitat Areas Grant for the acquisition. Habitat Areas Grant conditions allow for conservation and restoration activities and outdoor recreation that is compatible with a wildlife area.

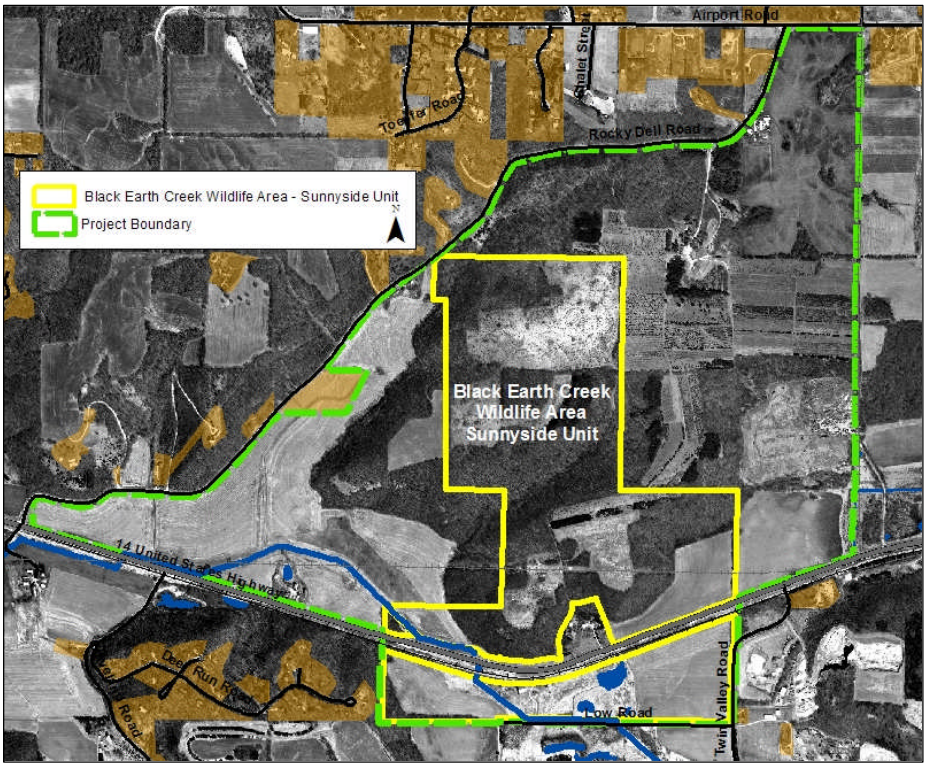
Figure 1 BECWA-SU Location



The land has been open to the public year-round for low impact recreational use since the property was acquired. Common activities included archery hunting with a permit, hiking, and bird watching. Public use of the property has been minimal due to the lack of a parking area, signage, and clearly defined recreation uses. The field road that leads into the property north of USH 14 has been closed to the public due to poor visibility when turning onto or off of USH14 and the rough condition of the field road.

Over the past several years, Dane County has taken steps to control invasive species and improve wildlife habitat at BECWA-SU. Wetlands were restored on the property south of USH 14 and significant work has been done to remove honeysuckle and other invasive weeds from the formerly fallow upland fields. These fields are currently being farmed to subdue weeds and brush and to prepare the land for prairie or grassland planting.

Figure 2 Project Planning Boundary



Project Planning Boundary

The project planning boundary (Figure 2) encompasses about 900 acres and extends to Rocky Dell Road on the west, Airport Road on the north, and includes the Refuse Hideaway Landfill and adjacent lands on the east.

The land between BECWA-SU and Rocky Dell Road could provide for an expansion of BECWA-SU and connections to the Ice Age Complex just to the southwest. The land north and east of BECWA-SU could offer opportunities to provide an entrance area from Rocky Dell Road or Airport Road, community trail connections, increased recreational uses, and wildlife habitat buffer areas.

Master Plan Vision

The master plan recommends designating the property as a Dane County Wildlife Area within the Black Earth Creek Natural Resource Area. The BECWA-SU designation and the WDNR Wildlife Habitat Area Grant conditions complement each other. This designation means that the property is open for public uses such as compatible nature-based recreation opportunities including hunting, trapping, fishing, hiking, cross-country skiing, nature study, and nature appreciation. Wildlife habitat vegetation management and natural resource protection are priorities for the property.

Relevant Plans and Studies

Protecting Black Earth Creek and preserving the bluffs, prairies, woodlands, wildlife habitat, and vantage points within the Black Earth Creek Wildlife Area-Sunnyside Unit (BECWA-SU) have received public support and are described in several plans and studies. BECWA-SU encompasses the former Sunnyside Seed Farm and the property is referred to in that way in several of the studies and plans.

Plans that reference Black Earth Creek, the Black Earth Creek Natural Resource Area, and the former Sunnyside Property are generally consistent with each other on management and use and provide important background information for the Master Plan.

Relevant planning studies include:

- Town of Middleton Park and Open Space Needs Assessment, Vierbicher Associates, Inc., 2009
- Town of Middleton 2008 Comprehensive Outdoor Recreation Plan
- Town of Middleton Comprehensive Plan, 2009 (a Land Use Plan)
- Dane County Parks and Open Space Plan 2006-2011
- Dane County, Wisconsin Comprehensive Plan 2007 (a Land Use Plan)
- Black Earth Creek Resource Area Plan, 2003
- Partners for Fish and Wildlife Program Project Plan, 2008 (Sunnyside wetlands and prairie)
- Forest Stewardship Management Plan, 2009
- Good Neighbor Trail Committee minutes
- On-going planning for the Ice Age Complex at Cross Plains (WDNR, US Fish and Wildlife Service and National Parks Service Project)
- WIDOT US 14 Corridor Study (East)

This review of relevant planning studies is organized by key topic areas, within which the pertinent documents above are referenced. Documents that support the key topic areas are in bold type in the section below.

Key topic areas:

- Need for conservation parks
- Land conservation and preservation
- Natural resources and habitat management
- Recreation and trails
- Access
- Financial support
- Nearby projects

Planning studies for each key topic area are explored in the rest of this chapter.

Need for Conservation Parks

The Town of Middleton performed a ***Park and Open Space Needs Assessment*** in 2009 in order to assess park fees (or fees in lieu of land dedication) as a condition of land division approval. The *Needs Assessment* considered existing conditions, future conditions, projected population growth, and performed an inventory of existing facilities. BECWA-SU is listed as a County-owned facility in the assessment.

As of 2009, the Town owned 200.98 acres designated Nature Areas/Conservancy, not including BECWA-SU. A new planning standard of 32.5 acres of Natural Areas/Conservancy per 1000 residents was adopted that included the presence of BECWA-SU because the Town provided $1.25 million in funding for the acquisition, planning, and development of the property.

The Town currently provides 36.03 acres of Nature Areas/Conservancy designated land per 1000 residents, resulting in a surplus 19.7 acres of this park type when applying the new planning standard. The plan says that this surplus should not block the ability of the Town to pursue acquisition of important and/or environmentally sensitive areas that have the approval of Town residents.

The ***Dane County Parks and Open Space Plan 2006-2011*** identified future park land needs through input from stakeholders and local units of government. According to the plan there is a "strong interest in acquiring lands that protect water and wetlands" and "creating larger contiguous tracts of lands devoted to natural resource protection".

Land Conservation and Preservation

The Black Earth Creek Resource Area (BECRA) boundary is 11,630 acres in size and Dane County has ownership of 394 acres. The ***Black Earth Creek Resource Area Plan*** focuses on the Black Earth Creek watershed as an area where increasing development and the desire for recreation necessitates in-depth study and planning efforts. The plan proposes natural resource protection methods and a voluntary financial compensation plan for landowners within BECRA to protect natural and historical/cultural resources.

Land and resource protection methods recommended in the Plan:

- 100 ft. buffers on both sides of Black Earth Creek to protect it from agricultural runoff.
- Place new construction 100 feet back from the crest of a hill and leave or plant permanent tree breaks.
- Use a Purchase of Development Rights Program and fee simple purchase for high priority natural resource protection areas.
- Preserve historical and cultural buildings and resources.
- Protect existing and historic wetlands.
- Create trail linkages and open space corridors.

Priority conservation and protection areas listed in the Plan:

- The Black Earth Creek Corridor
- Farmland Preservation Areas
- Potential Trail Linkages – particularly along the length of the Black Earth Creek corridor linking communities and linkages to the Ice Age Trail.
- North Rim Upper Black Earth Creek
- South Rim Upper Black Earth Creek

The ***Dane County Parks and Open Space Plan 2006-2011*** defines **Natural Resource Areas**, such as BECNRA, as land with valuable natural resources or green belt corridors identified through a public process. Project boundaries may contain public and private land. Participation in any conservation program within the boundaries is entirely voluntary. Lands protected by this designation should be large, contiguous blocks that may contain a mix of agricultural land, water, wetlands, steep topography, prairie, and forest. Creation of larger areas provides enough space for some limited recreation use without impacting the resource and also allows for natural vegetative management such as burning. In Natural Resource Areas land is "set aside for the protection of a valuable natural environment" for habitat protection and open space preservation.

Recreation in Natural Resource Areas is secondary. Active recreation may or may not be appropriate and should be placed on the fringes or in small pockets of the Natural Resource Area. Nature-based activities may be compatible uses. As Natural Resource Areas expand, hunting may be considered for recreation and wildlife management.

County Wildlife Areas are sites designated by the Dane County Park Commission as open to public hunting (all types), trapping and other activities such as fishing, hiking and cross country skiing. Wildlife Area boundary signs include: Entering Hunting Area (green letters, white background), Leaving Hunting

Area, or Private Lands (red letters, white background). Other signs are Closed Area, No Shooting Area (within 500 feet of buildings that may be occupied by Town of Middleton ordinance), and Crop Field - Do Not Enter Until Harvested. All Wisconsin Department of Natural Resources Hunting and Trapping Rules (Natural Resource Chapter 45) apply to County Wildlife Areas unless otherwise posted. Each site may have specific restrictions for use based on the location of adjacent residential areas, endangered resources and other issues that have been identified in a planning process.

The ***Town of Middleton 2008 Comprehensive Outdoor Recreation Plan*** suggests protecting the quality of steep and heavily wooded land and water drainage paths by prohibiting dumping of trash and other noxious uses. According to the plan, Town natural areas perform the following functions: drainage control, woodland conservation, wildlife habitat, erosion control, and protecting the Town's overall appeal. The plan encourages preservation of open spaces, greenways, wetlands, woodlands, natural areas, scenic areas, and maintaining the traditional visual character of the Town.

The plan also lists the Oak Savanna fringe above the Hideaway Land Fill adjacent to the Sunnyside Property for protection as an important viewpoint and east-west corridor link for a trail possibly related to the Ice Age Trail. The plan states public lands should be clearly marked and enforcement resources available.

Goals and policies from the *Town of Middleton 2008 Comprehensive Outdoor Recreation Plan* that support protection and preservation of natural resource areas are listed below:

Goal 1 Protect the Town's natural resources and environmentally sensitive lands from incompatible uses and/or development.

- Policy 4 Support the preservation of unbroken forested corridors.
- Policy 5 Preserve scenic vistas to the extent possible through the location of building envelopes, building setbacks, screening, and other methods.
- Policy 7 Preserve the ecological and hydrological functions of wetlands by protecting them from development.
- Policy 9 Encourage the preservation of large, contiguous spaces for the protection of natural resources, wildlife and habitat. Large areas are more advantageous for the protection of these resources than scattered small parcels.
- Policy 10 Support the efforts of landowners to keep natural areas from being developed by using conservation easements or other means.

A public survey was conducted during the planning process for the ***Town of Middleton Comprehensive (Land Use) Plan***. Over 76 percent of the respondents were "very interested" in the preservation of the Town's natural resources. The following list shows the percent of respondents in favor of preserving various natural resources:

Forested areas	87.4 percent
Watersheds	71.3 percent
Wetlands	66.5 percent
Prairies	61.7 percent
Vistas	56.3 percent

Nearly 60 percent of the respondents indicated that they were willing to utilize tax dollars to preserve natural areas.

Natural Resource and Habitat Management

The Dane County Parks and Open Space Plan 2006-2011 indentifies Black Earth Creek as a Tier I trout stream with high biological and recreational value. The flow originates from spring discharge and the stream supports cold water fish communities. The stream is protected through existing conservation programs. Prairie Enthusiasts is developing a data base of known prairie and savanna remnants in Dane County including prairie remnants within the BECWA-SU master planning project area.

The ***Forest Stewardship Management Plan*** (WDNR) for BECWA-SU describes and categorizes the wooded stands on the property, provides sustainable stand objectives, and recommends management practices to reduce habitat fragmentation (see Appendix A). Objectives for land management include:

- Demonstrate sustainable forest management and land stewardship.
- Manage for timber production favoring oak, hickory, cherry, and black walnut.
- Control invasive exotic species and manage for native plant species.
- Manage for wildlife.
- Provide recreational opportunities for the general public, primarily hiking, cross country skiing and hunting.

The ***Partners for Fish and Wildlife Program Project Plan*** is a collaboration between Dane County and the U.S. Fish and Wildlife Service to restore wetland and grassland habitat for grassland birds, waterfowl, and wetland and grassland dependent wildlife in a 9.9 acre area along Black Earth Creek south of USH 14. The project restored 4.0 acres of wetland by closing a drainage ditch and excavating three wetland scrapes and one embankment. Planting 5.5 acres of prairie was also funded.

The ***Dane County, Wisconsin Comprehensive (Land Use) Plan*** surveyed Dane County residents on their natural resource priorities. Respondents placed their highest priority on water resources. Land resources were the second priority, followed by agriculture and wildlife resource management. The most important things (selected by 19 percent of the respondents) Dane County should do in managing land use where preserving and protecting natural areas and the environment and keeping green spaces.

Dane County Comprehensive Plan Natural Resource Goals:

1. Develop and promote a countywide system of open space corridors as a framework to protect, and where possible, restore the natural environment and scenic values, provide outdoor recreation opportunities, and preserve for posterity the nature and diversity of our natural heritage.
2. Provide sufficient parks and outdoor recreation areas to meet the needs of Dane County residents.
3. Use open space to achieve recreational connections, separation of communities and help guide urban growth.
4. Protect and maximize public enjoyment of the scenic qualities of Dane County by preserving views of landmarks including high promontories or viewpoints; mitigating the visual impact of proposed developments and facilities; and improving public access to scenic areas and views.
5. Preserve, restore and sustain Dane County natural communities and resources, including grasslands, wetlands, woodlands and soils, to protect their benefits for:
    - economic land use;
    - wildlife habitat;
    - erosion control;
    - preservation of natural beauty;
    - groundwater recharge;
    - water quality protection;
    - flood prevention, and;
    - ecosystem health.
6. Promote a holistic, ecosystem-based and sustainable approach to natural resource protection.

Dane County Comprehensive Plan Wildlife Resources Goals:

1. Preserve for posterity the nature and biodiversity of Dane County's natural heritage by protecting and enhancing in-stream, riparian, wetland, and upland habitat and protecting, maintaining and restoring diverse, high quality biological communities that occurred naturally in southern Wisconsin (woods, savannas, prairies, wetlands).
2. Provide for sustainable, diverse hunting, fishing, wildlife observation and wildlife appreciation opportunities within Dane County.
3. Eliminate, reduce or mitigate the effect of exotic and invasive species on Dane County land and water resources.
4. Balance public and private needs with wildlife needs.

Recreation and Trails

The ***Town of Middleton 2008 Comprehensive Outdoor Recreation Plan*** states a long-term vision for a regional bicycle-pedestrian trail system connecting population centers to Town and County parks and other trails. The plan strives to prevent development in resource preservation areas; some of which may be suitable for trail development. Linking all parks, conservancy land and community resources together is a focus.

Since 1994, the Town has obtained recreational easements on out lots in each new subdivision and added six miles to the trail system. Both Town of Middleton and Dane County trail plans propose an east-west trail along USH 14 and Black Earth Creek connecting the communities of Mazomanie and Middleton and a north-south trail from Black Earth Creek to the Town of Middleton's Pope Farm Park and Dane County's Badger Prairie Park.

In the vicinity of BECWA-SU, the Town of Middleton Plan proposes these trail corridors:

- An east-west corridor along USH 14.
- The Highlands Loop Trail through BECWA-SU that connects to Rocky Dell Road, Airport Road, and the North Middleton Trail.
- The North Rim Trail through BECWA-SU that connects to Settlers Prairie Park and Nina Lane just east of the BECWA-SU.
- The Settlers Prairie Trail from Pope Farm Park to Nina Lane to Airport Road and Settlers Prairie Park.

A resident survey conducted for the ***Town of Middleton Comprehensive Plan*** asked questions about recreation and bicycle and pedestrian facilities. Respondents to the survey supported the following recreational facilities:

Open Space and Natural Areas	80.8 percent
Trails	71.3 percent
Pet Access	29.3 percent
Athletic Facilities	24.6 percent
Playground Equipment	23.4 percent
Equestrian Trails	4.8 percent

Responding to top traffic safety concerns, 65.4 percent of those taking the survey said that bicycle/pedestrian accommodations need to be considered in future planning for transportation/safety features.

Transportation goals in the ***Town of Middleton Comprehensive Plan*** that reference bicycle and pedestrian facilities in the area of BECWA-SU include:

Goal 4 Improve bicycle and pedestrian facilities and increase awareness of other transportation options.

Objective B Develop and implement a biking and walking facilities improvement plan and emphasize links to recreational facilities.

Goal 5 To the extent practical, preserve the scenic nature of Twin Valley and Rocky Dell Roads.

The ***Town of Middleton Park and Open Space Needs Assessment*** states that full build-out of the Town of Middleton trail network, which could connect to BECWA-SU, will need to provide 4.24 miles of primary trails per 1,000 residents by 2025. The Town currently provides 2.29 miles of primary trails per 1,000 residents, based on the 2007 population of 5,578 residents.

Forms of public input for the ***Dane County Parks and Open Space Plan 2006 – 2011*** included a survey of recreation uses that require a permit, an informal survey of park ranger staff to determine the highest recreation uses observed daily and gathering comments during the public input process for the plan.

Recreation in demand in Dane County:

- Trails
- Lake access facilities
- Camping
- Picnicking and shelters
- Disc golf
- Dog exercise areas
- Hunting and fishing - the plan suggests investigating increasing public fishing through permanent easements within the Black Earth Creek Natural Resource Area and considering public hunting for both recreation and for wildlife management.

The ***Dane County Parks and Open Space Plan 2006 – 2011*** identifies existing and proposed regional trails. The plan includes a proposed bicycle/pedestrian trail along the Black Earth Creek and Highway 14 corridor that extends from Middleton to Mazomanie.

The ***Good Neighbor Committee*** was formed in 2007 to promote intergovernmental cooperation on matters of mutual interest among the communities along USH 14 and the Black Earth Creek corridor between the City of Middleton and the Village of Mazomanie. The Committee includes representatives from the Villages of Black Earth, Mazomanie, and Cross Plains; the Towns of Berry, Black Earth, Cross Plains, Middleton, Mazomanie, Springfield, and Vermont; and the City of Middleton.

The Good Neighbor Trail initiative is a volunteer effort to develop a multi-use recreational and transportation trail between the City of Middleton and the Village of Mazomanie within a 2 mile corridor of USH 14. Current plans are to incorporate snowmobiling, bicycling, hiking, horseback riding, cross-country skiing, in-line skating, and ATVs. To date a brochure and corridor map with existing trails have been produced, grants applied for, and a technical mountain bike "pump track" adjacent to Pleasant View Golf Course was opened in May 2010.

Public Access

Safe public access to BECWA-SU is one of the primary goals of the Master Plan. The Wisconsin Department of Transportation has completed the draft ***US 14 Corridor Study (East)*** focusing on the roadway between Mazomanie and Middleton. Growing traffic volume and land development are driving the need to consider long range access alternatives for a safe and efficient roadway that will continue to function as a 2 lane road as long as possible.

The study recommends the following improvements to US 14 at and near BECWA-SU:

- Shift the curve in USH 14 at BECWA-SU slightly northward to improve sight lines.
- Close existing field entrances on USH 14 if no longer used for farming purposes.
- Consolidate the two residential driveways and possibly the field access road for County land to one driveway connection.
- May be desirable to add a right turn lane westbound at Rocky Dell Road.
- Long-term access recommendations to relocate direct access to US 14 to well spaced intersections:
    - Reconfigure Rocky Dell Road to create an unsignalized 4 way intersection with Cleveland Road with possible pedestrian access between BECWA-SU and the Ice Age Complex.
    - Possibly create access to BECWA-SU and residential parcels (inholdings) from Rocky Dell Road.
    - Possibly create access to BECWA-SU and inholdings by extending Twin Valley Road to the north with a 600 ft. setback from USH 14 for private access. This intersection would not have a signal.

The study also looked at possible parking areas along US 14 for access to recreational amenities. No parking areas were indicated for BECWA-SU.

Dane County Parks and WIDOT have entered into a Memorandum of Agreement that describes a cooperative partnership for future WIDOT and County safety improvements to USH 14 and access to the property.

Financial Support

The **Dane County Conservation Fund** provides financial support for acquiring and expanding park lands identified in the *Dane County Parks and Open Space Plan*.

According to the ***Town of Middleton Park and Open Space Needs Assessment***, the Town provided $1.25 million for the acquisition and $100,000 for development of the BECWA-SU. The Town of Middleton assesses a $4,200.00 park fee per lot in lieu of park land dedication. The fee is based on future population growth and capital costs for the acquisition and development of future park facilities. A needs assessment must be prepared for each public facility for which impact fees are being imposed. Park fees must be proportional to the needs for park facilities.

Nearby Projects

Ice Age Complex at Cross Plains
A joint federal and state project, the Ice Age Complex at Cross Plains is a unit of Ice Age National Scientific Reserve. The Ice Age National Scenic Trail Corridor passes through the Reserve just to the west of BECWA-SU.

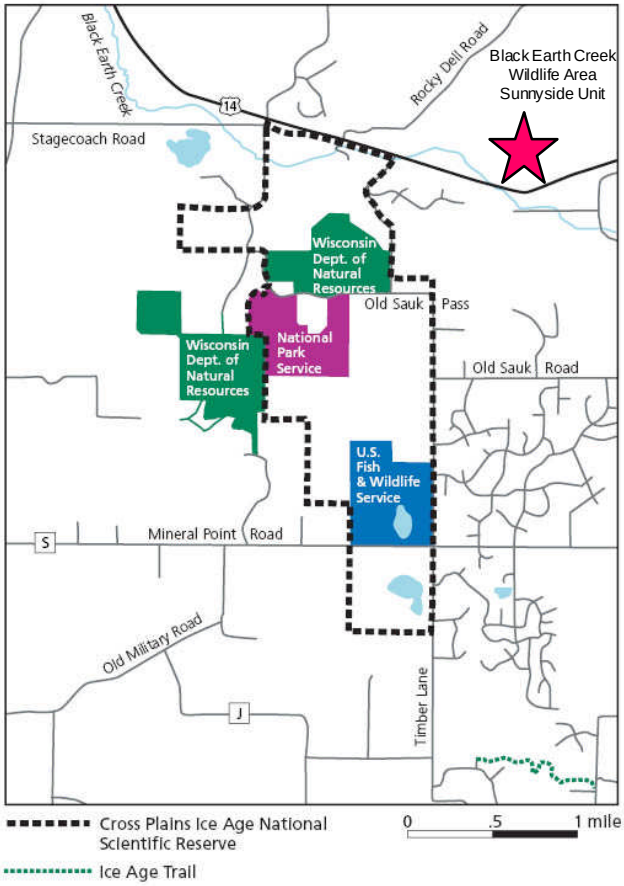
The Ice Age Complex stradles the boundary between glaciated and unglaciated areas (the Driftless Area) in Wisconsin and is expected to provide significant educational, recreational, and natural restoration opportunities.

According to a PowerPoint on the project, the complex "will be an outstanding natural, recreational, and educational facility serving the various purposes for which the lands have been acquired by Federal and State Agencies" and "it will be a 'partnership park', managed by the Department of Natural Resources, National Park Service, U.S. Fish and Wildlife Service, and perhaps other partners".

A general management plan is currently being developed for the proposed 1,600 acre park.

The complex will feature educational and recreational activities that interpret the geology of this region. Potential recreational activities include extending the Ice Age National Scenic Trail, hiking, bicycling, and primitive camping. Restoration of prairies, savannas, wetlands and wildlife habitat may also be a priority.

Ice Age Complex at Cross Plains



The Planning Process and Public Participation

The Black Earth Creek Wildlife Area-Sunnyside Unit Master Plan process began in June 2009 with an inventory, background studies, and a site analysis. This information was presented at the first of three public input meetings on November 3, 2009.

First Public Meeting November 3, 2009
About 40 people attended the first public meeting. Maps were on display depicting Hydrology and Drainage, Geology, Slope and Topography, Soil Limitations for Paths, Funding Sources, Surrounding Land Use and Trails–Property Site Analysis, and the Dane County Parks System. A PowerPoint presentation covered the site analysis and provided a virtual tour of the property. An open discussion generated comments and ideas and 14 written comment sheets were received.

Comments heard during the first public meeting indicted interest in the following areas:

- Habitat restoration and natural areas.
- Water quality.
- Low-impact recreational opportunities. Hiking, photography, cross-country skiing, snowshoeing, bird and wildlife watching, and volunteer habitat restoration activities received the most favorable responses from those who completed the comment sheets.
- More active outdoor recreational opportunities such as mountain biking, disc golf, and snowmobiling.
- Improved public access.
- Respecting the desires of the Swanson family and their use of the land.

The public indicated support for the preservation of this property as a natural area that protects the water quality of Black Earth Creek. Some participants said that land without development and the unique topography within and surrounding BECWA-SU are also valued.

Groups representing recreational interests were present and were disappointed that activities such as mountain bike trails, bicycle trails, equestrian trails, snowmobile trails, hiking trails on steep slopes, and disc golf courses could not be offered due to the Wildlife Habitat Area grant restrictions.

Trail connections were also important to several of the attendees particularly snowmobile trail connections between Middleton and Cross Plains, implementation of the proposed multi-use Good Neighbor Trail, and potentially routing existing Town of Middleton trails to and within the property.

A summary of the first public input meeting was made available to the public on the Dane County Parks website.

Second Public Meeting March 26, 2010
Following the meeting, a draft Master Plan for the property was developed. A second public input meeting was held on March 26, 2010 to provide the public with background information on the property, summarize the first public input meeting, and present a Draft Master Plan for the project. Thirty one attendees registered at the door, 5 comment sheets were returned, and a few comments were called in.

The comments received during the open discussion portion indicated interest in the following general categories: natural resources, recreation, grant conditions, and implementation of parking lots and public access.

Positive comments were received on preserving the property for natural area protection and improvement, wildlife habitat, and low impact uses such as hiking, cross-country skiing, and nature study.

There was disappointment expressed again that more active types of recreation such as mountain biking, disc golf, and snowmobiling will not be accommodated on this large site due to grant conditions. It was suggested that future adjacent acquisitions be funded with grants that allow more activities.

Following the second public meeting, the draft Master Plan and Master Plan Report were available on the Dane County Parks website. Several comments were received requesting a snowmobile trail on the property connecting Cross Plains and the City of Middleton. Motorized recreational vehicles are not allowed on the property due to WDNR Wildlife Habitat Area grant restrictions. Equestrian trails were also requested.

Third Public Meeting November 30, 2010
The draft Master Plan was revised and a third public meeting was held on November 30, 2010 to review the Master Plan. About 36 people attended the meeting and many made public comments. No comment sheets were turned in. The Draft Master Plan for the Black Earth Creek Wildlife Area-Sunnyside Unit was generally well received with praise for preserving the property.

The group attending the public meeting was interested in furthering the habitat restoration aspects of the plan. There was discussion on maintaining an environment for hunting and game species and how to regulate the number of hunters on the property.

Some ideas were suggested for additional access points and building trails quickly to guide users before they create volunteer paths. Some neighbors were concerned about proper signage and fencing along property lines. One participant asked about the County's policies on motorized recreational vehicles.

Written comments on the draft Master Plan were accepted until December 21, 2010. Additional comments supported the plan and made recommendations for habitat restoration activities, potential additional access points, and acquiring easements on surrounding land in the future. One letter explored ideas to demonstrate a vision of how active agriculture can be integrated successfully with environmental conservation to sustain both effectively for the long term.

Inventory and Site Analysis

The unique physical characteristics of the Black Earth Creek Wildlife Area-Sunnyside Unit (BECWA-SU) and surrounding lands make it special and influence the placement of public access, trails, and other elements. Elevation, slope direction (aspect), and soil type influence the microclimate within the property and the characteristics of the native vegetation and wildlife.

The inventory, along with input from the public and staff, is part of the Site Analysis, which influenced decisions on how the property will be used, managed and preserved; and where access, parking, and management paths would be most appropriate and feasible.

The grants that were awarded for acquisition funding and wildlife habitat restoration are described in this the inventory and also impact what facilities and activities can be offered at the property.

Opportunities and constraints for various actions, activities and elements are listed under each topic in this chapter.

Funding Sources

Dane County partnered with the Town of Middleton to acquire BECWA-SU and also received a WDNR Stewardship Habitat Areas Grant with the assistance of the Natural Heritage Land Trust. Dane County received a U.S. Fish and Wildlife Service-Partners for Wildlife Grant to construct wetland scrapes and plant prairie south of USH 14. Figure 3 is a map of the funding sources that apply to BECWA-SU. Funds from Dane County and the Town of Middleton applied to the purchase of the entire property.

A portion of the property, 33.1 acres along the north side of USH 14 on the east side of the property, is free of grant conditions (Figure 3). This area is potentially available to the Town of Middleton for storm water management, road construction (including use of materials on-site), and road right-of-way for the extension of Twin Valley Road.

The WDNR Stewardship Habitat Areas Grant is recorded against the property in perpetuity and applies to the entire site except the aforementioned 33.1 acres. The primary purpose of this grant is to protect, enhance, and restore wildlife habitat.

The following activities are allowed within the Habitat Areas Grant portion of the property:

- Two small parking lots
- Trails for firebreaks, walking, cross-country skiing, and other non-motorized recreational activities.
- Trails must be rustic in nature and made of pervious materials.
- Collecting mushrooms, berries, and nuts in a sustainable manner.
- Motorized vehicles allowed only for emergency and management use.
- Existing access roads may be maintained. No new roads may be added.
- Hunting
- Interpretive displays

The following activities are not allowed in the Habitat Areas Grant portion of the property:

- Introduction of wild or domestic animals including dog club training or horses.
- Trash storage
- Removal of natural materials except as above.
- Motorized vehicles except as above.
- Intensive recreation activities not compatible with the purposes of the grant such as mountain biking, road biking, dog exercise area, equestrian trails, disc golf, and motorized recreational vehicle trails such as snowmobiles, ATVs, and campers.

A U.S. Fish and Wildlife Service Partners for Wildlife Grant applies to a lower area between USH 14 and Low Road. The project included the restoration of 4 acres of degraded and drained wetlands by closing a drainage ditch and constructing three wetland scrapes; and also restoring 5.5 acres of prairie that will be maintained by mowing for 2 or 3 years. The wetland scrapes have been completed but the prairie has not been established at this writing.

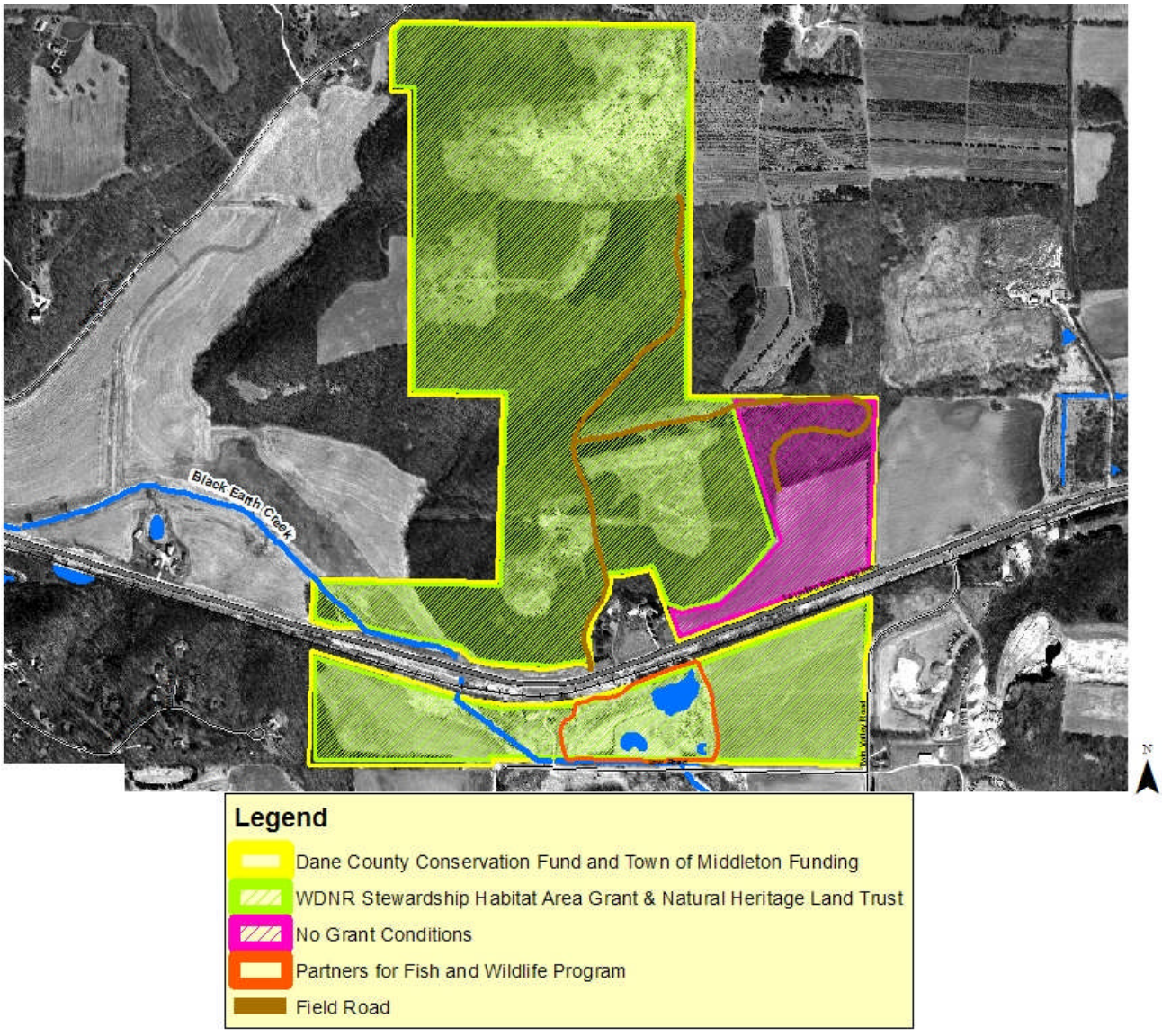
Opportunities

- Management trails may be used for hiking, cross-country skiing, snowshoeing, and volunteer activities and small interpretive signs may be carefully and unobtrusively placed.
- Parking and access can be provided in the area with no grant conditions.

Constraints

- The WDNR Stewardship Program Habitat Area grant limits the types of recreational activities and facilities on most of the property to those compatible with wildlife habitat improvement and management.

Figure 3 Acquisition and Management Funding Sources



History of the Property

Before the purchase by Dane County, Randall "Swanny" Swanson and his family operated Sunnyside Seed Farm on this site. He purchased the land in 1943 and 1945. Prior to his purchase the land was a dairy farm with the buildings located south of the railroad tracks and pastures to the north.

A new road, USH 14, was built in the early 20th century adjacent to the existing railroad tracks and a cow tunnel, that remains, was built under the road for access to the pastures. According to neighbors, the cattle were walked along the railroad tracks to the tunnel. No cattle have been on this farm since the early 1940's.

Randall Swanson was a teacher, innovator, and entrepreneurial farmer. He was the first farm safety specialist in the country and was on the faculty of the University of Wisconsin. He founded the National Institute of Farm Safety and was one of the principle developers of the distinctive triangular slow-moving vehicle sign.

Mr. Swanson enjoyed building innovative farm machinery, which he would hire out to other farmers. Besides farming, he had a chainsaw, garden tractor, and snowmobile sales and repair business. Mr. Swanson farmed well into his 90's and died in 1998. He is fondly remembered by his neighbors today. Mr. Swanson's son, Kenneth Randall Swanson, passed away near the time that Dane County purchased the land and a tree was planted at a high point on the property in memory of him.

Opportunities

- Provide information to the public about the history of Sunnyside Seed Farm and Randall Swanson's contributions to farm safety and the community.

Population Trends and Surrounding Land Use

The January 1, 2009 population of the Town of Middleton was estimated at 5,645 by the Wisconsin Department of Administration. Since 2000, the Town of Middleton's population has increased by 22.9 percent, making it the second fastest growing Town and the seventh fastest growing municipality in Dane County. The 2030 population of the Town of Middleton is projected at 8,808 persons, an increase of 91.7 percent since 2000. Population changes influence park needs and both Dane County and the Town of Middleton periodically update their park and open space plans and needs assessments.

Dane County's largest city is Madison, the State Capitol. The population of Dane County on January 1, 2009 was estimated at 473,622, making it the second largest county in Wisconsin. The 2030 population is projected at 653,876, an increase of over 38 percent. Between 2000 and 2009, Dane County has been the 8th fastest growing county in Wisconsin.

The Town of Middleton is changing from primarily an agricultural area to a more urbanized bedroom community for greater Madison. About eighty percent of the land area has been developed. Residents responding to park and land use surveys have indicated that they think it is important to protect the remaining natural and scenic areas.

The Black Earth Creek Wildlife Area-Sunnyside Unit is located in the Black Earth Creek Valley and watershed. At this time the adjacent land is primarily used for agriculture, including a Christmas tree farm to the north (Figure 4). Two residential parcels (inholdings) along USH 14 are surrounded by BECWA-SU.

Rural subdivisions are being built along and near Airport Road, Rocky Dell Road, and Deer Run Road. Sunset Ridge Elementary School is located on Airport Road just north of BECWA-SU.

The closed Hideaway Landfill is directly east of BECWA-SU. Monitoring wells for groundwater contamination are located on BECWA-SU adjacent to the west side of the landfill and south of USH 14

along Black Earth Creek. A gravel quarry is located on the east side of Twin Valley Road, just east of BECWA-SU.

The Ice Age Complex, a geologically significant preservation and recreation area associated with the Ice Age National Scenic Trail, is being planned about three quarters of a mile to the southwest, see page 11 for a description.

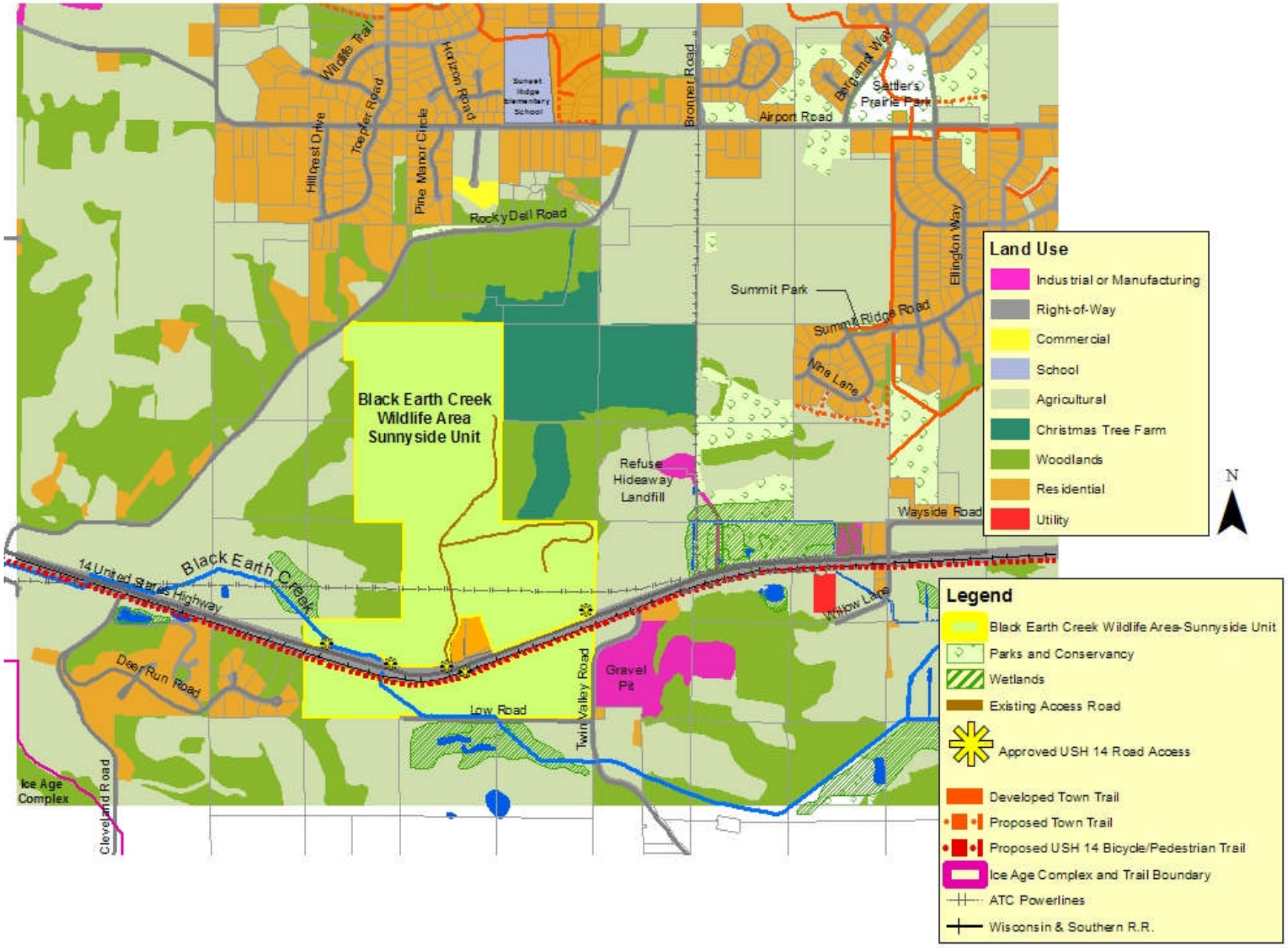
Opportunities

- Provide a 292-acre nature-based public use area in a geologically and ecologically significant area that could be easily accessible to a large population base.
- Water quality improvement and protection measures could be implemented on the property to minimize impacts of stormwater runoff from adjacent land uses.
- Connect the property to adjacent subdivisions and Sunset View Elementary by pedestrian and bicycle trails.
- Provide connections to the Ice Age Complex.
- The Hideway landfill may offer future recreational opportunities.

Constraints

- Future connections are dependent on neighboring landowners interest in selling land to Dane County or other public entity.

Figure 4 Surrounding Land Use and Community Trails



Transportation and Utilities

The Black Earth Wildlife Area-Sunnyside Unit is easily reached by car on USH 14 (Figure 4). USH 14 has a speed limit of 55 mph and a high rate of traffic flow. The road curves around a sandstone road cut at BECWA-SU, which reduces the visibility of oncoming traffic. Pulling off of USH 14 to access the property and crossing USH 14 at-grade between the north and south parts of the property are difficult and unsafe.

Users currently park along the USH 14 shoulder or in front of the gates at two field roads, potentially blocking access to the property. Parking on the USH 14 shoulder is prohibited.

WIDOT and their consultants completed the *US 14 Corridor Study and Access Plan* in 2009. They expect USH 14 to be improved but remain one lane in each direction within the next 10 to 30 years.

USH 14 and the Wisconsin & Southern Railroad bisect BECWA-SU.

BECWA-SU also borders Rocky Dell Road and Low Road, both of which are maintained by the Town of Middleton. Potential access to BECWA-SU from Rocky Dell Road is unlikely because of very steep terrain, ravines, potential woodland habitat fragmentation, and grant conditions that restrict building new roads. Large volumes of cut and fill and possibly a bridge could be needed to provide access from Rocky Dell Road to the corner of the property along the road. Low Road is 49 feet in width, which is substandard. This road essentially functions as a farm driveway and parking along the road may be at odds with farm equipment.

The existing cow tunnel under USH 14 is too low in height and too narrow for pedestrian, bicycle, vehicular, or snowmobile use at this time but potentially could be improved as a below-grade trail crossing when USH 14 is reconstructed.

Five possible access points from USH 14 have been authorized (Figure 4) however WIDOT permits will be needed to install any future driveways. Permits will also be required from the Town of Middleton to install driveways on Rocky Dell Road or Low Road.

The cow tunnel could provide access under USH 14 if reconfigured.

The Town of Middleton and Dane County have bicycle/pedestrian trails in the planning and implementation stages. A bicycle/pedestrian trail network is taking shape within the subdivisions to the north and east of BECWA-SU. An off-road bicycle/pedestrian path is proposed along USH 14 and north-south trail connections between Town and County parks are being planned.

The Good Neighbor Trail, a proposed multi-use trail running along the Black Earth Creek valley between the City of Middleton and Mazomanie, could accommodate pedestrians, bicycling, equestrians, snowmobiles, and cross-country skiing. The location of the trail within a two mile corridor along USH 14 and designated uses are yet to be determined.

The Wisconsin and Southern Railroad runs along the south side of USH 14 and bisects BECWA-SU. The rail corridor has a 100 ft. right-of-way and extends for 0.75 mile on the property (about 9 acres). The rail line is active daily between Milwaukee and Prairie Du Chien on the Mississippi River, further restricting access between the north and south sides of the property. The cow tunnel does not pass under the railroad tracks.

American Transmission Company (ATC) power lines run east-west through the property, just north of USH 14. Vegetation is being controlled under the lines. This steep corridor provides views of Middleton to the east and wooded bluffs to the west but also creates a gash in the landscape.

Powerlines crossing the property create views but fragment the woodlands.

Opportunities

- Increase public use of the property by providing a safe entrance and parking from USH 14.
- Provide off-road parking on the portion of the property between Low Road and USH 14.
- Connect trails on the north and south portions of the property through the cow tunnel or by other means.
- Connect the property to the Town of Middleton trail network and the proposed Good Neighbor Trail.

Constraints

- USH 14 and the Wisconsin & Southern Railroad bisect the BECWA-SU, requiring two entrances.
- Crossing USH 14 at grade is dangerous.
- Access to the property from USH 14 is difficult due to poor sight lines, no turn lanes, traffic volume and speed.
- Approval from WIDOT for developing a driveway and parking area from USH 14 may be difficult given the *US 14 Corridor Study and Access Plan*'s recommendations to improve safety by limiting direct driveway connections to the highway.
- Low Road is substandard in width and is essentially a farm driveway, which could cause conflicts between traffic and farm machinery.
- Bicycle and snowmobile trails are not allowed within the grant restricted portions of the property and would need to be accommodated in the USH 14 right-of-way or on surrounding lands through potential future acquisitions or trail agreements.
- Additional property or easements would be needed to provide an entrance from Rocky Dell Road or Airport Road.

Geology, Topography, Hydrology and Drainage

Geology

BECWA-SU is located at the western edge of the maximum extent of the Green Bay Lobe of the Wisconsin glaciation, which occurred roughly 30,000 to 22,000 years ago. The glacier stopped less than a mile west of the property and formed what is known as the Johnstown Moraine – hills of glacial debris that arc through southern Wisconsin.

The frontal ice slope rose about 200 feet in the first mile from the edge and would have covered BECWA-SU. The weight of the glacier smoothed and compressed the underlying ridges and craggy limestone bluffs.

The unglaciated Driftless Area just to the west retains limestone bluffs and has steeper hillsides and deeper valleys due to constant exposure to the elements.

The USH 14 rock cut is a local landmark.

As the glacier retreated about 12,000 years ago, melt water flowed into the Black Earth Creek valley forming ravines, gorges and ancient lakes that now include the wetland on the north side of USH 14 just east of the BECWA-SU and Old Middleton Lake, a few miles further to the east (Figure 6). The glacier also deposited large erratic boulders that can be found on the property and surrounding area. A recessional moraine, a ridge deposited by the glacier as it melted, runs northwest to southeast across the northeast corner of the property, which is also the highest point (Figure 5).

Soil, gravel, and pebbles flowed with the glacial melt water into the Black Earth Creek valley. The fine outwash particles that traveled further formed good agricultural soils. The aggregate pit south of USH 14 at Twin Valley Road is a large deposit of coarser glacial outwash gravel.

The USH 14 road cut at BECWA-SU "exposes the boundary between Prairie du Chien and Jordan Sandstone, Paleozoic rock formations", according to Robert Dott in the *Roadside Geology of Wisconsin.*

The Black Earth Creek valley seen from Low Road.

Topography

The Black Earth Creek valley has a distinctive topography. The creek flows through a flat plain between rolling farmlands and steep wooded bluffs. Some bluffs that are too steep, dry, and rocky to support trees still hold remnants of xeric (dry) native prairie on their southwestern slopes.

The elevation at BECWA-SU changes by about 246 feet from Black Earth Creek to the highest ridge. The highest point, at 1,158 feet, is located on a recessional moraine in the northeast corner of the site (Figure 5). The lowest point on the property, at 912 feet above sea level, is along Black Earth Creek at the west edge of the property.

Slopes at BECWA-SU range from zero to 28 percent. The steepest slopes, indicated in red in Figure 5, are on the wooded hillsides and range from 16 to 28 percent with the steepest in the northwest corner along Rocky Dell Road. The most level land, from 1 percent to 2 percent slope, is along Black Earth Creek. Moderate slopes of 3 to 9 percent are found on the ridge tops and uplands. Locating trails, roads, or facilities on slopes greater than 12 percent could lead to increased costs and erosion potential.

The direction of steep slopes, called aspect, influences the microclimate, vegetation, and wildlife found there. In general, south and west facing slopes and hilltops are warmer and dryer than valleys and north and east facing slopes. Deep ravines have their own microclimate depending on the presence of water and shadows from adjacent hills. Views can be spectacular from the higher elevations. Blue Mounds, the Black Earth Creek valley, and the Cities of Middleton and Madison are visible from the property.

Hydrology and Drainage

The ridge tops and uplands of BECWA-SU and the surrounding area drain and dry rapidly. Precipitation falling on uplands flows downhill through surface waterways or infiltrates into the soil. The level lowland soils along Black Earth Creek are wetter and have more water holding capacity than the uplands. Water that percolates through the soil may seep from the hillsides as cold spring water and feed the base flow of Black Earth Creek and the adjacent wetlands.

Black Earth Creek is a tributary of the Wisconsin River and flows into the river at Mazomanie. The headwaters of the creek are located just to the east of BECWA-SU in the historic wetland known as Old Mud Lake or Old Middleton Lake (Figure 6). Black Earth Creek was the outlet for the now-extinct lake. During the early 20th century Black Earth Creek was channelized and ditched in some areas to drain land for farming and also for USH 14 reconstruction. An intermittent stream and a drainage ditch flows between BECWA-SU and Rocky Dell Road.

Figure 5 Topography

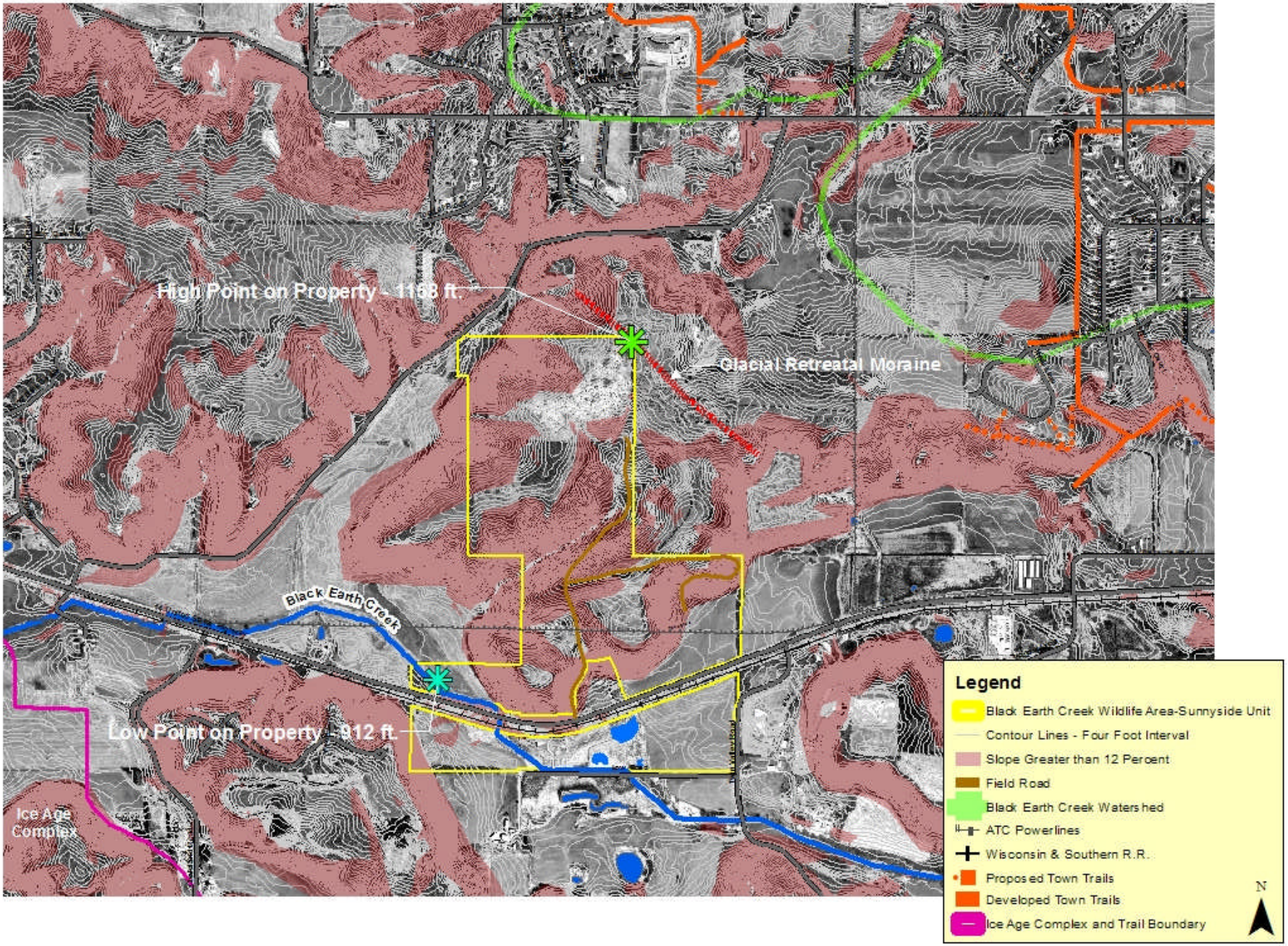
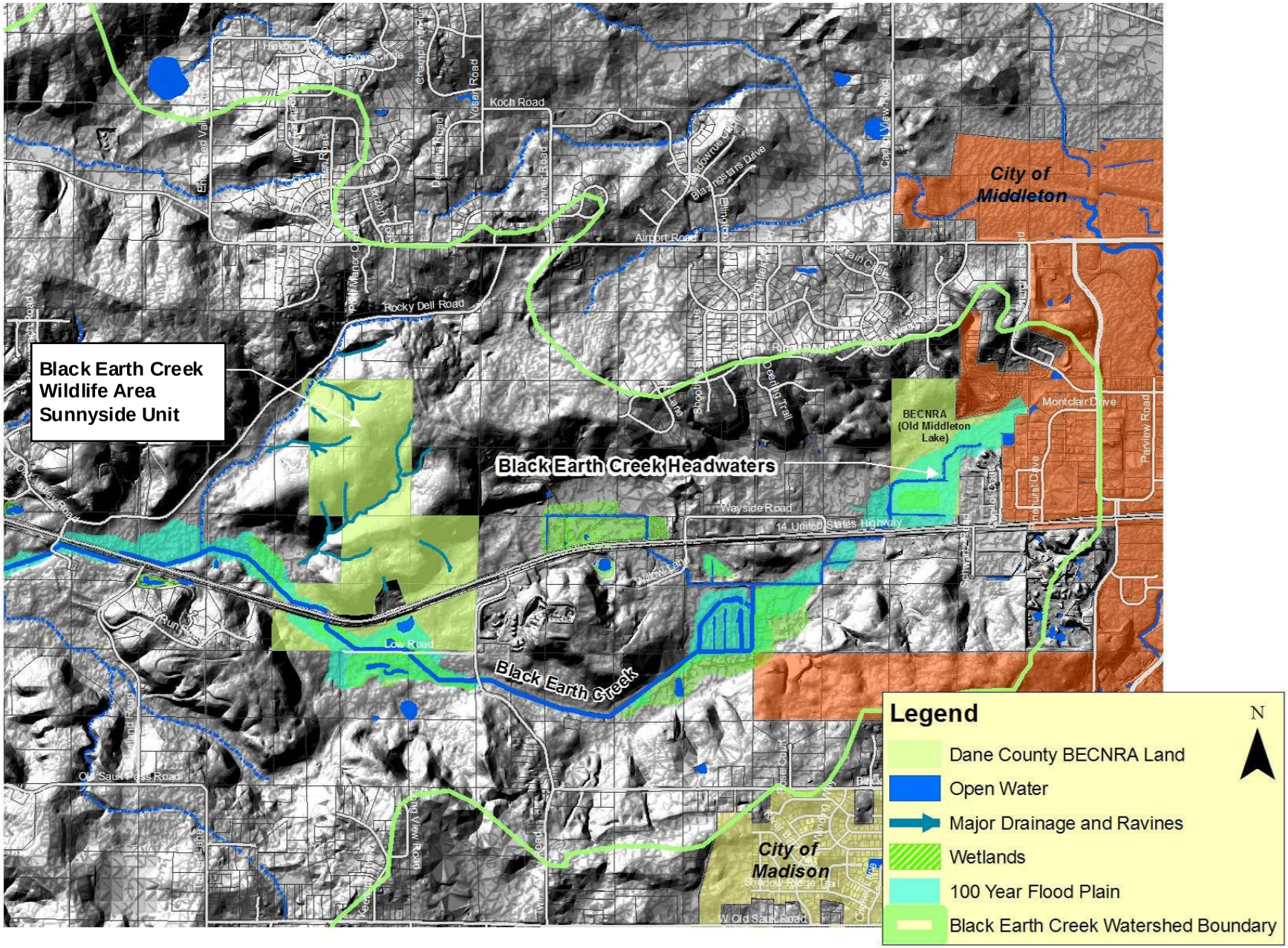


Figure 6 Hydrology and Drainage



Black Earth Creek has a naturally reproducing brown trout population due to its excellent water quality and trout food base. It is considered a 'spring creek' fed by spring water that is high in alkalinity and normally maintains temperatures between 50 and 60 degrees Fahrenheit throughout the year. Spring creeks are a characteristic of the Driftless Area in Wisconsin.

The light green line in Figure 6 is the boundary of the Black Earth Creek Watershed. All precipitation falling within that boundary finds its way to Black Earth Creek. Flashier and more frequent flooding may be expected as development and impervious surface area increase in the watershed. The 100 year flood plain and wetlands are depicted in Figure 6.

The wetlands, areas where the water table is at or near the soil surface, are found near and along Black Earth Creek. A constructed drainage ditch was plugged south of USH 14 to form three wetland scraps that attract waterfowl and other creatures.

Within BECWA-SU centuries of runoff from the uplands have created several drainageways or ravines, indicated by the blue arrows in Figure 6. These areas are generally very steep with nearly vertical sides and may be eroding. Water flow and velocity through the ravines during heavy rains could be very high.

A deep ravine that may, at times, carry a large volume of water.

Black Earth Creek south of USH 14.

Opportunities

- Protect the water quality of Black Earth Creek by maintaining grass buffers along stream and implementing best management practices for woodlands, cropland, and grasslands.
- Possibly return Black Earth Creek to its original meanders and improve trout spawning habitat.
- Educate the public about the geological history of this property and its proximity to the "Driftless Area," including its hydrological significance within the Black Earth Creek Watershed.
- Varied topography and glacial features offer multiple trail options and areas of interest for visitors.

Constraints

- Steep slopes between 21 percent and 28 percent or more and steep stony areas may make access to the ridge tops difficult for some people and limit the areas that trails and management paths can traverse without negative impacts such as erosion and increased expense.
- Steep slopes make vehicle access to the property north of US 14 extremely challenging.
- Vegetation management on steep slopes will be challenging due to safety concerns and the inability to use heavy equipment.

Soils

Soil types at BECWA-SU are as varied as the topography, ranging from wet silty, sandy, and clay loams near Black Earth Creek to extremely steep silt loams and stony areas on the hillsides and slightly rolling loams on the hilltops. Trail and access possibilities depend on the existing soil conditions, among other factors.

Soil maps and information are available in the *Soil Survey of Dane County*. Glaciated upland soils include the deep, well-drained, gently sloping and sloping silt loams of the Kidder, McHenry, and Dodge series.

The steep soils on the hillsides include soils in the New Glarus, Kidder, and Whalan series that are moderately deep, gently sloping to steep, well-drained soils over dolomitic bedrock. Some of these soils were formed under mixed hardwoods. Decomposing leaf litter on the soil surface has created a very soft and fragile organic layer in some wooded areas.

Some spots on the steepest slopes are indicated as stony and rocky land (Figure 7) and may have outcrops of dolomite, shale, or sandstone with slopes between 30 and 65 percent. A thin layer of soil material may be present. Most are lightly covered with hardwoods and very prone to erosion if the cover is removed.

Soils along Black Earth Creek and in the wetlands are level and usually poorly drained sandy, silt or clay loams of the Elburn, Sable, Radford, Troxel, Orion, and Marshan soil series. These soils are deep, somewhat poorly drained, nearly level or gently sloping soils of glaciated stream valleys. Some of these soils, such as Sable and Marshan, were formed under sedges in deep silty material. Radford and Troxel soils formed under prairie grasses. Orion soils are found in flood plains.

Soil limitations were assessed for trails and roadways. Soil limitations can be slight, moderate or severe. Limitations for trails and paths are mapped in Figure 7 and would be fairly similar for other types of infrastructure and facilities. Trails or roads in the moderate and severe soil limitation areas should be designed parallel to the slope and trail slopes should be less than 10 percent to limit erosion and rutting. Soil limitations for trails are minimal in the green and yellow shaded areas.

- **Slight Soil Limitations (Green)**: Soils without significant limitations for construction of trails or roadways. These soils are generally level, have low erosion potential, and drain easily.

- **Moderate Soil Limitations (Yellow)**: Improvements can be built with additional restrictions and increased costs. These soils may be steeper, more prone to erosion, have lower strength or are poorly drained. Trails should run parallel to the slope to minimize erosion and rutting and not exceed 10% slope.

- **Severe/Moderate and Severe Soil Limitations (Red and Brown)**: Development on these soils has additional impacts on natural resources and significant engineering costs and restrictions. These soils are on very steep slopes, have severe erosion potential or are already eroded, may have very low strength, or may flood periodically.

Construction of infrastructure is most easily accomplished at the least financial cost and environmental damage on soils with slight and moderate limitations. These soils generally occur in the gently rolling portions of the site above the Black Earth Creek flood plain. Severe limitations arise along the steep wooded hillsides bordering the valley and in the lowest elevations where organic soils or a high water table limit use and development.

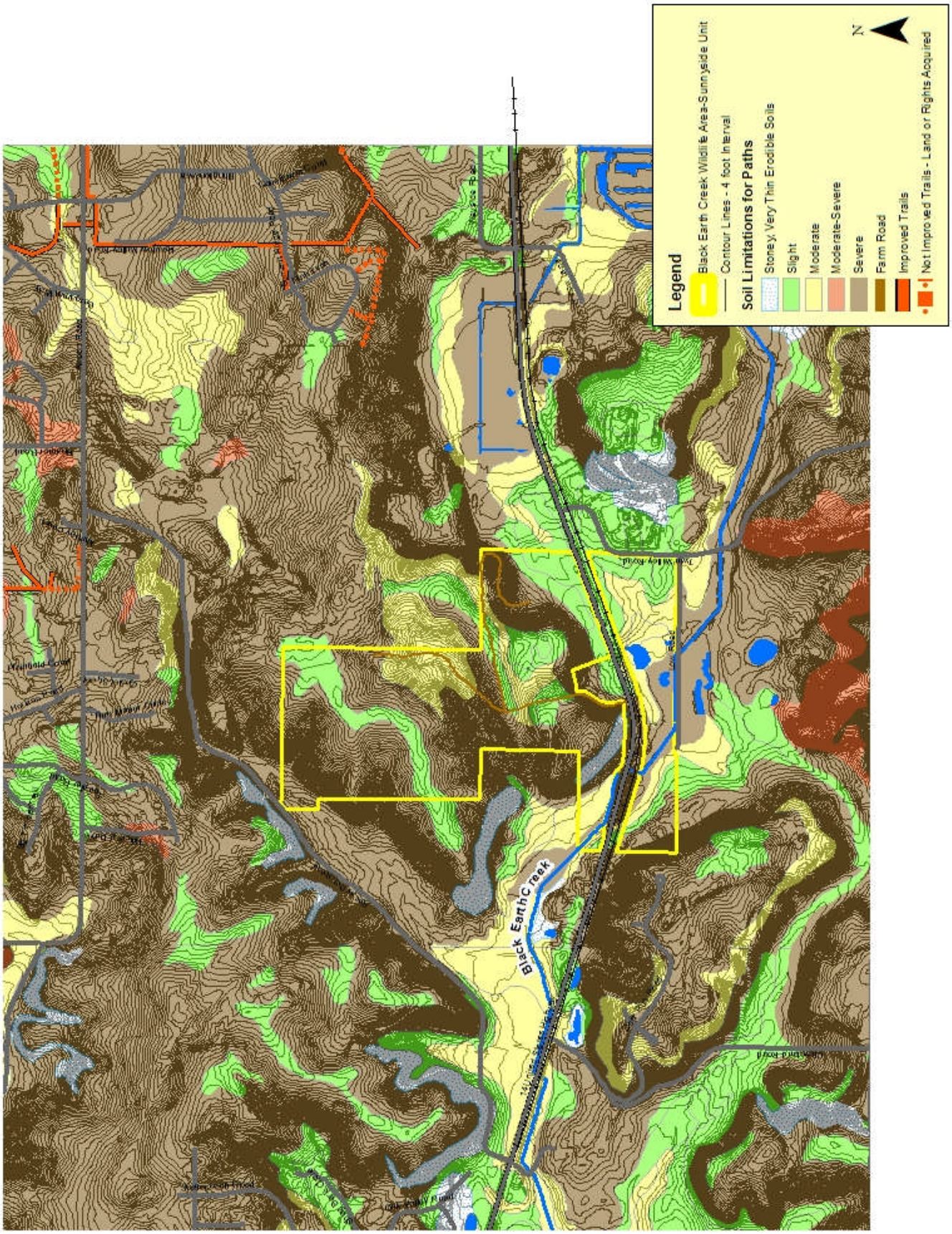


Figure 7 Soil Limitations for Paths

Opportunities

- The upland soils on the property are generally suitable for management paths and trails.
- Good agricultural soils are found in the in the Black Earth Creek valley and could be farmed for the near future.

Constraints

- Soils on the wooded hillsides are very steep and susceptible to erosion if disturbed or left uncovered. The topmost soil layer contains high levels of leaf mold and organic matter and may be quite fragile.

Vegetation, Wildlife, and Habitat

Vegetation

Prior to the 1830's the area around BECWA-SU was covered by oak woodlands interspersed with oak openings or savanna and prairie, according to *Finley's Original Vegetation Map*. At that time vegetation and ecosystems were maintained by the regular occurrence of fire. Today the landscape is primarily agricultural with small, fragmented woodlands. Because of poor forest management practices and the lack of fire and sunlight for the regeneration of oaks, the oak forests are naturally evolving into central hardwoods comprised of hickory, cherry, and elm. Patches of aspen are also found along the edges.

A "goat prairie" on an adjacent property is obvious in the winter.

In 2007, Dane County Parks Naturalist Wayne Pauly inventoried the current vegetation at BECWA-SU and provided recommendations for controlling invasive and exotic species. Figure 8 is a map of the vegetation zones inventoried at that time.

A dry prairie remnant is found at BECWA-SU above the rock cut along USH 14. Xeric or dry prairies found on steep slopes are locally called "goat prairies". The extremely steep conditions prevented cattle from accessing these areas and thus the prairie vegetation was preserved.

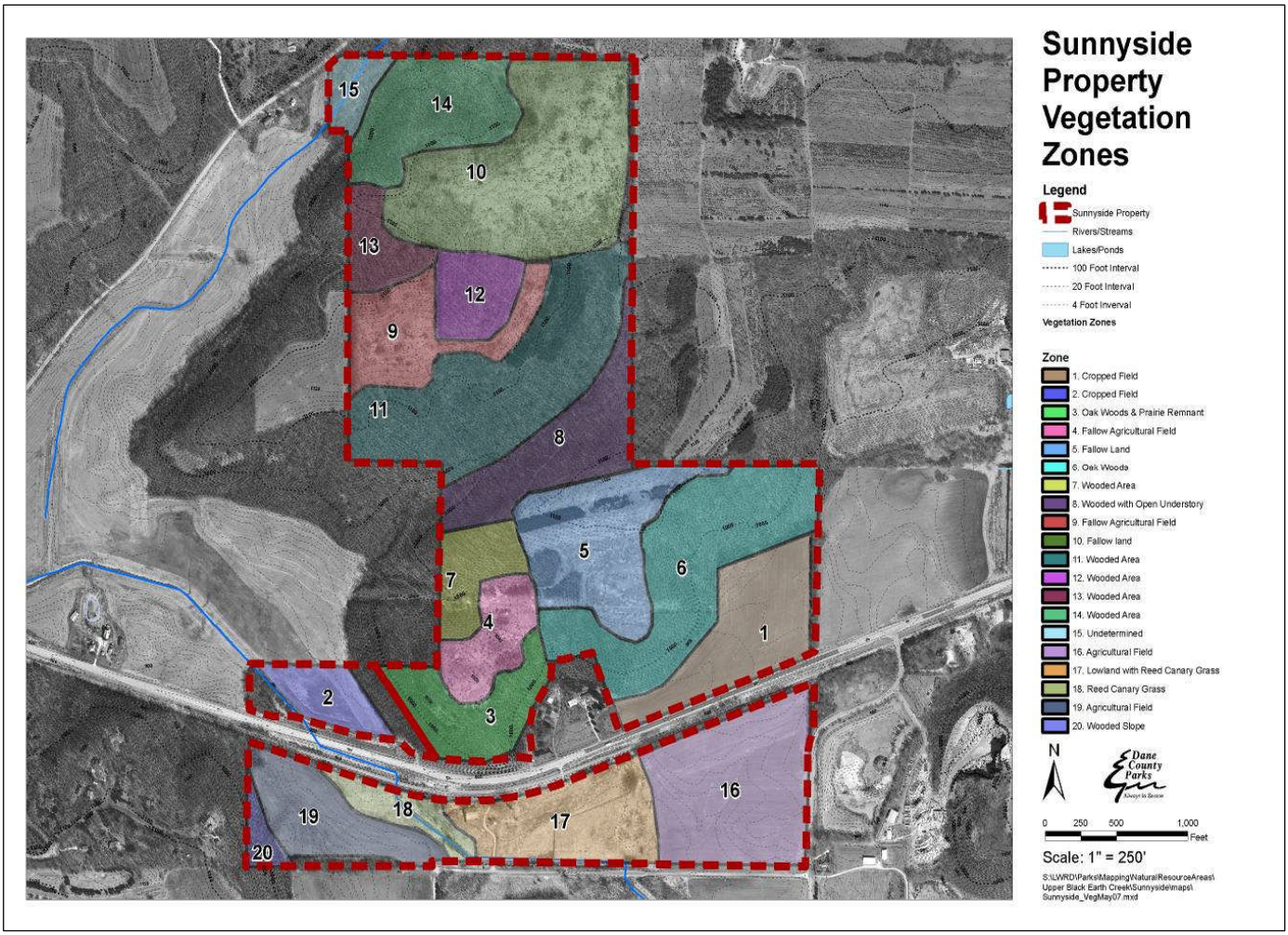
According the John Curtis in *The Vegetation of Wisconsin*, xeric prairies most often occur on steep hillsides sloping to the southwest. The soil layer is very thin, perhaps about 4 inches to bedrock, due to the excessive runoff and continual movement of soil particles. Winds dry the soil surface and water availability and nutrients are severely limited. Dry prairie plants are usually short and have structures that help them retain moisture and survive the extreme conditions.

Ground nesting birds that prefer the goat prairie habitat include prairie horned lark, grasshopper sparrow, and western meadowlark.

Deciduous woods.

Historically the level and gently rolling portions of the property were farmed. The Swanson family entered the hilltop fields in the federal Conservation Reserve Program for a number of years. These fields were planted to grasses and not farmed until recently when brush was removed and cropping began to remove weeds in preparation for prairie or grassland planting. Dane County has a rental contract with a local famer for several years. The currently cropped areas are zones 1, 2, 4, 5, 9, 10, 16 and 19 in Figure 8.

Figure 8 Existing Vegetation Zones (2007)



Oak woodlands on the steepest slopes ring the agricultural fields and are found in zones 3, 6, 7, 8, 11, 12, 13, 14, 15, and 20. A prairie remnant is in zone 3. Zones 5 and 11 include pine plantations.

The woodlands contain some large native hardwoods but, as is common in southern Wisconsin, many of the stands are overrun with invasive species such as honeysuckle and buckthorn. The Forest Stewardship Management Plan makes recommendations for improving the existing hardwood stands and softening edges between the wooded and open areas (Appendix A).

Wetland scrapes south of USH 14.

Historically wetlands and wet prairie were found near Black Earth Creek. The wetlands were drained for farming and invasive or aggressive species such as reed canarygrass and willow have overtaken many of the remaining wetland fragments. Three constructed wetland scrapes were built and prairie restoration begun in zone 17 south of USH 14.

The Swanson family planted a basswood memorial tree honoring Kenneth Randall Swanson in the field overlooking the south bluff (Zone 4). The tree is marked with a brass plaque embedded in a stone.


Randy's Memorial Tree

Forest Stewardship Management Recommendations

The WDNR developed a Forest Stewardship Management Plan for BECWA-SU at the request of Dane County. The detailed plan is included as Appendix A.

The objectives for forest management stated in the plan are:
1) Demonstrate sustainable forest management and land stewardship.
2) Manage for timber production; favoring oak, hickory, cherry, and black walnut.
3) Control invasive exotic species and manage for native species.
4) Manage for wildlife.
5) Provide recreational opportunities for the general public, primarily hiking, cross country skiing, and hunting.

The plan recommends creating larger, contiguous blocks of prairie/grassland and woodlands to reduce the edge effect by removing pine rows and some forest clumps. The plan recommends management practices that favor white oak, bur oak, red oak, black cherry, basswood, and shagbark hickory.

Through the master planning process for BECWA-SU the Forest Stewardship Management Plan was slightly modified for Stand 8 by eliminating tree planting and planting prairie/grassland instead to create a larger, unbroken prairie/grassland area. Stand 3 was modified to gradually create savanna that would be compatible with a prairie controlled burn regime (see Table 9 and Figure 10).

Table 9 Forest Stewardship Management Recommendations

Stand Number	Description	Management Recommendations
1	Sawtimber oak over poletimber hardwoods	Manage for central hardwoods, encourage white and bur oak
2	Oak on south-facing slopes	Manage for bur oak or open oak forest through prescribed burning
3*	Mixed woodlot	Mange for savanna with thinning and burning
4	Large sawtimber oak	Convert stand to central hardwoods and manage of oak
5	Aspen over central hardwoods	Maintain oak for wildlife habitat and species diversity, manage aspen on 45-50 year rotation
6	White pine plantation	Production of quality white pine sawlogs, adds diversity to property, eventual conversion to central hardwoods
7	Proposed tree removal sites – small patches or pines	Plant native prairie or grassland
8*	Currently farmed to remove weeds, brush, and invasive species	Plant to native prairie or grassland
9	Currently farmed	Continue farming, eventually plant native prairie or grassland
10	Wetland scrapes and prairie planting	Continue restoration work

* Recommendations for Stands 3 & 8 differ from the original recommendations of the WDNR Forest Stewardship Management Plan.

Figure 10

Forest Stewardship Management Recommendations

Legend

- Black Earth Creek Wildlife Area-Sunnyside Unit Boundary
- Field Road
- 1 Sawtimber Oak Over Poletimber Central Hardwoods - Manage for central hardwoods, encourage white and bur oak
- 2 Oak (South Facing Slopes) - Manage for bur oak or open oak forest through perscribed burning
- 3 Mixed Woodlot - Manage for Savanna with thinning and burning
- 4 Oak (Large Sawtimber) - Convert stand to central hardwoods, manage for oak
- 5 Aspen Over Central Hardwoods - Maintain oak for wildlife habitat and species diversity, manage aspen on 45-60 year rotation
- 6 White Pine Plantation - Production of quality white pine sawlogs, adds diversity to property, eventual conversion to central hardwoods
- 7 Proposed Tree Removal Sites (Small Patches or Pines) - Plant native prairie or grassland
- 8 Currently Farmed to Remove Weeds, Brush, and Invasive Species - Plant to native prairie or grassland
- 9 Currently Farmed - Continue farming, eventually plant native prairie or grassland
- 10 Wetland Scrapes and Prairie Planting - Continue restoration work
- Wetlands

Wildlife and Threatened and Endangered Species

A fox snake on a warm spring day.

The *Forest Stewardship Management Plan* states that the property contains excellent woodland wildlife habitat. Wild turkey and deer are clearly evident. Deer can negatively impact the forest by eating young saplings and rubbing on older trees. Providing larger blocks of both forest and prairie/grassland will benefit the diversity of birds and wildlife.

Thirty-two bird species were identified during an August morning walk. According to Andy Paulios of the WDNR, the following bird species could thrive if managed for: red-headed woodpecker, brown thrasher, field sparrow, blue-winged warbler, eastern meadowlark, Bell's vireo, willow flycatcher, northern bobwhite, rose-breasted grosbeak, and northern flicker. Some of these species require dead trees or dying limbs (flicker and red-headed woodpecker), some require diverse grasslands with scattered shrubs or song trees (meadowlark, field sparrow, bobwhite), and some like brushy shrubby patches in an open or edgy situation (bobwhite, Bell's vireo, willow flycatcher).

Black Earth Creek was originally a long, narrow, shallow lake with associated wetlands that provided habitat for amphibians, reptiles, and shorebirds. In an effort to recreate some of this habitat, the wetland land scrapes south of USH 14 are attracting waterfowl, amphibians, and other species.

Scott Harpold, WDNR Fisheries Management Technician, shocked 124 meters of Black Earth Creek within BECWA-SU and found six fish species: brown trout, brook stickleback, fathead minnow, mottled sculpin, creek chub, and green sunfish. The brown trout, which are naturally reproducing, were all adults, 5 to 12 inches long, and were found in the two pools in this stretch of Black Earth Creek. Most of the creek bed was covered in silty clay but gravel, the natural fish habitat, was found in spots,

Both aquatic and terrestrial threatened and endangered species are documented in and within one mile of BECWA-SU in the WDNR Natural Heritage Inventory. Within the property one plant, two mammals, and one dragonfly were listed as species of special concern by the State. All were documented in or prior to 1964 and it is unknown whether they are currently present but they could be. Within a mile of the property a yellow-billed cuckoo, a species of special concern, was documented in 2008.

Opportunities

- Protect and enhance wildlife habitat, biodiversity, and native plant communities such as woodlands, savanna, prairie, grassland, and wetlands.
- Create large swaths of native plant communities that are more favorable for native bird and wildlife species such as prairie/grassland on the open uplands, wetland near Black Earth Creek, and oak woodland on the steep slopes.
- Remove smaller non-native stands of trees, such as the pine plantations that fragment habitat.
- Remove and control invasive species.
- Conduct species inventories to create baseline data.
- Improve trout and fish habitat and the biological functions of Black Earth Creek.
- Provide educational opportunities on ecology, forestry, geology, natural history, and agriculture.
- Provide nature-based, low impact recreation uses that won't degrade natural resources and are compatible with vegetation management activities.
- Provide volunteer opportunities to assist in habitat improvement and enlist volunteers with special knowledge to participate in management planning.
- The WDNR *Forest Stewardship Management Plan* enables the WDNR to provide technical assistance to Dane County for implementing forest management objectives.
- Manage wildlife populations.

Constraints

- Habitat restoration and education programs require planning, management, expert and practical knowledge, labor, volunteers, equipment, and financial resources.
- Vegetation types within the property are somewhat fragmented, thus limiting the potential for enhancing native wildlife habitat.

Black Earth Creek Wildlife Area – Sunnyside Unit Master Plan Recommendations

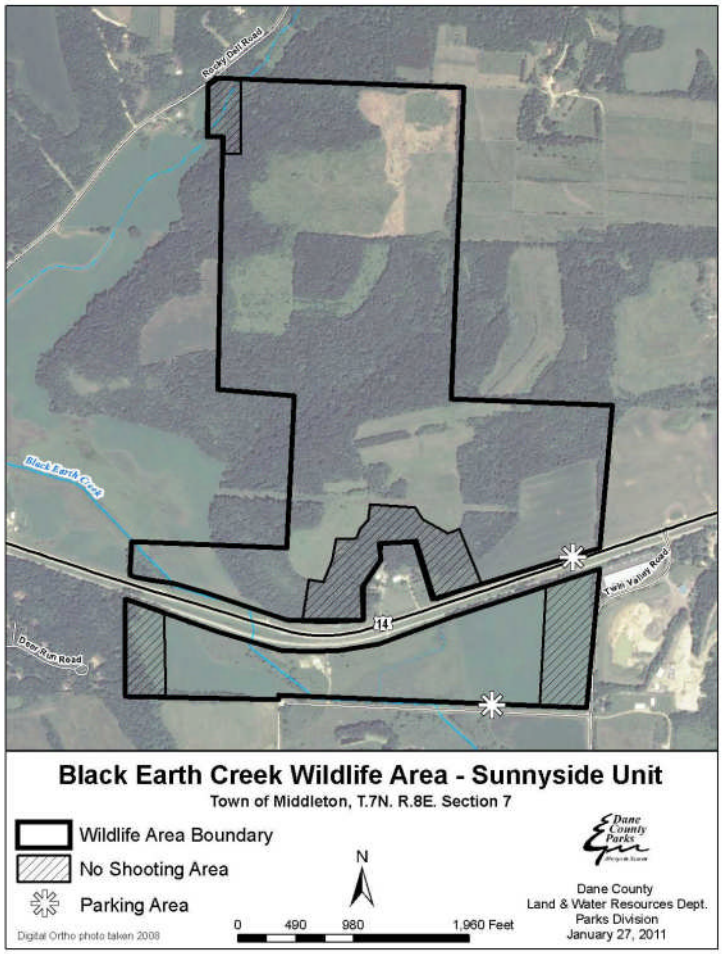
The *Black Earth Wildlife Area-Sunnyside Unit Master Plan* includes a discussion of the wildlife area designation and recommendations for access, natural resources management, farming, recreation, trails, bicycle and community trail connections, special features of the property, and property expansion opportunities. The master plan is followed by an action plan, cost estimate, and funding sources.

Wildlife Area Designation

The master plan recommends designating the property as a Dane County Wildlife Area within the Black Earth Creek Natural Resource Area.

This designation means that the property is open for all types of public hunting and trapping and other activities such as fishing, hiking, and cross-country skiing. The property lines will be marked with Hunting Area signs. All WDNR hunting regulations and permits will apply to this area. Special hunting rules and no-shooting buffer areas will be posted on kiosks at the parking lots (Figure 11).

Figure 11



Town of Middleton ordinances prohibit discharging or carrying loaded firearms or archery bows within 500 feet of a residence.

Currently area residents and communities refer to the site as the Sunnyside property because of its long history as the Sunnyside Seed Farm. The master plan recommends naming the property as the Black Earth Creek Wildlife Area-Sunnyside Unit (BECWA-SU). This name will maintain the community connection to the Sunnyside Seed Farm, while linking it geographically to the Black Earth Creek Valley area. The unit name for BECWA-SU may change in the future if additional units are added to the Black Earth Wildlife Area or for consistency with any future naming conventions established by Dane County Parks.

A master sign identifying the property as the Black Earth Creek Wildlife Area–Sunnyside Unit should be placed at a highly visible location near the USH 14 parking area. The Town of Middleton logo should also appear on the master sign, signifying their support and substantial monetary contribution to BECWA-SU.

The adoption of this master plan will formally name and designate the property as the Black Earth Creek Wildlife Area–Sunnyside Unit.

Access

The alignment of USH 14 and fairly heavy daily traffic makes direct access to BECWA-SU lands north of USH 14 difficult. The two current access points to the maintenance field roads adjacent to the rock cut are potentially dangerous because of the curve in USH 14 at that point. Very limited space for parking is available and users sometimes park on the shoulder, which is prohibited. Shoulder parking on Low Road to access the portion of BECWA-SU south of USH 14 can make moving equipment difficult for local farmers. Improving public access and providing off-road parking at BECWA-SU is a priority.

Access North of USH 14
A small 10 stall parking lot is recommended just off USH 14 near the east property line to serve the portion of BECWA-SU north of USH 14 (Figure 13). WIDOT authorized a private driveway from USH 14 at this location for the previous owner. This general location provides the best sight lines for turning vehicles. The exact driveway location should take into account a small rise on USH 14 that could block some vision of on-coming cars. A WIDOT permit for installing the driveway will be needed and WIDOT may also require acceleration and deceleration lanes for the proposed driveway/parking area. A management path for use by Dane County Parks and pedestrians from the parking lot will follow the edge of the crop field and wind up the hillside to the uplands.

All existing access points on either side of the rock cut (north side of USH 14) will be closed to public use and gated. Current maintenance field roads will be restricted to use by Dane County Parks for purposes of property management, maintenance, farming, and emergency use. The primary gated field maintenance road directly east of the rock cut could potentially be connected to the parking lot if the adjacent inholdings are acquired.

Dane County Parks and WIDOT have entered into a Memorandum of Agreement that describes a cooperative partnership for future WIDOT and County safety improvements to USH 14 and access to the property. The MOA allows a driveway from USH 14 to access the parking lot in the short term. The parking lot driveway may be connected to a local road that creates an intersection with USH 14 at some point in the future. Continued use of the current access points for maintenance, agricultural, forestry, and emergency use is also allowed in the MOA.

Access South of USH 14
Along Low Road visitors to the property have been parking on the shoulder. Low Road is substandard in width and essentially functions as a farm driveway. To provide access to the BECWA-SU south of USH 14 the plan recommends a small 10 stall parking lot off of Low Road on the east side of the property. A driveway permit from the Town of Middleton will be required, which will influence the exact location of the parking area. Visitors will be able to park here to access the property and proposed trails. The existing driveway on Low Road to the former farmstead will be gated and used only for Dane County Parks maintenance purposes.

An existing driveway from USH 14 into the southern portion of the property may be used for bicycle and pedestrian access if a multi-purpose trail is developed in the USH 14 or railroad right-of-way.

Both public access sites (parking lots) will be situated on level areas near the road in order to minimize driveway maintenance, reduce fragmentation of lands, and to facilitate monitoring by Dane County Parks. Information boards with maps and BECWA-SU special features are recommended at both lots. The lots may be closed during the bird nesting season from April 15th to July 15th, if off-leash dogs become a nuisance to wildlife. Dane County should explore partnerships with the Town of Middleton or neighbors for plowing the parking areas for year-round access.

Long-Term Access Planning
In the long term, acquisition of the land to the north of BECWA-SU is recommended so that an entrance from Airport Road or Rocky Dell Road may be developed in the future. Turning onto an entrance road is easier and safer from these roads because traffic volume and speed are lower and sight lines are better. The terrain north of BECWA-SU is not as steep and could provide cost effective vehicular access to the

uplands with less disruption to the landscape. If an entrance from Airport Road or Rocky Dell Road is realized in the future, portions of the existing maintenance field road adjacent to the inholdings may be relocated to land with gentler slopes.

Natural Resources Management and Farming

Wildlife and bird species diversity is decreasing regionally due to loss and fragmentation of native habitat. BECWA-SU will be managed to create large swaths of a variety of habitats such as prairie and/or grassland, oak woodland, savanna, and wetlands (Figure 12). Restoration activities should increase the number of plant species, which will provide more diverse food sources and habitat for wildlife.

Conducting species inventories of the vegetation and wildlife on the property is recommended to develop base-line studies of the number and variety of species prior to restoration and to uncover the true diversity of the property. A great variety of species may be found here due to the varied nature of the property that features uplands, lowlands, and deep ravines with different microclimates. Periodic species inventories can help measure change over time and inform decisions about which species to manage for and how.

Some portions of the property will be farmed using sustainable methods, such as no-till farming, to prepare the fields for prairie or grassland planting. The upper elevations are currently farmed to remove weeds and brush after beingin grassland in the Conservation Reserve Program (CRP) program for several years. Wildlife food plots could also be planted. The level valley areas that are currently farmed will continue to produce crops for some time before prairie or grassland is planted.

Large swaths of upland prairie will be created by removing pine plantations and small, fragmented woodlots. A larger wooded area in the uplands will be thinned and managed as savanna.

Through thinning of wooded areas, burning, and allowing native tree and shrub species to naturally reproduce along the woodland edges the sharp and fragmented appearance of the open and wooded areas should soften.

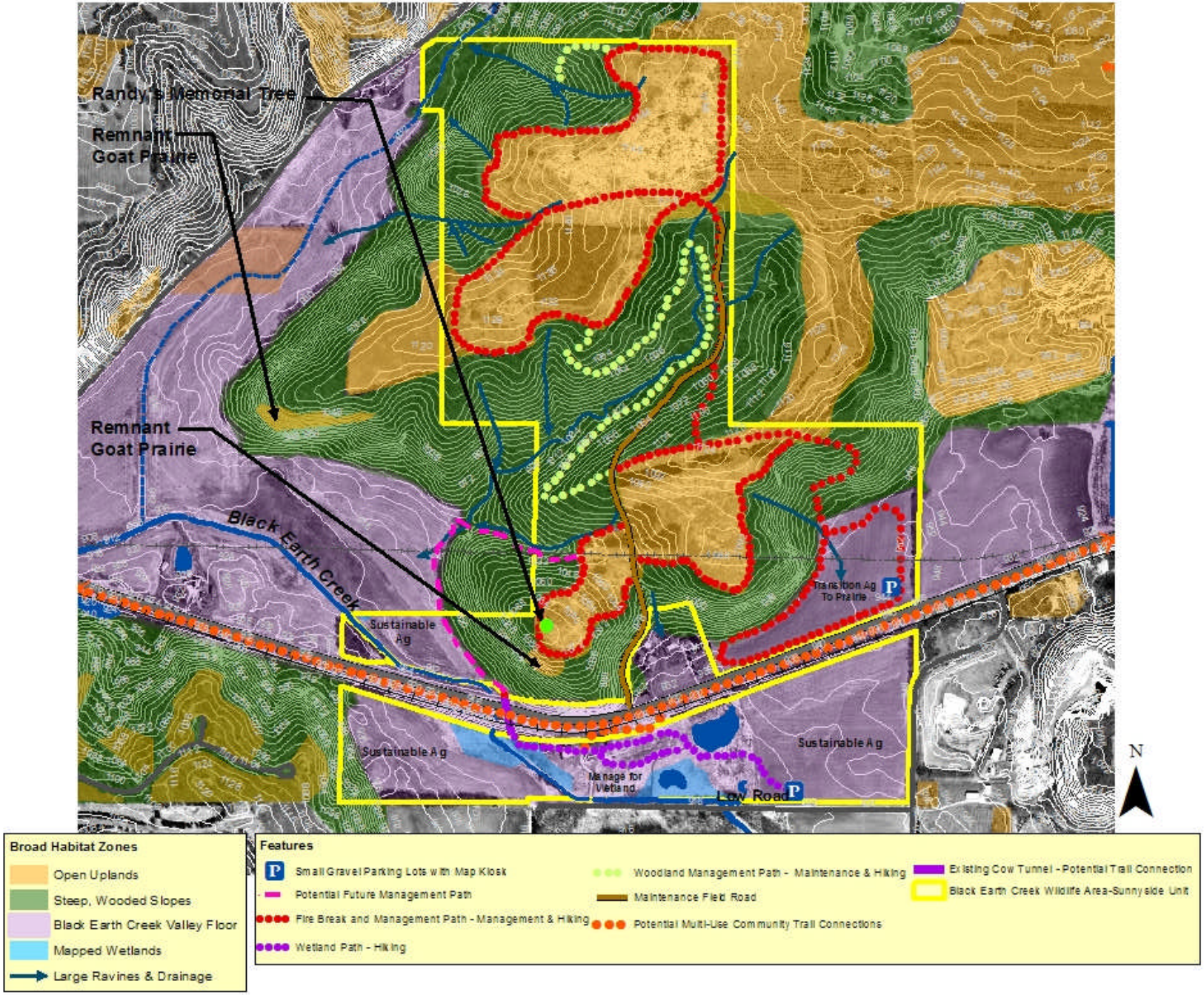
Portions of the property are farmed to remove invasive species in preparation for prairie or grassland planting.

Dane County will contract out restoration services as funds are available, but will largely rely on partners for long-term maintenance, controlling invasive or exotic plant species, and establishing firebreaks and burn regimes. At input meetings the public indicate a desire to participate in volunteer restoration activities and groups may be formed to take on various habitat restoration tasks.

The Forest Stewardship Management Plan (see Appendix A) makes recommendations for improving the wooded stands on the steep hillsides. Large hardwood stands will be managed to favor oak species by removing invasive trees and shrubs and selective logging. Higher light conditions will encourage oak regeneration. Smaller fragmented stands, such as the pine plantations, will be removed.

A wetland and prairie restoration is in progress south of USH 14. Three wetland scrapes have been created for waterfowl. Black Earth Creek was channelized at one time to drain land for farming. Long term goals for the creek could include improving trout nursery habitat and returning the creek to its natural meanders. Black Earth Creek could also be buffered from run-off by planting wide swaths of riparian species along the banks.

Figure 12 Habitat Zones



Recreation

Proposed recreation at the property is centered on nature-based activities such as hunting and fishing, hiking, cross-country skiing, snowshoeing, nature study, volunteer habitat improvement activities, and berry and mushroom picking. As a Dane County Wildlife Area, the property will be open for all hunting seasons with the required WDNR permits. Dogs may run free for hunting except during the nesting season from April 15th through July 15th when they must be leashed. Other dogs must be on leash at all times. A Dane County Parks dog permit is required for all dogs to be on the site except during a legal hunting season.

Volunteers will be needed to assist with habitat maintenance and management including species inventories; prairie, savanna, wetland, and woodland restoration; and education of users. Dane County Parks has a strong volunteer and Friends of the Parks program and attendees at the public input meetings indicated their interest and expertise in these activities.

Mountain biking, disc golf, snowmobile trails, equestrian trails, and dog exercise areas were also requested at public input meetings. The Wildlife Habitat Areas Grant conditions do not allow these uses. Additional land to the north and east may be pursued to accommodate more active nature-based activities. Mountain bike trails are available nearby at the new City of Middleton 'pump track' and at the Blackhawk Ski Club for its members.

Trails

The primary purpose of BECWA-SU is to preserve and improve native habitat and provide compatible recreation opportunities. Management paths depicted in the plan are conceptual in nature and will function as access paths for Dane County maintenance activities, firebreaks, and hiking trails. The paths in the plan will be field located to create burn units and avoid erosion (Master Plan, Figure 13). The proposed paths provide access to the entire property, which extends for a mile north of USH 14.

The Wildlife Habitat Areas Grant conditions specify that management paths must be rustic and pervious. The paths are generally located along the boundaries of habitat zones (Figure 12), such as between wooded areas and prairie or grassland, to create burn units. Burn units should be large enough to minimize fragmentation of habitat. The paths should be 8 feet to 10 feet wide and accommodate maintenance and emergency vehicles. The intention of the plan is to soften the woodland edges by allowing native trees and shrubs to naturally take hold in the open areas. Over time the paths will wind in and out of prairie, savanna, and woodland habitats.

Woodland management paths will be field located as the woods are selectively logged or invasive trees and shrubs are removed. These paths should follow the contour of the land in steep areas and be built in a sustainable manner to reduce the potential for erosion and disturbance.

Partnerships with neighbors or a future friends group should be explored for establishing and maintaining management paths. The management paths could be used in the winter months for snowshoeing and cross-country skiing.

The topography of the site ranges from level to extremely steep. Public comments at the input meetings indicated a desire for paths in areas that wouldn't require a climb up the steep terrain. Paths located south of USH 14 or immediately north of USH14 can be quite level.

A management path starting at the proposed parking lot off Low Road and leading around the wetland scrapes is recommended to give visitors the chance to take an easy, short hike to experience and view the wetland habitat and wildlife. A viewing deck or overlook near the largest wetland scrape should be considered. Short sections of the path through wet areas may be boardwalk. This trail travels past the former site of the Sunnyside Seed Farm buildings. The remains of the buildings should be removed and

the area planted to appropriate vegetation. An interpretive sign at this location could commemorate the achievements and contributions of Randall Swanson to farm safety and the community.

Initially, a mowed grass trail should be established from the parking area to the wetland scrapes to offer wildlife viewing opportunities. Dane County should partner with a neighbor or current farmer managing the crop fields to maintain the management paths.

The existing cow tunnel, if it is improved to accommodate pedestrians, could provide a below grade crossing under USH 14 and connect the north and south portions of BECWA-SU. A management path could potentially extend from the cow tunnel north along the woods to provide pedestrian access to the uplands of BECWA-SU (Figure 13).

Bicycle and Community Trail Connections

The Town of Middleton is developing a public multi-use trail system connecting subdivisions and existing parks. These trails could connect to the Black Earth Creek Wildlife Area, particularly if additional property to the east and north is purchased. Bicycling to BECWA-SU will be encouraged but bicycling or mountain biking within BECWA-SU itself is not allowed due to grant conditions.

The *Dane County Park and Open Space Plan* identifies the USH 14 corridor between the City of Middleton to the east and the Village of Mazomanie to the west as a potential multi-use trail corridor. The proposed trail is identified as the Good Neighbor Trail by local units of government. Discussions to date have identified potential bicycle, pedestrian, equestrian, cross-country skiing, and snowmobile uses for the Good Neighbor Trail. If the trail is located in the USH 14 right-of-way, this plan proposes a short spur down the former farm driveway on the south side of USH 14 to access BECWA-SU. This entrance will be gated with pedestrian use only allowed in BECWA-SU. Pedestrian access to the north of USH 14 could be through the cow tunnel if it is improved.

A regional cross-country skiing trail is taking shape from the Pleasant View Golf Course through the Black Hawk Ski Club land. This trail could potentially connect to BECWA-SU in the future.

Special Features

The Draft Master Plan identifies several special features which make this part of Dane County and this property unique (Figure 13):

- Black Earth Creek, a Class I Trout Stream, and associated wetlands and springs
- Location at the western edge of the glacial advance in Wisconsin
- Steep wooded bluffs and deep ravines with unique microclimates
- Large expanses of different habitats – oak woodland, prairie/grassland, and wetland
- Remnant goat prairies
- Views and vistas of the Black Earth Creek Valley, Middleton, Madison, Blue Mounds, the Ice Age Complex, and Old Lake Middleton.
- High point on the property on a recessional moraine
- Stone fences
- History of the Sunnyside Seed Farm and Randall Swanson
- The Randy Swanson Memorial Tree

The design of paths and park elements should complement and enhance the natural setting and the features listed above. Areas that offer views and vistas may be suitable for small seating areas made of natural found materials such as boulders or logs. A map and description of the accessible special features is recommended for the kiosks at the parking areas. Additional discreet interpretive signage may be added in the future if the area north and east of the property is expanded for a larger entrance and recreation area and visitor numbers increase.

Property Expansion Opportunities

Expansion of the Black Earth Wildlife Area–Sunnyside Unit is recommended to the west along Black Earth Creek and to the north to Airport Road (Figure 13) to provide future access, protect Black Earth Creek, and increase the potential for recreation and trail connections). Dane County only works with willing sellers and an expansion timeline has not been developed. Acquisition could be done in fee-title with Dane County becoming the owner of the land. Another useful tool to protect the adjacent land in its current agricultural use is the purchase of conservation easements. A landowner agrees to retire the development rights or other rights of the property in exchange for a fee or tax deductible donation while retaining the ownership of the land. Conservation easements protect the land from development in perpetuity and can be used for buffering public land from other uses.

Access to the bulk of the current property from USH 14 is difficult due to heavy traffic and steep slopes and the Wildlife Habitat Areas Grant precludes building new roads on most of the property. Road construction on the existing property would be expensive and disruptive due to the steep slopes and potential for habitat fragmentation. Acquisition of land to the north and east that is a Christmas tree farm and a crop farming area could provide for an entrance from Airport Road or Rocky Dell Road where the topography is gentler and building a road would be easier. The Town of Middleton trail network could be extended to BECWA-SU from the north and east on gently rolling land. This area could provide space for a larger, more developed entrance with parking, restrooms, a regional trailhead, and other amenities. It could also provide a buffer between BECWA-SU and residential development. Portions of this area could be added to the Wildlife Area, while the majority of lands could become part of a future recreation area for nature based activities within the Black Earth Creek Natural Resource Area.

Some participants at the public input meetings were disappointed that more recreational activities could not be offered due to the Habitat Areas Grant conditions while other attendees were concerned that the potential for more active recreation adjacent to the Wildlife Area could disrupt wildlife. Recreational activities such as mountain biking, disc golf, and/or a dog exercise area could be suitable to the north and east of BECWA-SU in a buffer area between residential areas and the Wildlife Area. The former Hideaway landfill property may have interesting topography for mountain biking or disc golf.

The land west of BECWA-SU up to Rocky Dell Road could potentially provide for an expansion of BECWA-SU and protection for Black Earth Creek. Connections to the Ice Age Complex could also be made through this area. Most of this land is currently farmed. If this land or portions of it were acquired, it would be managed for wildlife and to protect existing goat prairies.

Two inholdings are located just east of the rock cut on USH 14. Acquisition of these properties could provide for cohesive management and may provide an opportunity to connect the existing maintenance field road that travels up the hill to the parking lot on the north side of USH 14 by a management path. If the land is acquired the existing residential driveways could be closed to improve the safety conditions at the curve on USH 14.

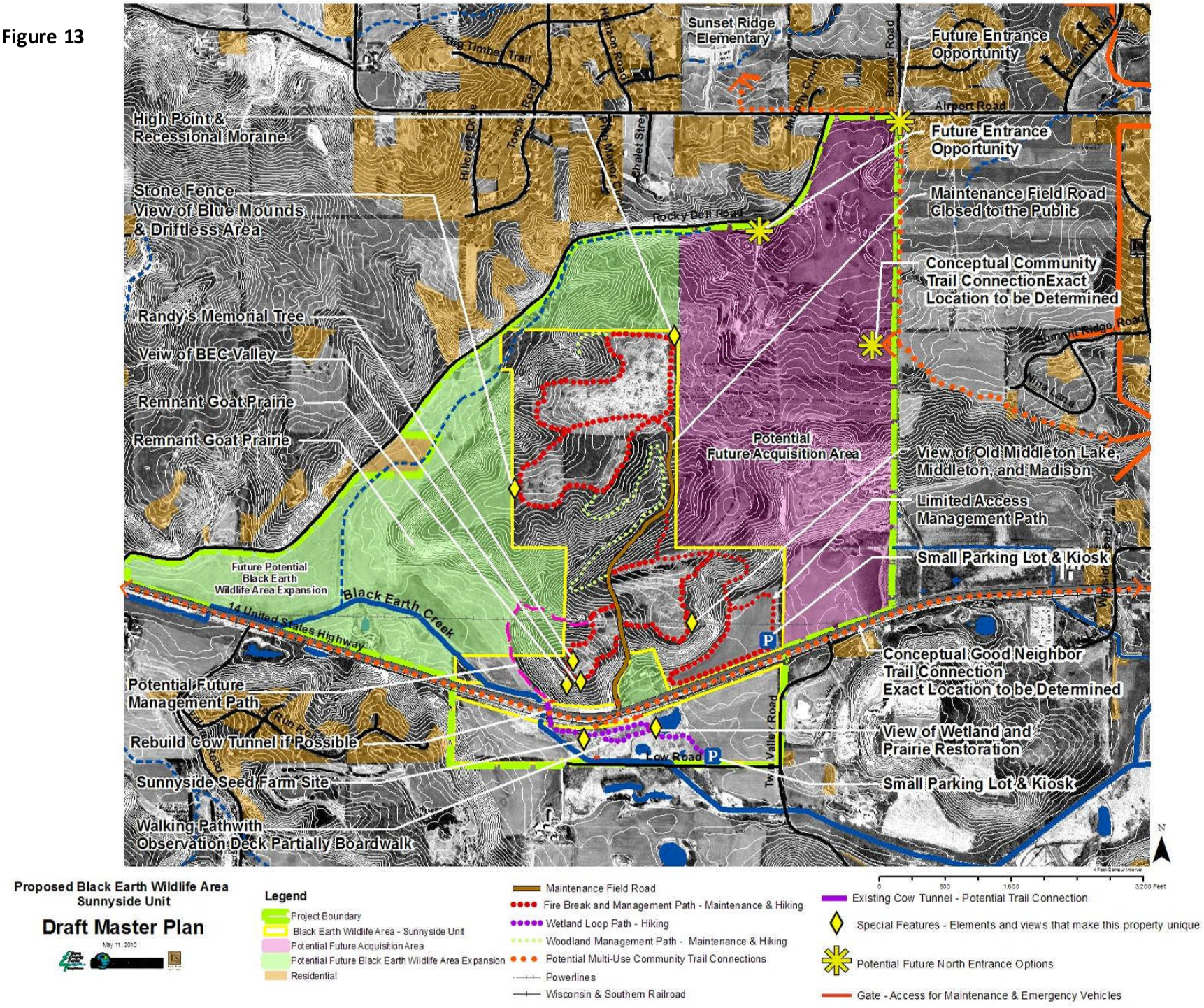
Management paths and trails could potentially be extended throughout the expansion areas to improve connectivity, provide a larger trail network, and offer different types of trails currently not allowed under the grant conditions. The primary maintenance field road within BECWA-SU could also be rerouted to more suitable lands with gentler slopes if property to the east and north is acquired.

Operations and Maintenance

Dane County Parks is responsible for ongoing operations and maintenance of the Black Earth Creek Wildlife Area – Sunnyside Unit. To minimize operations costs Dane County Parks will rely heavily on partnerships, volunteers and farmers under a cropland leasing program to assist with future maintenance needs. Farmers leasing the land or a future friends group could possibly assist with establishing and maintaining management paths. Parking areas should be considered seasonal, unless there is a strong need for year round access and there are others able to assist with snow removal, maintenance and

enforcement issues associated with the site. An agreement can be worked out with those party(s) willing to help monitor the parking areas and grounds. Parking lot gates will be opened and closed on a seasonal basis and possibly opened and locked daily if required. Areas leased for agricultural crops should be maintained in cropland under an approved conservation plan until resources are available for habitat restoration and maintenance of those lands. The development of a Friends group for the site is strongly encouraged and could help advance the implementation of this master plan and assist with operations and maintenance.

Figure 13


Sunset Ridge Elementary
Future Entrance Opportunity
Airport Road
Future Entrance Opportunity
High Point & Recessional Moraine
Maintenance Field Road Closed to the Public
Stone Fence View of Blue Mounds & Driftless Area
Rocky Dell Road
Conceptual Community Trail ConnectionExact Location to be Determined
Randy's Memorial Tree
Summit Ridge Road
Veiw of BEC Valley
Remnant Goat Prairie
Remnant Goat Prairie
Potential Future Acquisition Area
View of Old Middleton Lake, Middleton, and Madison
Limited Access Management Path
Small Parking Lot & Kiosk
Future Potential Black Earth Wildlife Area Expansion
Black Earth Creek
14 United States Highway
Conceptual Good Neighbor Trail Connection Exact Location to be Determined
Potential Future Management Path
Rebuild Cow Tunnel if Possible
View of Wetland and Prairie Restoration
Sunnyside Seed Farm Site
Small Parking Lot & Kiosk
Walking Pathwith Observation Deck Partially Boardwalk
N
0
800
1,600
3,200 Feet
Proposed Black Earth Wildlife Area
Sunnyside Unit
Draft Master Plan
May 11, 2010
Legend
Project Boundary
Black Earth Wildlife Area - Sunnyside Unit
Potential Future Acquisition Area
Potential Future Black Earth Wildlife Area Expansion
Residential
Maintenance Field Road
Fire Break and Management Path - Maintenance & Hiking
Wetland Loop Path - Hiking
Woodland Management Path - Maintenance & Hiking
Potential Multi-Use Community Trail Connections
Powerlines
Wisconsin & Southern Railroad
Existing Cow Tunnel - Potential Trail Connection
Special Features - Elements and views that make this property unique
Potential Future North Entrance Options
Gate - Access for Maintenance & Emergency Vehicles

Action Plan

Implementation of the recommendations set forth in this plan will require both monetary inputs and time. The property currently benefits from an original contribution of $100,000 from the Town of Middleton for planning and development activities. Dollars have been used for general maintenance, vegetation management, and planning services and will continue to provide a source of funding for improvements identified in this master plan.

The master plan seeks to list a capital development schedule for BECWA-SU that will assist Dane County in preparing annual work plans and strategically allocating resources for current and future projects.

Actions that are listed as "immediate" are tasks that could be carried out in the next 1-2 years. "Pending" actions could be carried out as funds and/or volunteer labor becomes available. "Ongoing" actions are actions that could be done on a yearly basis for an indefinite period of time or until a specific outcome is achieved.

TASK	PRIORITY	RESPONSIBLE PARTY	PROJECT SCOPE	ESTIMATED COST
Develop two small 10 stall parking areas.	Immediate	DCP	• Design and construct 1 parking area north of Hwy 14 and 1 parking area along Low Road.	Two parking areas - $3,000 Fencing - $1,000 **Additional dollars may be needed for deceleration and acceleration lanes on Hwy 14 if required by WIDOT.*
Install 4 gates.	Immediate	DCP	• Install 1 double gate at the Hwy 14 parking area for field access. • Install 1 gate at old farmstead driveway on Low Road. • Install 2 gates for the field access drives north of Hwy 14 west of the inholdings.	$3,000
Construct and install two information boards.	Immediate	DCP	• Install Information Boards at the two parking areas.	$500
Fabricate and install a 2-sided master sign.	Immediate	DCP	• Fabricate and install a master sign near Hwy 14 parking lot.	$5,000

Action Plan (Continued)				
TASK	**PRIORITY**	**RESPONSIBLE PARTY**	**PROJECT SCOPE**	**ESTIMATED COST**
Install wildlife area boundary signs.	Immediate	**DCP**	• Post boundary entering/leaving wildlife area signs every ~300. • Sign cropped areas and areas closed to shooting.	$3,000
Remove remains of farmstead buildings and stabilize site.	Immediate	DCP	• Remove uncrushed building concrete, concrete parking bumpers, rebar and debris piles. • Seed and mulch site. • Establish firebreaks/hiking trails when areas are restored to prairie.	$5,000
Trails	Pending	DCP and future friends group or partners	• Establish or improve woodland trails after first timber harvest. • Develop wetland trail and overlook	$7,500
Vegetation management	Ongoing	DCP and future friends group or partners	• Establish prairie around wetland scrapes. • Continue efforts to remove invasive and exotic species. • Restore upland prairie and woodland habitat.	$20,000

Potential Funding Sources and Grants

The Wisconsin Department of Natural Resources is a primary funding agency for conservation, recreation, and park projects. Local government eligibility for grants varies. In some cases non-profit conservation organizations may be eligible to apply when a local unit of government is not. For example, Dane County partnered with the Natural Heritage Land Trust on a Habitat Areas acquisition grant to originally purchase the property. WDNR Stewardship Grants are the most likely source of funding and are listed first.

Knowles-Nelson Stewardship Program

Local Assistance Program for Local Governments, Tribes, and Nonprofit Conservation Organizations (NCO)

- ***Aids for the Acquisition and Development of Local Parks (ADLP)***
  Helps to buy land or easements and develop or renovate local park and recreation area facilities for nature-based outdoor recreation purposes.

- ***Urban Green Space Grants (UGS)***
  Helps to buy land or easements in urban or urbanizing areas to preserve the scenic and ecological values of natural open spaces for nature-based outdoor recreation including non-commercial gardening.

- ***Urban Rivers Grants (UR)***
  Helps to buy land on or adjacent to rivers flowing through urban or urbanizing areas to preserve or restore the scenic and environmental values of riverways for nature-based outdoor recreation.

- ***Acquisition of Development Rights Grants (ADR)***
  Helps to buy development rights (easements) for the protection of natural, agricultural, or forestry values that would enhance nature-based outdoor recreation.

Land Acquisition Program for Nonprofit Conservation Organizations

- ***Habitat Areas Program***
  The purpose of the Habitat Areas Program is to protect, restore, and enhance wildlife habitat in Wisconsin in order to expand opportunities for wildlife-based recreation such as hunting, bird watching, fishing, nature appreciation, and viewing of game and non-game species. The goals of the program are achieved through the use of easements, land acquisition, and habitat restoration.

- **Streambank Protection Program**
  The purpose of the Streambank Protection Program is to protect the water quality and fish habitat of Wisconsin streams by establishing buffers along selected streams. Whenever possible, these buffers should be at least 66 feet from either side of the stream and at least 66 feet beyond riparian wetlands.

Other WDNR Grant Programs

- ***Land and Water Conservation Fund***
  An important component of the program is cooperation and partnership between the National Park Service, the DNR, local governments and private partners. Eligible projects are listed in locally approved plans and are regional or statewide in nature. Grants may be awarded for land acquisition, enhanced water-based activities, and multi-season and multi-use participant activities. The “nature-based” restriction does not apply.

- ***Recreational Trails Program***
  Towns, villages, cities, counties, tribal governing bodies, school districts, state agencies, federal agencies and incorporated organizations are eligible to receive reimbursement for development and maintenance of recreational trails and trail-related facilities for both motorized and non-motorized recreational trail uses.

- ***River Protection Management Grants***
  Funding to protect and restore rivers and their ecosystems including purchase of land or conservation easements, installation of practices to control nonpoint source pollution, restoration projects including in-stream or shoreland habitat and protection, and education, planning, and design activities necessary for the implementation of a management project.

- ***County Conservation Aids***
  This Fish and Wildlife Management Grant Program was created to assist Wisconsin Counties in the improvement of the fish and wildlife resources.

- ***Federal Aid in Sport Fish Restoration Act***
  The DNR uses their Sport Fish Restoration (SFR) funds for other fish management projects such as land acquisition, habitat restoration and development, aquatic education, public fishing piers and shore fishing, fish propagation and stocking, and research.

- ***State Wildlife Grants Program***
  Federal funding in this program is provided for species with the greatest conservation need, species indicative of the diversity and health of the state's wildlife, and low and declining populations as deemed appropriate by Wisconsin's fish and wildlife agencies.

- ***Turkey Stamp Program***
  All turkey hunters are required to purchase the turkey stamp to legally hunt turkeys in Wisconsin. Sales from the turkey stamp brings in funding for habitat management and restoration projects, education, research, equipment, and for managing the turkey program in our state.

U.S. Fish and Wildlife Service Partners in Fish and Wildlife Grants

The Partners for Fish & Wildlife program restores, improves, and protects fish and wildlife habitat through alliances between the U.S. Fish and Wildlife Service, other organizations, and individuals. U.S. Fish and Wildlife Service can provide assistance, or help facilitate assistance through other agencies, on a variety of issues including: Wetland restoration and protection, nest structures or nesting islands, food and shelter for fish and wildlife, soil and water quality improvement, pesticide use reduction, native plant restoration, and moist-soil management.

Summary

The purchase of the Sunnyside Seed Farm property by Dane County and its partners, the Town of Middleton, the Natural Heritage Land Trust, and the WDNR ensures that this large and important natural area will be preserved, improved, and open for public use.

Its designation as the Black Earth Creek Wildlife Area-Sunnyside Unit will increase recreation opportunities and make wildlife and natural resource protection a priority. Public recreational activities such as hunting, fishing, hiking, and enjoying nature are available at all times on the property and will be improved by implementation of the master plan.

The master plan makes recommendations on enhancing and protecting Black Earth Creek, native plant communities and habitat, wildlife, and special features of the property. It is a guide for improved public access, community trail connections, and future acquisition.

Additional management planning for habitat improvement will take place. The master plan should be revisited periodically to incorporate changes in the property, recreational uses, and local trends and conditions.

Appendix A

Forest Stewardship Management Plan

State of Wisconsin
Department of Natural Resources

FOREST STEWARDSHIP MANAGEMENT PLAN

Form 2400-111 Rev. 3-92

Name(s) and Address of Landowner(s):

Sunnyside Community Forest
Dane County Parks Department
1 Fen Oak Court #234
Madison, WI 53178

County: Dane

Town Name: Middleton

Town: 7N; Range 8E; Section(s): 7

Total Plan Acreage: 201

Attached maps show the location of stewardship forest lands.

The purpose of the Forest Stewardship Program is to encourage the growth of future commercial crops through sound forestry practices which recognize the objectives of individual property owners for aesthetics, wildlife habitat, erosion control, protection of endangered or threatened plants and animals, compatible recreational activities, economic returns, etc. By state law, "forestry" means managing forest lands and their related resources, including trees and other plants, animals, soil, water and air. To guide the Department in developing a management plan to help fulfill this stewardship objective, a statement of the owner's forest management objectives is required in the plan. The following statement has been provided either by the landowner or developed with the help of the Department. By signing this plan, the landowner(s) agree to comply with it.

Landowner Objectives for Management of the Enrolled Lands:

1) **Demonstrate sustainable forest management and land stewardship.**
2) **Manage for timber production; favoring oak, hickory, cherry and black walnut.**
3) **Control invasive exotic species and manage for native plant species.**
4) **Manage for wildlife.**
5) **Provide recreational opportunities for the general public, primarily hiking, cross country skiing, and hunting.**

The following pages include descriptions of related vegetative or physical areas called "stands." Recommended forestry practices are listed. Landowners are encouraged to actively complete the practices recommended. The plan may be revised with consent of both the landowner and the Department.

"Forest Stewardship" means managing the forest environment for all of it's resources. Good forest stewardship begins with YOU, the owner. YOU can realize your forest land as a source of personal enjoyment, invest in your forest as a source of potential income and leave a legacy for future generations. This management plan is a first step toward meeting your objectives for your land.

Key to Forest Cover Type Symbols

Productive

A	Aspen
BH	Botanland Hardwoods
BW	White Birch
C	Cedar
CH	Central Hardwoods, Lamat
FS	Fir-Spruce, White Spruce
HH	Hemlock Hardwood
NH	Northern Hardwood
O	Oak
OX	Scrub Oak
PJ	Jack Pine
PR	Red Pine, Scotch Pine
PW	White Pine
SB	Black Spruce
SC	Swamp Conifer
SH	Swamp Hardwood
SW	White Spruce
T	Tamarack, European Larch
W	Black Walnut

Non-Productive or Non-Forest

AX	Off-Site Aspen
F	Farmland
FG	Grazed Pasture
G	Grass
GH	Herbaceous Vegetation
GLS	Low Growing Shrubs
I	Residential or Commercial
IA	Parking Area
ICG	Campground
K	Keg
KB	Muskeg Bog
KEV	Emergent Vegetation
KG	Noncommercial Lowland Grass
KH	Noncommercial Herbaceous Vegetation
L	Lake
LB	Lowland Brush
LBA	Tag Alder
LBB	Bog Birch
LBD	Dogwood
LBW	Shrub Willow
LM	Minor Lake
LMS	Minor Stream
ROW	Right of Way
SX	Noncommercial Swamp
SXC	Noncommercial Cedar
SXSB	Noncommercial Black Spruce
SXT	Noncommercial Tamarack
UB	Upland Brush
Z	Rock Outcrop

Key to Size Classes (DBH - Diameter in inches)

0-5	Seedlings & Saplings
5-9 / 5-11	Pole-Timber (Conifers/Hardwoods)
9-15 / 11-15	Small Sawtimber (Conifers/Hardwoods)
15+	Large Sawtimber

Key to Stocking Levels (shown by superscript number after the size class)

Density of Stocking	Seedlings	Saplings	Pole timber (Cords)	Small Saw timber (M. Bd. Ft. Scribner)	Large Saw timber (M. Bd. Ft. Scribner)
1 Poor	1-300	1-300	1-7	.001--1.0	1.0--2.5
2 Medium	301-1500	301-900	8-13	1.001--2.0	2.501--4.0
3 Good	1500+	901+	14-20	2.001--3.5	4.001--7.0
4 Very Good			21-30	3.501-5.0	7.001-8.5
5 Excellent			31+	5.001+	8.501+

Landscape Overview: This property is located in central Dane County approximately 1 mile west of Middleton. Prior to European settlement of this area the landscape was comprised of a mixture of oak dominated forests, oak savanna, and native prairie. These ecosystems were maintained over several thousands of years primarily as a result of the regular occurrence of fire. Today, obviously, the landscape is much different than it was during presettlement time. Much of the areas that were wooded have been converted to agriculture or development or have been severely degraded as a result of pasturing and/or poor forest management practices. Today the landscape in this area is dominated by agriculture mixed with relatively small, fragmented woodlands. A mixture of oak/hickory forests and central hardwoods account for the majority of the forested acres in this portion of the county. Because of the lack of fire as a natural disturbance and historical forest management practices on the landscape it is important to note that most of the oak dominated forests throughout southern Wisconsin are converting to a combination of trees known as central hardwoods. The oak is not being regenerated for the most part, but is being replaced by other species. Central hardwoods are made up primarily of hickory, cherry, and elm. There are also small patches of aspen, typically located along the edges of other forest types. Invasive exotic species are also common amongst area woodlots. The most common invasive exotic species include buckthorn, honeysuckle, and garlic mustard. Another native species that tends to be quite invasive is boxelder, which is also very common throughout this area. Invasive species have the ability to take over woodlots and become so dense that they interfere with the ability of the more desirable native plants to successfully regenerate.

Stand #1 **O 15+[3]/O 5-11[2]** **Oak (Large Sawtimber)** **76 acres**

Stand Description: This stand covers a significant portion of the Sunnyside property. This is a relatively mature stand with the dominant species throughout being oak; red oak, black oak, and white oak. Other species noted throughout the stand includes bur oak, black cherry, shagbark hickory, basswood, elm, red maple, aspen and boxelder. The current basal area of the stand is 126 sq. ft. per acre. Basal area is a forestry term that refers to the relative density or closeness of trees within a given stand. Invasive exotic species that were noted throughout include buckthorn, honeysuckle, and barberry. There was just one small patch of garlic mustard noted during the site visit at the far north end of the property. Invasive exotic species noted in this stand during the site visit included barberry, honeysuckle and buckthorn. A few areas have dense buckthorn in the understory, but most of the stand is only lightly infested.

Stand Objective: The objective in this stand is to allow for conversion of the site to central hardwoods over time, but manage as much for oak as possible and retain a significant mature oak component for aesthetics and mast production. This will primarily be accomplished through the use of periodic thinnings and group selection harvests.

Recommended Practices: **2010 – Control invasive exotic species.** In those areas where invasives, primarily buckthorn, have overtaken the understory it is strongly recommended that the buckthorn be mechanically treated with a forestry mower to allow for native vegetation to become re-established. After 1 to 2 growing seasons the resprouts shall be treated with a suitable forestry approved herbicide. Timing of the chemical treatment is suggested for late in the growing season, preferably late August or early September. Timing the herbicide treatment at this time of the year will avoid harming many of the wildflowers that typically are present earlier in the growing season.
2011 – Conduct a combination thinning and group selection harvest. In addition to control of invasive exotic species, it is strongly recommended that this stand be thinned to a residual basal area of 80 to 90 sq. ft. per acre. Some areas may be opened up more to encourage establishment of seedlings by conducting group selection harvest and creating canopy gaps. Remove poor quality and high risk trees first. Also harvest all of the aspen, elm, and red maple. In aspen inclusions it is recommended that patch clearcuts be created so as to regenerate the aspen. Within the patch clearcuts and designated canopy gaps all trees shall be removed down to 2 inches in diameter. These patches may be allowed to regenerate naturally or supplemental tree planting may be utilized to encourage regeneration of desirable species including oak, cherry, hickory, walnut or basswood. Creating these patches will help to begin

creating structural and age class diversity throughout the forest. Some of the larger trees may be left for aesthetics or to reduce damage to other surrounding trees. It will be extremely important to leave the best quality oak and hickory trees for future parent trees, simply because of the significant genetic variability of the oak. It is also recommended that at least some of the hollow den trees be left for cavity nesting birds and small mammals.
2026 – If the basal area is at or near 120 sq. ft. per acre a second thinning and group selection harvest will be recommended to reduce the basal area to 80 to 90 sq. ft. per acre. In the year 2026 it is recommended that this stand be reevaluated by the DNR Forester to determine if another thinning is necessary. If the basal area has reached 120 sq. ft. per acre a second thinning will be recommended. Thin this stand from below by removing poor quality and high risk trees. In addition, overmature oak and other hardwoods may be removed so as to create canopy gaps. Canopy gaps may be allowed to regenerate naturally or they may be planted to a mixture of desirable hardwood seedlings such as black walnut, red oak, white oak, black cherry, basswood and shagbark hickory.

Stand #2 O 11-15[2]/CH 5-11[1] Sawtimber Oak over Poletimber Central Hardwoods 9 acres

Stand Description: This stand is located on the eastern portion of the property on a south and west facing slope. This stand is dominated by oak, but has a much more significant central hardwood component than the previous stand. The oak is a mixture of black oak, white oak, and bur oak. The remaining trees throughout the stand include black cherry, basswood, hackberry, hickory, and elm. There is also a few rows of white and red pine planted along the field edge. The current basal area of this stand is 92 sq. ft. per acre. This stand appears to be younger than the previous stand, but is also much more variable. The stand has scattered mature and overmature oak and cherry, while there is also some developing oak and central hardwood saplings and poles throughout.

Stand Objective: Manage primarily for conversion to central hardwoods while attempting to maintain and encourage primarily white and bur oak wherever possible.

Recommended Practices: 2011 – Conduct a sanitation harvest to remove poor quality and high risk trees. A harvest in this stand is recommended to remove overmature black oak and black cherry as well as most, if not all of the elm and any boxelder. Removing the overmature black oak and black cherry will release developing saplings or encourage establishment of regeneration. It is recommended that the white oak and bur oak be left for aesthetics and continued acorn production.
2026 – Inspect this stand to determine if a harvest is appropriate at this time. In the year 2026 it is recommended that a forester inspect this stand to determine if a thinning might be appropriate. If the basal area is at or above 120 sq. ft. per acre a thinning should be conducted to reduce the basal area to 80 to 90 sq. ft. per acre.

Stand #3 O 11-15[2]/O 5-11[2]/UB Oak (Small Sawtimber) over Upland Brush 6 acres

Stand Description: This stand is essentially an island woodlot located in the center of the property. This stand is dominated heavily by black oak. Other species in relative abundance include white oak and black cherry. Other less common species include hickory, elm, and boxelder. This stand was established in or around 1960 so it is relatively young. The current basal area of this stand is 136 sq. ft. per acre. This stand has a significant buckthorn problem and garlic mustard was also noted as being present.

Stand Objective: The objective in this stand will be to manage for a combination of oak, hickory and cherry through the use of periodic thinnings and eventual group selection harvest.

Recommended Practices: 2011 & 2026 – Thin to a residual basal area of approximately 90 sq. ft. per acre. It is strongly suggested that this stand be thinned in both 2011 and again in 2026 to a residual basal area of 90 sq. ft. per

acre so as to reduce competition and promote improved health and vigor of the trees to be left. Thin the stand by removing poor quality and high risk trees first. Also remove all of the boxelder, elm, and any red maple that might be present as these are less desirable species that will potentially make regeneration of oak much more difficult to establish.

Stand #4 PW 9-15[1]/PW 5-11[1] White Pine Plantation 4 acres

Stand Description: This stand is located just to the east of the previous stand across an open field. It is a white pine plantation that was established in or around 1965 and has never previously been thinned.

Stand Objective: The stand objective for this stand is production of quality white pine sawlogs and to provide diversity to the property. The stand will eventually be allowed to convert to central hardwoods, but white pine will be retained for aesthetics and diversity as long as possible.

Recommended Practices: 2011 – Thin this stand by removing every third row and thinning the remaining rows to a residual basal area of 90 to 120 sq. ft. per acre. Typically with a first thinning in a pine plantation the objective is to remove approximately half of the trees. Typically every other or every third row is removed so as to allow access into the stand with equipment. If every third row is harvested it is common to thin the remaining rows to a desired residual basal area, which in this case should be 90 to 120 sq. ft. per acre. When thinning the leave rows it is recommended that small diameter and poor quality trees be harvested first. Some trees may need to be harvested to provide adequate spacing to improve growth of adjacent trees.
2026 – Thin to a residual basal area of approximately 120 sq. ft. per acre. A second thinning is suggested for 2026. This should be a marked thinning to again remove lesser quality trees or any high risk trees. Thinning this stand in this manner will help to improve the health and vigor of those trees that are left. In most instances cherry will naturally seed into the understory of white pine plantations as the stand develops over time.

Stand #5 A 5-11[2]/CH 5-11[1] Aspen over Central Hardwoods 10 acres

Stand Description: This stand includes several relatively small aspen clones located throughout the property. The largest aspen clone noted during the site visit was approximately 5 acres in size. It was located to the south and east of the previous white pine plantation. Most of the aspen present appeared in this particular stand appeared to be declining in vigor as many of the trees had been infected with fungal disease known as white trunk rot. This is a decay fungus that is very common in mature aspen. This particular stand had a stocking of just 10 cords of aspen per acre, which is quite low for aspen. This stand also had an extremely dense understory of predominantly honeysuckle. The stand did have some cherry and hickory saplings that appeared to have naturally seeded in where the aspen had apparently already died out. There was another stand of aspen located in the far northwest corner of the property that appeared to possibly be younger, possibly 30 years of age approximately, but this stand was not looked at very closely during the site visit due to time constraints. All of the remaining aspen appeared to be approximately 50 years of age and of merchantable size. Other species found within the aspen stands included cherry, elm, hickory and some oak.

Stand Objective: maintain oak wherever possible for wildlife habitat and species diversity through even aged management. Aspen will be managed on a 45 to 50 year rotation age.

Recommended Practices: 2010 – Control invasive exotic species. In those areas where invasives, primarily buckthorn, have overtaken the understory it is strongly recommended that the buckthorn be mechanically treated with a forestry mower to allow for native vegetation to become re-established. After 1 to 2 growing seasons the resprouts shall be treated with a suitable forestry approved herbicide. Timing of the chemical treatment is suggested for late in

the growing season, preferably late August or early September. Timing the herbicide treatment at this time of the year will avoid harming many of the wildflowers that typically are present earlier in the growing season.
2011 & 2026 – Conduct coppice aspen regeneration harvests. In the year 2011 it is recommended that all aspen be harvested except for the younger stand located in the northwest corner of the property. Allow this stand to continue to mature to be harvested in the year 2026. This will help to create age class diversity across the property. Some oak or central hardwoods may be left for aesthetics or continued mast production, but the residual basal area should not exceed more than 15 percent crown cover so as to maximize aspen regeneration potential. It is well documented that aspen regeneration is critical for the American woodcock, which is listed in Wisconsin as a species of special concern due to habitat loss, primarily due to a lack of young even-aged forest regeneration.

Stand #6 O 15+^{3}/O8-11^{1}/UB Oak (South facing slopes) 17 acres

Stand Description: This stand is located primarily on extremely steep south facing slopes on the southern portion of the property. The vegetation is predominantly bur oak over buckthorn. The soil is very steep and quite rocky throughout most of the stand. This stand has dense buckthorn throughout. It is also a fairly unproductive soil type, as the trees appear to have relatively poor form and the site index is less than 50. Tree species other than bur oak that were noted throughout this stand include white oak, black oak, cherry and hackberry. Another invasive exotic species noted during the site visit was Oriental bittersweet.

Stand Objective: The objective for this stand is to control the invasives and manage for bur oak or open oak forest community type potentially through periodic prescribed burning.

Recommended Practices: The first step in managing this stand will be to control the buckthorn. Because of the steepness of the slope mechanical removal is not likely going to be a viable option. The only option is probably going to be chemical basal bark application. Garlon 4 mixed in a 15 to 20 percent solution with diesel fuel is extremely effective at controlling buckthorn and other invasive woody plant species. Once the larger buckthorn are killed off hopefully there will be enough ground fuel to support a prescribed fire. The fire will help to limit establishment of new buckthorn seedlings while also killing off those buckthorn seedlings that are newly established. Fire may also help to restore native vegetation that had otherwise been suppressed by the buckthorn.

Stand #7 G Grassland 79 acres

Stand Description: This stand includes the three fallow fields that are located on the property. The northern most field is 37 acres, the middle field is 14 acres and the southern most field is 28 acres. The southern most field has several small areas of trees. There are several planted rows of pine, spruce and cedar that extend across the field as well as small inclusions of trees located further south. In the two northern most field it appeared as though there was a significant amount of honeysuckle that had recently been mechanically treated. There was a dense stand of honeysuckle that remained in the far northeast corner of the field that had not been treated. The middle field had some brush and scattered trees that had not been treated. The County Parks Department plans to convert these stands temporarily back to agricultural production prior to conversion to either prairie or trees.

Stand Objective: The stand objective for these field vary from one field to the next. The objective for the middle field is to plant it to trees so as to create a larger contiguous block of forested land. The objective for the northern and southern most fields are to establish and maintain native warm season grasses and forbs.

Recommended Practices: As stated in the objective it is recommended that native grasses and forbs be established and maintained in the northern and southern most fields. For recommendations regarding establishment of native prairie you may wish to get assistance from DNR wildlife staff, NRCS or U.S. Fish and Wildlife Service staff. They have much more experience and expertise in this than what I am able to provide. Once the grassland is established it can be maintained through periodic prescribed burning to control invasion of the prairie by woody plants. In the southern most field it is suggested that the pine rows and forest inclusions be cleared so as to create a larger more contiguous grassland with reduced edge effect. This will help to provide improved habitat for grassland nesting birds and hopefully somewhat reduce cowbird nest parasitism and predation. Cowbird nest parasitism and predation are typically higher in fields with more edge effect. Reducing edge effects by creating a larger block of contiguous prairie should help to reduce these negative effects. In the middle field the field is too small and narrow to justify management of grassland, but is well suited for expanding upon the existing forest and creating a larger block of contiguous forest land. The same principles apply in that nest parasitism and predation is likely greater given the fact that this field creates an edge effect. Reducing that edge effect by planting this field to trees will create a rather substantial block of contiguous forest land. The county may choose to plant alternating rows of conifers and hardwoods or plant all hardwoods. The only conifer species recommended for planting is white pine. A mixture of hardwoods is recommended that would include white oak, bur oak, red oak, black cherry, basswood, and shagbark hickory. It is suggested that tree planting not be conducted until after the scheduled harvest has been completed. This will allow for the planting site to be used for operating equipment and possibly for a landing if needed.

Property Characteristics

Wildlife: This property provides excellent habitat for a variety of woodland wildlife species. You must be aware that regardless of what you do on your property you are going to affect wildlife habitat. Habitat changes constantly over time. Some changes will benefit various wildlife species while other changes will result in negative effects for other species. On this property, allowing deer hunting at some level is strongly recommended, whether it be by permit with bow only or whatever method deemed appropriate, limiting deer numbers will help to allow native plants to successfully regenerate and reduce damage to planted trees if any are planted on the site. Deer at high numbers can have a significant negative impact on the plant life within a given forest. Studies have shown that forests with lower deer densities have much greater plant diversity than those in areas with high deer densities. Providing larger blocks of forests and grasslands is also likely to increase the diversity of birds within those respective areas.

Threatened and Endangered Species: A check of the NHI records was conducted and there are numerous plants and animals documented for the property and the surrounding one mile buffer. Within the project are there was one plant, Floodman thistle (*Cirsium floodmanii*) listed as special concern by the State; two mammals, prairie vole (*Microtus ochrogaster*) and western harvest mouse (*Reithrodontomys megalotis*), both listed as special concern by the State; and one dragonfly, Cyrano darner (*Nasiaeschna pentacantha*) also listed as special concern by the State. All of those species listed for the site were documented in or prior to 1964. It is unknown as to whether they are or are not currently present, but if suitable habitat still exists they could very likely be present. If any threatened or endangered species are identified on the property they should be protected as best as possible and reported to the DNR in a timely manner. As for those species that are listed in the one mile buffer one is a recent documented instance of a bird, the yellow-billed cuckoo, which was documented in 2008 and is listed as special concern by the State.

Aesthetics: Any timber harvesting that is to occur on the property will have a visual impact. Typically it is the slash that is left behind after the harvest that people find to be most unappealing. It is recommended that a requirement be made within the timber sale contract that all slash be lopped and scattered within 3 feet of the ground through the property to help maintain the aesthetics of the property. Another means of maintaining the aesthetics of the property is through the use of group selection harvesting as opposed to more even—aged silvicultural methods such as shelterwood harvesting. Group selection harvesting will allow for more residual trees to be left throughout the site and have much less of a negative visual impact.

Property Characteristics (Continued)

Wetlands and Riparian Zones: There are intermittent streams or drainages that are located throughout the property. There is one drainage that runs from northeast to southwest through the largest block of forest in the center of the property. There is also a small stream that crosses the far northwest corner of the property. Care must be taken during logging operations to protect these areas against further erosion, especially given the steepness of the slopes on the property.

Soils: The soils on this property are primarily well drained silt loam with slopes to 30 percent. Because of the relatively steep slopes skid trails and logging roads should be planned for in advance of the harvest so as to minimize the risk of erosion. A copy of "Wisconsin's Forestry Best Management Practices for Water Quality" is being included. It provides excellent information on logging road and skid trail construction and protection measures that can be implemented to minimize erosion. After logging has been completed main logging roads and skid trails should be seeded with the recommended seed mixture on page 34 of the BMP manual.

Forest Health: It should be noted that stands having oak should not be cut between April 1 and July 15 because of the potential risk of spreading oak wilt during this time. Because oak wilt affects primarily the oaks in the red oak family it will be important to maintain a mixture of red oak and white oak throughout the property. Another thing to mention is the potential for defoliation by the gypsy moth. The property does have several tree species that are preferred by the gypsy moth, including oak and aspen. Maintaining the health of these tree species by conducting the recommended practices included in this management plan will help to minimize the risk of mortality due to defoliation by the gypsy moth. Over the next ten years defoliation of your woods by the gypsy moth will be likely. If defoliation is evident in your woods please contact the local DNR forester to notify them of a potential gypsy moth infestation.

Historic, Cultural and Archaeological Significance: Dane County records of historic, cultural and archaeological sites was referenced and no data was recorded for this property. This does not definitively mean that there is nothing there of significance. If artifacts or anything of historic or cultural significance is found on the property in the future it shall be protected as best as possible and reported to the State Historical Society as soon as possible.

Firewood Utilization: To improve the appearance of the property following the scheduled timber harvests the county may wish to consider issuing firewood permits to allow individuals to clean up some of the tops and other debris. Please keep in mind, however, that firewood operations do have the potential to spread garlic mustard.

Chronological Summary of Recommended Practices

Year	Stand	Activity
2010	1 & 5	Control invasive exotic species.
2011	1	Conduct a combination thinning and group selection harvest.
"	2	Conduct a sanitation harvest.
"	3	Thin to a residual basal area of 90 sq. ft. per acre.
"	4	Thin to a residual basal area of 80 to 120 sq. ft. per acre.
"	5	Conduct a coppice aspen regeneration harvest.
2026	1	Conduct a combination thinning and group selection harvest.
"	2 & 3	Thin to a residual basal area of 80 to 90 sq. ft. per acre.
"	4	Thin to a residual basal area of 120 sq. ft. per acre.
"	5	Conduct a coppice aspen regeneration harvest.

Provide the name, address, and telephone number of the preparer of this plan:

Randy Stampfl
Department of Natural Resources
N7725 State Road 28
Horicon, WI 53032
(920) 387-7884

The owner hereby agrees to this Forest Stewardship management plan. The landowner further agrees to proceed diligently to accomplish his/her stated objectives.

To be signed by the individual landowners (or legal agent, if any) as listed on the deed or other instrument of title. If a corporation, must be signed by the President and Secretary.

Signature _____ Date Signed _____

Signature _____ Date Signed _____

Signature _____ Date Signed _____

Signature _____ Date Signed _____

(Attach additional signature pages, if needed.)

Approved for the Department of Natural Resources by:

Signature of DNR Forester _____ Date Signed _____

State of Wisconsin Dept. of Natural Resources
FOREST STEWARDSHIP MAP
Form 2450-133 Rev. 11/02

Owner's Name	Town or Village Name	County
Dane County Parks Department - Sunnyside Community Forest	Middleton	Dane

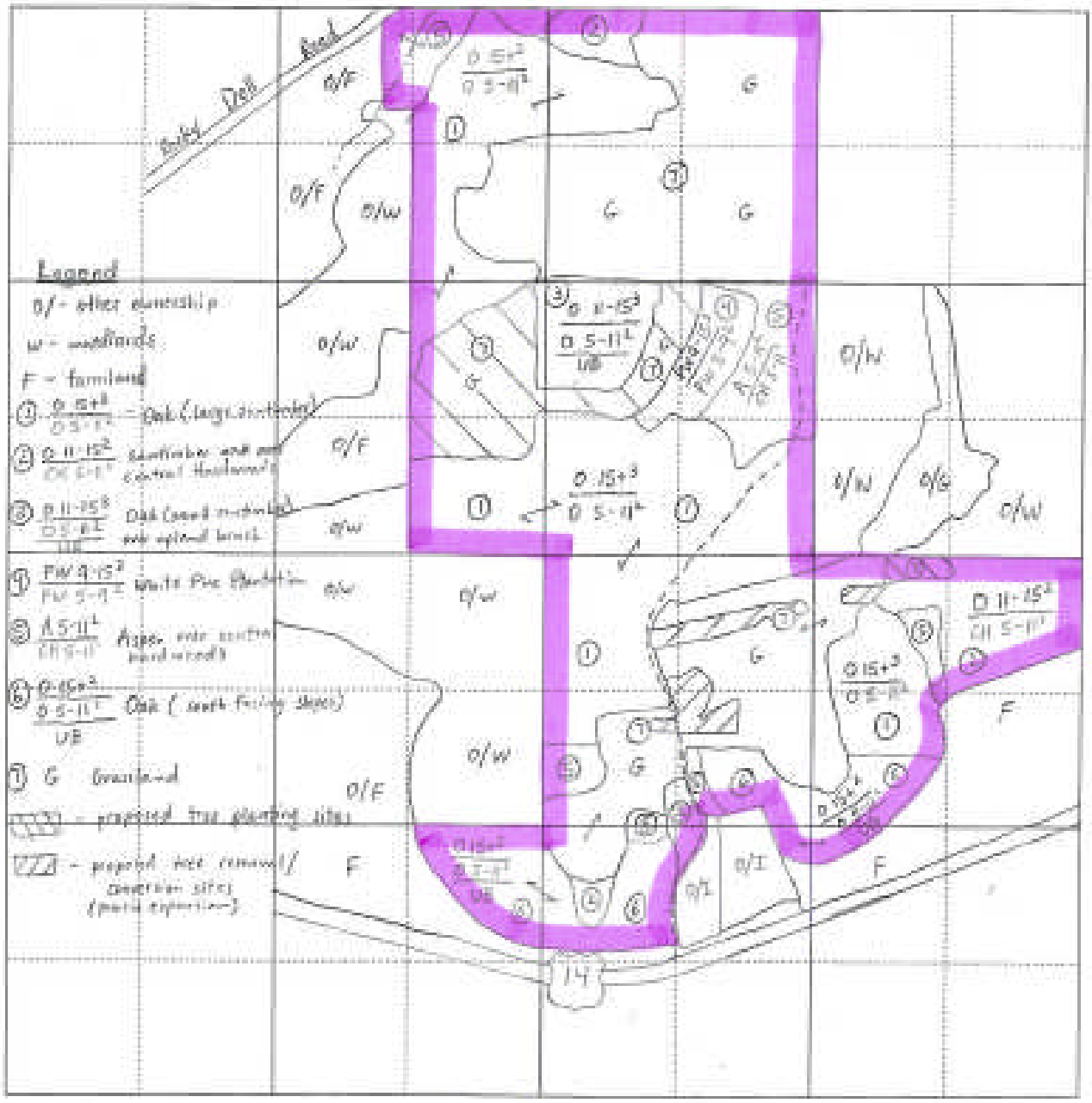
Township #	Range #		Section	Acres
7N	8	X East ☐ West	7	201

N

Prepared By: Randy Stentpil

Date: 5/21/09

Section Diagram 8" = 1 Mile



Application For Registration of a School or Community Forest

Form 2400-05 Rev 1 85

State of Wisconsin - Department of Natural Resources

Applicant

Name of Applicant (school district or municipality)	Is the property legally in control of the applicant? Yes No
Contact Person	Address
Telephone Number	E-mail

Date of resolution dedicating property as a school or community forest (please attach copy of minutes)

Property Description

Name of Property	County in which property is located

Legal Description

Total Acreage	Wooded Acreage
Date of most recent forest management plan for this property	Is there an education plan for the property (school forests only)? Yes No
Do you intend to actively and sustainably manage the forest? Yes No	Do you intend to use the property to provide education on sustainable forestry (school forests only)? Yes No

The undersigned hereby apply for registration of their school or community forest with the Department of Natural Resources.

Signature of Applicant (municipal or school district administrator)	Title Date signed

DNR FORESTER'S REPORT - DO NOT WRITE BELOW THIS LINE - DNR USE ONLY

Acceptance Recommended? Yes No

Supplemental Information:

Signature of DNR Forester	Date

FOR ADMINISTRATIVE USE ONLY – DO NOT WRITE BELOW THIS LINE

Final Determination: Approved Not Approved

Date Forest Management Plan was Approved	Date Registration Approved by the Division of Forestry

SCHOOL AND COMMUNITY FORESTS

This is an abridged version of Chapter 13 of the DNR Private Lands Handbook. For complete description of the school forest program, see that document.

The School and Community Forest Law, section 28.30, Wis. Stats., enacted in 1947, allows schools, villages, cities, and towns to own land and practice forestry. There are over 400 properties registered under the program.

What is the Purpose?

The original intent of the law was to demonstrate the economic advantages of managing timber and to allow municipalities to receive an income from these lands. Over the years, forestry and forestry education have changed. Lands entered under the law provide an excellent opportunity to demonstrate sustainable forestry and to teach about land stewardship.

Who Is Eligible To Apply?

Any city, village, town or school district who has legal control of forested property.

What Are the Benefits?

Upon registration with the Department, the school or municipality is eligible (1) for free trees and seed from the state forest nurseries, (2) for technical assistance from Department foresters for carrying out tree planting and forest management plans, (3) to apply for Wisconsin Environmental Education Board (WEEB) school forest grants, and (4) to receive assistance from the Wisconsin School Forest Education Specialist.

Note: Free trees and seeds from the state nurseries and eligibility for WEEB grants are contingent upon meeting the forest management and education plan guidelines.

Entry Criteria

1. Property must be owned or under legal control (e.g., lease, easement) of a municipality or school district.
2. The school board or governing body of the municipality must adopt a resolution to dedicate a parcel as a school or community forest.
3. Wisconsin statutes do not establish a minimum acreage or productivity requirement for school or community forests. However, the property should contain at least one acre of forest.
4. The municipality or school district must indicate intent to actively manage the forest, where applicable.
5. School districts must indicate intent to provide sustainable forestry education as a component of their education programs.
6. A management plan or property description must be completed and approved. (Conditional acceptance can be granted prior to completion of a management plan based on forester recommendations.)

Application Procedures

1. Owner (or an authorized property representative) completes an application form, attaches minutes of meeting dedicating property as school or community forest, and submits it to the local DNR forester.
2. DNR forester visits site to ensure property meets criteria.
3. DNR forester completes recommendation sections of the application.
4. DNR forester sends applications meeting criteria to Wisconsin School Forest Education Specialist.
5. If land does not meet criteria, forester sends letter of explanation to the property representative and to the Wisconsin School Forest Education Specialist indicating why it may not be registered.
6. School Forest Ed. Specialist conditionally approves acceptance based on forester recommendations.

Upon conditional approval, both a management plan and an education plan, where applicable, will be completed. If possible, these plans should be developed together and should be interrelated.

Forest Management Plan Procedure

1. A management plan must be completed and approved within one year of acceptance. Note: any individual, group, or organization can be involved in developing the plan. If a Department forester does not develop the plan, it will be submitted to a Department forester for review.

Education Plan Procedure

1. School district or municipality (if using property for education purposes) develops an education plan utilizing guidelines supplied by the Wisconsin School Forest Education Specialist.
2. School district or municipality sends the completed education plan to the Wisconsin School Forest Education Specialist.

Assistance

For more information or assistance in completing your application, forest management plan, or education plan, please contact at the Wisconsin School Forest Education Specialist at 715-346-4907 or jpolingius@uwsp.edu, visit the LEAF School Forest website at www.uwsp.edu/cnr/leaf/, or contact your local DNR forester.

The statewide school forest program is a partnership between DNR-Division of Forestry and the Wisconsin Center for Environmental Education at UW-Stevens Point.