

December 28, 2005

STEINHILBER WETLAND MASTER PLAN TOWN OF ALGOMA, WISCONSIN

Introduction

Steinhilber Wetland is a 32.84-acre wetland preserve that is intended primarily for passive recreation. The preserve is part of the shoreline wetland complex of Lake Butte Des Morts, and is bordered on the north by privately owned wetlands, on the west by Moore's Island Road (a private drive), on the east by Brooks Lane, and on the south by the Willow Springs subdivision. The wetland is located entirely within the 100-year floodplain.

The Master Planning process for Steinhilber Wetland included an initial public listening session on October 18, 2005. Based on the results on this meeting, the following goals and objectives were set for the project:

- Protect the existing wetland and the wildlife which resides in it.
- Allow for public access for education and recreation, while maintaining the privacy of adjacent landowners.
- Reduce the prevalence of invasive plant species in the wetland.
- Allow for limited parking close to the site.
- Provide improved habitat for wildlife nesting and spawning.

This report describes proposed preserve improvements as constructed over a three phase timeline. It concludes with a section on plan implementation that outlines probable construction costs at a concept-plan level of detail, and discusses opportunities for partnering and funding.

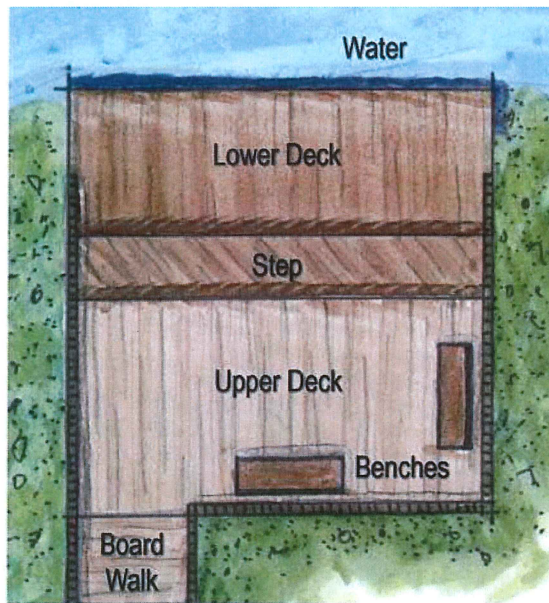
Phase I Plan Elements

Canoe Launch and Overlook on Brooks Lane

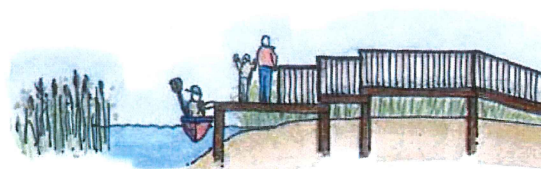
Improvements planned for this phase include a boardwalk leading from a parking area on Brooks Lane to a combination overlook and canoe launch structure on the edge of the open water inlet leading to Lake Butte des Morts. The boardwalk will be six feet wide, and will be constructed to provide approximately eight inches of clearance to the ground surface to allow for passage of wildlife. The walking surface will have a continuous raised outer edge to prevent strollers and wheelchairs from leaving the path (See Figure 1). The boardwalk will ramp down to the adjacent gravel parking area to promote accessibility. Use of the path is intended to be limited to pedestrian traffic only. Construction of the boardwalk does not require a WDNR water certification or permit under current regulations.



Figure 1. Example of a 6-foot wide boardwalk with a continuous raised edge.



PLAN



SECTION

Figure 2. Concept for a multi-level canoe launch and wetland overlook.

The overlook / canoe launch structure will be a 20-foot wide by 20-foot long wood structure with two levels, with the lower level constructed approximately 18 inches above the average water surface (See Figure 2). The upper deck height will be approximately three feet above the ground surface elevation. Wooden guardrails will be necessary around the deck and the ramped boardwalk section leading to the platform. Two benches will be provided for users to enjoy. The overlook and canoe launch structure will require an exemption (no fee) from the WDNR. A permit is not required as long as the structure is designed only to the edge of the bank and does not overhang the water. Any modification of the channel bottom for canoe launch purposes would require a permit.

Site Access and Parking

Two gravel parallel parking spaces will be provided along the shoulder of Brooks Lane to allow access to the site. A bike rack should also be provided at the beginning of the boardwalk.

Signage

Three levels of signage should be introduced at the wetland beginning in Phase I and expanding with further development of the site. First, a welcome sign should be constructed at the Brooks Lane entrance to the site. This sign can incorporate the name of the preserve, and can list basic rules such as visitation hours, allowable uses, and restrictions. Second, wayfinding signage should be placed at any trail intersections to give directions to preserve features. Finally, interpretive signage can be developed to educate visitors about wetland wildlife, wetland functions such as storm water filtering and groundwater recharge, and unique wetland vegetation. These signs may be free standing along the length of the trail or may be mounted on the guardrail at the observation deck. An example of interpretive signage is shown in Figure 3.



Figure 3. Example of interpretive signage on wetland bird species mounted on an overlook guardrail.

Invasive Species Control and Habitat Restoration

Several invasive species were observed during site reconnaissance for the Master Plan project, most notably buckthorn (*Rhamnus cathartica*) and reed canarygrass (*Phalaris arundinacea*). To improve the quality of habitat present on site and increase species diversity, active management strategies must be employed to eradicate invasives and restore native species. It is recommended that these activities begin in Phase I before further degradation of the wetland habitat occurs. However, before invasive control and restoration activities can be planned and implemented, a detailed biological survey and assessment of the site should be performed to determine the habitat types and species present on the site, the extent of the infestation of invasives, and the locations of any rare species. Costs for this element therefore cannot be determined until additional surveys are complete.

Phase II Plan Elements

Recreational Trail and Overlook from Kewaunee Street Park

A recreational pathway is recommended to allow users access to the wetland from the Willow Springs and Melrose Park neighborhoods. This path will link the Kewaunee Street Park and Willow Road with an overlook situated at the edge of the open cattail and wooded wetlands on the preserve site. The path will also provide a better connection for Willow Springs residents to access the Kewaunee Street Park. Use of the path is intended to be limited to pedestrian traffic only. Signage will be necessary to inform trail users of acceptable activities and to encourage walking of bicycles while on the wetland access paths.

Construction of the path connection between the Kewaunee Street Park and the town-owned lot bordering the Steinhilber Wetland site will require the acquisition of a pedestrian easement along the edge of parcel number 002009201. This easement will be 20-feet wide and 115-feet long, and will not interfere with the private drive located on the parcel. Clearing of some vegetation present on the proposed easement may be required for trail construction. Placement of native shrubs and trees along the trail should be coordinated with the property owner to provide separation and privacy for both trail users and the private drive. Because easement acquisition may require additional time for negotiation, costs for construction of this trail segment and the associated improvements at the Kewaunee Street Park entrance have been segregated as Phase II-A.

Trails in Phase II will be six feet wide, with surface materials varying from crushed limestone to a wooden boardwalk of the same design used in Phase I. Boardwalk segments will ramp down to adjacent crushed gravel trail sections to promote accessibility. WDNR regulations against wetland fill require the use of boardwalk trail surfacing in areas designated as wetland. Performing a wetland delineation on this site could potentially reduce the amount of boardwalk required in this phase, but is not required by the WDNR unless other surfacing material is proposed in the final trail design.

Construction of the boardwalk does not require a WDNR water certification or permit under current regulations. Because the drainage ditch located along the west side of the property is not classified as a navigable channel, no special permitting is required for trail crossings. The proposed trail will cross an existing ANR gas pipeline at two locations as noted on the plan. Detailed design of these crossings will require the approval of ANR company representatives prior to construction.

The overlook structure at the end of the boardwalk will be placed in the transition zone between the open cattail marsh and the wooded wetland to provide expansive views across the site. The 10-foot wide by 20-foot long overlook will be of wood construction, with a deck height of approximately three feet above the ground surface elevation (See Figure 4). Wooden guardrails will be necessary around the deck and the ramped boardwalk section leading to the platform. Two wooden benches will be provided on the overlook for users to enjoy.

Site Access

It is anticipated that most users of the wetland park will arrive on foot or bicycle from the surrounding neighborhoods. A bike rack should be installed at the Kewaunee Street Park and Willow Springs entrances as bike riding will not be allowed on the wetland trails. However, preserve users will be allowed to walk bicycles along the trail between Kewaunee Street and Willow Springs to allow connectivity of these neighborhoods.

Privacy Landscaping

As invasive species are removed from along the property boundary of the wetland, sight lines will be opened between the wetland and the adjacent landowners. At that time, the Town of Algoma should inquire whether these neighbors desire additional privacy screening along the wetland edge. Coordination with the neighbors can provide privacy through planting of native shrubs and trees at strategic locations along the boundary.



Figure 4. Example of a raised overlook structure designed to provide views over open marsh habitat.

Signage

Welcome signs should be constructed at both the Kewaunee Street Park and Willow Springs entrances to the trail system, and wayfinding signage should be added at trail intersections. Additional interpretive signage can also be constructed along the new trail segments and at the overlook.

Phase III Plan Elements

Boardwalk Trail Connection

In the final phase of the project, a boardwalk trail connection is planned between the Kewaunee Street and Brooks Lane improvements. This trail will again be six feet wide and will be constructed to match the design of the previous trail sections. This trail segment will cross a navigable channel that runs parallel along Brooks Lane to the southern property boundary. Placement of the boardwalk across the channel will require a bridge permit from the WDNR, which currently costs \$50 and is issued within 30 days for channels less than 35-feet wide.

Signage

Additional interpretive and wayfinding signage should be constructed along the new trail segment.

Self-Guided Nature Trail Brochure

With the connection in place across the wetland site, a brochure can be developed to guide visitors through the site. This brochure is envisioned as a small booklet or pamphlet that provides a trail map, a brief history of the site, and explanations on wildlife, habitat types, and wetland functions.

Boxes can be mounted to the preserve welcome signs to hold copies of the brochure for site visitors. This brochure could be developed as part of a Scout or school project, and should be designed to be reproduced inexpensively on a standard copy machine.

Plan Implementation

A more detailed topographic survey of the property will be necessary prior to trail design and construction to verify exact trail locations. Costs for the entire site survey have been included in Phase I, but may be divided among other phases as survey work is needed. Costs for an optional wetland delineation have also been included in Phase I. Final design documents prepared for project construction will need to be reviewed and approved by both WDNR personnel and ANR Pipeline representatives prior to implementation as noted above.

Opinion of Probable Construction Costs

The following opinion of probable construction costs assumes all design and implementation of the Steinhilber Wetland Master Plan would be performed by hired contractors. Using volunteer labor or other partnering opportunities identified later in this section would substantially reduce the costs of the project, and may be considered by funding agencies as the in-kind match for grant money. All costs are given in 2005 dollars. Phasing of project over time will increase costs at approximately 3 to 5% annually.

| | Quantity | Unit | Cost | Sub-Total | Total |
|--|----------|------|---------|-----------|-----------------|
| Phase I: | | | | | |
| <i>Topographic Site Survey</i> | | | | | \$7,500 |
| Assumes 3 days of survey field work | 1 | LS | \$7,500 | \$7,500 | |
| <i>Wetland Delineation (optional)</i> | | | | | \$7,500 |
| Assumes 2 days of wetland delineation and additional survey field work | 1 | LS | \$7,500 | \$7,500 | |
| <i>Invasive Species Control and Habitat Restoration</i> | | | | | \$6,000 |
| Biological survey (Assumes 2 days of field work) | 1 | LS | \$6,000 | \$6,000 | |
| Invasive removal | TBD | | | TBD | |
| Restoration | TBD | | | TBD | |
| <i>Trail and Canoe Launch / Overlook</i> | | | | | \$37,000 |
| Clearing/grubbing and trail grading | 1 | LS | \$1,000 | \$1,000 | |
| Boardwalk: Timber frame construction, 6' width | 960 | SF | \$25 | \$24,000 | |
| Canoe Launch/Overlook: 20'x20', timber construction | 400 | SF | \$30 | \$12,000 | |
| <i>Site Access and Parking</i> | | | | | \$900 |
| Bike rack at Brooks Lane entry | 1 | LS | \$450 | \$450 | |
| 2 Gravel parallel parking spaces, 10" depth | 15 | CY | \$30 | \$450 | |
| <i>Signage</i> | | | | | \$2,700 |
| Entry sign at Brooks Lane entrance | 1 | EA | \$1,500 | \$1,500 | |
| Interpretive signage | 1 | EA | \$1,200 | \$1,200 | |
| Phase Sub-Total | | | | | \$61,600 |
| 15% Estimating Contingency | | | | | \$9,300 |
| Design Fees | | | | | \$9,300 |
| Total (Excluding invasive removal and restoration) | | | | | \$80,200 |

Phase II:

| | | | | | |
|--|------|----|---------|-----------|------------------|
| Recreational Trail and Overlook | | | | | \$130,800 |
| Clearing/grubbing and trail grading | 1 | LS | \$1,500 | \$1,500 | |
| Boardwalk: Timber frame construction, 6' width | 4920 | SF | \$25 | \$123,000 | |
| Crushed Stone Path: Limestone fines, 6' width, 6" depth | 10 | CY | \$30 | \$300 | |
| Overlook Structure: 10' x 20', timber frame construction | 200 | SF | \$30 | \$6,000 | |
| Site Access | | | | | \$450 |
| Bike rack at Willow Springs entry | 1 | LS | \$450 | \$450 | |
| Privacy Landscaping | | | | | \$4,000 |
| Assume 10 trees, 20 shrubs | 1 | LS | \$4,000 | \$4,000 | |
| Signage | | | | | \$2,700 |
| Entry sign at Willow Springs entrance | 1 | EA | \$1,500 | \$1,500 | |
| Interpretive signage | 1 | EA | \$1,200 | \$1,200 | |
| Phase Sub-Total | | | | | \$137,950 |
| 15% Estimating Contingency | | | | | \$20,700 |
| Design Fees | | | | | \$20,700 |
| Total | | | | | \$179,350 |

Phase II-A:

| | | | | | |
|---|-----|----|---------|----------|-----------------|
| Site Access | | | | | \$450 |
| Easement acquisition | TBD | | | TBD | |
| Bike rack at Kewaunee Street Park entry | 1 | LS | \$450 | \$450 | |
| Recreational Trail | | | | | \$16,300 |
| Clearing/grubbing and trail grading | 1 | LS | \$1,000 | \$1,000 | |
| Boardwalk: Timber frame construction, 6' width | 600 | SF | \$25 | \$15,000 | |
| Crushed Stone Path: Limestone fines, 6' width, 6" depth | 10 | CY | \$30 | \$300 | |
| Privacy Landscaping | | | | | \$4,000 |
| Assume 10 trees, 20 shrubs | 1 | LS | \$4,000 | \$4,000 | |
| Signage | | | | | \$2,300 |
| Entry sign at Kewaunee Street Park entrance | 1 | EA | \$1,500 | \$1,500 | |
| Wayfinding signage | 1 | EA | \$800 | \$800 | |
| Phase Sub-Total | | | | | \$23,050 |
| 15% Estimating Contingency | | | | | \$3,500 |
| Design Fees | | | | | \$3,500 |
| Total (Excluding easement acquisition) | | | | | \$30,050 |

Phase III:

| | | | | | |
|---|------|----|---------|-----------|------------------|
| Boardwalk Trail Connection | | | | | \$235,800 |
| Clearing/grubbing and trail grading | 1 | LS | \$2,000 | \$2,000 | |
| Boardwalk: Timber frame construction, 6' width | 9350 | SF | \$25 | \$233,750 | |
| WDNR navigational channel bridge crossing permit | 1 | LS | \$50 | \$50 | |
| Signage | | | | | \$2,800 |
| Wayfinding signage | 2 | EA | \$800 | \$1,600 | |
| Interpretive signage | 1 | EA | \$1,200 | \$1,200 | |
| Phase Sub-Total | | | | | \$238,600 |
| 15% Estimating Contingency | | | | | \$35,800 |
| Design Fees | | | | | \$35,800 |
| Total | | | | | \$310,200 |
| Grand Total (Exclusions as noted by Phase) | | | | | \$599,800 |

Partnering Opportunities

To reduce the overall cost of project implementation, partnership opportunities should be explored with other potentially interested parties. The University of Wisconsin-Oshkosh could be approached for assistance with the site biological survey, invasive species removal, and restoration. The Fox Valley Area Chapter of the Wild Ones may be interested in assisting with these activities. Local elementary or high schools could assist in the design of interpretive signage or the self-guided nature trail brochure. Also, several Girl and Boy Scout projects could address implementation of signage, benches, trails, or habitat restoration. Finally, organized volunteer labor from Town residents could significantly reduce the cost of trail and overlook construction, and may be considered by funding agencies as in-kind match for any grants received.

Project Funding

The need for funding sources in today's parks and recreation departments goes well beyond property tax-supported budgets, demanding that departments become increasingly more creative and flexible in how facilities and programs are funded. Funding sources can typically be classified into three categories:

- State of Wisconsin agency grants
- Federal agency grants
- Private corporation or non-profit organization grants or gifts

While there are numerous opportunities, in most cases the competition for these funds is high. Each funding source also has its own set of criteria and application cycle that need to be adhered to in order to submit a successful application.

State of Wisconsin and Federal Agency Grants:

WDNR Recreational Trails Program. The most promising grant opportunity is the WDNR Recreational Trails Program. Funding for this grant is provided through federal gas excise taxes paid on fuel used by off-highway vehicles. 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. Applications are typically due May 1 of each year. Eligible sponsors may be reimbursed for up to 50 percent of the total project costs. Eligible projects include:

- Maintenance and restoration of existing trails.
- Development and rehabilitation of trailside and trailhead facilities and trail linkages.
- Construction of new trails (with certain restrictions on Federal lands).
- Acquisition of easement or property for trails.

Wisconsin Department of Natural Resources (WDNR) Knowles – Nelson Stewardship Program.

The Knowles –Nelson Stewardship Program was created in 1989 and renewed until 2010 by the Wisconsin Legislature and provides for a 10-year fund to (1) preserve Wisconsin's most significant land and water resources for future generations and (2) provide the land base and recreational facilities needed for quality outdoor experiences. These goals are achieved by acquiring land and easements for conservation and recreation purposes, developing and improving recreational facilities, and restoring wildlife habitat. Up to 50% of the cost of proposed projects is paid for by the

state with the remaining share paid by the local government in cash or in kind services. Applicants compete for funding on a regional basis. Applications are typically due May 1 of each year.

WDNR Land and Water Conservation Fund (LWCF). Funded by federal appropriations and administered by the WDNR, this program is similar to the Stewardship Program above except that active outdoor recreation activities are also eligible for grant assistance. The grant provides 50% funding assistance for the acquisition and development of public outdoor recreation areas and facilities. Applicants compete for funds on a statewide basis, and applications are typically due May 1 of each year.

WDNR Urban Forestry Grants. These are 50% cost share grants (cash or in kind services) that range from \$1000 to \$25,000. The program is designed to improve a community's capacity to manage its trees, and may include funds for tree planting, maintenance, or removal. Projects that help preserve, protect, expand or improve the urban forest are also considered.

U.S. Environmental Protection Agency Environmental Education Grant. Supports environmental education projects that enhance the public's awareness, knowledge, and skills to help people make informed decisions that affect environmental quality. EPA awards grants each year based on funding appropriated by Congress. Annual funding for the program ranges between \$2 and \$3 million.


Private Corporation or Non-profit Organization Grants or Gifts

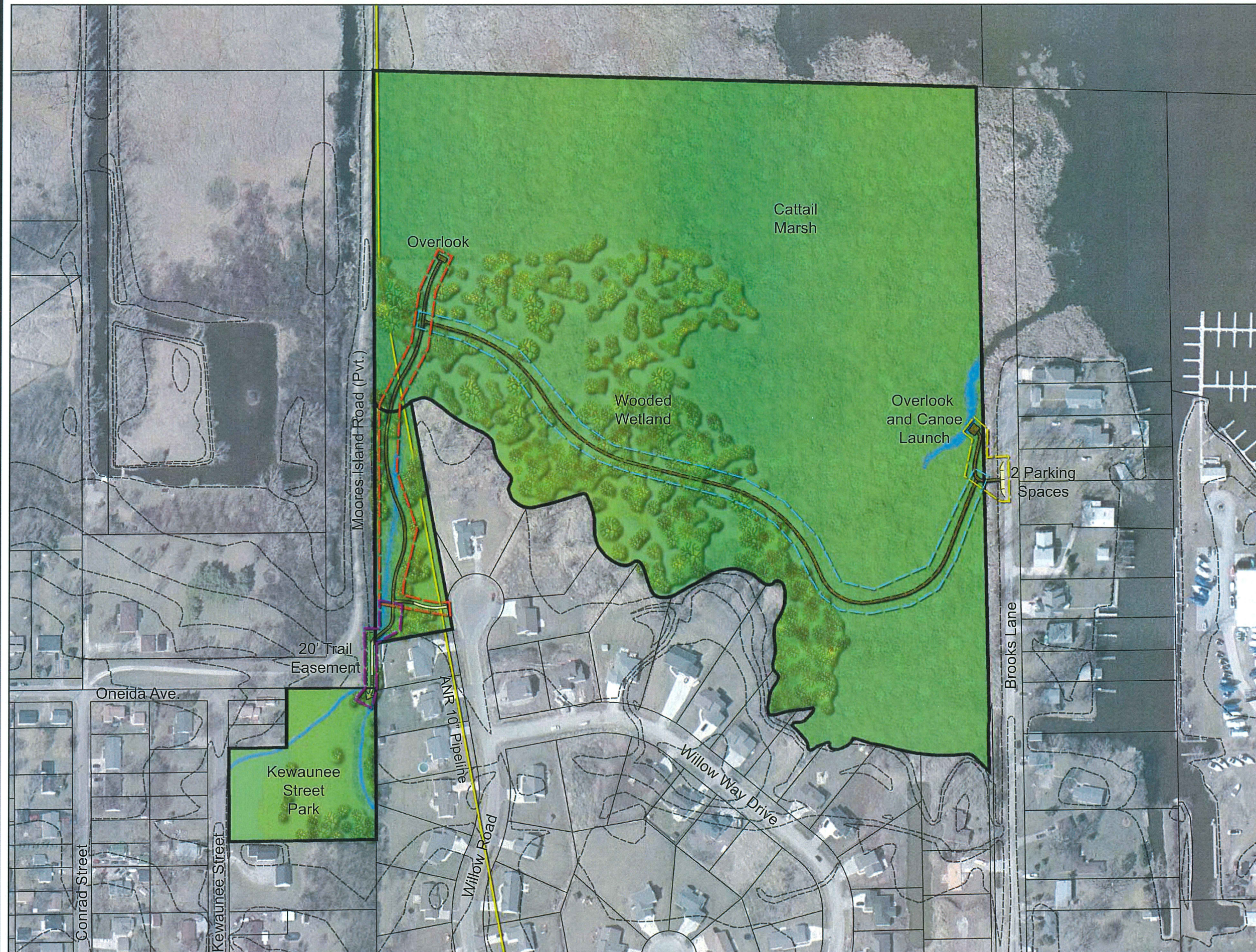
Private grants and gifts vary widely in both the types of projects that are funded as well as in the application processes and award types. Local businesses and corporations may be interested in investing in their community either by direct cash donation or by the sponsorship of special events or park features. Corporate sponsorships often carry with them the expectation of recognition or advertising posted at the site.

A Local Non-Profit Organization such as a "Friends Group" could be created for the Steinhilber Wetland Preserve. This type of group would be comprised of individuals willing to use their technical, business or financial expertise to promote and assist development of the Preserve. The Wisconsin DNR's Friends Group Handbook explains that this type of group can provide and coordinate volunteer services, provide financial support for projects and raise money through membership fees, donations, sales and special events. Nonprofit organizations are also eligible to receive most government and private grants.

Steinhilber Wetland Town of Algoma, WI

Legend

-  Site Boundary
-  Parcels
-  Topography
-  6' Boardwalk
-  Overlook
-  6' Crushed Stone Path
-  Phase I Improvements
-  Phase II Improvements
-  Phase II-A Improvements
-  Phase III Improvements
-  ANR 10" Gas Pipeline



Note:
All base data provided by the
Winnebago County Geographic
Information System (WINGS)

JJR

December 28, 2005

0 100 200 400
Feet

