

Attachment C

Wilderness Park Strategic Planning and Community Advisory Committee

AGENDA

February 22, 2017, 3:00 – 5:00 pm
Pioneers Park Nature Center Conference Room

- 3:00 Welcome and Introductions
- 3:05 Purpose and Expectations
- 3:15 Review of Community Survey
- 3:30 Summary of 2000 Management Recommendations
- 3:50 Review and discussion of Overall Goals (2003 edition)
- 4:30 Summary of Upcoming Projects which may Impact Wilderness Park
- 4:20 Review of Park Maps
- 4:45 Issue Identification Exercise
- 5:00 Adjourn

Next Meeting:

Trails and Facilities subcommittee – March 8, 3:00 pm

Ecosystem subcommittee – March 22, 3:00 pm

Wilderness Park Strategic Planning
and Community Advisory Committee
Minutes
February 22, 2017, 3:00-5:00 p.m.
PPNC Conference Room

Present: Andy Campbell, Aaron Druery, Nicole Fleck-Tooze, Matt Gersib, Sara Hartzell, Chris Heinrich, Bob Henrickson, Dan King, Tim Knott, Chris Myers, Rosina Paolini, Dan Schlitt, Dan Schulz, Joeth Zucco

The meeting was called to order at 3:00.

Introductions

Purpose and Expectations

To discuss the needs of Wilderness Park in context of established goals, prioritize projects, identify sources of additional funding, and identify projects appropriate for volunteer assistance.

Sara Hartzell asked everyone present to keep the overall goals in mind and to take the discussions begun here back to everyone's respective stakeholder groups.

Review of Community Survey

706 people participated in the online survey, which is 400 more than a 1999 study of a random sampling conducted by UNL. Results of the two surveys were compared. Key findings include:

- More than 50% listed Wilderness as their favorite park in Lincoln
- Walking was by far the favorite activity of people visiting parks
- 93% found Wilderness Park very valuable to the community
- The most critical challenge facing Wilderness Park was continued urban development
- Over 50% of survey respondents were interested being on a mailing list for possible volunteer opportunities

There were 35 pages of additional comments that survey takers contributed. Sara Hartzell offered to email them to anyone upon request. A suggestion was made to publicize the survey results both through a news release and on the Parks & Rec website.

Summary of 2000 Management Recommendations

Sara Hartzell highlighted the recommendations made after subarea studies in 2000. An ecosystems critique was conducted, as well as studies of ecosystems, land acquisition, hydraulics, transportation, and public opinions.

The overall vision of Wilderness Park was to have it remain in as natural a state as possible. That sparked discussion among the committee. Rosina Paolini pointed out there was some debate in the 1980s and 1990s if Wilderness could be classified as a savannah, which many experts have since determined is unlikely. There are two areas that have a more upland character.

It was also indicated the scope of trees on the prairie has changed because of Dutch elm disease and the impending arrival of the Emerald Ash Borer. South Lincoln was bare prairie when it was founded in the 1860s, but now Lincolniters have come to expect trees at Wilderness Park.

With the prairie vegetation, Dan Schulz also said it is important to recognize there is the possibility of unwanted fire. It may be worth exploring doing management to prevent it.

Review & Discussion of Overall Goals (2003 Edition)

Sara Hartzell introduced the 2003 goals. She reminded the committee the goals here are more scientific in scope, due to the fact it was written more by scientific and government entities rather than speaking to the layperson's user experience or expanding educational opportunities.

The bullet point "Eradicate invasive exotics" brought several comments ranging from cat's claws being found all along trails to leafy spurge being found less often and the rise of garlic mustard and coralberry. Perhaps it would be better to word the bullet point "Eradicate invasive exotics and aggressive native species."

Signage also generated a lot of ideas. While upgrading to fiberglass signs over wooden ones is an improvement, committee members expressed the desire to identify opportunities for proper signage. Signage that is already in place has not been maintained. Cohesive and easy-to-understand signage could better educate all users how traffic flow works on paths and what trail users can do to increase safety for everybody.

There was also discussion of a one-directional trail for cyclists. This would eliminate confusion for hikers and reduce what could be perceived as a lack of courtesy between cyclists and hikers. Matt Gersib indicated many people both ride bikes and hike, and they work well in tandem. Appropriate signage would only increase this harmony. Trails were originally designed to keep hikers, bikers, and equestrians separated as much as possible. Combining user types on trails could lead to conflicts and safety issues. Some user types also impact trails in ways that may reduce the experience for other user types, for example, bicycle tires create ruts with two constant points of contact on alluvial soils.

Situations could arise where stranded trail users cannot describe where they are so emergency personnel can reach them, but Chris Myers indicated most people have

smartphones with GPS capabilities that would allow first responders to find them efficiently.

A desire was also expressed to identify, evaluate, and prioritize the need for bridges. There used to be eight, but how many is sufficient for 2017 and beyond?

Summary of Upcoming Projects Which May Affect Wilderness Park

Sarah Hartzell reported on upcoming projects that affect Wilderness Park and its environs:

1. A wastewater main being laid on the north side of Old Cheney
2. Grade and bank stabilization – planned for 2018
3. County bridge repairs to Old Cheney and Pioneers Bridges
4. Highway 77 improvements – planned after 2020. This could include closing Old Cheney off at 1st Street.

Dan Schlitt asked about the proposed South Beltway. Should Wilderness be extended along Salt Creek? Once development happens around the beltway, that could increase the risk of flooding along the creek. Sara Hartzell reported easements have been built into place with conservation in mind as the beltway project continues to take shape.

Issue Identification Exercise

Sara Hartzell asked all committee members to take teal sticky notes to indicate their favorite spots in Wilderness Park, yellow ones for spots they have questions about and red ones for the areas they worry about. Committee members wrote their comments and affixed the sticky notes to a map of Wilderness.

The meeting adjourned at 5:05.

Next meetings:

Trails & Facilities – March 8, 3:00 p.m.

Ecosystem – March 22, 3:00 p.m.

Wilderness Park Community Working Group

February 22, 2017
Sara Hartzell
Parks and Recreation Department

WELCOME!

- ▶ Thank you for your time and energy
- ▶ We will do our best to make your time productive
- ▶ Feel free to move around as needed
- ▶ Coffee and water available in back
- ▶ Restroom out the door and across the hall




Introductions



- ▶ Lynn Johnson, Director of Parks and Recreation
- ▶ Nicole Fleck-Tooze, Special Projects Administrator
- ▶ Chris Myer, Operations Coordinator
- ▶ Sara Hartzell, Park Planner
- ▶ Matt Mittelstadt, SW District Supervisor
- ▶ Aaron Druery, Dist. Sup. of Greenways and Open Spaces

Purpose

- ▶ To discuss the needs of Wilderness Park in the context of the goals established, prioritize projects that may be accomplished given the resources available, identify possible sources of additional funding, and identify projects that might be appropriate for volunteer assistance.
- ▶ Outputs from these meetings will be taken before the Parks and Recreation Advisory Board for their review and approval, and used in strategic planning for the Department.



Expectations



- ▶ Share Your Thoughts
- ▶ Respect the Input of Others
- ▶ Bring Your Experience
- ▶ Be Open to New Perspectives
- ▶ Keep the Overall Goals in Mind
- ▶ Think about the Big Picture
- ▶ Be Realistic in what can be Accomplished
- ▶ Take these Discussions Back to Your Organization

Agenda

- ▶ Review of community survey results
- ▶ Review of 2000 Management Plan
- ▶ Review of 2005 amended Overall Goals, discussion of amendments and additions
- ▶ Review of Park maps
- ▶ Summary of Upcoming State, City and County Projects which Impact Park
- ▶ Issue Identification Exercise

Community Survey

- ▶ Distributed via email, web, social media, press release
- ▶ Ran for two weeks - Feb 3 through 17
- ▶ 706 participants (395 1999 responses)
- ▶ 363 listed Wilderness as one of their favorite parks - 207 had no favorite
- ▶ All but 30 respondents have visited Wilderness Park, 600 within the last year (about 58.6%)

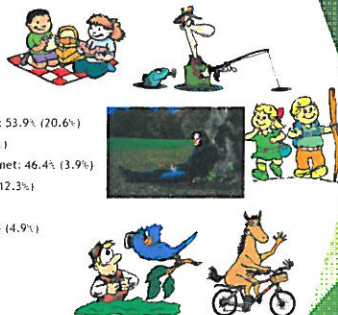


Satisfaction with Conditions

- ▶ Safety: 83.7% Satisfied or Very Satisfied (75.1%)
- ▶ Trail Maintenance: 77.8% Satisfied or Very Satisfied (72.1%)
- ▶ Trail Markers: 63.3% Satisfied or Very Satisfied (70.9%)
- ▶ Condition of Bridges: 67.1% Satisfied or Very Satisfied (63.6%)
- ▶ Entrance Upkeep: 82.4% Satisfied or Very Satisfied (80%)
- ▶ Litter Pick-up: 83.2% Satisfied or Very Satisfied (76.3%)
- ▶ Habitat Quality: 86.3% Satisfied or Very Satisfied (83.3%)
- ▶ Variety of Uses: 86.5% Satisfied or Very Satisfied (75.7%)
- ▶ Park Access: 85.5% Satisfied or Very Satisfied (80.3%)

Activities

- ▶ Walking: 80.3% (75%)
- ▶ Observe/Enjoy Nature: 53.9% (20.6%)
- ▶ Bicycling: 48.5% (22.5%)
- ▶ Relaxing/Peace and Quiet: 46.4% (3.9%)
- ▶ Bird Watching: 21.1% (12.3%)
- ▶ Picnics: 9.3% (3.4%)
- ▶ Horseback Riding: 7.7% (4.9%)
- ▶ Fishing: 9.3% (5.4%)
- ▶ Other: 15.2% (15.7%)



Importance of Wilderness Park

- ▶ Overall: 92.6% Very Valuable (59.2%)
- ▶ A Place for Wildlife: 82.3% Very Important (66%)
- ▶ A Place to Experience Nature: 84.8% Very Important (63.7%)
- ▶ A Place to Study/Learn About Nature: 75.9% Very Important (61.3%)
- ▶ A Place for Recreation: 81.1% Very Important (53.3%)
- ▶ A Place that Demonstrate Importance of Natural Space in Cities: 74.2% Very Important (52.8%)
- ▶ A Place for Flood Protection: 75.6% Very Important (50.9%)
- ▶ A Place for Historic and Cultural Resources: 58.7% Very Important (41.2%)



Other Items

- ▶ The Issues most often identified as critical were:
 - ▶ Preserving the Park (high)
 - ▶ Expansion of urban development (highest)
 - ▶ Park Maintenance (moderately low)
 - ▶ Protection of Wildlife (low)
 - ▶ Pollution (moderately high)
- ▶ Almost 80% were supportive of additional funding to improve the park (53.2%)
- ▶ About 82% felt overall park maintenance was Fair to Good
 - ▶ The highest priority maintenance needs were Bridges, Fallen Limbs, Trail Markers, Trail Surface and Ecological Concerns
- ▶ 55.2% indicated they would be willing to be on a mailing list for volunteer opportunities, 17% indicated they might be.

2000 Management Plan

- ▶ Result of analysis of a set of subarea studies developed in the late 1990s
 - ▶ Ecosystem Study - EA Engineering, Science and Technology
 - ▶ Ecosystems Study Critique - Mediation Ecosystem Study Critique Committee
 - ▶ Land Acquisition - Recommendations made as part of the Ecosystem Study
 - ▶ Hydrologic Study - US Army Corps of Engineers
 - ▶ Transportation Study - Olsson Associates
 - ▶ Opinion Survey - Random Sample by UNL Sociology Department

Vision of Wilderness Park

- ▶ Flood Protection
- ▶ Natural arteries into neighborhoods
- ▶ Illusion of Wilderness
- ▶ A place to escape urban landscape
- ▶ Nature related recreation
- ▶ Enjoy nature on nature's terms
- ▶ Part of a corridor of green encompassing Lincoln (Salt Valley Greenway)
- ▶ Enjoy a vignette of area in pre-settlement conditions
- ▶ Elements of nature allowed to interact on nature's terms
- ▶ A place to experience a sense of wilderness



Integrated Plan with Management Strategies

- ▶ Integrated the plans listed
- ▶ Came about because of concern over development adjacent to the park
- ▶ Comprehensive Plan was amended to call for a subarea plan
- ▶ Included involvement by public and more intensive participation by a citizen planning group



Recommendations

- ▶ Maintain as a natural area
- ▶ Provide opportunities for nature related recreation
- ▶ Maintain roughness value of stormwater conveyance
- ▶ Continued scientific monitoring
- ▶ Balance vegetation for roughness while protecting prairie and bur oak areas
- ▶ Trails
 - ▶ Improve surface
 - ▶ Specific recommendations for bridges
 - ▶ Bridges capable of allowing vehicles
 - ▶ Development of abandoned railway (Janaka North)
 - ▶ Trail links to neighborhood



Recommendations

- ▶ Resource Protection
 - ▶ Maintain and restore prairie remnants
 - ▶ Manage bur oak communities
 - ▶ Monitor and eradicate noxious weeds
 - ▶ Maintain mature tree stands
 - ▶ Remove brush and trees in a patchy manner over period of years
 - ▶ Management outside of nesting season
 - ▶ Discourage increased human disturbance, especially in southern two-thirds
 - ▶ Maintain Salt Creek in its natural state, allow to change channel
 - ▶ Manage on a watershed scale
 - ▶ Revisit Transportation recommendations



Recommendations

- ▶ Visitor Protection and Services
 - ▶ Bridges and trail accessible to emergency and maintenance vehicles
 - ▶ Restrooms at north and south
 - ▶ Bridges, trails and restrooms accessible to the disabled
 - ▶ Compatible uses adjacent to park should be encouraged
 - ▶ All boxes in parking areas
 - ▶ Flood warning system



Recommendations

- ▶ Land Acquisition and Buffers
 - ▶ Use BWP, purchase and easements to protect adjacent lands
 - ▶ Extend park to Roca
 - ▶ Acquire abandoned RR to Roca
 - ▶ 100 ft buffers along tributaries
 - ▶ Developments should embody recommendations of Stormwater Advisory Committee
- ▶ Community Participation
 - ▶ Volunteer assistance for Maintenance
 - ▶ Science Advisory Committee
 - ▶ Land Trust
 - ▶ Continued community involvement encouraged

Overall Goals: 2003 Edition

- ▶ Establish and maintain a variety of habitats that will provide a broad array of wildlife.
- ▶ Manage bur oak communities to encourage regeneration of seedlings.
- ▶ Maintain the park as a "natural" environment area.
- ▶ Maintain and restore prairie remnants especially the sandstone prairie area.
- ▶ Restore some old field areas to native prairie grasses.
- ▶ Eradicate invasive exotics such as honeysuckle, buckthorn, leafy spurge, and musk thistle.
- ▶ Develop management strategies of areas of the park that harbor "sensitive" species and develop management strategies to protect those areas.
- ▶ Follow management practices that maintain/increase "roughness" value of stormwater conveyance area along Salt Creek to enhance flood control benefits of the park.
- ▶ Encourage the function of Salt Creek as a natural system by maintaining and enhancing its meanders, oxbows, wetlands and vernal ponds.
- ▶ Maintain mature tree stands to provide habitat for Coopers' Hawks, barred owls and woodland birds.
- ▶ Conduct scientific monitoring of the park and its resources. Inventory plants and animals in the park including mammals, snakes, amphibians, lichens, mosses, ferns, etc.

Overall Goals

- ▶ Exercise:
 - ▶ Discussion of 2003 Goals
 - ▶ Suggestion of Amendments
 - ▶ Suggestion of Additional Goals

Park Maps

Upcoming Projects

- ▶ Wastewater Main on north side of Old Cheney Rd
- ▶ Grade control and stream bank stabilization at Pioneers and Old Cheney crossings
- ▶ Bridge repairs to Pioneers and Old Cheney Bridges
- ▶ Freeway improvements to Highway 77



Wastewater Main

- ▶ Installation of a 36" main on the north side of Old Cheney Road
- ▶ Serve new development on the west side of Highway 77
- ▶ Connect to existing sewer main underneath the Jamaica North Trail
- ▶ 40' permanent easement, 60' temporary construction easement
- ▶ Possible future expansion with a parallel main
- ▶ Will involve tree removal, trenching, installation of manholes
- ▶ Design to begin this year, construction in 2018 or 2019

Wastewater Main

- ▶ Two alternatives
- ▶ Reviewed trees along both alignments
- ▶ Old Cheney Road (aqua) was selected as least disruptive to park



Grade and Bank Stabilization

- ▶ Joint project with the NRD and WSM
- ▶ Immediately downstream of both the Old Cheney and Pioneers bridges
- ▶ Address significant erosion and incising of channel and protect structures
- ▶ Will involve addition of rock structures in the channel, laying back banks and protecting with riprap
- ▶ Will require tree removal and probably some trail rerouting
- ▶ Is being coordinated with Wastewater project and every attempt is being made to do this work concurrently
- ▶ Design has begun and construction is planned in 2018

Grade and Bank Stabilization



County Bridge Repairs

- ▶ Repairs are needed to the Old Cheney and Pioneers bridges, which are in the County jurisdiction.
- ▶ 2015 floods washed significant soil from around the concrete piling
- ▶ Questions about the undercrossings at both of these bridges
- ▶ Although the previous two projects are in the same general area of the Old Cheney bridge, it is not anticipated that either will address the issues at the bridge itself.
- ▶ Unclear what will be involved in these projects or what the timing is for repairs

County Bridge Repairs



Highway 77 Freeway Improvements

- ▶ Project planned by the State Dept. of Roads
- ▶ Will improve Highway 77 to freeway standards with interchanges and grade separated crossings.
- ▶ Will involve closing of Saltillo Road, Rokeby Road, Yankee Hill Road and Old Cheney Road intersections.
- ▶ Interchanges added with South Beltway and at Wartick/W Denton Road
- ▶ Flyover at Pioneers Blvd, but no access to Highway 77
- ▶ Have identified a point where Wilderness trails have been using ROW at Rokeby Road. This must be stopped immediately in order to get environmental approvals.
- ▶ Planned to be constructed some time after 2020

Issue Identification Exercise

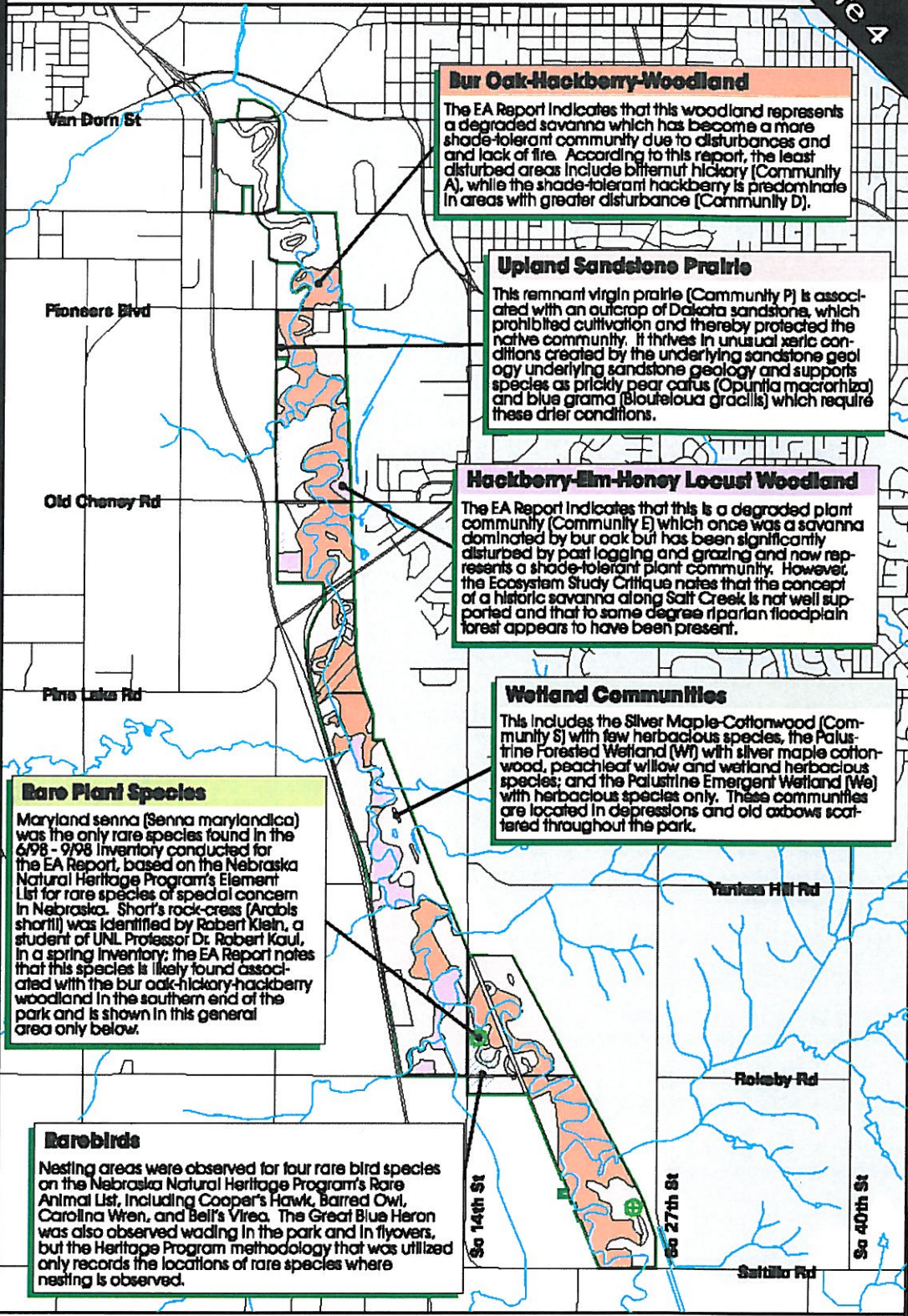
- ▶ Use Post-Its to identify
 - ▶ Green - things are going great here! Keep it up!
 - ▶ Yellow - I'm either not sure what's going on, or I am beginning to get concerned...
 - ▶ Pink - I am definitely concerned about this and would like to see it addressed!
- ▶ Add an explanation on the Post-It
- ▶ Not everyone will be present at the next two meetings (Ecosystems and Trails & Facilities) So this is your chance to make sure your comments are seen by all
- ▶ All comments will be recorded and linked to the point on the map where you place them.



Resource Protection

1 Inch equals 2750 ft.
Figure 4

Wilderness Park Study



Bur Oak-Hackberry-Woodland
 The EA Report indicates that this woodland represents a degraded savanna which has become a more shade-tolerant community due to disturbances and lack of fire. According to this report, the least disturbed areas include bitternut hickory (Community A), while the shade-tolerant hackberry is predominant in areas with greater disturbance (Community D).

Upland Sandstone Prairie
 This remnant virgin prairie (Community P) is associated with an outcrop of Dakota sandstone, which prohibited cultivation and thereby protected the native community. It thrives in unusual xeric conditions created by the underlying sandstone geology and supports species as prickly pear cactus (*Opuntia macrorhiza*) and blue grama (*Bouteloua gracilis*) which require these drier conditions.

Hackberry-Elm-Honey Locust Woodland
 The EA Report indicates that this is a degraded plant community (Community E) which once was a savanna dominated by bur oak but has been significantly disturbed by past logging and grazing and now represents a shade-tolerant plant community. However, the Ecosystem Study Critique notes that the concept of a historic savanna along Salt Creek is not well supported and that to some degree riparian floodplain forest appears to have been present.

Wetland Communities
 This includes the Silver Maple-Cottonwood (Community S) with few herbaceous species, the Palustrine Forested Wetland (WF) with silver maple cottonwood, peachleaf willow and wetland herbaceous species; and the Palustrine Emergent Wetland (WE) with herbaceous species only. These communities are located in depressions and old oxbows scattered throughout the park.

Bare Plant Species
 Maryland senna (*Senna marylandica*) was the only rare species found in the 6/98 - 9/98 inventory conducted for the EA Report, based on the Nebraska Natural Heritage Program's Element List for rare species of special concern in Nebraska. Short's rock-cress (*Aralis shortii*) was identified by Robert Klein, a student of UNL Professor Dr. Robert Kaul. In a spring inventory, the EA Report notes that this species is likely found associated with the bur oak-hickory-hackberry woodland in the southern end of the park and is shown in this general area only below.

Rarebirds
 Nesting areas were observed for four rare bird species on the Nebraska Natural Heritage Program's Rare Animal List, including Cooper's Hawk, Barred Owl, Carolina Wren, and Bell's Vireo. The Great Blue Heron was also observed wading in the park and in flyovers, but the Heritage Program methodology that was utilized only records the locations of rare species where nesting is observed.

- Map Elements**
- Park Boundary
 - Streams
 - Streets
 - Future Service Limit

Legend

Source: Compiled from the EA Ecosystem Report and Ecosystem Critique

WILDERNESS PARK MANAGEMENT OVERALL GOALS

Establish and maintain a variety of habitats that will provide a broad array of wildlife.

Manage bur oak communities to encourage regeneration of seedlings.

Maintain the park as a “natural” environment area.

Maintain and restore prairie remnants especially the sandstone prairie area.

Restore some old field areas to native prairie grasses.

Eradicate invasive exotics such as honeysuckle, buckthorn, leafy spurge, and musk thistle.

Develop management strategies of areas of the park that harbor “sensitive ” species and develop management strategies to protect those areas.

Follow management practices that maintain/increase “roughness” value of stormwater conveyance area along Salt Creek to enhance flood control benefits of the park.

Encourage the function of Salt Creek as a natural system by maintaining and enhancing its meanders, oxbows, wetlands and vernal ponds.

Maintain mature tree stands to provide habitat for Coopers’ Hawks, barred owls and woodland birds.

Conduct scientific monitoring of the park and its resources. Inventory plants and animals in the park including mammals, snakes, amphibians, lichens, mosses, ferns, etc.

Wilderness Park Strategic Planning
and Community Advisory Committee
AGENDA
Trails and Facilities Subcommittee
March 8, 2017, 3:00 – 5:00 pm
Pioneers Park Nature Center Conference Room

- 3:00 Review of Trail Maps and Current Facilities

- 3:15 Discussion of Current Trail Issues being experienced by LPR
 - Yankee Hill Horse Bridge

 - Rokeby Road Horse Bridge

 - Hwy 77 and Rokeby reroute of Bike Trail

 - 2017 RTP Application for Saltillo Bridge

- 3:45 Parking Lots

- 4:00 Signage

- 4:15 Bridges

- 4:45 Other

- 5:00 Adjourn

Next Meeting:

Ecosystem subcommittee – March 22, 3:00 pm
Full Group Meeting – April 5, 3:00 pm

**Wilderness Park Strategic Planning
and Community Advisory Committee
Trails and Facilities Subcommittee
Minutes**

**March 8, 2017, 3:00 – 5:00 pm
PPNC Conference Room**

Present: Susan Deitchler, Matt Gersib, Chris Heinrich, Dan King, Tanya Lynch, Rosina Paolini, Dan Schlitt, Joeth Zucco

Parks and Rec. Staff: Jerry Shorney, Lynn Johnson, Sara Hartzell, Andrea Faas and Matt Mittelstadt

The meeting was called to order at 3:00.

Review of Trail Maps and Current Facilities

Sara Hartzell distributed a handout highlighting the results of the map exercise from the February 22nd meeting. At that meeting, members were asked to indicate which parts of Wilderness Park were their favorite, which areas had room for improvement or they had questions about, and areas of more immediate concern.

One of the red areas was an area of bad road runoff with oil and other pollution. Dan King indicated he called this runoff and pollution to Hazardous Waste. Another red area that sparked discussion was creating safe access from the Rock Island Trail to Jamaica Trail and into Wilderness Park. How would funding be obtained to build it? Cost estimates run from \$900,000 to \$1.2 million, which makes getting grants difficult. However, if the project is phased in over multiple years, grants or income has a better possibility of being sourced.

After reviewing the map activity, Lynn Johnson explained that Wilderness Park is still classified as a conservatory. However, that classifies the park as a lower-tiered goal (5) on a lower-tiered priority (2) than public safety, for example. \$35,000 has been allotted for the budget at Wilderness Park for staff and equipment. But the discussion from this committee will guide the Parks & Rec Advisory Board for the ten-year plan for parks and facilities.

Andrea Faas presented ideas for a new education building at Pioneers Park. The preschool has outgrown the building, and she has been looking for a site to the new building, possibly on the west end of Calvert, out of the flood plain. She would like indoor space for 80-100 with a storm shelter, kitchen, office and work stations, a picnic area, storage with lockers, moveable walls, fire alarms and sprinklers, access to the trail system, windows overlooking the prairie, and a parking lot to accommodate 50-60 cars. "Wish list" items include leaving a small carbon footprint with wind/solar/thermal power, an archery range, a garden area, an ability to only leave restrooms open while locking the rest of the building, and a cistern for rainwater collection.

Discussion of Current Trail Issues being experienced by LPR

- **Yankee Hill Horse Bridge**

An engineer from JEO inspects the bridges at Pioneers Park. He has visited four times since the 2015 flood, and he is concerned about the sides of this bridge and how it bounces. Last fall, a study was commissioned to come up with three alternatives on how to improve the bridge:

1. Tilt up the bridge, rebuild the abutments, and set it back down. This is the least expensive solution, and the permits would be easy to obtain due to this being a repair of an existing structure in the floodplain.
2. Create a low-water crossing under Highway 77 about 100 yards down. This solution costs 50% more due to the hydraulics involved. State right-of-way may not allow this to happen in any case.
3. Construct an entirely new bridge, which would cost four or five times as much as option #1.

Tanya Lynch raised the possibility of using “gang slats,” which are concrete slats put on a low-water crossing to provide a stable bed for crossing.. It could be used as a foundation for the crossing, even if there is flooding. At about \$70 a slat, it is an affordable option to consider. These can be purchased from Wahoo Concrete.

- **Rokeby Road Horse Bridge**

The cost to repair this bridge is approximately \$50,000. The engineer who was last out to inspect it said the abutments sounded hollow. This bridge is probably located about 1/3 on RR property, as is the trail leading up to it, and it gives access to a very small area of the park and could be considered for abandonment.

- **Hwy 77 and Rokeby reroute of Bike Trail**

Highway 77 is receiving federal funding to become a “freeway.” As part of the environmental review, a segment of trail that enters the ROW was identified and will have to be removed. This will result in a portion of the bike trail that will no longer be connected. Possible loops to maintain some trail in the area were discussed. It was suggested that this small loop may get more use than Parks realizes.

- **2017 RTP Application for Saltillo Bridge**

LRP will make application for this bridge in September. The County Board has agreed to act as applicant. Sara Hartzell reported that once an RTP application was put in, it would be wonderful for committee members could write letters of support. A small bridge or culvert could solve this problem in the future.

Parking Lots

It was suggested that LPR consider purchasing scavenger-proof trash cans to reduce litter scattered by animals such as raccoons. The suggestion was raised about adding recycling cans next to trash cans, thereby increasing environmental awareness. This could be a project to do with a partnering organization or other City departments.

The group was asked to provide input about the possibility of creating some “specialty” parking areas to attract certain users. For instance, a bike-friendly lot at 1st Street, and a horse friendly lot at 14th Street. Could add some things like mounting blocks for equestrians, and a bike station for cyclists. Both 14th Street and Old Cheney parking lot surfaces are in need of repair.

Signage

A lengthy discussion ensued regarding the separated trails and the possibility of combining uses and creating single track bike routes. There were many different opinions on this idea with concerns for safety, speed of bikes, ability of bridges to handle all users, impacts to the trail surface and ecology, etc... Several shared their experience in other location with shared access trails and said they had not experienced many problems. There are several good examples of educational materials and signage that address the hierarchy of right-of-way. Wilderness does pose some challenge in the multiple points of entry into the park – which would make education by signage challenging. Rather than users crossing over to “forbidden” trails because of a lack of respect for rules, it was suggested that perhaps it is out of a desire to experience all areas of the park, not just the trail they are confined to. It was agreed that this should be part of a larger conversation involving more users and more discussion. There was discussion about signage on separated and combined trails, as well as trails with multiple points of entry. Points raised included:

- Trail users would self-police with better signs and common-sense rules.
- Riders, cyclists, and hikers want to experience all aspects of the park, which is why they go on all the trails. Designating trails would not necessarily eliminate usage problems.
- Groups such as the GPTN could help educate the public on trail etiquette usage.
- Kiosks at trailheads could provide route and etiquette information.

Several of the different representatives offered that their organizations have some capacity for fundraising and would be willing to discuss putting some money into signage and other improvements.

Bridges

The covered bridge in the Day Camp area is in good shape and is kept on a cycle for regular painting.

The bridge just north of the covered bridge appears to be in good condition, although recent wind blew some branches onto it and knocked the top rail off.

There are a couple small bridges on the Fitness Loop that could use some attention. This may be a good By Scout project.

The old red bridge crossing Salt Creek is gone and would cost about \$1 million to replace. In addition, the ACOE regulations for the levee have made construction of any new bridges in that stretch of Salt Creek highly unlikely. There are no plans to replace.

The Van Dorn Bridge has essentially assumed the function of getting people across Salt Creek on the north end of the park. This bridge is watched closely and is in the 10 Year Facility Master Plan as being likely to need replacement.

The Bridge in Epworth is also gone. There are no current plans to replace it, and alternative trail routes still give access to the area. The current trail that runs under the arch leads to nowhere. Creating a connecting loop would help integrate the historic arch into the user experience.

According to the engineer who last verified it (2016), suspension bridge at Old Cheney is solid.

The bridge south of the BNSF abandoned rail line is very narrow and inaccessible to any vehicles. This is one that is structurally sound but could use some improvement.

There was a discussion about low water crossings and how those might be improved within the regulations by which Parks must abide. Approaches to the crossings are the biggest issue. Solid creek beds at crossing is also very important. This would be a good use of the gang slats to provide solid footing for horses.

There was also discussion about low areas that do not dry out easily after rains. There are many of these areas in the park. In the past there have been some efforts to use ballast rock to provide a more solid base with drainage. Some of these efforts have been more successful than others, but removing some silt, using geotextile, and replacing with ballast rock is one method that has worked well. The worst of these areas is between Warlick and Rokeby and would be a high priority area for a project.

Top priority projects would likely be:

Replace Wilderness South bridge
Repair Yankee Hill bike and horse bridge
Address wet area on bike trail near that bridge
Improvements to low water crossing at Cardwell Branch creek
Improvements to low water crossing near 14th Street parking lot
Maintenance of small bridges in fitness loop area

Other important projects

Community conversation about multi-use trails as opposed to user specific
Comprehensive sign plan
Feasibility study of new Day Camp building, possible design work
Continued bridge inspections
Discussion of the future of the Fitness Loop equipment
Discussion of restroom facilities

The meeting adjourned at 5:05.

Next Meeting:

Ecosystem – March 22, 3:00 p.m.
Full Group Meeting – April 5, 3:00 pm

Comments from February 22 meeting, phone and email since meeting.

Discussion of funding structure for the park

Discussion of separated vs combined trails. Potential for single track in the park. Lots of factors to take into account and a wider community discussion is likely needed.

Cross country skiing and challenges posed by fat tire bikes that use the hiker trails after a snow.

Low lying areas on bike trail between 14th and Old Cheney

Keeping trails mowed and branches trimmed back.

Trail Rules: IMBA and Boulder Mountain Bike Alliance examples

Discuss Old Rock Island railroad alignment – Train wreck bridge, connection to Densmore Park, bridge over Salt Creek, future trail alignment.

Upgrade trashcans to prevent animals from getting in

Parking lot access allowing vehicles into park

Develop a sign plan that includes wayfinding signage by location and type, locational signage to help users provide location in times of emergency, and interpretive signage at appropriate stations.

Review the trail layout and make recommendations for bridge replacement priorities.

Bike/Horse bridge about 2 miles north of 14th Street parking lot, and small creek crossing just north of that.

Horse/Bike low water crossing just west of 14th Street parking lot

Discuss the Fitness Loop and replacement of equipment if funding was available.

Wilderness Day Camp Octagon Building – This building is in poor repair and doesn't meet the standards for a storm shelter. It is also prone to vandalism. Consider major remodeling, or possibly relocation of this structure.

Recommendation to contact Steve Rolfsmeier regarding forest management. Bob Henrickson was kind enough to make this contact and shared the following from Steve: I favor management strategies that maximize biodiversity. Managing some areas within the park with fire seems appropriate, particularly if there seems to be a chance of regenerating the oak/hickory component. My objections have been to the "one-size fits all approach" I've sensed from some people over the years, the one size being running fire through everything to bring back an imagined oak savannah that probably never existed there. Fire can be devastating to a number of organisms, including mosses and insects, and should only be used in areas in which it is likely to result in increased diversity. If you hope to restore oak canopy you will have to remove the hackberry (Homestead Monument faces similar issues).

Hopefully they can be shown that replacing a stand of one type of tree with a variety of trees is better for all the organisms in the park in the long run."

Mapping Exercise from February 22 meeting

1. Yellow – Replace the Wilderness South Bridge, north of Saltillo Road, to reconnect the trails
2. Red – Protect water quality from non-point source pollution. There is bad road runoff in this area. Identify and clean up the tributaries
3. Green – Bur Oak/Hickory restoration area
4. Green – Important natural area for rare spring wildflowers
5. Red – Create a community safe access from the Rock Island Trail into Wilderness Park
6. Red – Red Oaks on the Prairie Bowman property should be acquired and restored
7. Green – Bur Oak/Hickory restoration area
8. Green – Saltillo and Epworth telephone bridges
9. Green – creek crossings
10. Green – creek crossings
11. Green – Bur Oak/Hickory restoration area
12. Yellow – Create opportunities for education and outreach here (sandstone prairie)
13. Red – evaluate and incorporate new fitness loop – maintain – incorporate education

Wilderness Park Strategic Planning
and Community Advisory Committee

AGENDA

Trails and Facilities Subcommittee

March 22, 2017, 3:00 – 5:00 pm

Pioneers Park Nature Center Conference Room

- 3:00 Review of Maps

- 3:15 Discussion of Project areas identified by Trails and Facilities Subcommittee

- 3:45 Potential opportunities presented by upcoming projects
 - Old Cheney Road Wastewater extension

 - NRD/WSM Stream Stability projects

 - Wilderness South Bridge

- 4:15 Priority Areas
 - Wetland Restoration areas

 - Oak/Hickory areas

 - Sandstone Prairie

- 4:45 Other

- 5:00 Adjourn

Next Meeting:

Full Group Meeting – April 19, 3:00 pm

**Wilderness Park Strategic Planning
and Community Advisory Committee
Ecosystem Subcommittee
Minutes**

**March 22, 2017, 3:00 – 5:00 pm
PPNC Conference Room**

Present: Andy Campbell, Judi Cook, Bob Henrickson, Rosina Paolini, Dan Schlitt, Dan Schulz

Parks and Rec. Staff: Aaron Druery, Nicole Fleck-Tooze, Sara Hartzell, Lynn Johnson, Chris Myers

The meeting was called to order at 3:00.

Review of Maps

Sara Hartzell highlighted the results of the map exercise from the February 22nd meeting. Committee members were asked to indicate which parts of Wilderness Park were their favorite, which areas had room for improvement or they had questions about, and areas of more immediate concern:

- One of the “red” areas was an area of bad road runoff with oil and other pollution. Dan King indicated he called this runoff and pollution to Hazardous Waste.
- The Wilderness South Bridge is a priority for a 2017 RTP grant application.
- The GPTN wants to identify sources of funding or fundraising for a trail from Densmore Park to Jamaica North Trail.
- Burr oak restoration north of Warlick Blvd.
- The fitness trail loop south of Pioneers needs updating.

Discussion of Project Areas Identified by Trails and Facilities Subcommittee

Sara Hartzell briefly summarized the discussion from the March 8th meeting. Items covered included:

- The Yankee Hill Bridge project and the possibility of using gang slats as an economical method of repair
- The Rokeby Road Horse Bridge
- Hwy 77 & Rokeby reroute of bike trail
- The discussion for appropriate signage in Wilderness Park

Potential Opportunities Presented by Upcoming Projects

- **Old Cheney Waste Water Extension**
The Wastewater division is willing to do some sort of mitigation work within the park. Would like to identify an area where we could have some invasives removed and reseed to prairie. They offered to buy new trees, if the volunteers planted them. There is an area south of Old Cheney and 1st Street that is currently overrun with eastern red cedar and Siberian elms that might be a good place to target.

There was also discussion about the parking lot north of Old Cheney and if it should be made visible from the street. The full easement is 100 feet with a 30 foot permanent easement and 70 foot construction easement. May be an opportunity to revegetate with some higher value trees and understory that would provide clear view of the parking lot from the road. May also want to look at the driveway location and see if there might be some better configuration.

- **NRD/WSM Stream Stability Projects**

All trees over 12" have been surveyed to the west of the bridge.

There was also discussion about the Emerald Ash Borer (EAB). With the EAB expected in the Lincoln area any time now, ash trees will need to be removed from Wilderness Park. Andy Campbell said when he was recently in Chicago, he walked a trail where ash trees were tagged with bright paint, and signage educated park users about the EAB, thereby raising awareness.

Concern was expressed for the impending 14th and Old Cheney construction. Would highway designation affect Wilderness Park? If money is spent making these improvements now, will it be a wasted effort five or ten years down the line? And how would closing Old Cheney at 1st Street affect the park?

Discussion then focused on the Wilderness South Bridge. What is the most feasible way to route construction equipment in for replacing it? The service road goes right into burr oak. Possibly work out a deal with the farmer to the north to allow equipment to come through the field on the west. Jamaica Trail is also an option, although it may result in damage to the trail.

- **Sandstone Prairie**

The Sandstone Prairie south of Pioneers Blvd. has potential for conservation for educational purposes, but Rosina Paolini voiced concern about what a delicate ecosystem it is. Sara Hartzell said it could be identified as a protected area. However, management does need to be performed there.

Other

Sara Hartzell laid out a map of the park. From south to north, she highlighted points of discussion regarding ecosystems at Wilderness Park, including:

- The fitness loop which looks "abandoned"
- Animals burrowing next to the old swimming pool wall. Since the trail goes right on top of it, does it need filling?
- The former Epworth Park has beautiful lilies, but the area has a lot of buckthorn as well.
- An area just southeast of there is full of brome. It is not a recent renovation, but Bob Henrickson noted cedars have been creeping into the area.
- The "boneyard" by Aaron Druery's shop has buckthorn and honeysuckle encroaching. They get cut but keep reappearing if the area isn't treated.
- Treating buckthorn led to a lively discussion about how best to utilize volunteers at Wilderness Park. Because of liability, they cannot operate machinery – only tools such as hand saws. They cannot spray chemicals unless they possess a Pesticide Applicator's License. They can, however,

fundraise. Chris Myers raised the point groups of volunteers have energy to work 2-3 hours at a time, and that should be taken into consideration when scheduling larger groups.

- Bob Henrickson noted that north of Saltillo Rd., there are aggressive trees that ought to be taken out to allow for natural re-seeding.
- Overall, the group was satisfied with smaller projects that benefitted the Wilderness Park ecosystem, as opposed to a costly park-wide project.

The meeting adjourned at 5:03.

Next Meeting:

Full Group Meeting – April 19, 3:00 pm (note the change of time from April 5th)

**VEGETATION MANAGEMENT ALTERNATIVES
FOR
WILDERNESS PARK**

DRAFT

INTRODUCTION

The focus for this document is providing alternatives for manipulating the vegetation within Wilderness Park.

Though all the previous studies have stated the basic historical data, it is important to briefly include the same information in this document. Wilderness Park was established in 1972 and is owned by Lancaster County. There are 1,475 acres in the park.

The purposes for the park (as stated by the Ecosystem Report of Wilderness Park by EA Engineering, Science, and technology, Inc.) are:

- § Providing low cost flood protection for Lincoln;
- § Providing public access to a natural area;
- § Providing education regarding the interaction of natural populations with urban development
- § Providing a historical, cultural, and archaeological record of the area; and
- § Establishing a model for greenspace areas that could be replicated in other parts of the County

Numerous studies have been done addressing Wilderness Park. From those studies, a map of various vegetation types was developed. (See attached map). Any disagreement with the description and spatial location of the types of vegetation within Wilderness Park must be referred to the authors of the enclosed vegetation map. This DRAFT plan simply accepts the vegetation types and descriptions from the previous studies and uses that information to develop a variety of management alternatives.

The existing vegetation map was scanned into a computer. The acreage for each unit was determined from the scanned images however, as with any technology, there may be errors. The actual size of the units is as accurate as the ability for the computer program to calculate the area of irregular shaped polygons.

DISCUSSION OF SOME GENERAL ECOLOGICAL PRINCIPLES

It is important to understand what will happen within the Park without management. Doing nothing is a form of management. However, doing nothing does not equate with nothing changing. Doing nothing in Wilderness Park, i.e. letting nature takes its course, will result in some very specific changes.

The grassland areas will be invaded by shrubs and trees. Gradually, the trees will become thick and a small diameter (sapling 1"-4") woodland will develop. Sapling woodlands are generally very dense with large numbers of stems/acre. Very dense shade in the forest floor allows only extremely shade tolerant plants to grow in the shade. The forest floor tends to be bare of a forb or shrub component.

The sapling forest condition ever so gradually begins moving into a pole size (4"-11") stand. More sunlight reaches the forest floor and shade tolerant forbs and shrubs begin establishing. Since hackberry is the most shade tolerant native tree, hackberry seedlings establish in large numbers.

Trees continue growing and with time, the pole size trees grow and a mature (11"+) forest environment develops. In a mature forest, a rich forest floor community of shade tolerant plants develops beneath the mature tree canopy.

The dominant tree regeneration will be hackberry because it is shade tolerant. Bitternut hickory also is shade tolerant and in places where bitternut hickory is close, the hickory will occupy a similar role as hackberry. However, bitternut hickory has an extremely limited distribution within the park, therefore the area of bitternut hickory reproduction will most likely be limited to a minor component of the Park.

Eventually, trees get old and die. In a mature forest in eastern Nebraska, the opening in the canopy created by the death of large mature tree is usually occupied by the advanced hackberry reproduction. Given a long time frame without disturbances, forests in eastern Nebraska gradually become dominated by hackberry.

It is important to realize there are realistic, expected and unexpected disturbances that could (and probably will) happen. These disturbances impact the species composition.

Predictable disturbances include Dutch elm disease, flooding, wildfire, and the impact of deer and rabbits. Natural oak regeneration is only going to get established in open fields where there is full sunlight. In those open fields, acorns sprout each year but the seedlings are eaten by deer and rabbits resulting in very little oak reproduction.

Elms are often a major component in the sapling stage forest but between sapling and pole size is when major loss occurs from Dutch elm disease. The openings in the canopy allows other species to become part of the woodland canopy.

Flooding will occur in Wilderness Park. Eventually major flooding will create major changes in the stream channel such as cutting new channels and abandoning old channels. Trees will be destroyed leaving new areas for colonization by new and different vegetation.

The introduction of exotic woody plant species into Wilderness Park is occurring and in the future this could have a major impact on the previously described succession within the forest. One would expect an increase in the amount and kind of exotic plant species invading Wilderness Park as suburban landscapes get closer to the Park.

Eventually, there will be a wildfire in Wilderness Park. One would expect the most likely location for wildfires is in the grassland areas. Once started, however, the wildfire may burn into woodland environments.

Unexpected disturbances such as tornados or outbreaks of unknown insects/diseases could also impact the expected successional processes within the Park. These disturbances aren't predictable; i.e. they may or may not ever happen, therefore it is impossible to address them in this plan, however it is still important to realize unexpected disturbances can and do occur.

The above description depicts the progression of forest development from old fields to mature forest leading to a hackberry dominated woodland. With the above succession process in mind, one can visualize how each vegetation type described on the vegetation map is simply one of the stages along this described successional continuum.

DESCRIPTION OF VEGETATION TYPES

The State of Nebraska requires control of certain noxious plants: musk thistle, leafy spurge, Canada thistle, plumeless thistle, spotted knapweed, diffuse knapweed, and purple loosestrife. While there are other plants considered exotic and invasive, they do not have to be controlled by any law. According to previous studies of Wilderness Park, musk thistle and leafy spurge exist within the Park and require regular management efforts.

A broad view of the vegetation map created for Wilderness Park reveals there are wetlands, grasslands, and 3 recognized forest types: Riparian, Bur oak, and Mixed woods. Within the forests, there are young stands of trees in the sapling stage, and mature stands. Also, an area of Riparian forest once used as a park is distinguished from other riparian forest units because of the highly modified condition of the vegetation.

The vegetation units are arranged in the sequence of succession: from the most open to the mature forest. Vegetation units have been combined based upon the similarities on the successional scale because the management is similar.

Wetlands

All of the areas designated as wetlands (estimated to be 45 acres; 3% of the park) are associated with old channels of Salt Creek; i.e. oxbows. Some of these oxbows have been created as a result of natural meanders and others the result of channel straightening. The hydrologic connection to Salt Creek or other water sources of both types of oxbows would have to be determined to access the frequency of inundation. It was noted while on site some are still connected by a swale and during high enough flows still have water reach them. Some may be influenced by ground water, others were artificially cutoff from the channel during channel straightening, road and bridge construction. Some oxbows also appear to have outlet structures limiting the amount of water that can be retained in them. Obviously all would be inundated during a flood. In the report "Analysis and Critique of the Ecosystem Report" which indicated historically the channel entrenchment of Salt Creek may be in excess of 300% deeper in places than it was prior to settlement results in less frequent out of bank flows concentrating the creeks energy in the channel.

It is important to note that streams are ever changing. Taking a large landscape size picture of Wilderness Park with a long-term time frame, one should envision Salt Creek meandering within the park creating new channels and leaving old channels that become new wetlands. In the portions of the park where the channel has been straightened, over time, Salt Creek will begin to scour the creek banks from side to side as the creek disperses its energy re-establishing meanders. If a management goal is to promote the formation of a meandering stream that will eventually create new oxbow wetlands within these straightened stream reaches, bank stabilization, hard points or other structures that protect the creek bank or redirect flows away from the bank should not be installed unless to protect the infrastructure of roads, bridges, railroads and utilities. Although, properly placed structures could be designed to accelerate meandering.

After evaluating the hydrologic connections of each oxbow, and the determination of a management goal to promote more frequent inundation or sustained standing water, the following options could be explored and a determination made on the feasibility of each one.

1. Excavate to deepen oxbows to hold more water.
2. Excavate a swale to allow water to flow into the oxbows during high in-channel flows.
3. Install a pipe or conduit to direct flow into the oxbows during high-in channel flows.
4. Reconnect the oxbows with Salt Creek that were created when the channel was straightened.
5. Install wells to pump water into the oxbows using solar/wind power sources.
6. Modify outlets to hold more water by installing a riser or stop log structure.
7. Use treated storm water from the adjacent and impending developments to augment the hydrologic budget for the oxbow wetlands.
8. Use treated storm water to create additional wetlands in suitable areas of the park.
9. Install grade stabilization structures in the Salt Creek channel to stop down cutting of the channel increasing the frequency of out of bank flows.

The vegetation of the wetlands has been addressed in previous documents, therefore it is not addressed here. The vegetation in wetlands can be burned and grazed however, mowing often is not feasible because wet soils prevent machinery from entering the site. Some of the wetlands could be managed in such a way as to be surrounded by grasses and forbs, trees or a combination of both.

Early Successional (aka Grasslands)

There are four vegetation units that are predominately open grasslands totaling about 635 acres (43% of Wilderness Park). Each unit is described below and management options for the units are discussed.

Pre [European] Settlement Prairie

An area of approximately 5 acres (.5% of the park) is indicated with white color as being prairie pre dating settlement by Europeans. The site is a dry upland knob with sandstone close to the surface therefore soil is thin.

This dry upland sandy site creates a unique complex of plant species not typically associated with the tallgrass prairie ecosystem in eastern Nebraska. Chances are the vegetation on the sandy knob was considerably different from the “undisturbed”, pre-European settlement vegetation surrounding the sandy knob.

All previous studies and plans have concluded the prairie area should be managed as grassland, therefore, other management options need not be discussed.

Additional observations: The woodland directly adjacent to the prairie is stunted reflecting the shallowness of the soil. It is very likely the entire upland sandstone knob was grassland but the stunted trees have invaded into the prairie site.

Cutting the stunted trees adjacent to the prairie along with burning would allow the original prairie vegetation to reappear. This would expand the size of the unique dry upland prairie by considerable area.

A second management alternative is to cut most of stunted trees leaving a few trees as individuals or clumps of 2-5 individuals. Then follow the cutting with prescribe burning to create a dry savannah.

Old Agricultural Fields

Old agricultural fields is a vegetative type indicated on the attached map with gold color and is estimated to be about 450 acres (30% of the park). According to the EA Engineering study, the fields were used for cropland and have converted to brome either

naturally or they were planted to brome. Trees and shrubs are invading the fields at different rates.

Old Pasture Fields and Re-established Prairie (sic)

Two shades of brown on the attached map were used to delineate fields used for pasture and fields planted to native warm season grasses. The two shades of brown are so close that it is difficult to distinguish. Also, it really doesn't make a difference because the description of the two vegetation types is very similar. Therefore these two vegetation types are combined. There is about 180 acres (12% of the park) with these designations.

According to EA Engineering, the reestablished areas were planted with big bluestem, little bluestem, sideoats grama, Indiangrass, and switchgrass in the 1960's and 1970's. A prescribe burn was accomplished in 1980.

The fields are mostly grass however invasion by woody plants including cedar, dogwood, green ash, Siberian elm, American plum, American elm, slippery elm, honeylocust, et al. is occurring. Smooth brome is common along with typical invading forbs such as goldenrod, ragweed, sunflowers, roundheaded lespedeza, sweet clover, red clover, alfalfa, et al.

Managing to Retain Open Grasslands

Option I: Grassland can be burned to retard the invasion by woody plants.

Option II: Haying/mowing is an option for managing grassland.

Option III: Grazing with livestock would require fencing of the area but grasslands benefit from grazing.

Option IV: Manual/mechanical tree removal also would help retard the invasion of woody plants.

Option V: Herbicides could be sprayed to kill woody plants, however, broadcast applications of herbicides would also kill some of the forbs.

Option VI: Combinations of these options might be needed. For example, mechanical or manual tree removal might require application of herbicides directly to the freshly cut stumps to kill the woody plants. Honeylocust is a prolific sucker sprouter and removing the main stem without treating the stump can result in many honeylocust sprouts throughout the grassland area.

Another example is mowing combined with burning. Mowing reduces the height of the fuel which allows prescribe burning to be much easier to control.

Promoting Native Grass Communities

Smooth brome grass is an introduced cool season species common in most reestablished grassland areas. There are several methods to deter brome grass and at the same time to promote native grasses.

Option I: Kill the existing brome grass with herbicide and plant a diverse mixture of native species of grasses including native cool season grasses, native warm season grasses, forbs, sedges, and other components of the native prairie ecosystem.

Option II: Repeated prescribe burning when brome grass is most susceptible to damage from fire (usually when brome grass is in the boot stage). A slow process of invasion by native species will take place.

Option III: Combinations of Option I and II .

Converting Grassland to Forests

Option I: One option for managing grassland vegetation is to do nothing. If you do nothing, woody plants (trees and shrubs) will invade; i.e. the grassland will eventually become shrubs and the shrubs will be followed by a forest. This is already taking place in the old agricultural fields.

Option II: Rather than allowing nature to provide the tree species, trees could be planted thereby allowing selection of the species of trees. This would be one way of accomplishing bur oak regeneration. Details for planting trees and programs for assisting with the cost of tree planting can be addressed in greater detail if this option is chosen.

To have a successful tree planting in Wilderness Park, trees will need to be protected from deer and rabbit damage.

Option III: Another way of converting the grassland into a forest is to disk. Disking the soil at different times of the year would promote the establishment of different species of trees. For example by timing the disking with the dissemination of cottonwood and willow seed in June, a cottonwood/willow forest would be created.

Also disking would allow for artificial seeding of desired species.

Sapling Stands (aka "Successional" Woodlands)

Approximately 18% (270 acres) of Wilderness Park is the sapling stage. This combines the tree plantings in old agricultural fields and the natural regeneration of the three forest types: riparian,

bur oak, and mixed woods. The units are best described as open areas (i.e. old agricultural fields, pastures, and flood zones) that have developed far enough on the successional scale to create a sapling stand.

Tree Plantings in Old Agricultural fields

Trees were planted in 7% of the park (120 acres) in some of the old agricultural fields. According to the EA Engineering study, species planted include autumn olive, Russian olive, black locust, swamp white oak, pin oak, cottonwood, silver maple, Austrian pine, sycamore, ash, and willow.

Some of the tree species planted are not adapted to the type of soils and some of the tree species are susceptible to diseases or insect problems, therefore they are growing quite slowly. Because some of the planted species are growing slowly, other invading species such as cottonwood, elms, cedar, hackberry, green ash, honeylocust, silver maple et al are actually outgrowing the planted trees. Once overtopped, many of the planted trees that are doing poorly will die and no longer be part of the forest.

Bur Oak Successional (sic)

Two areas are delineated as having bur oak reproduction (6" or less). These areas total 20 acres (1% of the park). Bur oak are present but are not necessarily the dominant species. Other associated species include elms, green ash, honeylocust, and mulberry.

Riparian Successional (sic)

Two areas are delineated as riparian reproduction totaling 100 acres (7% of the park). Species associated with these wet sites include willow, cottonwood, silver maple, green ash, honeylocust, and downy hawthorn. The sites are generally located between wetlands and streams.

Mixed Woods Successional (sic)

These three units delineated on the map are described as green ash and elms. The areas total 30 acres (2% of the park).

Mature Forests

Approximately 1/3 (480 acres) of Wilderness Park is considered mature forest of the four forest types: bur oak, riparian, mixed, and highly modified riparian. These areas are best described as dominated by large diameter trees with an almost complete overhead canopy and a well developed complement of understory vegetation.

Bur Oak Mature and Bur Oak Mature Pre-[European] Settlement

Mature bur oak woodlands compose 300 acres (20% of the park). Within the 300 acres most of the area (250 acres; 17% of the park) is considered to have existed as bur oak forest before Europeans settled Lancaster County. However, there is considerable debate

if the bur oak were in a forest environment or a savannah. This plan does not discuss the issues of that debate.

The bur oak trees are generally large diameter and associated with hackberry, green ash, and black walnut. Sites designated as mature pre-settlement bur oak includes Kentucky coffetree very limited amount of bitternut hickory in one site, eastern wahoo, and downy hawthorn.

As the oaks die, hackberry is about the only reproduction beneath the forest canopy. (Bitternut hickory may be part of the advanced reproduction in the understory where parent hickory trees are present to provide seed. Generally, this is an extremely small part of the Park.) In the mature bur oak woodlands, domination by hackberry is very close in time. In some places, hackberry already is the dominant large tree.

Riparian Mature and Riparian Mature pre-[European] Settlement

Approximately 50 acres (3% of the park) are designated as mature riparian forest with 10 acres of those acres (.6% of the park) considered to pre date settlement by Europeans. Species include cottonwood, willows, silver maple, green ash, honeylocust, and boxelder. The large size of cottonwood, silver maple, or honeylocust was used to distinguish areas considered pre-settlement.

Mixed Woods Mature

Only 2% of the park (30 acres) is designated as a mature mixed woods and none of this area is considered to have existed previous to European settelement. “Everything and anything from silver maple to bur oak with a heavy understory” is the description of this one site.

Highly Modified Mature Riparian

In the past, 100 acres (7% of the Wilderness park) was managed as a park with mowed understory, etc. Sycamore, ponderosa pine, Austrian pine, swamp white oak, tulip poplar, Ohio buckeye, lilac and flowering crabapple were planted among the existing open forest of hackberry and bur oak.

Converting Forests to Grassland

Whether an early successional field being invaded by trees or a mature forest, the first step of converting a forest to a grassland is removing the trees. Once the trees are killed, follow one of the options in the section on Retaining Grasslands for recommendations on management of the newly created non forested area.

Option I: Trees can be killed with prescribe fire. Over time, repeated annual prescribe fire will convert a forest to a grassland.

Option II: A second alternative for killing trees is with a bulldozer or manually (chainsaw, etc). Clearcutting a forest is the first step in converting a woodland to a grassland. Harvesting the large oaks, walnut, hackberry, etc would generate potentially substantial income for use in managing the Park.

Following logging, the tops of the trees could be open to firewood harvesting. Eventually, there would be very little woody material remaining, therefore it would be easy to begin managing as a grassland.

Option III: A third alternative is to apply herbicides. Aerial spraying a hardwood forest can kill much of the broadleaf vegetation. While the trees, shrubs, and even understory plants may die, there would still be a tremendous amount of standing dead woody material on the site. This woody material would greatly retard the ability to manage the area as grassland.

Following herbicide application, some type of additional substantial management would be needed to ready the site to be a grassland. Either mechanical removal of the dead material or prescribe burning to remove the dead material would be needed.

If mechanical removal is selected as the management alternative, it is common to pile the woody material and burn the piles. Caution should be used on brush pile burning because the intense heat from the burning can seriously impact the fertility of the soil. Soil can be sterilized by the intense heat then little will grow on the site.

Creating Savannahs

Option I: The fastest way to create savannah is to start with a forest. Remove the majority of the trees leaving only the few individual specimen plants considered desirable. Follow the tree removal with annual prescribe burning for several years to convert understory vegetation from forested species to grassland species.

Where trees are large, removal can be accomplished with appropriate logging. Rather than clearcutting, simply mark the trees for removal and make sure the logger leaves unmarked trees. Logging will generate income for managing the Park.

Where trees are small diameter as in sapling size stands, firewood harvesting may be the most feasible. Marking leave trees with paint will save the desirable individual specimen plants. Harvesters then can cut all the other trees.

The Nebraska Game and Parks is using these techniques on several areas they own from the Pine Ridge to the Southeast corner of the state.

Option II: Prescribe burning has been tried in several states as a way of converting forests to savannah, however it has had limited success. The fire kills all the trees, or none. It

appears the technical details for using fire to create savannahs just isn't clearly understood, yet, but it is still a possible alternative for creating savannahs.

Option III: Another alternative tried in some states is to start with relatively open grassland and plant individual specimen trees. The trees need to be protected from deer, rabbits, and fire.

Promoting Bur Oak Reproduction

There are three major reasons bur oak is not reproducing in Wilderness Park. First, bur oak is extremely intolerant of shading, therefore, acorns that sprout beneath a canopy of trees will not survive. Second, young bur oak are favored food for deer and rabbits. Even when acorns sprout in open fields where there is adequate sunlight, deer and rabbits eat the seedlings, thereby preventing any survival.

Third, when a bur oak sprouts in open grassland and survives being eaten by deer and rabbits, the oak must compete with other faster growing species such as elms, green ash, etc. Often, the oak loses the competition for sunlight and becomes overtopped by the other faster growing species. Once overtopped, bur oak dies. Given these problems, the following are possible ways of establishing bur oak:

Option I: Find natural bur oak reproduction in open fields and protect the seedlings with caging. Once protected from deer and rabbits, then remove any competing vigorous species (elms, ash, etc).

Option II: Collect acorns from native bur oak trees and plant the acorns in open fields. Protect sprouting seed and resulting seedlings with cages.

Option III: Collect acorns from native trees and find a nursery willing to grow the trees (possibly the Nebraska Statewide Arboretum). Plant the seedlings in open fields and protect with caging.

Option IV: In sapling stands, locate sapling bur oak and remove the competing trees. Releasing the established bur oak saplings from competition will ensure the saplings are part of the next mature forest. This is called forest thinning.

Option V: In areas of mature forest where other tree species are dominant and bur oak is not present, converting these areas to bur requires clearcutting followed with burning. Followup management must follow one of Options I thru III.

Option VI: Where mature bur oak is mixed with other tree species, removing all the non bur oak species followed by burning will create a savannah. Once a bur oak savannah is established, bur oak reproduction can occur if the remaining bur oak are spaced a minimum of 2 times the height of the tree. The average height of trees is around 60 feet,

therefore the openings in the savannah need to be no less than 120 feet wide to get bur oak reproduction.

DISCUSSION

Of the 1,475 acres in Wilderness Park, 50% is forested, 43% is open fields, 3% is wetlands, and the remaining 4% is roads, etc.

The forest areas are mostly mature woodlands. Of the 750 acres of forest, 64% are mature forests and 36% are sapling stands. Bur oak dominant woodlands composes 300 acres (20% of the park). Only 20 acres of the park is sapling bur oak and in that 1%, bur oak is not dominant; it is simply represented in the stand.

Riparian forest are the opposite of bur oak. Mature riparian forests (excluding the highly modified area of riparian forest) dominate 50 acres but there are 100 acres of young sapling riparian forests.

Much of the bur oak is near the end of the expected life span, therefore much of the bur oak woodland component can be expected to shift to hackberry woodland probably in the next 50-100 years. With very little sapling bur oak to replace the mature bur oak, there will be a major shift in forest types from a bur oak dominant forest to woodlands of hackberry.

A picture of the forest 100 years from now without major disturbances (which are almost certain to happen), would include 750 acres of forest with about 20 acres expected to have some bur oak. There would be 630 acres of hackberry dominated forest and about 100 acres of riparian dominated forest.

The 635 acres of open fields consists of only 5 acres (.7%) of remnant prairie. All of the remaining 99.3% of the open fields are old farm fields or pasture with a large amount of introduced brome grass and invading trees and shrubs. It will take continuous management to keep the areas as open grassland.

If regenerating bur oak is priority, then it is likely there will need to be a reduction in the open grassland areas because it is in the grasslands where bur oak reproduction will most likely be successful.

SUMMARY

This plan accumulates the information from a variety of studies dealing with the vegetation in Wilderness Park and adds possible management techniques for manipulating the vegetation. It is unlikely there will be adequate funding to accomplish all the vegetation management in Wilderness Park. Choosing which of the vegetation units (on the enclosed map) will receive

management and which will not have active management needs to be part of a management plan for Wilderness Park.

A great written plan describing the potential management of the Park can be developed, but if there isn't any money dedicated to implementing the agreed upon management, then the vegetation will simply continue on the natural successional continuum. Grasslands will be invaded by forests, saplings grow into mature forests, and mature forests will gravitate toward a hackberry dominated complex.

The community of Lincoln and Lancaster County need to decide: Should the entire park be allowed naturally to become a mature hackberry forest? Should there be some open areas without forest? Should there be savannah? Should there be an emphasis on oak regeneration?

Management of Wilderness Park comes down to: **Where on the successional continuum do they want the vegetation of the park and who is going to pay for it?**

Plan Prepared By: Rich Lodes, NRD Forester, 109D Plant Industry Building, East Campus, UNL, Lincoln, NE 68583-0815, phone: (402) 472-3646

Dan Schulz, Resource Coordinator and Ariana Kennedy, Resource Conservationist, Lower Platte South NRD, 3125 Portia St., Lincoln, Ne 68501-3581 (402) 476-2729

Date Draft Plan Prepared: July, 2002

Wilderness Park Strategic Planning
and Community Advisory Committee
AGENDA
Trails and Facilities Subcommittee
April 19, 2017, 3:00 – 5:00 pm
Pioneers Park Nature Center Conference Room

- 3:00 Review of previous discussions

- 3:30 Topics for Additional Discussion
 - Multi- vs Single User Trails

 - Single Track Cycling

 - Comprehensive Sign Plan

 - Encroaching Vegetation on Trails and Mowing

 - Potential for Vacation of 1st and Calvert Streets

- 4:15 Activity Matrix
 - Explanation of Matrix

 - Additional Activities

 - Assigning Priorities – A, B or C

- 4:45 Other

- 5:00 Adjourn

Next Steps: Report of Committee activities and recommendations drafted and sent for review by June 1. Final Report to Parks and Rec Advisory Board by June 15. PRAB meeting August 3. In meantime, move forward with scheduling volunteer events.

**Wilderness Park Strategic Planning
and Community Advisory Committee
Ecosystem Subcommittee
Minutes**

**April 19, 2017, 3:00 – 5:00 pm
PPNC Conference Room**

Present: Andy Campbell, Judi Cook, Susan Dittmer, Dan King, Tim Knott, Tanya Lynch, Rosina Paolini, Dan Schlitt, Dan Schulz

Parks and Rec. Staff: Aaron Druery, Andrea Faas, Nicole Fleck-Tooze, Sara Hartzell, Lynn Johnson, Matt Mittelstadt, Chris Myers, Jerry Shorney

The meeting was called to order at 3:04.

Activity Matrix

- **Explanation of Matrix**
Sara Hartzell outlined the ranking system for the matrix she sent beforehand.

- **Assigning Priorities – A, B, or C**
A – Indicates projects that were the highest priority, although they tended to be the most expensive ones.
B – These projects are as pressing, easier to fix, and not as expensive.
C – These are neither high-priority nor necessarily inexpensive projects. They fall under the “It would be nice if...” category.

Review of Previous Discussions

Andrea Faas outlined her vision for a new education building, which had been discussed at the Trails & Facilities meeting on March 8th. The preschool has outgrown the building, and a spot had been identified just north of 1st and Calvert. The area is owned by the City and is only being hayed. She would like indoor space for 80-100 with a storm shelter, kitchen, office and work stations, a picnic area, storage with lockers, moveable walks, fire alarms and sprinklers, access to the trail system, windows overlooking the prairie, and a parking lot to accommodate 50-60 cars. “Wish list” items include leaving a small carbon footprint with wind/solar/thermal power, an archery range, a garden area, an ability to only leave restrooms open while locking the rest of the building, and a cistern for rainwater collection.

Dan King asked if any other sites were considered. There was one by the Greenways shop and another off of 1st and Pioneers, but both locations were not as ideal at 1st and Calvert, which doesn’t have any trees to clean out, is easy for citizens to find, and connects into the existing trails system.

Andrea Faas reported 6,000 people paid \$90,000 in camper and other usage fees, and that reflects 25% of the PPNC's total revenue. Lynn Johnson noted that the new education building could be put on the 10-year facility plan, and that the Parks & Recreation Advisory Board could recommend whether or not to do a capital campaign to raise funds for the building.

Topics for Additional Discussion

Sara Hartzell then guided the advisory committee through items that had been discussed in the two subcommittees. She sent discussion points in advance of the meeting, and the following are additional conversations that occurred over the course of the discussion.

- **Multi- vs Single-User Trails**

The group had previously discussed the idea of discontinuing the practice of separating the trails by user group. There is significant cross over in user activities at this time. Many who have experience on multi-user trails in other parts of the country shared their experiences. Tactics and tools for helping people understand the ethics of shared trails were also discussed. It was decided that additional input from the community and discussion with user groups is appropriate before making a decision.

- **Single-Track Cycling**

The cycling community is very interested in single track cycling. (These are cycling facilities where the cyclists all travel in the same direction.) While the Parks department acknowledges that this is a need in the community, Wilderness Park would be both a difficult location to implement this, and may not be compatible with other uses that have a long history in the park. The Parks Department will continue to try and meet this need for cyclists at another location.

- **Comprehensive Sign Plan**

The committee discussed putting kiosks in parking lots with maps, basic directional information, historic information, and QR codes taking trail users to pertinent websites on their smartphones. There was also discussion about a "Pack in, pack out" campaign, whereby park users carry everything back with them they take into the park – leaving no trash or waste behind.

Andy Campbell raised the question of putting mile markers on trails, and if it would be possible for corporations to sponsor the posts like LT&T and other companies used to do in the 1980s. The mileage posts are practical to help trail users get their bearings and provide staff with crucial landmarks when identifying fallen limbs or other areas of vegetation. Susan Deitchler commented how helpful such signage can be in case of emergencies.

There was also a discussion of the need for a uniform identification system for bridges and crossings instead of "where the Arched Bridge used to be" and "the Covered Bridge." Different groups call these bridges by different names, so a cohesive naming scheme would foster consistency.

The Parks Department will begin working on a comprehensive signage package for Wilderness Park.

- **Encroaching Vegetation on Trails and Mowing**

There is significant wood vegetation that is encroaching on trails and making it difficult to mow. In some areas, staff will only be able to mow once this year and in others they will not be able to mow next year. These areas have been mapped and a plan will be designed to begin addressing this need. This may be a good opportunity for volunteer workers.

- **Potential for Vacation of 1st and Calvert Streets**

This would be beneficial to the area from a traffic standpoint for the area that has been identified as the new education building site. The committee was supportive of this in concept.

- **Other Issues**

The culvert under the Warlick overpass affects the ability to get tractors and mowers into the area. It is on Warlick's right-of-way, and Sara Hartzell has put in for a City permit to do work on there.

Rosina Paolini noted that the Epworth site was not mowed last year. Matt Mittelstadt said it could be added to the mowing rotation.

In addition to discussion on trails, amenities at the parking lots were also discussed: having a bike repair station, varmint-proof trash cans, possibly increasing trash removal, and expanding the 14th Street parking lot to make a loop large enough to accommodate horse trailers and have mounting blocks.

It is important that Parks & Rec maintain clear communication with the City and County in seeking out grant funds for restoration work. Collaboration is also needed regarding the possibility of trail markers. Because Parks & Rec maintains Wilderness Park but most of it is not inside the City limits, care must be taken to avoid duplicating emergency services.

There was mention of abandoning the bridge near the railroad south of Rokeby, but the committee wanted to change the wording to exploring moving the bridge, which is very popular with horseback riders.

Tanya Lynch announced that the Nebraska Horse Trails Council is purchasing six gang slats for use in a low water crossing of Cardwell Branch, and she also presented a \$1,000 to Run for the Bridges to be used specifically for horse facilities.

- **Conclusion**

Sara Hartzell said the next step would be to compile her final reports. She asked the committee to email her comments within the next two weeks, and asked the group to include any items raised by their respective groups. Her report and all comments would go to the PRAB.

The meeting adjourned at 4:45.

The following matrix breaks tasks into categories and areas. For each task, please enter a priority rating of A, B or C for each task or project. A ranking of A would be a project that was needed because of a safety or access issue, a missing piece that was preventing utility of an area, or perhaps known available funding source that is available. A B project would improve conditions and increase access, may be a relatively simple and low cost solution, and may be paried with another project that provides an opportunity. A C project would be one that is very desirable and would increase utility of the park, but may not currently be funded and may be more of a "wish list" item.

Day Care	Score	Policies and Procedures	Score	LPR Staff	Score	10-Year Infrastructure Plan	Score	Volunteer Opportunities	Score	Donation Opportunities
						Replace Octagon Building with new permanent facility				Fundraising campaign for Octagon Building replacement
	A	Encourage pack-in pack out behavior	A-	Replace Bollards	B	Varmint Proof trash cans	A-	Paint Bollards	A	Varmint Proof trash cans
			B	Possibly increase trash removal	B	Increase size of 14th Street lot for horse use			B-	Bike Servicing racks (1st Street)
			B	continue to monitor surface needs (gravel)	B	Bike servicing racks at 1st St lot				
					A	Info Kiosks in Parking Lots			A	Kiosks or wayfinding signage
	A	Develop ID System for bridges	B+	Monitor suspension bridge south of Old Cheney	A-	Horse and Bike low water crossing of Cardwell Branch	B+	Minor repair and painting of Bridges north of Calvert	A-	Work with GPTN and Run for the Bridges for funding match
			B+	Monitor bridge over Horizon Tributary	B+	Repair Yankee Hill Bridge				
			A	Extend Culvert under Warlick Overpass	a	Replace South Bridge				
			B	Reroute near Hwy 77 & Rokeby and 14th & Rokeby	a	low water crossing W edge of 14th St parking lot				
			B	Explore relocation of Bridge near RR South of Rokeby						

Score	Policies and Procedures	Score	LPR Staff	10-Year Infrastructure Plan		Score	Volunteer Opportunities	Score	Donation Opportunities
				Score	Plan				
A-	Adopt a Trail Segment program for active maintenance	A+	Mow trail corridors 4 times per year	A-	Reroute of Trail up to Jamaica at about Rokeby Road.	A-	Stabilize Trail Surface on Bike Trail Bog south of Cardwell Branch		
	Develop ID System for Trails	B	Evaluate possible improvements to Fitness Loop	B+	Stabilize W Bank of Salt Creek at about Rokeby Road	A-	Trail Vegetation Management in Priority Areas to maintain ability to mow		
							B+	Fitness Loop Repairs and ongoing maintenance	
A+	Concentrate on areas that are in beginning stages of invasive invasion	B+	Monitor Sandstone Prairie						
	Non-native species in Day Camp and Epworth areas that have historical significance and are not invasive should be left - daylillies, etc.. These are mementos of historic uses	A	Identify and Map High Value Habitat Areas and Prioritize Most Threatened				Remove Invasives (e.g. buckthorn, honeysuckle)		
	Seek out grant funds for restoration work	B	Continued reduction of materials in "boneyard" near Greenways Shop				Limit events to 2-3 hours - consider limitations of volunteer activities		
A-									

Environmental

Trails

Items for Further Discussion

Discussion of possibility of allowing multiple users on some or all trails.

Staff recommends holding a wider community conversation on the topic, as well as additional research into best-practices in other wilderness trail areas.

Single track cycling – possibility for Wilderness? Where could it be provided?

Staff recommends continued evaluation of where this activity, which is highly desired by many cyclists, might be provided in the future, but does not recommend it for Wilderness Park.

Development of a comprehensive sign plan for Wilderness.

This plan should include some sort of informational signage in parking and trailhead areas, as well as directional and locational signage within the park. Staff recommends additional research into successful signage plans in similar areas.

Encroaching vegetation on trail segments that will limit future mowing.

Staff has identified several areas where encroaching vegetation will limit mowing to this year alone and in some areas will likely only allow a single mowing this year. In almost all cases this is due to invasive shrubs and cedar growth. These areas need to be targeted for vegetation removal in order to maintain access for mowers and emergency vehicles.

Consideration of vacation of a segment of 1st Street and Calvert.

The potential of vacating a segment of S 1st Street, from the old Van Dorn Bridge to Calvert Street, and a portion of Calvert Street from the Epworth Parking Lot to the Day Camp entrance may provide an opportunity to regulate undesirable activity in the north end of the park. Staff would like to discuss and get input from the committee on this topic.