

# Brookings Nature Park – Vision Statement & Program

August 16, 2010

## Vision Statement

Brookings Nature Park is a special place that is set apart from the City and its other fine parks. Brookings Nature Park is a place where nature prevails and all humans are guests. As good guests, humans should tread lightly on the land, undertaking only activities that have a minimal impact on the park's land, waters and wildlife, and that allow others to experience a sense of solitude and the uniqueness of this special place.

## Natural Resources

The park is a mosaic of open spaces, ponds and windbreak tree plantings. The land should be managed to maintain, and in some instances enhance this diversity.

Habitat Diversity – The site's vegetation should be actively managed to maintain its current diversity of open meadow, open water and woodland-like shelterbelts. Natural tree growth of cottonwoods and willow should be managed to maintain open grassland areas. Control of introduced species such as Eastern redcedar, European buckthorn and Tatarian honeysuckle should occur periodically to keep these species in check.

*Develop a species management plan for the park, to control invasive species*

*Remove cottonwoods and willows from select grassland areas of the site*

Restored Native Prairie – Non-native grasslands should be converted to native prairie species. To decrease long-term maintenance costs and increase the landscape's sustainability, the non-native grasses on the former landfill should be converted to native prairie species. Due to the shallow depths of soil on top of the landfill's clay cap, it may be more appropriate to plant mid-grass species like sideoats and blue gramma instead of the tall-grass species originally found on-site.

*Restore native grasses on former landfill to create increased biologic diversity*

*Restore other grassland areas of site to native grasses*

Stormwater Management – All storm water created on site should be managed on site. Best Management Practices (BMPs) should be implemented to cleanse any runoff that reaches the ponds prior to it entering the ponds. Eroded and eroding shoreline areas on the ponds should be re-graded to create a stable shoreline and vegetated bank above normal water level.

*Minimize paved areas on site through good road and parking lot design*

*Provide bioswales and rain gardens to receive and cleanse runoff from pavement*

## Educational and Recreational Uses

Allowed uses at Brookings Nature Park should be tied to the unique natural resources that exist in the park. Motorized vehicles should be restricted to the three parking areas located on the periphery of the park. Movement within the park will be restricted to muscle-powered activities – walking, running and riding bicycles, while accommodating any motorized mobility aids required by some visitors. Canoeing, kayaking and float tubes, all muscle-powered activities, will be allowed on the park’s ponds. Dogs will be allowed in the park according to the rules that apply to all city parks.

### Fishing

Fishing will occur in all of the park’s ponds. The City will engage South Dakota Game, Fish and Parks to manage the fishery primarily as a “put-and-take” urban fishery. Visitors fishing at the Nature Park are required to follow all SDGF&P regulations. The east-most pond will be managed as a seasonal trout pond with periodic stocking. The other ponds will be managed as a warm-water fishery that includes pan fish and predator species.

Catch-and-release fishing will be encouraged for both the seasonal trout and warm-water fishery. If appropriate, mandatory catch and release requirements could be placed on predator species in the warm water fishery in the future. The City will periodically review the need for any site specific fishing rules or regulations in consultation with SDG&FP.

Fishing will be open to people of all ages. Youth fishing will be emphasized through events sponsored by the City and other partners.

An accessible fishing pier will be provided in each type of fishery (cold and warm water) and accessible fishing points located at intervals along shoreline, to improve access for all anglers.

Fish habitat improvements will be implemented under the guidance of SDGF&P fishery staff members. These improvements will involve improved fishing access and underwater fish structure improvements. Community groups, such as the Boy Scouts, may be enlisted to assist the City on implementing some of these improvements.

*Encourage catch and release to provide high-quality angling for all visitors*

*Allow fishing by people of all ages; emphasize youth fishing in city recreation programs*

*Provide accessible fishing locations on piers and along shoreline*

*Implement in-pond habitat improvements to benefit fishery*

### Watercraft - kayaks, canoes, row boats and float tubes

Use of kayaks, canoes and row boats will be permitted on the park’s ponds. Use of float tubes for fishing will be allowed. Watercraft propulsion will be muscle-powered. Gas or electric motors

will not be allowed. Use of sailboats or sailboards will not be allowed due to the relatively small size of the ponds.

Accessible launch points should be provided in the east pond and middle pond.

*Muscle-powered water craft are allowed and encouraged on the park's ponds.*

*Provide one accessible launch area in the east pond and middle pond.*

### Walking and Bike Trails

Non-motorized uses will occur on a system of trails that provide access throughout the site. A hierarchy of trail types will be developed on-site, matched to their intended use and the types of landscape through which they pass. The park's trails will connect the Brookings Bike Trail which runs along the northern edge of the nature park.

Main Trail – A main trail will pass through the park, generally following the existing road. It will connect at each end to the Brookings Bike Trail. This trail will be the same width as the Brookings Bike Trail which is 8'-0".

Side Trails – On two of the ponds a loop trail will encircle each pond, providing a pleasant route to walk and easy access to the shoreline for fishing. Other side trails will extend through the wetlands area on the western edge of site and extend up to the overlook located on the former landfill hill. Side trails will be 5'-0" wide.

Exploration Trails – Other trails will be developed on-site which provide access to various locales in the park. These trails will extend out from the paved side trails and allow visitors to explore the site more. These trails may vary from wood chip-surfaced trails to mowed trails in grass areas. The tread width on these natural surfaced trails will be 24 inches.

*Create an integrated system of accessible trails that allow all visitors to experience all areas of the park*

*Provide a secondary system of non-paved trails that supplement the primary trail system*

### Winter Sports

Snow will not be removed from the park's trails during the winter, to allow them to be used for cross-country skiing and snowshoeing. An area on one of the ponds would be cleared to allow ice skating and broom hockey.

*Utilize the park's trail system in the winter for skiing and snowshoeing*

*Provide ice skating area on one of the ponds*

*Utilize the nature center building as a warming hut, after it is constructed*

### Mountain Bike Skills Area & Trail

A mountain bike skills area and trail will be developed on the periphery of the park. This area will allow local mountain bikers to develop a skills training area where bikers can learn and practice skills, as well as a closed loop riding trail. The riding trail will allow bikers to use skills gained from use of the skills area. The skills area will be developed on flat ground on the southwest corner of the softball complex. The riding trail will be located on a portion of the former landfill and will also run through portion of the adjoining shelterbelt. The trail will be used exclusively for mountain biking and is separated from other trails to minimize safety concerns for other park visitors. The trail should be designed and constructed to fully conform to the International Mountain Bike Association sustainable trail design standards.

*Provide a site for a skills training area where kids and adults can learn and master skills*

*Provide a site for a closed-loop mountain bike trail*

*Work with local enthusiasts to form a private club to maintain the mountain bike facilities*

*Work with local club to sponsor an IMBA Trail Care Crew workshop in Brookings to teach club members how to build and maintain sustainable trails*

### Nature Center Building and Outdoor Education

Use of Brookings Nature Park for environmental education, nature study and nature play will be encouraged. School and youth groups will be allowed to use the site for educational activities.

A nature center building will be built in the park if an appropriate partner(s) can be found to assist in constructing and managing the center. The center will include two 900 square foot classrooms, restrooms, storage and a lobby with some interpretive exhibits and displays. The center will provide indoor space for school groups coming to the nature park on field trips. The center will have an outdoor terrace that can serve as instructional space or host other outdoor activities. The center will be sited so it is close to the park's ponds, woodlands and prairies.

The building could also serve multiple other uses including providing a warming house for winter activities in the park, serving as a meeting place for community groups and serving as a support building for a summer day camp in the park operated by the City or a non-profit partner.

*Identify local partners (school district, conservation groups, non-profit organizations) who might be interested in pursuing development of a nature center*

*Explore possibilities on how best to form a partnership and pursue center development*

### Dog Training Area

The Brookings Nature Park has been used by individuals for dog field training and retrieval practice. Having a place to pursue these uses within the Brookings park system is desirable, yet the core area of the Nature Park is not the best long-term location for this use. The City proposes to work with local dog training advocates to develop a new area for field training and retrieval practice. The new area will include access to water, as well as upland areas.

A dog park for exercise and interaction with other dogs will be located in another city park.

*City to work with dog training advocates to develop a dog retrieval training area*

*City to site a dog park at another location*

## Program Elements

The various site improvements and facilities that will be developed within the Nature Park are detailed in the following text, by geographic area within the park.

### Wayfinding & Park Entry Points

Wayfinding Directional Signage – A set of two directional road signs will alert visitors traveling on 22<sup>nd</sup> Avenue that they are approaching the park and help to identify its new entry point. A similar set of signs will be erected on 32<sup>nd</sup> Street to identify that entry to the park.

Park Entry Points – Three entry points are proposed along 22<sup>nd</sup> Avenue and 32<sup>nd</sup> Street. The existing entry point from 22<sup>nd</sup> Avenue will serve as the east entry to the Nature Park. Two new entries will be developed along 32<sup>nd</sup> Street. One will be near the site’s center point and the other will be near the site’s southwest corner. At each entry point, a new 24 foot wide roadway will extend into the site, terminating at a parking lot. Culverts will be required at each location to convey flow in the road ditch. A stop sign is needed at each location to control traffic exiting the park.

Park Identification Signs – A sign will identify the site as the Brookings Nature Park at each vehicle entry. The double-sided signs will be placed perpendicular to the street near each entry, outside of the safety “sight triangle”. A double-sided sign will be placed near the intersection of 22<sup>nd</sup> Avenue and 32<sup>nd</sup> Street. This sign will be placed at a 45 degree angle (northwest to southeast) to the intersection, outside of the safety “sight triangle”. A fourth sign, which will also be double-sided, will be placed at the western terminus of the nature park’s main trail, to welcome visitors arriving on the Brookings Bike Trail.

### East Pond Area

East Parking Area – The road leading west from 22<sup>nd</sup> Avenue will terminate in a 25 car parking lot, which will include two designated accessible parking stalls. The parking area will be designed so an additional 20 parking stalls can added if needed in the future. Sidewalks will be included in the original construction, so the accessible parking stalls can be increased from two to four simply by adding signs and symbols of accessibility on these stalls. The lot will have a flow-through traffic pattern. The lot design will utilize a low-density concept to incorporate greenspace within the parking lot footprint. The design will include landscape areas that can

serve as stormwater management BMPs to cleanse and infiltrate runoff. Passengers in vehicles driving through the lot will be provided with a sweeping view of the east pond so they can see activity going on in the area. A five-foot-wide paved walk will extend from the parking lot to the East Pond Loop Trail.

Welcome Station & Orientation Map – A welcome station containing a park map, park rules and regulations, and other information will be provided near the parking lot. The station will be located along the walk connecting to the East Pond Loop Trail.

East Pond Loop Trail – A five-foot wide paved trail will extend around the East Pond’s perimeter to provide access for anglers. Walking this loop, which includes a portion of the main trail, will provide visitors with a 0.6 mile long stroll.

Interpretive Exhibit – Cold & Warm-Water Fisheries – A wayside interpretive exhibit will be located along the trail to explain the difference between warm and cold water fisheries, and the seasonal trout fishery at the nature park.

Trail Benches – Six-foot long benches will be placed along the trail about every 750 feet to provide a place for visitors to rest and enjoy the scenery. A three-by-three foot paved pad will be placed at one end of the bench to provide a space for a person using a wheelchair to sit.

East Pond Picnic Shelter – An open-air shelter will be placed to provide a view of the East Pond and serve families and small groups wishing to picnic or get out of the weather. The shelter will accommodate four eight-foot long tables. The shelter will have a paved floor and be connected to the loop trail by a five-foot wide paved walk.

Pre-cast Concrete Vault Toilets – Two accessible vault toilets will be located near the parking area to provide basic sanitary services. The toilets will be located along a paved trail with truck access for servicing.

Tree & Brush Removal along East Pond Perimeter – Some trees and areas of brush will be removed along the pond’s perimeter to improve fishing access and provide space for casting. These areas will not be extensive, but are important in providing proper access.

East Pond Shoreline Improvements – Portions of the shoreline are steep, making it difficult to gain access to the water. Specifically, the north and east shoreline in the pond’s north bay need to have brush and trees removed, and be regraded to lower the slope and allow establishment of grass to prevent erosion.

Accessible Fishing Pier – A floating accessible fishing pier will be located along the eastern edge of the East Pond. This location will allow anglers to access the pond’s deeper water. The travel distance from the parking lot to the pier will be approximately 500 feet.

Fishing Access Points – At several locations along the East Pond’s shoreline, a fishing access point will extend into the pond. These points will consist of fill materials armored with rock rip-rap to prevent erosion and allow for steep side slopes down to and below the water surface. A paved walk will extend from the loop trail to the ends of the fishing access points. The walk surface will be set to be about one foot above normal spring high water.

### Main Trail

Main Trail – The main trail will be an eight-foot wide paved trail that begins on the northeast corner of the site where the Brookings Bike Trail crosses 22<sup>nd</sup> Avenue. The trail will extend south along the west side of 22<sup>nd</sup> Avenue, crossing the two entry drives to the South Brook Softball Complex. The trail will continue south to the existing park road. It will then follow the existing park road until it rejoins the Brookings Bike Trail near the northwest pond. Visitors diverting off the Brookings Bike Trail will enjoy a 1.20 mile loop through the nature park. Visitors completing an entire loop that includes the Main Trail and a segment of the Brookings Bike Trail will enjoy a 1.6 mile long ride or stroll.

Welcome Station & Orientation Map – A welcome station containing a park map, park rules and regulations, and other information will be provided near each end of the main trail where it intersects with the Brookings Bike Trail.

Historic County Bridge – The existing historic county bridge crossing the channel between the middle and south ponds will remain in place as part of the Main Trail. Existing railings will be supplemented to provide more pedestrian-appropriate railings. Boulders rip-rap will be placed around the embankment at each end to protect the embankment from erosion.

Trail Benches – Six-foot long benches will be placed along the trail about every 750 feet to provide a place for visitors to rest and enjoy the scenery. A three-by-three foot paved pad will be placed at one end of the bench to provide a space for a person using a wheelchair to sit.

Prairie Shade Structures – To provide shaded seating areas in an unobtrusive manner along the trails at key locations, it is proposed to create three open-air shelters with native grasses and wildflowers planted on their roofs. Locations selected for these structures will provide sweeping views of the park. These structures will use specially-designed lightweight soils with water retaining gel compounds to minimize weight and provide proper growth of the grasses. The concept behind these shelters ties directly to the prairie grass sod covered shacks called

“Soddies” and dugout cabins used by many Euro-American settlers. Each structure would contain two six-foot benches placed at a right angle to each other. Three of these structures are proposed along the park’s trails, one on the isthmus between the east and south ponds, one along the west side of the middle pond, and one along the south side of the Brookings Bike Trail north of the north pond.

### Nature Park Overlook

Overlook Trail – A 5-foot wide paved trail will extend east from the main trail and wind its way to the top of the hill created by the former landfill. The grades on the trail will vary from 2% to 4% to provide a leisurely ascent up to the overlook pavilion.

Cloud Pavilion – An open-air pavilion will be located on the summit of the south hill created by the former landfill. The pavilion will contain two benches so visitors can enjoy the views, and two interpretive exhibits to inform visitors about the park’s history and its restored prairie.

North Lookout Point – A 5-foot wide paved trail will extend northwest of the pavilion to a lookout point that provides a view to the north. This location provides views of the softball complex to the northeast and the soccer complex to the northwest.

Prairie Trail – A 5-foot wide paved trail will extend east from the pavilion and wind its way through the restored prairie. This level trail provides visitors with views of the south and east ponds.

Trail Benches – Six-foot long benches will be placed along the trail about every 750 feet to provide a place for visitors to rest and enjoy the scenery. A three-by-three foot paved pad will be placed at one end of the bench to provide a space for a person using a wheelchair to sit.

Interpretive Exhibits – History of the Nature Park land, Native Prairie, Clouds & Sky – Three interpretive exhibits will occur on the top of the former landfill hill. Two will be located in the pavilion. The other will be located at the north lookout point. One pavilion exhibit will explain the natural and cultural history of the land comprising the nature park, extending from the most recent glacial period to operation of the landfill and creation of the nature park. The second pavilion exhibit will explain pre-settlement era tallgrass prairie and restoration of native prairie on the former landfill. The third exhibit will encourage visitors to look up at the sky after enjoying the view. This panel will explain clouds, weather and be whimsical in message and artwork.

Natural-Surface Trail – Two segments of natural-surface trail will extend north and east of the overlook area to allow visitors to further explore the restored prairie. The corridor for this trail will be mowed periodically.

### South Parking Area

South Parking Area – The road leading north from 32<sup>nd</sup> Street will terminate in a 25 car parking lot, which will include two designated accessible parking stalls. Sidewalks will be included in the original construction, so the accessible parking stalls can be increased from two to four simply by adding signs and symbols of accessibility on these stalls. The lot will be designed with a flow-through traffic pattern. The lot design will utilize a low-density concept to incorporate greenspace within the parking lot footprint. The design will include landscape areas that can serve as stormwater management BMPs to cleanse and infiltrate runoff. Passengers in vehicles driving through the lot will be provided with a sweeping view of the middle pond so they can see activity going on in the area. A five-foot wide paved walk will extend north from the parking lot to the Main Trail.

Welcome Station & Orientation Map – A welcome station containing a park map, park rules and regulations and other information will be provided near the parking lot. The station will be located along the walk connecting to the Main Trail.

Pre-cast Concrete Vault Toilets – Two accessible vault toilets will be located near the parking area to provide basic sanitary services. The toilets will be located along a paved trail with truck access for servicing.

### Middle Pond Area

Middle Pond Parking Area – The road leading north from 32<sup>nd</sup> Street will terminate in a 28 car parking lot, which will include two designated accessible parking stalls. The parking area will be designed so an additional 20 parking stalls can be added if needed in the future. Sidewalks will be included in the original construction, so the accessible parking stalls can be increased from two to four simply by adding signs and symbols of accessibility on these stalls. The lot will be designed with a flow-through traffic pattern. The lot design will utilize a low-density concept to incorporate greenspace within the parking lot footprint. The design will include landscape areas that can serve as stormwater management BMPs to cleanse and infiltrate runoff. Passengers in vehicles driving through the lot will be provided with a sweeping view of the middle pond so they can see activity going on in the area. A five-foot wide paved walk will extend from the parking lot to the Middle Pond Loop Trail.

Welcome Station & Orientation Map – A welcome station containing a park map, park rules and regulations and other information will be provided near the parking lot. The station will be located along the walk connecting to the Middle Pond Loop Trail.

Portable Toilet Enclosure – Two accessible, portable toilets will be located in a screen enclosure to provide basic sanitary services. The enclosure will be located along a paved trail with truck access for servicing.

Middle Pond Loop Trail – A five-foot wide paved trail will extend around the east pond's perimeter to provide access for anglers. Walking this loop, which includes a portion of the main trail, will provide visitors with a 0.6 mile long stroll.

Interpretive Exhibit – Pond Ecology – A wayside interpretive exhibit will be located along the trail that explains the ecology of ponds, including the animals that live there and what roles that they play. This exhibit would be designed and written with children as its primary audience.

Trail Benches – Six-foot long benches will be placed along the trail about every 750 feet to provide a place for visitors to rest and enjoy the scenery. A three-by-three foot paved pad will be placed at one end of the bench to provide a space for a person using a wheelchair to sit.

Trail Bridge – A six-foot wide weathering steel bridge will allow the Middle Pond Loop Trail to cross the narrow channel separating the Middle Pond from the North Pond. This bridge will have a wooden deck and be 75 feet long.

Accessible Fishing Pier – A floating accessible fishing pier will be located along the western edge of the Middle Pond. This location will allow anglers to access the pond's deeper water. The travel distance from the parking lot to the pier will be approximately 425 feet.

### Nature Center

Nature Center – A 3,500 square foot nature center building will be constructed northeast of the south parking area to allow use of the nature park as an outdoor classroom. The building will include two classrooms, restrooms, a lobby with interpretive exhibits and displays. The center will be constructed using green technology and sustainable design. Use of natural daylight, geothermal heating and cooling, rainwater harvesting for landscape watering and other sustainable technologies that can serve as demonstrations for local homeowners will be incorporated into the building design.

Nature Center Terrace – On the north side of the nature center there will be a 1,300 square foot terrace for outdoor activities. Part of the terrace will be shaded by an overhead trellis.

Native Landscaping and Native Grass Lawn – Landscaping surrounding the nature center will highlight the use of native plants to create butterfly and insect gardens, provide small animal habitat, and showcase the natural beauty of native plants. Lawn areas surrounding the nature center will use native grasses to demonstrate more sustainable options to traditional turfgrass.

Interpretive Exhibit - Native Plant Landscaping – A wayside interpretive exhibit will be located by the Nature Center’s entry plaza gardens and explain the benefits of using native plants in home landscapes.

Animal Exhibits – South of the nature center there will be several large open pens to allow seasonal exhibits of small fowl or other native small animals. The idea is to provide families with small children the opportunity to view these animals up close and to create repeat visitation. Park visitors will not be allowed to come into contact with the animals.

Bench – A six-foot long bench will be placed on the entry plaza with a view to the adjacent butterfly gardens.

### The Wildland

Wildland Trail Loop – A five-foot wide paved trail with sections of boardwalk will extend through the wetland area on the park’s west boundary. This trail will allow visitors to experience the wonder of wetlands by passing between two large marshes. At several locations along the boardwalk, its width will expand and benches will be provided for persons wishing to sit and enjoy the setting. Walking this loop will provide visitors with a 0.3 mile long stroll.

Interpretive Exhibit – Wonder of Wetlands – A wayside interpretive exhibit will be located on the boardwalk that explains the ecology and benefits of wetlands.

Natural-Surface Trail – A segment of natural-surface trail will extend west of the Wildland Trail Loop to allow visitors to further explore the area. The corridor for this trail will be cleared of any brush and mowed periodically.

### South Brookings Fire Station & Training Site

Fire Training Site - Screen Plantings – A linear screen planting consisting of two rows of deciduous trees and three rows of large shrubs will be planted along the north and west edges of the area used for training purposes by the Brookings Fire Department.

Fire Station Plantings – Landscape plantings will be installed along 32<sup>nd</sup> Street to improve the appearance of the fire station and help it blend better with the nature park.

Fire Station & Training Site Security Fence – To prevent park visitors from straying into the fire department facilities, a six-foot high, black plastic chain link fence will be extended around the site. Two gates will provide access to the enclosed area, with one 12-foot wide gate being west of the fire station and one 24-foot wide gate being located east of the fire station.

### Multi-use Area – Northwest Corner of Nature Park

Lease or Acquire 40 Acre Property – The City will work with the current private landowner to either lease or acquire the 40-acre parcel on the northwest corner of the Nature Park. This parcel includes the area currently leased by the City, known as “Joe Huffman Park”. The Brookings Bike Trail loops through that portion of the property. The remainder of the parcel will be used for multiple recreational uses.

### Outdoor Learning Center

Screen Plantings – As part of the development process for the privately-funded Outdoor Learning Center, appropriate landscape screen plantings should be provided on all sides of the building by the organization developing that facility. A combination of deciduous and coniferous trees and shrubs should be planted around the building to buffer it visually from the Nature Park.

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