Chapter Two

Natural and Cultural Resources

1. Introduction

Natural and cultural resources add significant value to the quality of life within the Village. The parks provide recreational opportunities for residents, the various environmental features are an integral part of the ecosystem, and cultural resources help make Brown Deer a desirable place to live. The Natural and Cultural Resources chapter provides analysis of:

- Results from the public involvement process
- Existing natural resources, including parks and open spaces
- Historical and cultural resources
- The regional context for natural resource planning

The chapter concludes with goals and objectives, which articulate the values expressed by stakeholders, and policy recommendations, which provide strategies for attaining those goals.

2. Vision Statement

One of the four main tenets of the Village's Vision Statement is that Brown Deer will be a "beautiful suburban village." Attractive green spaces are a key component to a high quality of life within the Village. The Vision Statement identifies three areas for action: maintaining public parks and spaces so that they contribute to a scenic landscape within the Village, being good stewards of the land by preserving open space and the Village's limited natural resources, and providing recreational opportunities for Village residents.

Regarding cultural resources, the vision statement states that, "Our location will provide easy access to…a variety of amenities in the larger metro-Milwaukee area including professional sports, music, theater, nightlife, and museums."

3. Stakeholder Involvement Results

Overall, residents expressed satisfaction with the number and quality of park spaces available to them. The Pond at Village Park is seen as one of Brown Deer's unique and valuable assets. In fact, residents showed interest in having more community-wide events at Village Park. One suggestion was to partner with Brown Deer High School to put on a "Theater in the Park" program during the summer.

Residents did express some concern over safety in the parks, as well as the ability of Milwaukee County to maintain the parks in the Village that are under its jurisdiction. A number of elected officials wondered whether it might be possible for the Village to assume maintenance and management of the County-operated parks. Also, some stakeholders noted that people use parks differently than they did in years past. For example, as the population ages, there is perceived to be less demand for more active use parks. A few seniors noted that the parks offered very little for their interests. At the same time, Village staff noted that the Parks and Recreation Department has limited facilities and resources with which to accommodate the recreational and cultural activities desired by some constituents.

Village officials would like to further develop partnerships for innovative stormwater control and enhancement of the natural environment. Such partnerships would build on the collaborative work that has already been undertaken with the state Department of Natural Resources and Milwaukee Metropolitan Sewerage District on flood control and water quality improvement projects including naturalizing portions of Beaver Creek and removing houses from the floodplain along Southbranch Creek. Additionally, many participants expressed interest in improving access to the Milwaukee River if it can be done in a manner that ensures the security of visitors.

The list below includes qualities that residents currently appreciate about Brown Deer as well as those challenges that residents feel Brown Deer *ought* to address in the future.

Strengths

- Beauty
- Well-tended property
- Green
- "Suburban"
- Open space
- Recreation opportunities
- Local control
- Widely used
- Wide range of activities
- Kid-oriented recreational opportunities
- Rivers

Challenges

- Big box blocking access to the Milwaukee River
- County control over some of the parks
- Park maintenance costs
- Costs of recreational programs
- Question of whom the parks serve
- Lack of access to natural features
- Park promotion and visibility
- Neighbor discontentment with past improvement initiatives
- Perception of safety and crime
- A history of overland flooding
- Complacency among residents

Algonquin Park is one of several parks within the Village.

4. Data Analysis

The data analysis portion of this chapter is divided into three sections: natural resources, parks and open space, and cultural resources.

4.1 Natural Resources

Figure 2.1, on page 29, maps many of the natural resources discussed in this section and shows their relationships to one another.

4.1.1 Topography

Like the rest of the Milwaukee County, Brown Deer's topography was most affected by the late Wisconsin glaciation period. As a result of this glacial activity, the landscape is characterized by gently rolling ground moraines. Since the Village is fully developed, much of the terrain has been altered to accommodate various land uses. The topography is generally uniform, with one to six percent slopes in most areas. The elevation of the Village is approximately 676 feet above sea level.

4.1.2 Environmental Corridors

In their report, "A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin, Planning Report No. 42," (September 1997) the Southeastern Wisconsin Regional Planning Commission (SEWRPC) identifies environmentally important areas for preservation efforts. In order to be classified as a natural resource area, the area must have one or more of the following: woodlands, wetlands, lakes, rivers, streams, steep slopes, geological formations, wildlife habitat areas, poorly drained soils, and existing or potential recreation sites.

The stand of trees in A.C. Hanson Park is an isolated natural resource area.

SEWRPC uses three categories to distinguish among natural areas of different scale and importance:

- Primary corridors are linear landscape features of at least 400 acres with a minimum length of two miles and a minimum width of 200 feet.
- Secondary corridors are smaller in scale, with a minimum of 100 acres and a minimum length of one mile.
- Isolated natural resource areas have at least a five acre area with a minimum length of 200 feet.

Within the Village of Brown Deer, there are three areas that are considered isolated natural resource areas: the stand of oak trees behind the Bank Mutual headquarters south of Brown Deer Road, Tripoli Country Club grounds, and the stand of trees and shrubs near A.C. Hanson Park.

Although largely located outside the Village (only 3.5 undeveloped acres are actually located in Brown Deer), much of Brown Deer Park is designated as a primary environmental corridor, meaning that it is integral to the overall health of the ecosystem in the region. This park is widely used by Village residents and is seen as a valuable asset to the Village as well as the entire metropolitan region.

The Milwaukee River corridor is also a primary environmental corridor, and it forms the boundary between Brown Deer and River Hills. Many residents have noted that the river is an asset but that there is little access to this resource because much of the riverbank land is privately owned with no easements for public access.

4.1.3 Surface Water

As identified by SEWRPC, the two most important surface water resources within the Village are Southbranch Creek and Beaver Creek, two tributaries of the Milwaukee River. The Milwaukee River lies outside of Village boundaries, immediately adjacent to Brown Deer's eastern border. Also, Brown Deer Park Creek flows across a small sliver of the easternmost portion of the Village. Other surface water resources identified by the regional planning commission include the pond on the property of Badger Meter, in the 4600 block of Brown Deer Road and a pond on the property of Tripoli County Club.

4.1.4 Wetlands and Woodlands

Wetland is a broad term used for areas where the ground is usually saturated with water due to soil drainage characteristics and/or its proximity to surface water. Because they serve as a transition between uplands and surface water, wetlands are often host to a greater-than-average number of plant and animal species. As a community built out over half-a-century, there are limited wetland resources within the Village of Brown Deer as identified by the Wisconsin Department of Natural Resources (DNR) Wisconsin Wetland Inventory. The three largest wetlands are located in the southwestern corner of Algonquin Park, along 51st Street; along Beaver Creek behind Village Hall; and near the new Donges Woods subdivision, just south of County Line Road. Other wetlands are located on both banks of the Milwaukee River and in several locations along Beaver, Brown Deer Park, and Southbranch Creeks. Wetlands are typically classified by the types of plants that they contain. Brown Deer contains forested, shrub, and wet meadow wetlands. The Wisconsin DNR maintains an online mapping service for more information at: http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=SurfaceWaterViewer.wetlands

A woodland is loosely defined as an area populated with trees and shrubs. Woodlands are smaller in size and are less densely wooded than forests. According to SEWRPC, woodlands

can exist within an environmental corridor or on their own; however, the title of "environmental corridor" is usually reserved for those woodlands that have an area of at least 5 acres and that contain other natural features. An area identified as a woodland is always smaller than an environmental corridor. Oftentimes, a stand of trees can be classified as a woodland. Woodlands provide habitat for birds and other animals, they prevent soil erosion, and their vegetation cleans the air of carbon dioxide. According to SEWRPC and the Wisconsin Department of Natural Resources, several woodlands exist within the Village. Notable woodlands in the Village are located along the Milwaukee River, along the rail corridor south of Village Hall, and on a parcel of land at the intersection of Green Bay Road and Teutonia Avenue currently being restored by the River Revitalization Foundation.

4.1.5 Wildlife Habitat

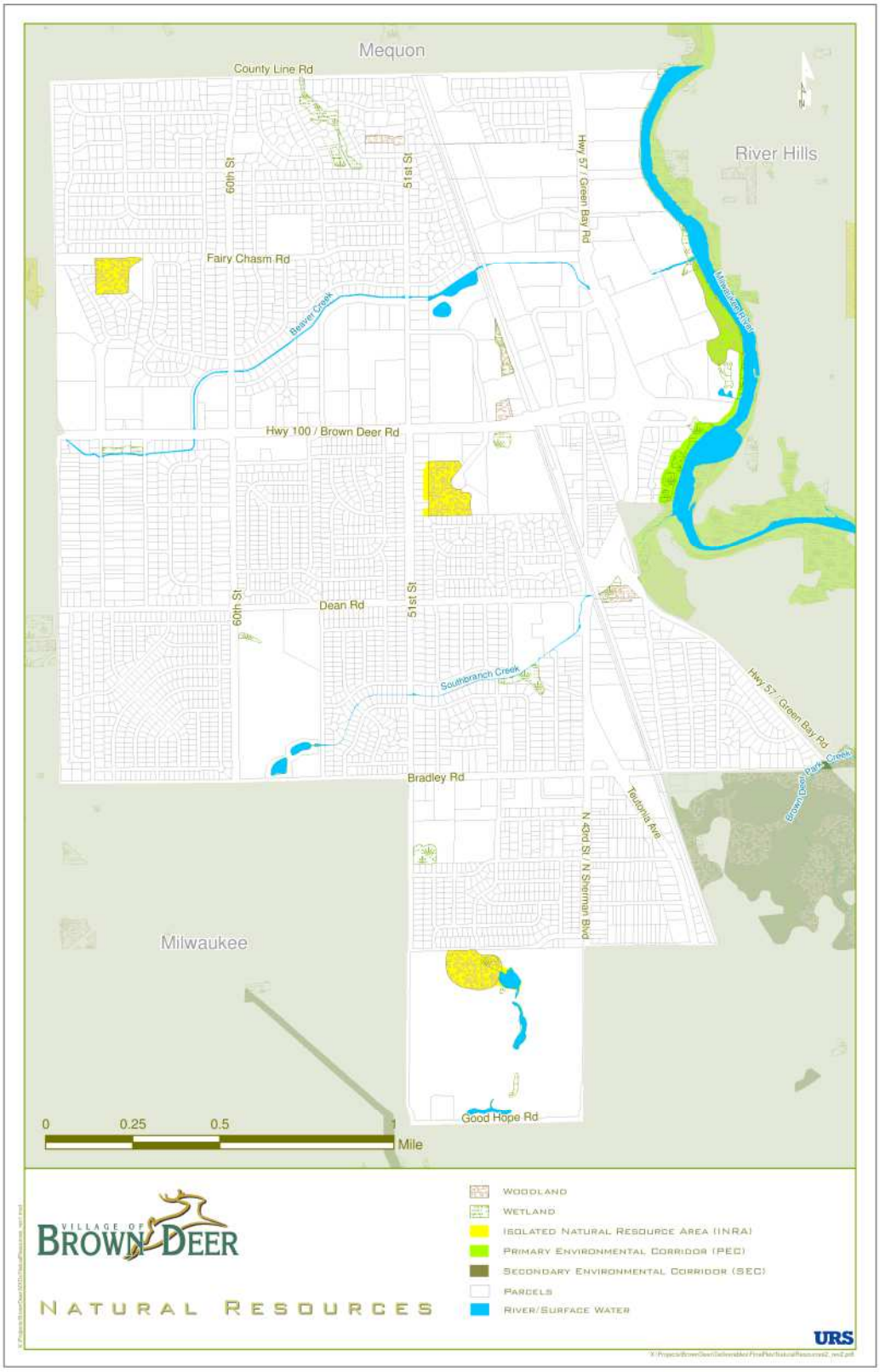
Because there are very few natural habitats left in the Village, no endangered species have been surveyed or identified specifically within Brown Deer. However, the North Shore suburbs are home to a variety of avian wildlife and small mammals common to urban areas, such as songbirds, deer, foxes, squirrels, chipmunks, and rabbits. While data specific to Brown Deer is not available, Table 2.1 shows the endangered or rare animal and plant species that are found in Milwaukee County.

Table 2.1: Occurrence of Rare Species and Natural Communities in

Aquatic Occurrences		
Animal	**Plants**	**Natural Communities**
▪ Osprey	▪ Wild Licorice	▪ Shrub-carr
▪ Bullfrog	▪ Ohio Goldenrod	▪ Wet Prairie
▪ Common Tern	▪ False Hop Sedge	▪ Calcareous Fen
▪ Gray Copper	▪ Hemlock Parsley	▪ Emergent Marsh
▪ American Eel	▪ Ravenfoot Sedge	▪ Floodplain Forest
▪ Least Darter	▪ Tufted Hairgrass	▪ Great Lakes Beach
▪ Redside Dace	▪ Downy Willow-herb	▪ Wet-mesic Prairie
▪ Redfin Shiner	▪ Waxleaf Meadowrue	▪ Northern Wet Forest
▪ Striped Shiner	▪ Marsh Blazing Star	▪ Southern Sedge Meadow
▪ Lake Chubsucker	▪ American Sea-rocket	▪ Stream--Slow, Hard, Warm, Stream
▪ Longear Surfish	▪ Showy Lady's-slipper	▪ Springs and Spring Runs
▪ Aurora Damselfly	▪ Variegated Horsetail	
▪ Banded Killifish	▪ Heart-leaved Plantain	
▪ Great Spreadwing	▪ Sparse-flowered Sedge	
▪ Greater Redhorse	▪ Sticky False-asphodel	
▪ Prairie Crayfish	▪ Common Bog Arrow-grass	
▪ Blanding's Turtle	▪ Lesser Fringed Gentian	
▪ Lemon-faced Emerald	▪ Slender Bog Arrow-grass	
▪ Butler's Gartersnake	▪ Ram's-head Lady's-slipper	
▪ Blanchard's Cricket Frog	▪ Small White Lady's-slipper	
▪ Black-crowned Night-heron	▪ Sweet-scented Indian-plantain	
	▪ Northern Yellow Lady's-slipper	
Terrestrial Occurrences		
Animal	**Plants**	**Natural Communities**
▪ Dickcissel	▪ Twinleaf	▪ Oak Opening
▪ Bird Rookery	▪ Wafer-ash	▪ Mesic Prairie
▪ Peregrine Falcon	▪ Forked Aster,	▪ Southern Mesic Forest
	▪ Hooker Orchis	▪ Northern Dry-mesic Forest
	▪ Slender Sedge	▪ Southern Dry-mesic Forest
	▪ Snow Trillium	
	▪ Handsome Sedge	
	▪ Seaside Spurge	
	▪ Yellow Gentian	
	▪ Purple Milkweed	
	▪ Smooth Black-haw	

Source: WisDNR, Natural Heritage Inventory, 2008

Figure 2.1: Natural Resources



Source: WisDNR and SEWRPC

4.1.6 Productive Agricultural Areas

At the time this plan was prepared, one 7 acre parcel in the Village's northeastern corner was still used for agricultural purposes, the last remnant of Brown Deer's historic truck farming industry. In 2008, a conceptual development proposal was approved for this parcel by the Plan Commission, however no further engineering or project approval has been sought and the land remains in cultivation, rented to multiple small scale local farmers. While no other agricultural lands currently exist within Brown Deer nor is there a preponderance of soils appropriate for intensive agricultural use in undeveloped parcels, Village staff and residents have identified potential parcels for community garden sites. One potential site is the tracts of land along Teutonia Avenue adjacent to the western edge of Brown Deer Park. These parcels are very shallow and inadequate for most other types of commercial or residential development; therefore, community gardens might be an appropriate land use for these parcels.

In response to severe overland flooding in the 1990s, several homes along Southbranch Creek were acquired and demolished, and the Village enacted a stormwater management plan to control flooding.

4.1.7 Floodplains

The Federal Emergency Management Agency (FEMA) designates floodplain areas within the Village, and floodplain maps are available from the agency and on file at Village Hall. The floodplain maps impacting Brown Deer were recently updated in September 2008. Additional map amendments and revisions typically happen throughout the life cycle of FEMA floodplain maps and Village Staff indicated revised mapping along Beaver and Brown Deer Park Creeks was currently being prepared by SEWRPC. The floodplain maps identify those areas of the Village that could be affected by 100 and 500 year floods.

Together with FEMA and the Wisconsin Department of Natural Resources, the Village seeks to limit and prevent development within the floodplain in order to protect life, health, and property as well as to reduce public expenditures for relief efforts. The Village of Brown Deer has a Floodplain Zoning Ordinance that regulates development within the floodplain.

4.1.8 Urban Tree Canopy

One of the defining characteristics of Brown Deer is its tree-lined streets. Residents consistently remarked on the aesthetic value that the tree canopy brought to the Village. According to the Village's Public Works Department, over 2,087 trees are planted along roadways and medians. By variety, street trees are broken down as follows: 36% Ash, 19% Locust, 18% Maple, 10% crabapple, and 17% other varieties.

On municipal property, there are nearly 200 trees. Of these, 19% are Ash, 19% are Spruce, 18% are Maple, 17% are Mugho Pine, and 28% are other varieties.

The Village has identified over 100 sites where street trees should be added and nearly 40 potential sites on municipal property to plant trees.

At the time this document was prepared, the Village was in the process of preparing a plan, in conjunction with other North Shore Communities, to deal with the Emerald Ash Borer (EAB), an invasive beetle species from Asia. Brown Deer has about 31% public ash trees and is in the process of inventorying the number of ash trees on private properties. At this point, EAB had been found in Ozaukee County, but not in Brown Deer or elsewhere in Milwaukee County.

4.1.9 Metallic and Nonmetallic Resources

There are no metallic or nonmetallic extraction activities within the Village.

4.1.10 Soil Types

According to SEWRPC's soil mapping service, Brown Deer has approximately a dozen different types of soil, almost exclusively belonging to the "silt loam" category. Silt loams are characterized by a relatively high proportion of granular material. They are not ideal for agriculture as they do not drain well. The following soils are known to be located within Brown Deer: Ozaukee silt loam, Mequon silt loam, Ashkum silty clay loam, Martinton silt loam, Colwood silt loam, Clayey loam, Casco loam, Grays silt loam, Fox sandy loam, Montgomergy silty clay loam, and Pella silt loam.

4.2 Park Facilities and Open Space

Since Brown Deer is a built-out community with few natural habitats, parks provide the primary opportunity for outdoor recreation for residents. While most residents expressed satisfaction with the quality of the parks available to them, Village staff understands the necessity of periodically reevaluating whether the parks are continuing to meet the recreational needs of residents. The purpose of this section is to evaluate current conditions in Brown Deer's parks and open spaces.

4.2.1 Types of Park Facilities

To assess park facilities in Brown Deer, the planning team relied on the "Spatial Standards for Public Outdoor Recreational Areas," produced by the National Recreation and Park Association. These are the same standards that the City of Milwaukee used for their *Public Outdoor Recreation Plan for City of Milwaukee Neighborhoods: 2001-2005*. The Association has established accepted standards for acreage of various park types per capita to aid communities in planning for open spaces and recreation. According to the "Spatial Standards," parks can be classified by size, service area, facilities, and target population. The five categories of parks identified by the association are: playgrounds, neighborhood parks, playfields, community

Table 2.2: Classification of Parks in Brown Deer

Park	Management, Classification & Service Area	Facilities
A.C. Hanson	County of Milwaukee	playground
	Playground	soccer field
	1/4 mile	open space
		benches
Algonquin	County of Milwaukee	playground
	Neighborhood Park	picnic tables
	1/4 mile	shade trees
		benches
		2 baseball fields
		soccer field
		wading pool*
		concession stand*
Fairy Chasm	Village of Brown Deer	playground
	Neighborhood Park	2 soccer fields
	1/2 mile	2 baseball fields
		basketball court
		benches
		shade trees
Village Park	Village of Brown Deer	playground
	Community Park	pool/ swimming pond
	3/4 mile	sand volleyball court
		bathhouse
		concession stand
		tables
		2 shelters
		picnic facilities
		historic schoolhouse
		open space
		shade trees
School Campus	Brown Deer School District	soccer fields
	Playfield	baseball fields
	1/2 mile	basketball courts
		tennis courts
		football field
		track facilities
		open space

**These facilities were not in service at the time this document was prepared*

Source: URS and The National Park and Recreation Association

parks, and metropolitan parks. Table 2.2 details the characteristics of various parks facilities in the Village and their classification in this scheme.

Village Park is a community park.

Playgrounds are the smallest type of outdoor recreational area. Playgrounds are intended for youth and include facilities such as tot lots, attractive landscaping, and paved and turf areas for different types of play equipment. Playgrounds are typically located near the center of the neighborhood away from major streets. Often, they are located near elementary schools. Playgrounds should be accessible on foot as they are a neighborhood amenity. Since this type of park is smaller and more pedestrian oriented, the service area radius is relatively small--about a quarter mile. The standard area recommended for a playground is 1.25 acres per 1,000 residents in the service area or a minimum of 3 acres total. In Brown Deer, A.C. Hanson Park can be classified as a playground.

The Brown Deer school campus provides playfiled opportunities.

Neighborhood parks are, in general, slightly larger than playgrounds, and provide for passive use as well as the more active type of use seen at playgrounds. They are intended for all age groups. Neighborhood parks will typically provide shaded areas and picnic facilities in addition to a playground or a wading pool. Neighborhood parks, like playgrounds, ought to be easily accessible on foot since the service area radius is a maximum of half a mile. The standard area recommended for a neighborhood park is 1 acre per 1,000 residents or a minimum of 8 acres total.

Fairy Chasm Park and Algonquin Park can be classified as a neighborhood park.

Fairy Chasm Park is a neighborhood park.

Playfields provide outdoor recreational opportunities for older children and adults. Facilities include baseball fields, soccer fields, spectator facilities, and any other provisions necessary for organized sports. Since playfields attract people from a large area—between half a mile and a mile—parking provision is often desirable. The standard area recommended for a playfield is 1.25 acres per 1,000 residents in the service area or a minimum of 10 acres total.

The school campus is considered a playfield because it has sports facilities that can be used by the public.

Community Parks are the last type of park found in the Village. A community park is usually located at a place of significance for the community. Community Parks also have facilities not found elsewhere that accommodate both active and passive uses. Community Parks have a wider service area since they are intended for the entire community; therefore, parking is desirable. The standard area recommended for a community park is 1 acre per 1,000 residents in the service area or a minimum of 30 acres total.

Village Park in Brown Deer is a community park, given its location near Village Hall, its appeal among residents, and its unique historic schoolhouse and swimming facilities. A typical summer sees an attendance count of over 8,000 swimmers at the Pond.

Although Brown Deer Park is largely located outside Brown Deer, it is used by many Village residents and is an asset to the community. It is part of a larger classification of parks—**Metropolitan Parks**. Metropolitan Parks are intended to serve the entire county but have the most impact within a three to four mile radius. Residents reported driving to Brown Deer Park to walk and enjoy other outdoor activities. For the purposes of this plan document, because only a small portion of Brown Deer Park actually is within municipal boundaries, the park was not considered a park "in" the Village of Brown Deer.

4.2.2 Assessment of Park Facilities

In general, the Village has adequate park space and adequate facilities to accommodate the needs of its residents. According to the acreage recommendations, all of the parks in Brown Deer are of adequate size, with the possible exception of Village Park. At 11 acres, Village Park is smaller than the minimum requirement of 30 acres; however, when judged by acreage per capita, the area of the Village Park exceeds recommended standards. Furthermore, the parks are well-maintained and residents consider them to be safe. Table 2.3 shows the park space analysis. "Recommended Acreage per 1,000 Population" is derived from National Park and Recreation Association standards; "Actual Acreage" represents existing conditions in the Village.

Table 2.3: Analysis of Park Space by Acreage and Service Area

Park	Minimum Recomm. Area	Actual Area	Recomm. Acreage per 1,000 population	Population in Service Area	Actual Acreage per 1,000 population
A.C. Hanson	3 acres	14 acres	1.25 acres	1,129	113
Algonquin	8 acres	10 acres	1 acres	1,231	68
Fairy Chasm	8 acres	10 acres	1 acre	2,552	255
Village Park	30 acres	11 acres	1 acre	5,277	480
School Campus	10 acres	64 acres	1.25 acres	4,284	67

Source: URS and The National Park and Recreation Association

Figure 2.3 shows a visual representation of the distribution of park space in the Village. Most neighborhoods are served by at least one park; many are served by two. While the southeastern quadrant is not as proximate to parks within Brown Deer, these neighborhoods are very close the Brown Deer Park, which is primarily located within the City of Milwaukee. Therefore, park access in this section of the Village is likely adequate. Small areas on the Village's western and northwestern boundaries appear to be underserved by parkland.

The "Spatial Standards" do not account for such issues as access that may affect residents' ability to travel to outdoor facilities. The one area of the Village that may lack adequate access to park space is the northeastern quadrant of the Village. This quadrant has a dense population due to the high concentration of multifamily units. In this instance, the obstacle is not so much distance, as it is safe access. Green Bay Road and the Canadian National railroad tracks form a major impediment for those trying to get to Village Park, which is the closest park, or to any of the other parks north of Brown Deer Road. The wide lanes, high travel speeds, and the lack of pedestrian facilities hinder residents — particularly young people — from walking to Village Park or any other park. Residents who live in this quadrant of the Village are also less likely to own a vehicle than residents in other parts of the Village, according to Census data, further limiting access to the park system. It is important to note that the Village has undertaken efforts to provide more access to this area. A bicycle and pedestrian connection across the railroad right-of-way is scheduled for construction in 2010. It will begin at Village Park, cross the rail line, connect to an existing path that extends to the intersection of Green Bay Road and Deerwood Drive, where there is a controlled crossing.

4.2.3 Other Park Facilities and Open Space

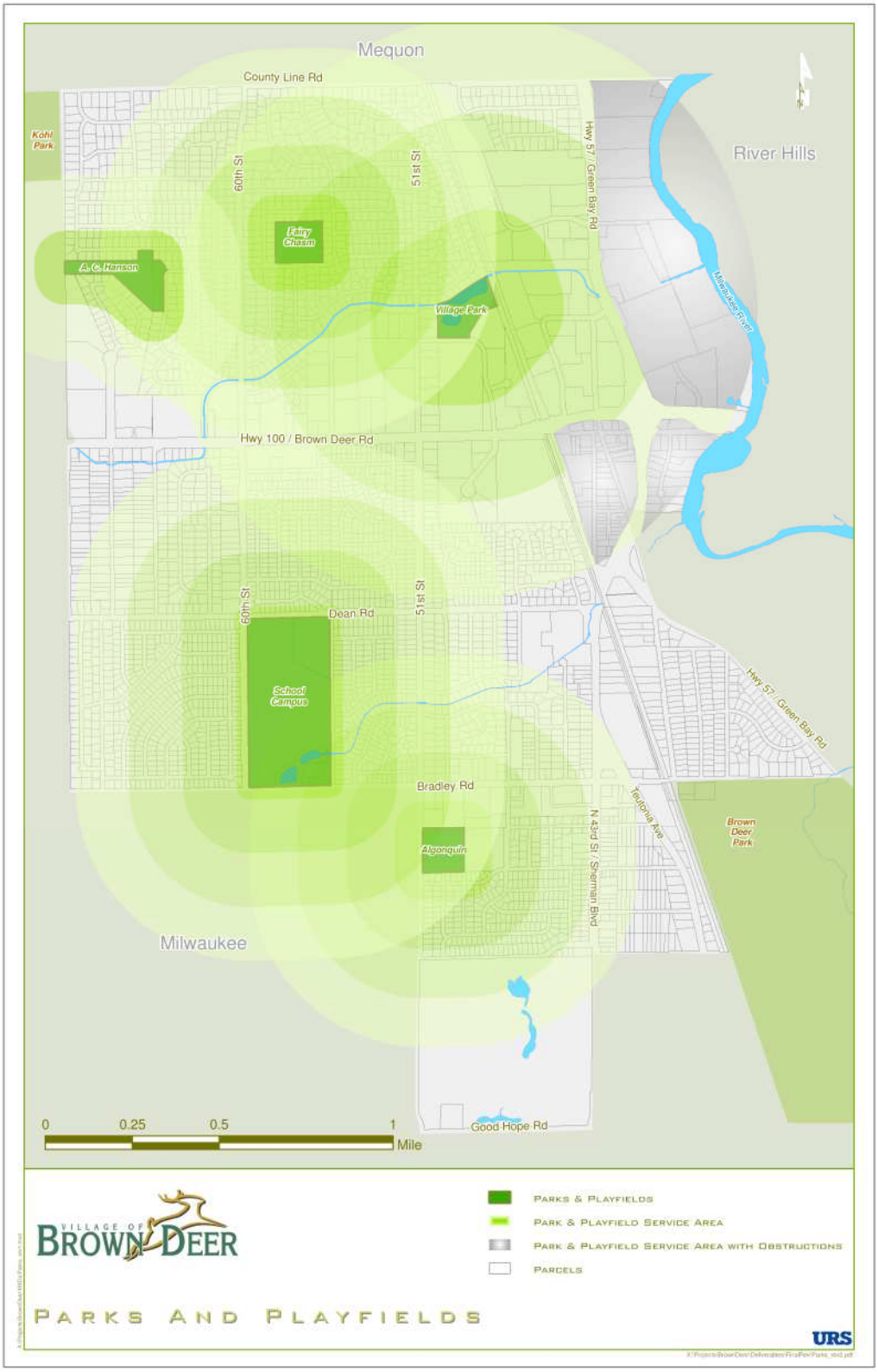
River Revitalization Foundation

At the time this plan was prepared, the River Revitalization Foundation, a non-profit group, had recently acquired a 2 acre parcel of land at the intersection of Green Bay Road and Teutonia Avenue. Southbranch Creek flows through the parcel, near its confluence with the Milwaukee River. Efforts are currently underway to restore the wetlands and woodlands on this property and to rid the area of invasive plant species. The Foundation plans to remove invasive species such as buckthorn, to plant native species that will prevent erosion along Southbranch Creek, and to accommodate passive recreational activities and the extension of the Oak Leaf Trail that is planned for the Spring of 2010. To finance the project, the Village secured a grant from the Wisconsin Coastal Management Program for environmental remediation of the site. The Foundation was able to garner additional individual and corporate donors.

Kohl Park

SEWRPC's 1991 "Park and Open Space Plan for Milwaukee County" identifies the need for park space in the northeast corner of the Village. The plan also recommends the eventual development of recreation activities in "Site #71" (now known as Kohl Park) in an area of the City of Milwaukee immediately west of the Village's boundary near 68th Street and County Line Road. If developed further (currently only several soft trails have been created), this park could provide considerable recreation opportunities for Village residents.

Figure 2.3: Park and Playfield Service Areas and Access Analysis



Source: URS and The National Park and Recreation Association

Recreational Trails

The multi-use path that runs north-south along the WE Energies utilities and Canadian National rail corridor forms a linear park, connecting important sites within the Village. Currently, the path is paved from Brown Deer Road to Country Line Road, where it joins with the Ozaukee Interurban Trail. At the time this document was prepared, funding had been programmed by Milwaukee County to extend the trail south to Brown Deer Park, where it could connect to the larger Oak Leaf Trail system. Extension plans also include a mixed on-street and off-street component that would run in an east-west direction from Village Park to A.C. Hanson Park and into Kohl Park.

Tripoli Country Club

Tripoli County Club is also a park space within the Village, although it is a private club open to open members only. Located at the southernmost point of the Village, Tripoli offers one of the best golf courses in the state, as well as an outdoor swimming pool and tennis courts. Established in 1921, before the Village incorporated, the country club occupies 155 acres.

4.2.4 Other Issues for Parks in Brown Deer

Another issue facing parks in Brown Deer is the question of management. Milwaukee County owns and maintains two parks in Brown Deer, A.C. Hanson Park and Algonquin Park. Residents and staff are concerned with the County's ability to continue upkeep given its financial constraints. Some stakeholders feel that the Village has more interest in the continued use of these Parks. For example, the wading pool and concession stand at Algonquin Park is currently shut down because of cost issues. At the same time, long term funding for the Parks Department in the Village can be difficult to predict because parks are not prioritized the same as other municipal services, such as police and public works.

Another issue is that the Brown Deer Park and Recreation Department has limited facilities for recreational activities for youth and adults. The Park and Recreation Department currently uses the school district's facilities in order to provide many of its programs since it does not always have the appropriate space to host a wide range of sports programs. Department administrators report that constraints in funding and facilities disproportionately affect the Village's young people, whose families rely on Park and Recreation programs to provide activities and *de facto* child care services. This issue will be examined further in Chapter 7, Utilities and Community Facilities. Finally, the Village is undertaking planning for a skateboard facility in Brown Deer.

4.3 Historical and Cultural Resources

The following are places or events of historical or cultural importance for the Village:

4.3.1 1884 Brown Deer School

This landmark is on the state and national register of historic places as well as the Milwaukee County Landmark Register. The Brown Deer School, also known as the "Little White Schoolhouse", was transferred from the Original Village to Village Park in 1972. Built in 1884, this building served as a one room school house until 1922. The Brown Deer Historical Society provides a "living schoolhouse" program on local history for Brown Deer Public Schools pupils.

4.3.2 Original Village

The first settlement site in what is now the Village of Brown Deer, the Original Village is a small mixed-use commercial district. The urban design of the Original Village is unique compared to other areas of the Village in that commercial activity is scaled for the pedestrian, residential and commercial land uses are close together, street parking is provided and many buildings predate the incorporation of the Village. During the public participation process, many residents identified the Original Village as a unique commercial district in Brown Deer, and one that deserves enhancement and access improvements.

4.3.3 Fourth of July Celebration

Every year, with financial assistance from area business, the Village sponsors Independence Day festivities and fireworks at the Village Park. This celebration is widely popular and well-attended.

4.3.4 Proximity to Milwaukee's Museums, Art Galleries, Theaters, and Sporting Events

Many stakeholders commented that they enjoyed the fact that the Village was close to an urban center, but still far enough removed to have a more rural character. Brown Deer's location within the Milwaukee metropolitan region affords Village's residents with many cultural and entertainment opportunities, including art galleries, theater, museums, and sporting events.

5. Planning Context

Parks planning in Wisconsin is largely undertaken at the local level. Natural resources planning is undertaken at the local, regional and state levels. The regional planning commission has produced "A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin, Planning Report Number 42." The plan identifies critical natural resources and species in southeastern Wisconsin and makes recommendations for their protection.

Please note that other regional plans have been referenced throughout the chapter as they pertain to particular topics. Also, the planning team consulted with a representative from the Wisconsin Department of Natural Resources to ensure that this chapter addressed regional issues.

6. Brown Deer Natural Resources Goals & Objectives

Goals	*Objectives*
1. The Village will maintain and operate quality open space, parks, and natural resources to provide enjoyment and varied recreational opportunities.	**1.1** Continue to explore opportunities to expand open space and parks to enhance Village identity **1.2** Encourage public and private partnerships for the maintenance and improvement of parks and open space **1.3** Develop a Parks and Open Space Plan **1.4** Promote awareness of parks, programs, and open space in order to enhance Village identity **1.5** Promote an increase in the urban tree canopy and Village street trees
2. The Village will prioritize stewardship of natural resources and encourage sustainable practices in Village operations, development and redevelopment.	**2.1** Evaluate, develop and codify best management practices for environmental stewardship in the zoning code as a means to enhance Village identity **2.2** Increase awareness of sustainability initiatives in the Village
3. The Village will improve access to waterways, parks, and natural resources.	**3.1** Explore options for access to the Milwaukee River **3.2** Improve access to parks

7. Recommendations for Village Natural and Cultural Resources Policy, Programs and Initiatives

Brown Deer has a strong ongoing system to manage and utilize parks, open space and natural resources. This includes an awareness and willingness to "think outside the box" in areas such as stormwater management, recreational trail provision and adapting to the recreational needs of the Village's residents. The Village also has a strong tradition of managing cultural resources — such as historic structures — for community edification and development. It is anticipated that all these efforts will continue. The following recommendations focus on aligning the goals of stakeholders and the Village in continuing to meet the changing needs in terms of parks, open space and natural resource management.

1. Develop a comprehensive Parks and Open Space Plan.

This plan should, at a minimum, investigate space and facility needs, demographic trends, park and recreational facility design trends, and staffing and resource levels. Brown Deer is likely to see an aging of its "empty nest" population in the short term, and turnover in housing occupants over the coming decades. The needs of its citizens will vary with those population changes. Village staff are already reporting seeing variation in demands for recreation services. At the same time, general attitudes towards parks, recreation and the preservation of natural resources is changing nationwide. For example, interpretive parks and linear parks (trails with resting places and other facilities), as well as highly managed "green" public spaces are coming to the fore across the country. Other trends in park and open space design include natural area restoration and improvement of access to natural areas, particularly in urbanized regions. Brown Deer stakeholders have an awareness of some of these trends, and the Village is accommodating them, but not in a comprehensive manner. Completing a Parks and Open Space Plan will aid the Village in leveraging partnerships with private foundations, businesses, public agencies, and neighboring communities to meet broader needs.

2. Explore collaborations with Milwaukee County to better utilize park space and facilities for Village programs.

Village recreation programming makes use of many spaces and facilities throughout Brown Deer, sometimes with inconsistent results. It may be possible to work with the County to identify currently underutilized facilities — particularly in Algonquin Park — that could be used for Village programs. Similarly, stakeholders noted that the County's management priorities of small parks in Brown Deer are not necessarily aligned with local preferences. There may be a case to be explored for the Village taking over some level of operations at these parks. There are serious cost implications of the Village taking over management of A.C. Hanson and Algonquin Parks, but improving their management to meet local needs could enhance Brown Deer's image in the metropolitan area as well as improve the climate for business attraction.

3. Initiate planning to improve access to major natural resources, particularly the Milwaukee River and Brown Deer Park.

This comprehensive planning process has revealed a strong sentiment among stakeholders to make better use of the Village's natural resources, particularly the Milwaukee River. Additionally, the Wisconsin Department of Natural Resources has indicated interest in working with the Village to improve access, and the YMCA has also indicated interest in beginning discussions on improving access. Safety and security are key concerns, as well as minimizing conflicts between adjacent land uses. Types of access could include, but are not limited to: providing an easement along the Milwaukee River or a canoe landing. Providing better access to Brown Deer Park represents another opportunity for the Village. At present, there are a number of very shallow parcels along Teutonia Avenue. These parcels have never been developed because they are too shallow to accommodate a residence or commercial building. The Village should consider working with Milwaukee County to create better views or entranceways into the park. The extension of the Brown Deer Recreation Trail into Brown Deer Park may provide opportunities to enhance access to the park and build the Village's image. Further recommendations for these parcels on Teutonia Avenue are found in the Land Use chapter of this plan.

4. Plan to link park and recreation facilities in an "Emerald Bracelet."

Brown Deer has an excellent variety of parks and natural areas, but stakeholders report difficulty in accessing some of them. The Village's major recreation assets could be linked over time as street, sewer and stormwater facility construction and redevelopment takes place. Using a model pioneered in the Seattle "Street Edge Alternative" program, the Village's open ditch stormwater collection system could serve as the backbone of this connecting system, incorporating trails and bioswales into ditch design. 51st Street and 60th Street are natural focuses for north-south links, and Bradley Road and the planned east-west trail from A.C. Hanson Park to Village Park to the Brown Deer Recreational Trail complete the loop. These connections could be enhanced with consistent street trees and cross-sections, enhancing Brown Deer's image and meeting citizen-expressed needs for "green" connections around the Village.

5. Explore options for incentivizing green infrastructure on redevelopment projects.

Small incentives can lead to large aggregate results in "greening" Brown Deer and enhancing its image as a municipality that is meeting the demands of its residents while not dampening economic development. Santa Monica, California, for example, has a sustainable landscaping program that functions similarly to a façade grant program. The city also provides a $25,000-$30,000 grant for any U.S. Green Building Council LEED development to offset the cost of accreditation. Other cities require green infrastructure from a developer any time that public funding is involved, such as in a tax incremental financing district.

6. Consider initiating a sustainability planning process for the Village.

Municipalities across the metropolitan area and the country are searching for ways to contain operational costs and meet the changing expectations of their constituents. Many are undertaking processes to "sustainabilize" the community and municipal operations. These efforts range from energy audits for all facilities – particularly effective when done in concert with the school district – as was done in West Allis, exploring alternative fuels for the municipal fleet (including some police vehicles) or, more ambitiously, looking at the entire community as in the ongoing Elgin, Illinois sustainability planning process. For Brown Deer, this could include adopting sustainability principles that are used as a guide when judging all new development and redevelopment proposals. One excellent resource for municipalities looking to reduce their environmental impact is UW-Extension's *Toward a Sustainable Community: A Toolkit for Local Government*. The document provides concrete strategies for sustainable initiatives in regards to energy, buildings, transportation, procurement, investments, and human resources. http://www4.uwm.edu/shwec/publications/cabinet/reductionreuse/SustainabilityToolkit.pdf

7. Evaluate the municipal code periodically to ensure that it accommodates best practices in sustainability.

Explore any regulations in the municipal code—especially in the zoning and building codes—that may preclude simple sustainability initiatives. Best management practices evolve, and the code should accommodate these practices.

8.Continue to focus on innovative stormwater control initiatives.

Stormwater control will be a major issue in the Milwaukee metropolitan area for the foreseeable future. The Milwaukee Metropolitan Sewerage District (MMSD) is strengthening its commitment to helping municipalities implement and evaluate stormwater management Best Management Practices. Brown Deer has a history of successful projects, including porous pavement demonstrations, lateral replacement and large-scale control efforts. The Village should continue to incorporate innovative stormwater planning and treatments into trail planning, street reconstructions, streetscape improvement, and other municipal infrastructure projects, as well as programs, such as downspout disconnection and rain barrel or rain garden initiatives. One initiative to consider, detailed in the Utilities and Community Facilities chapter of this plan, is planning to provide shared stormwater management facilities at larger-scale redevelopment projects that involve multiple landowners.

9. Consider organizing an energy audit program for businesses and homeowners.

Shaker Heights, Ohio, and other municipalities have developed partnerships with energy audit firms to provide discounted rates for homeowners and business owners looking for ways to decrease energy costs. Such a program could, with minimal investment, enhance the Village's image in the metropolitan area while also helping residents manage energy costs.

10. Continue ongoing efforts to increase the tree canopy along streets and on municipal property.

These efforts should be cognizant of and coordinated with the Village's Emerald Ash Borer response plan.

11. Develop partnerships with the school district and private organizations to provide cultural events at Village Park.

This recommendation comes directly out of the public involvement process. There is a strong desire for more community-wide events at Village Park, and the Schools and Village may be able to collaborate to inexpensively produce an annual school orchestra or band concert in a park setting. Other municipalities–such as Whitefish Bay–organize community band concerts in parks, and they have proved to be excellent community-building efforts.

12. Identify and Preserve Natural Resource Areas.

The Southeastern Wisconsin Regional Planning Commission has identified several isolated natural resource areas as well as numerous wetland and woodlands. Although it is likely unfeasible for the Village to acquire any of these properties for conservation, the Village should work with property owners to find ways to preserve these areas. The Village should also consider providing educational materials (posting on the Village website or informational fliers) about how to identify and eradicate invasive species on their properties. Buckthorn and garlic mustard, in particular, are present on many residential properties.

Example of bioswales that have been added to open-ditch sewers to reduce runoff and improve neighborhood aesthetics