

City of
Wisconsin Dells



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s. 66.1001(2)(e) Wis Stats.

s. 66.1001(2)(e) Wis Stats.

The Agricultural, Natural, and Cultural Resource Element is intended to be a compilation of objectives, policies, goals, maps and programs for the conservation and promotion of the effective management of natural resources such as groundwater, forests, productive agricultural areas, environmentally sensitive areas, threatened and endangered species, stream corridors, surface water, floodplains, wetlands, wildlife habitat, metallic and nonmetallic mineral resources, parks, open spaces, historical and cultural resources, community design, recreational resources and other natural resources.

Introduction

Introduction

Permanent settlement in the Dells area began around 1853 at the “Lost City of Newport,” two miles from the current City of Wisconsin Dells. When the railroad bypassed Newport in 1856 for a river crossing to the north, the new settlement of Kilbourn City began at the site of the City today. The City was renamed in 1931 in an effort to promote tourism.

The scenic beauty of the Wisconsin River has attracted visitors to the Wisconsin Dells for many years. The City is a well-known tourist destination that was built on boat tours that began in the 1880’s. Also significant to the history and development of the City is the Native American community. Native Americans were and continue to be an important part of the area’s culture and history. The Ho-Chunk Nation is the largest employer in the Dells area, managing a casino in nearby Lake Delton.

“ The scenic beauty of the Wisconsin River has attracted visitors to the Wisconsin Dells for many years.”

In the early years, the Dells became internationally recognized due to the work of Henry Hamilton (H.H.) Bennett. After returning from the Civil War with an injury that left him unable to pursue his intended career as a carpenter, Bennett developed a passion for photography and capitalized on the area’s scenic and natural resources. He opened a portrait studio in Wisconsin Dells (then Kilbourn City) in 1875. His early pictures, including souvenir photos of tourists on sightseeing excursions and scenes among the Native American community, have contributed significantly to the City’s history and success as a resort community.

The tourism industry continues to flourish today. A peak-season tourist population of some 50,000 and more than 2.5 million visitors annually make the Dells one of the Midwest’s premier vacation and resort destinations. In 1999, it was estimated that the greater Wisconsin Dells community benefited from almost \$600 million in tourism-related expenditures.¹ The City has also become a popular summer employment destination for international students. Approximately 3,000 students were employed in the Dells area during the summer of 2001.² Travel and tourism account for an annual \$5.7 billion industry for the state, of which \$243 million is generated by Wisconsin Dells area businesses.³

Along with the natural, geologic and cultural resources that make up the Wisconsin Dells landscape is the more recent development of indoor/outdoor water recreation establishments. In 2000, the World Waterpark Association recognized the Dells area as the nation’s leader in water entertainment due to the quality, quantity and sophistication of its facilities.⁴

Despite the success of the tourism industry, residents and local officials have concerns about the City’s future. The community is faced with maintaining and building upon the area’s status as a premier destination, including the revitalization of its River District and Downtown, while maintaining the community’s unique character, natural beauty and cultural heritage.

¹ “Economic Impact of Expenditures by Travelers on the Wisconsin Dells Area, Calendar Year 1998,” Davidson-Peterson Associates, Inc, Kennebunk, Maine.

² Wisconsin State Journal, September 2001.

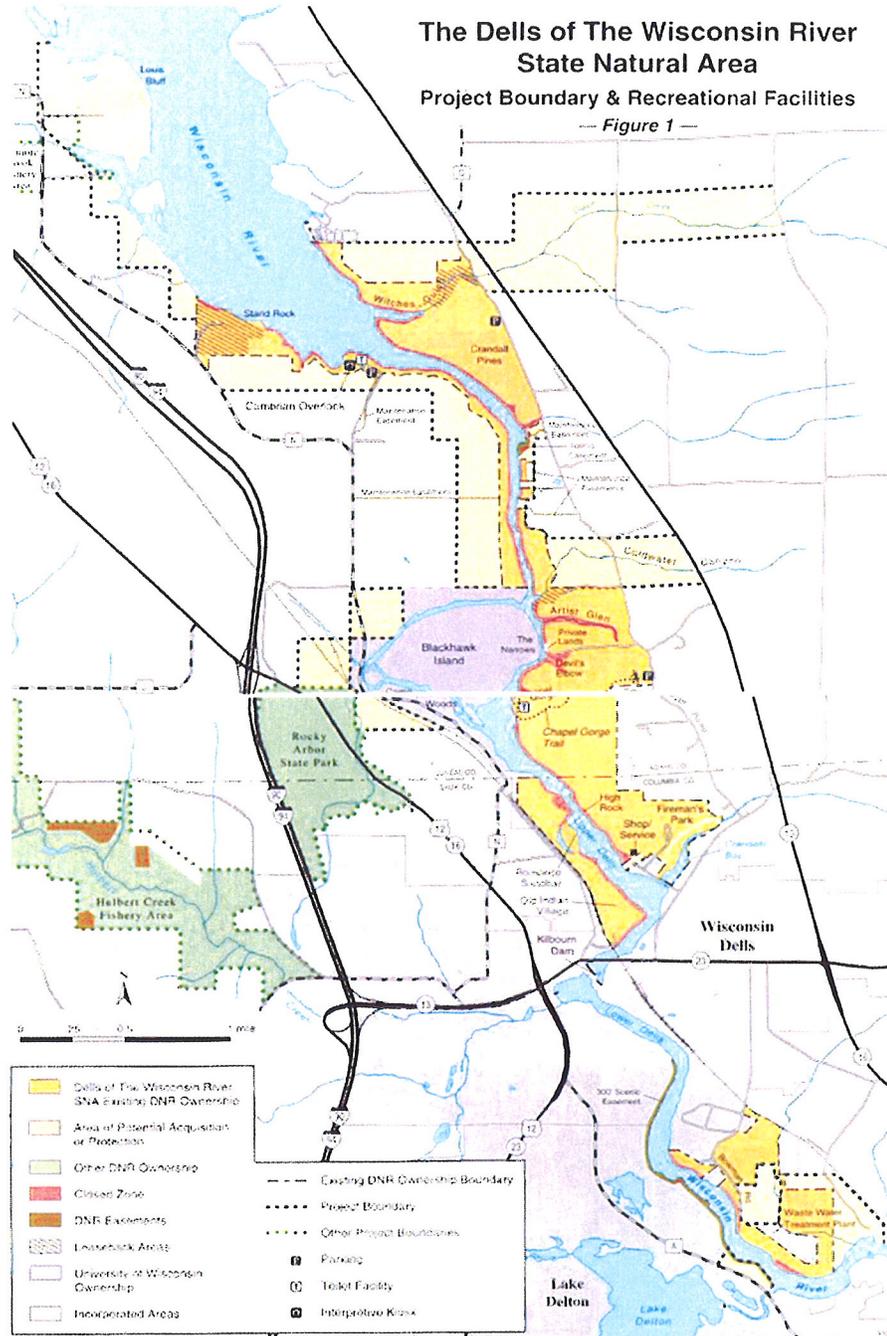
³ Dells of the Wisconsin River State Natural Area Master Plan and Environmental Assessment, Wisconsin Department of Natural Resources (DNR). Page 2

⁴ World Waterpark Association

Agricultural Resources

Agricultural Resources

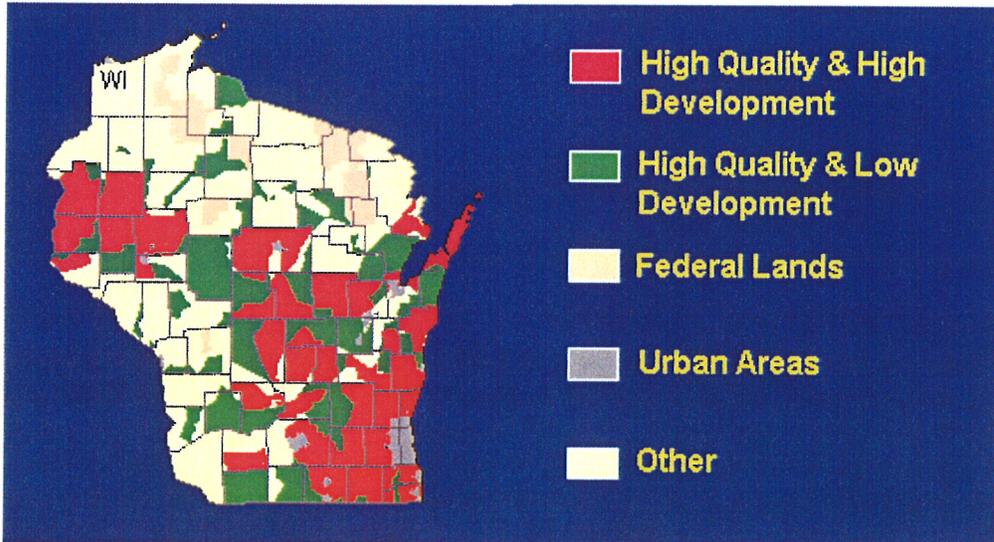
While the State of Wisconsin is home to approximately 13,294,027 acres of prime farmland⁵, there is no land within the City of Wisconsin Dells that is prime or actively farmed. However, some land is in agricultural production or being grazed by livestock within the boundaries of the Dells of the Wisconsin River State Natural Area, near the City limits.



⁵ USDA – Natural Resource Conservation Service (NRCS), 1996.

Agricultural Resources

Land use pressure continues the trend toward a decrease in productive agricultural land across the state and nationally. For this reason, the City should evaluate and consider the extent of new development as well as the value of productive agricultural land as annexation requests occur. It should be noted that to the east and south of the City are lands classified as high quality. Definitions are provided below.



The map above portrays high quality farmland by highlighting sub-county geographic areas that meet two threshold tests that define the importance and vulnerability of the land they encompass. Land surrounding the City of Wisconsin Dells generally falls into the categories of high quality and high development (red) and high quality and low development (green).

High Quality areas that in 1992 had relatively large amounts (greater than their respective statewide averages) of prime or unique farmland.

High Development areas that experienced relatively rapid development (greater than their respective statewide averages and having at least 1,000 acres of urban conversion) between 1982 and 1992.

Other all areas not meeting the above two threshold tests.

Unique farmland areas where unique soil and climate conditions support the growth of specialty crops.⁶

⁶ The National Resources Inventory of 1992, National Resources Conservation Service of the U.S. Department of Agriculture. The urban-built up areas are defined by the Bureau of Census, U.S. Department of Commerce (1991). © 1996 American Farmland Trust

Agricultural Resources

It has become increasingly clear that agricultural land performs a number of important functions. Agriculture land and natural areas help shape and sustain entire ecosystems that stretch far beyond municipal borders. Agricultural land and natural areas are an important habitat for all kinds of species and often bring physical shape and form and provide natural edges and boundaries to urban growth.⁷ For these reasons, the City should strongly consider the impacts of development as it relates to agricultural or other high quality land in and around its borders.

Natural Resources

Natural resources are plentiful throughout Wisconsin and the Dells area is no exception. Natural resources provide aesthetically pleasing environments for recreation and sightseeing and contribute to the overall quality of life. In addition, the natural resource base is vital to sustaining the diverse plant and animal species and aquatic life present in the area.

John Muir, founder of the National Park System, visited the Wisconsin Dells in 1867 in search of a rare, fragrant fern, which he and a companion discovered in several ravines. Of the ravines Muir wrote, “they are the most perfect, the most heavenly plant conservatories I ever saw.”

“ They are the most perfect, the most heavenly plant conservatories I ever saw.”

John Muir, founder of the National Park System



⁷ Adapted from *The Regional City*, 2001 Peter Calthorpe & William Fulton

Geology and Ecology

Geology and Ecology

The unique combination of geological and biological features found in the Dells is unusual in the Midwest and rare nationally. Sandstone cliffs in the Kickapoo River valley in Vernon and Crawford counties are geologically comparable to the Dells, and the Dalles of the St. Croix River between Wisconsin and Minnesota are somewhat similar. However, the Dalles of the St. Croix River were formed under different circumstances and are composed of different rock types.⁸

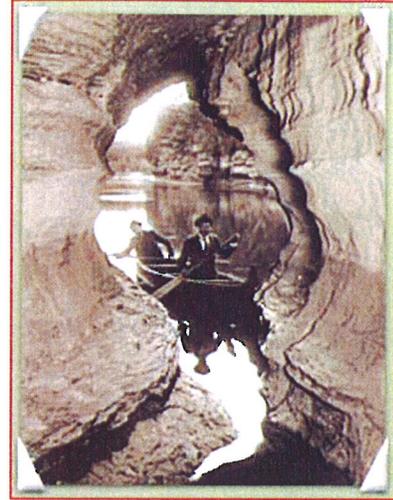


In addition, some of the native plant communities found in the

Dells of the Wisconsin River State Natural Area are uncommon in the state. Some communities such as northern dry-mesic forest with red and white pines are typically found farther north.

Of special significance are the shaded and exposed cliffs, which harbor several species of rare plants. While similar cliffs are found in Sauk County, the diversity of the cliffs and cliff flora in the Dells is unmatched. The Dells contain the most significant populations of some rare plant species in the state.

The urban environment of the City and heavy use of its resources makes preservation and protection of these important resources a challenge. It will be critical for the City to develop solid objectives and policies with respect to natural resource protection and recreational use. Development pressure in the Dells area is strong and, therefore, the City will need to be firm in advancing its goal of ensuring protection and preservation of the natural scenery associated with the river corridor. The proposed Dells Riverwalk Project will substantially contribute to preserving the scenic and natural resources within the community. Finally, it is important to recognize that cooperation across adjacent and overlapping units of government is often necessary to conserve and protect community natural and cultural resources. As was the case with the development of the Dells of the Wisconsin River State Natural Area Master Plan (1997), the City should continue to work with the DNR and other public and private entities to enhance nature-based recreation opportunities elsewhere in the City.



⁸ Wisconsin Department of Natural Resources (DNR)

Geology and Ecology

Woodlands

The primary function of woodlands is to provide wildlife habitat and enhance scenic beauty. Woodlands also serve to protect important water resources, drainage and hydrologic functions, control pollution and provide an inviting recreational setting and educational opportunities to residents and visitors.

The DNR conducted a comprehensive forest reconnaissance in 1995 for the Dells of the Wisconsin River State Natural Area. According to the Master Plan, forest types were delineated and mapped and forest management recommendations prepared.

Nearly 90 percent of the land within the Dells Natural Area is forested. Oak trees make-up roughly 49 percent of the timber in the area. White pine accounts for approximately 31 percent, red pine about nine percent and eight percent is jack pine.

“ Nearly 90 percent of the land within the Dells Natural Area is forested.”

Prior to settlement, the Dells area was vegetated by plant communities influenced by frequent fires. As a result, fire-sensitive species such as maples were found only in the most fire-protected sites. Today, most of the forest can be classified as dry-mesic northern forest. Typical species include mixtures of pin oak, black oak, white oak, jack pine, white pine and red pine. Some sites with more moisture have red and white oak mixed with red maples and black cherry.

Wetlands

Wetlands support aquatic or "water loving" plants and wet soils, and provide habitat for more species of plants and animals than any other type of landscape. Wetlands store water to prevent flooding, protect water quality, and provide opportunities to observe wildlife.

A City-owned wetland lies northwest of the wastewater treatment facility around Bowman Road, which consists of disturbed sedge meadow/marsh dominated by grasses and sedges. This wetland has been severely disturbed by ditching, tilling and grazing and retains little natural area character.

Geology and Ecology

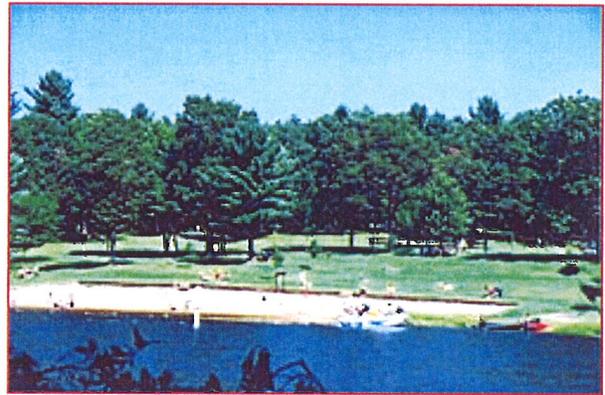
Nearby State-Owned Land

The City of Wisconsin Dells tourism industry benefits not only from the unique cultural and natural resources within its boundaries but also from the accessibility of several other state parks and natural areas in the area. At the same time, the abundance of state-owned land limits future development possibilities to some extent. It is recommended that the City consult the Dells of the Wisconsin River State Natural Area Master Plan and DNR staff as decisions about future growth and development are being made. The map on page #4 illustrates the State Natural Area Project Boundary. Development around this area is the most tightly controlled. DNR staff have mentioned the STH 13 area, east on STH 23 or possibly on the west-side of the City between the current City boundary and Rocky Arbor State Park, or the west side of I-90/94 as areas that potentially could be negotiated.

However, annexation is not particularly valuable from the State's perspective. One issue is the prohibition of hunting. Prohibition would not be consistent with other natural areas in the State, which are generally open to hunting. Deer hunting, in particular, is needed to help control overpopulation that is having a visible impact on vegetation within the natural area and on adjacent lands. In summary, the potential to negotiate easements with the DNR is likely a more viable route than annexation but, again, it will be necessary to consult with the DNR on specific proposals.

Mirror Lake State Park

Mirror Lake is so named due to its calm waters. Mirror Lake State Park is rich in wildlife variety due to the abundance of marshes, fields, open woodlands, lakeshore, and steep valleys. Mammals most frequently sighted are deer, raccoons, squirrels, bats, chipmunks and muskrats. Others in the area but less often seen are beaver, mink, red fox, cottontail, and coyote. The marshy areas of the Lake attract sandhill cranes as well. The Park offers a host of recreational activities including camping, hiking, canoeing, and fishing and is located approximately three miles south of the City of Wisconsin Dells.⁸



⁸ WDNR, 2001-2002 Mirror Lake State Park, Rocky Arbor State Park Visitor

Geology and Ecology

Rocky Arbor State Park

Rocky Arbor State Park is comprised of 231 acres and located approximately two miles west of the City of Wisconsin Dells. Like the rest of the Dells area, the Park is noted for its many rock formations. The rock that forms Rocky Arbor gorge is sandstone. A combination of wetlands and highlands and warm-dry and cool-moist exposures creates suitable living conditions for a wide variety of plants and animals.⁹



Camp Upham Woods/Blackhawk Island (UWEX 4-H)

Upham Woods is the result of an amazingly far-sighted vision of two sisters from the Upham family. In 1941, when the United States was growing rapidly at the expense of its natural resources, Elizabeth and Caroline Upham decided to save their beloved childhood summer home from the hands of developers forever. These sisters laid the philosophical groundwork for Upham Woods with their stipulations of the land's use. They wrote: *"These lands are to be used as an outdoor laboratory and camp for youth, such as 4-H clubs and other people cooperating with the University of Wisconsin in the advancement of conservation, of agriculture and rural culture."*

Since 1941, Upham Woods has been a place where people gather to explore and experience the natural world. Early on, programs with Ranger Mac and Marvin Hanson introduced 4-H and school groups to the unique geology and forest communities of the area. Nature study was a main component of the program.

Today, the emphasis continues with even greater focus, as environmental issues have grown on a local and global scale. The activities at Upham Woods are designed to encourage youth leaders to address environmental issues with the goal being the development of caring and responsible stewards of the natural world and its inhabitants.

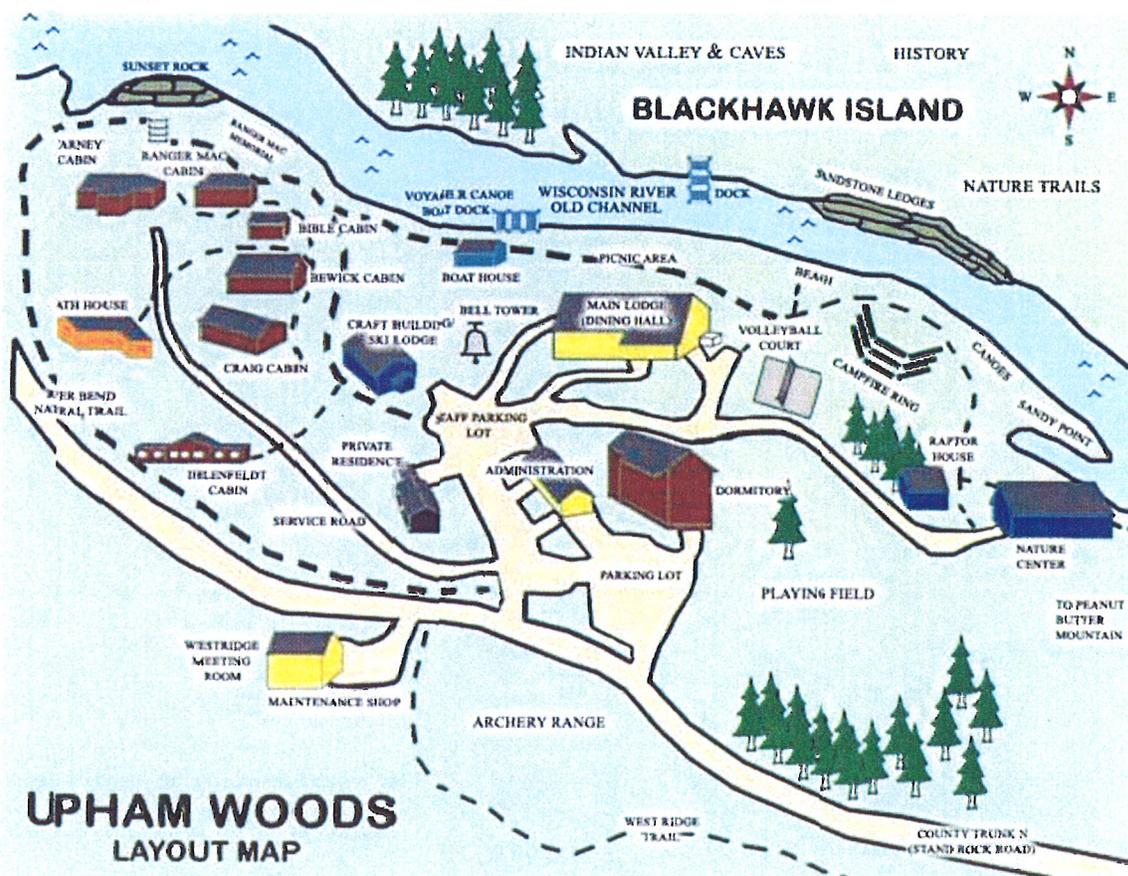
Upham Woods' programming focuses on both the natural and cultural history of the Wisconsin River, with topics ranging from the French Voyageurs of the Fur Trade, to finding archeological artifacts from the 1800's Dell House, to exploring the sandstone caves of the Dells. Through Upham Woods' educational programming, youth obtain a unique view on how Wisconsin has changed ecologically and culturally. Youth are encouraged to explore Wisconsin's past to discover valuable lessons that will enable each of us to better plan for the future of Wisconsin and the world.

⁹ *ibid.*

Geology and Ecology

Today, as you visit Upham Woods you will find a model residential environmental education center, operated by the University of Wisconsin-Extension. The center sits on a prime location on the Wisconsin River, two miles north of the Wisconsin Dells, offering an excellent "river classroom" to study the both the natural and cultural history of Wisconsin. The center rests on 310 total acres of forested land, including a 210-acre island called "Blackhawk Island." This island has been designated a state natural area and offers a beautiful example of a mature mixed forest featuring flora not commonly found in the area. The island also has tremendous sandstone caves formed during the ice age. It's definitely a "different view" when you climb through them!

The facility consists of 14 buildings including a fully equipped nature center and a raptor enclosure housing educational birds of prey. The center supplies lodging for 146 people, meals, and environmental education year-round for youth and youth leaders, including environmental lesson plans, summer camp programming, leadership workshops and other conferences. Upham Woods has three full-time teaching naturalists that live on-site in spring, winter and fall and a total of five teaching naturalists in the summer.



Geology and Ecology

Camp Wawbeek (Easter Seals Wisconsin)

Located on 400 beautifully wooded acres near Wisconsin Dells, Easter Seals Camp Wawbeek provides camping experiences for hundreds of children ages 7 and up and adults with physical disabilities each year.

Our campers come from all over Wisconsin to hike, swim, learn about nature, and tackle new adventures and challenges in an accessible environment. It's an adventure these campers will remember for the rest of their lives, a time to camp in the woods and sleep under the stars. Lifelong friendships begin here, where campers of all ages are encouraged to participate in group activities and are supported by a well-trained staff.



Easter Seals Camp Wawbeek is accredited by the American Camping Association. The camp was established in 1938 and boasts a National Historic Landmark, the "Castle." From the front porch of the Castle you can view miles of rolling landscapes. Campers live in dorm-style housing and all of the camp's buildings are completely accessible. Sessions are scheduled throughout the summer, each geared for a specific age group, to ensure that all activities will be appropriate for the campers.

Camp Wawbeek facilities are also available for lease to other organizations on a limited basis in spring and fall. We are proud to be the only camp in Wisconsin specializing in providing a camping experience for children and adults with physical disabilities.

Dells of the Wisconsin River State Natural Area

State Natural Areas (SNAs) are formally designated sites devoted to scientific research, education and the preservation of their natural values for future generations.

The Dells State Natural Area is lush with natural features including northern and southern oak/pine forests, oak savanna and cliffs. The cliffs, rock formations and narrow valleys that make up the area are especially abundant. A master plan for the area was adopted in 1997, which proposes to add 1,065 acres of land to the existing acreage of 1,050 to include areas of unique habitat, provide connections to other state land, and provide a buffer to the Wisconsin River corridor.¹⁰

¹⁰ Dells of the Wisconsin River State Natural Area Master Plan and Environmental Assessment, 1997.

Geology and Ecology

Dell Creek Wildlife Area

Located seven miles northeast of Reedsburg on CTH H is 2,125 acres blanketed with stream, forest and farmland features and wildlife.

Dell Creek is a Class II trout stream for 10.5 miles of its length¹¹. All of Dell Creek in Sauk County has been nominated as exceptional resource waters under the State's antidegradation program. There are two large impoundments on Dell Creek – Lake Delton and Mirror Lake. Much of Dell Creek's length in Sauk County is publicly owned. Silt and sediment from farm fields are thought to be a problem in the Creek and are causing a sediment problem in the upper end of Mirror Lake¹². Suspected high nutrient inputs to Mirror Lake from Dell Creek are thought to be fueling the excessive aquatic plant and algae growth in the Lake¹³.

Hulbert Creek Fishery Area

Hulbert Creek is a tributary to the Wisconsin River at Wisconsin Dells. It is considered trout water for four miles of its length, 2.8 miles of this is a Class I trout stream¹⁴. The downstream reach is affected by the intense urban development of Wisconsin Dells. A study of historic and recent nitrate-N levels in the stream have shown those levels have remained unchanged over time¹⁵.

Dell Creek Watershed

The Dell Creek watershed lies in northeastern Sauk County and southern Juneau County. Agriculture predominates the watershed. Juneau County has ranked this watershed as its second priority for erosion control¹⁶. Dell Creek State Wildlife Area and Hulbert Creek Fishery Area are in this watershed. The Wisconsin Dells - Lake Delton tourist area falls partially within this watershed. Intense commercial development pressure continues to have an effect on water resources of the area.

The Lake Delton Lake Association and the Village of Lake Delton completed a Lake Study and Management Plan for Lake Delton in 1992. The information collected and its analysis points to nonpoint sources of pollution in the Dell Creek watershed as being the primary sources of phosphorus loading to the Lake¹⁷.

¹¹ WDNR, 1980

¹² Trumm, 1991

¹³ Schlessor, 1991-1992, Trumm, 1991

¹⁴ WDNR, 1980

¹⁵ Mason, 1990

¹⁶ Meyer, 1987

¹⁷ Bachhuber, 1992

Geology and Ecology

Lake Delton

Lake Delton is located to the south of the City within the Village of Lake Delton. Much of the shoreline has been developed with summer homes, year-round homes and condominiums. The Lake has poor water quality¹⁸, which is common to impoundments in southwest Wisconsin. Some of the water quality problems may be due to construction site erosion as well as rural nonpoint source pollution¹⁹. The lake also has nuisance aquatic weed growth that has required chemical treatment²⁰. Because of the development around the Lake, use conflicts often occur, particularly during the summer. Residences around the Lake receive municipal sewer service.

Mirror Lake

Mirror Lake State Park provides public ownership of part of the shoreline and public access to the Lake. This Lake has relatively poor water quality²¹. Self-help monitoring of the Lake indicates the Lake has generally poor water clarity conditions²². Sedimentation in the upper end of the Lake is a problem²³, and may be part of the reason for the decline of the wild rice bed²⁴. Nuisance growth of aquatic vegetation exists on the Lake, particularly duckweed.

Wisconsin River

Fifteen miles of the Wisconsin River winds through the rock formations that give Wisconsin Dells its name. The Wisconsin River has its own Native American legend behind its formation. The legend tells of a large, powerful serpent wriggling down from the north. As it did so, its body formed the bed of the Wisconsin River and water rushed into it. When the serpent came to the sandstone ridge where the Dells begins, it thrust its head between the rocks and pushed to form a narrow, winding passage. As the great serpent pushed through, lesser serpents were scared away and fled, forming channels such as Cold Water Canyon and Witches Gulch.

In reality, the Wisconsin River is a product of the glacial age. Although a glacier never covered the Dells area, glaciers in other parts of the state gradually melted, forming glacial Lake Wisconsin. About 14,000 years ago, the last ice dam holding back this Lake suddenly gave out, causing a great flood. As the floodwaters poured through the Dells, gorges were likely formed in a short period of time. The waters tore out a channel and flooded the Wisconsin River valley.

According to the DNR, the River in the Lower Dells below the Kilbourn Dam contains a diverse warm-water fishery, particularly for walleye, sauger, smallmouth bass, Lake Sturgeon, white bass, and channel catfish. Northern pike and other panfish species are present to a

¹⁸ WDNR, 1991

¹⁹ Bachhuber, 1992

²⁰ WDNR, 1991

²¹ WDNR, 1991

²² Betz, 1990

²³ Trumm, 1991

²⁴ WDNR, 1991

Geology and Ecology

lesser degree. The area below the Dam is an important spawning place for walleye that migrate upriver from Lake Wisconsin. Lake sturgeon also spawn here. The spring spawning run for walleye creates very heavy fishing pressure annually in March and April. Fishing for smallmouth bass is also popular, particularly during the summer. Walleye populations are also abundant in the Upper Dells above the Kilbourn Dam, as are smallmouth bass and channel catfish. Summer fishing in the Upper Dells can be difficult due to heavy boat traffic.

Cliff and Rock Formations

Nearly vertical rock cliffs along the Wisconsin River that are bordered by flat to gently rolling backlands characterize the Dells. The word “dells” is a variation of the word “dalles”, of French origin, meaning the steep rock face forming the sides of a gorge. Cliffs along the River rise over 100 feet above the water in places, and have been shaped by the erosive processes of water and wind. These impressive rock formations were given names by early promoters of the tourist trades. The geological beauty of formations such as Stand Rock, Romance Cliff, Chimney Rock and Coldwater Canyon continue to draw visitors to the area.²⁵



Conservancy

To preserve and protect the natural resource base within the City, some 890 acres or 36% of the City's total land area (2,448 acres) is classified as conservancy land. Some of this land is owned by the Wisconsin Alumni Research Foundation (WARF), some by the City and some by the DNR.

Parks

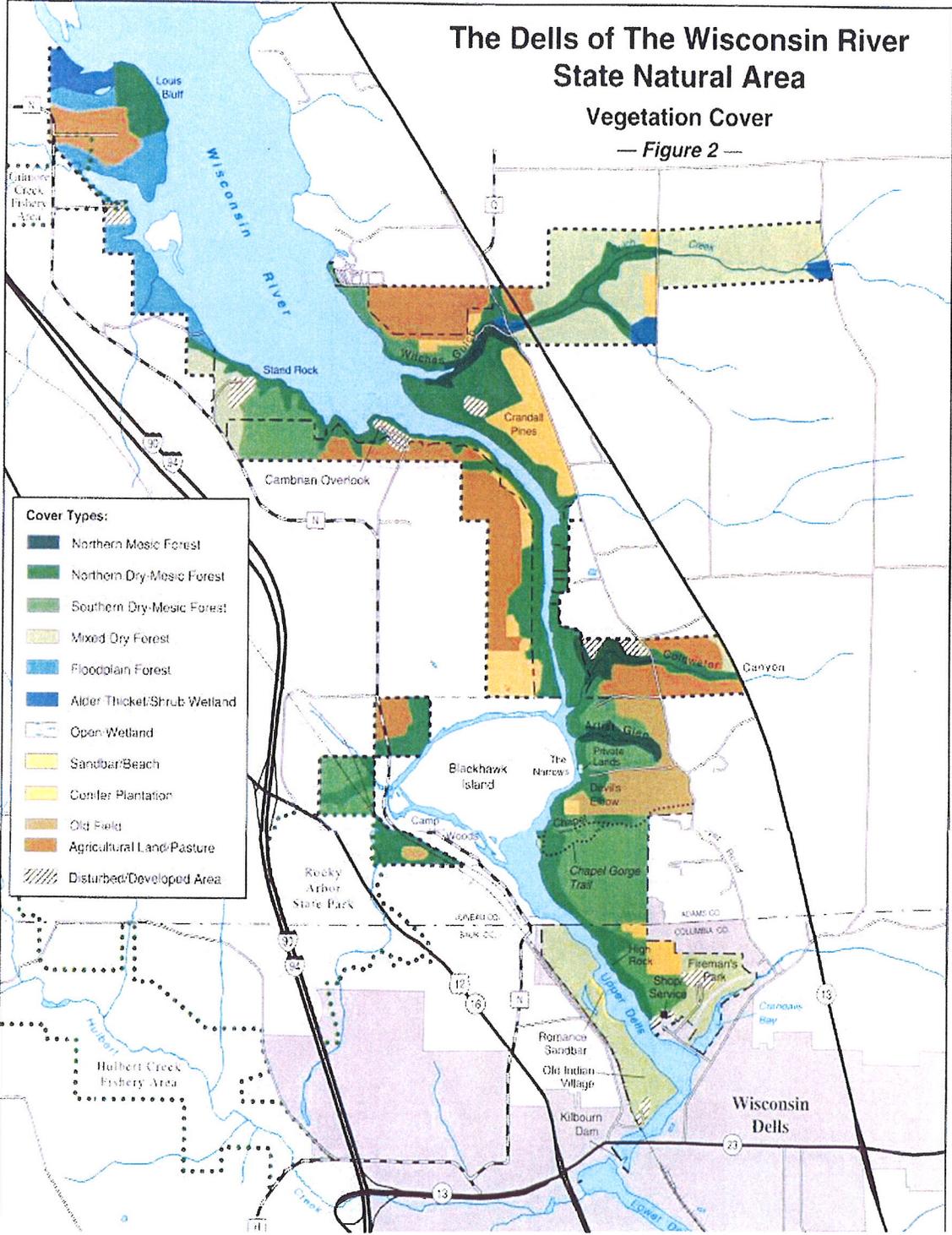
Areas designated as recreational occupy approximately 35 acres or just over 1% of the land area within the City. Please refer to the City Parks and Recreation Department Long-Range Plan for detailed information about the local park system. Maintenance of a local park system is critical to the overall quality of life experienced by area residents.

Endangered Resources

In 1995, the DNR conducted surveys to identify and document occurrences of endangered resources in the Dells of the Wisconsin River State Natural Area. Endangered resources include plants and animals on the DNR's Natural Heritage Working List of rare species as well as high quality examples of natural communities. The most significant, high-quality communities present in the Dells area are featured on the Map titled Dells of the Wisconsin River State Natural Area - Vegetation Cover featured on the next page. A more extensive list can be found in the 1997 Dells of the Wisconsin River State Natural Area Master Plan and Environmental Assessment.

²⁵ Dells of the Wisconsin River State Natural Area Master Plan, WI Department of Natural Resources, January 1997.

Geology and Ecology



Geology and Ecology

Nonmetallic Mining Resources

Nonmetallic mining is a widespread activity in Wisconsin. In the Wisconsin Dells area there are currently two operating nonmetallic mining operations. The variety of geologic environments provides for a diverse industry. Statewide, an estimated 2,000 mines provide aggregate for construction, sand, gravel and crushed stone (limestone and dolomite) for road building and maintenance as well as for agricultural use as lime. A smaller number of sites provide dimension stone for monuments, volcanic andesite for shingles, peat for horticulture and landscaping, industrial sand for export for the oil industry and a considerable variety of materials for other uses.

“ In the Wisconsin Dells area there are currently two operating nonmetallic mining operations.”

Chapter 295, Wisconsin Statutes, enabled the Department of Natural Resources (WDNR) to establish rules, such as Chapter NR 135, Wis. Adm. Code, to implement a nonmetallic mining reclamation program. The overall goal of NR 135 is to provide a framework for statewide regulation of nonmetallic mining reclamation. The rule does this by establishing uniform reclamation standards and setting up a locally administered reclamation permit program.

In order to facilitate this process, the Department published a model ordinance for use/adoption by counties and interested municipal governments. The ordinance established a reclamation program that issues reclamation permits in order to ensure compliance with the uniform reclamation standards contained in the rule. All counties were required to adopt an ordinance by June 1, 2001. Cities, towns and villages may choose to adopt an ordinance and administer a program within their jurisdiction at any time.

A reclamation plan must be approved prior to operating a new mine, or no later than September 1, 2004 for existing mines. The purpose of the reclamation plan is to achieve acceptable final site reclamation to an approved post-mining land use in compliance with the uniform reclamation standards. The reclamation standards address environmental protection measures including topsoil salvage and storage, surface and groundwater protection, and contemporaneous reclamation to minimize the acreage exposed to wind and water erosion.

Chapter NR 135 also requires that mine operators submit annual fees, as specified by the local regulatory authority, and an acceptable financial assurance instrument to ensure completion of the reclamation plan.

In Summary

Reclamation of nonmetallic mines according to approved plans will achieve approved post-mining land uses. This results in environmental protection, stable non-eroding sites, productive end land uses and potential to enhance habitat and increase land values and tax revenues.

Cultural Resources

Cultural Resources

The cultural history of the Dells area is thought to span several thousand years. Native Americans ranging from early Paleo-Indians to the more recent Ho-Chunk (formerly Winnebago), Sac (Sauk) and Menominee were attracted to the scenic Dells waterway, and left archeological evidence including effigy and burial mounds.

The Ho-Chunk Nation - A Brief History

In 1634, when the French explorer Jean Nicolet waded ashore at Red Banks, people of the Ho-Chunk Nation welcomed him. For some 360 years, the French labeled this nation as the Winnebago Tribe. In November 1994, the official results of the Ho-Chunk Nation secretarial Election was published, approving the revised Constitution and the proper name of the nation reverting to the Ho-Chunk Sovereign Nation (People of the Big Voice), which they have always called themselves. Hence today the Winnebago are the Ho-Chunk Nation and Red Banks is better known as Green Bay. The exact size of the total Ho-Chunk Nation was not known at that time. However, their territory extended from Green Bay beyond Lake Winnebago to the Wisconsin River and to the Rock River in Illinois.

While most people think of Native Americans as hunters or gatherers, the Ho-Chunk were also farmers. For example, their history tells of corn fields south of Wisconsin Dells that were as large as the distance covered when you shoot an arrow three times. They appreciated the bounty of the land we now call Wisconsin.

Their story is the story of a people who loved the land of Wisconsin. In the last 170 years they faced tremendous hardship and overcame long odds to live here. Their troubles began in the late 1820's when lead miners began to come into southwestern Wisconsin.

At that time, the U.S. Government recognized the Ho-Chunk as a Sovereign Nation. The U.S. Government recognized the Ho-Chunk held title to more than seven million acres of some of the finest land in America. Treaty commissioners, speaking for the United States, promised they would punish any whites going on recognized Ho-Chunk lands. However, the lure of lead and good farmland proved too great. Within ten years, the U.S. government reversed its position. The Ho-Chunk were forced to sell their remaining lands at a fraction of their worth and were removed from Wisconsin.

First, the Ho-Chunk people were moved to Northeastern Iowa. Within ten years (1846), they were moved to a wooded region of Northern Minnesota. They were placed there as a barrier between warring Sioux and Chippewa. As a result, the Ho-Chunk were victims of raids by both. At their request, they were to be moved to better land near the Mississippi River. Whites objected and before they could move, the U.S. Senate moved them further West. Within four years of their arrival (1859), the Government reduced their reservation from 18 square miles to 9 square miles.

Cultural Resources

Four years later (1863), they were moved to a desolate reservation in South Dakota surrounded by Sioux. The U.S. Government allowed the Ho-Chunk to exchange their South Dakota reservation for lands near the more friendly Omaha's of Nebraska, in 1865.

Throughout this time many Ho-Chunk refused to live on the increasingly poor area away from their abundant homelands in Wisconsin. Many returned to Wisconsin. The memories of living Ho-Chunk contain stories of their elders being rounded up at gunpoint, loaded into boxcars and shipped to "their reservation" in Nebraska. The Wisconsin Ho-Chunk do not have lands reserved (a reservation) in Wisconsin. Today, all Wisconsin Ho-Chunk tribal lands are lands they once owned but they have had to repurchase.

The Ho-Chunk Today

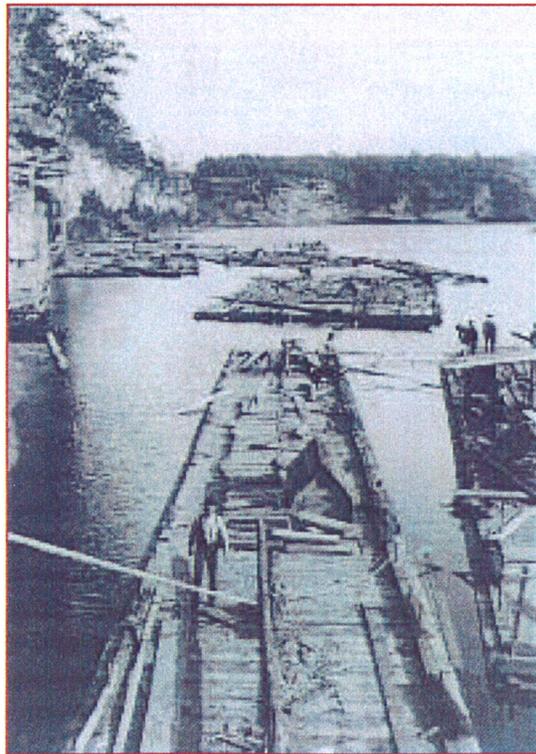
As of December 27, 2001, the 6,159 members of the Wisconsin Ho-Chunk Sovereign Nation hold title to 2,000 acres of land. The largest concentrations of Ho-Chunk tribal members are in Jackson, Monroe, Milwaukee, Sauk, Shawano, and Wood counties.

Perhaps because they love the land and want to preserve their culture, the Ho-Chunk are well known for their patriotism. They have served our country in every war since the War of 1812. And they serve in numbers that far exceed their proportion of the population. For example, recently 11 of 12 members of the tribal council were veterans.

Local accounts tell of Chief Black Hawk of the Sauk Nation hiding in area caves to evade U.S. troops after the massacre of his people at the Battle of Bad Axe in 1832. Shortly after the massacre, the federal government instituted removal policies of resettling Native Americans west of the Mississippi River. This policy resulted in the Wisconsin River valley being opened to European and Euro-American settlement. In spite of this, the expulsion of the Ho-Chunk Tribe failed and many returned to the area.

The Wisconsin River

During the 17th century, European traders, trappers, and missionaries also discovered the Wisconsin River as a primary transportation route. By the 1830's, timber resources in northern Wisconsin brought lumbermen who harvested old-growth forest and floated logs down the River.



Cultural Resources

The Wisconsin River brought early opportunities for local economic growth. Damming of the River began in 1856 to generate waterpower for the new settlement. The present Kilbourn Dam was completed in 1909 and continues to serve the area with electric power today. However, the dam has reportedly raised the water level sixteen feet, submerging important geologic features and landmarks in the Upper Dells. According to the DNR, the difference in water levels between the Upper and Lower Dells is twenty-one feet.

In a 1909 report, renowned landscape architect John Nolen recommended park status for the Dells. However, the State Park Board chose not to acquire the Dells of the Wisconsin River due to the extent of damage and development that had already occurred. About this time, tourism began to flourish in the Dells.

Recognizing that tourism activity could endanger the scenic beauty of the Dells, H.H. Bennett's son-in-law, George Crandall, gradually acquired ownership of as much riverfront property as possible. He reforested many acres of cutover land adjacent to the River and created a plantation of 140,000 red pines that remain today. After Crandall's death, his daughters donated the property to the Wisconsin Alumni Research Foundation (WARF). Since that time, the Dells have been protected by Dells Boat Tours, LLC, a subsidiary of WARF.

Historical and Cultural Resource Inventory

Historical and Cultural Resource Inventory

Historic buildings and places provide educational experiences and contribute to the “sense of place” or identity of the City and its environs. Studies increasingly recognize heritage tourism as a fast-growing segment of the travel industry. Heritage tourism brings together diverse elements of a community such as the environment, history, culture, people and industries to capture the essence or tell the story of a particular place, site, region or other area of interest. Thus, telling the story of Wisconsin’s historic architecture and past events is a way of documenting the experiences of Wisconsin people and places.

Housing data reported as a result of the 1990 U.S. Census indicated that about 34% of the housing structures within the City of Wisconsin Dells were constructed prior to 1940.

As of 2001, the following six properties or sites are listed on the National Register of Historic Places.

The State Historical Society’s Architecture & History Inventory includes 44 properties within the City that have been studied or documented.²⁶

Resource	Address	Date Listed
H.H Bennett Studio	215 Broadway	10/8/76
Bowman House	714 Broadway St.	4/3/86
Kilbourn Public Library	429 Broadway	12/27/74
Kinsley Bend Indian	STH 16	8/20/98
Wawbeek-Horace A.J.	STH 13	6/19/85
Jacob Weber House	825 Oak St.	1/20/78

Dells Country Historical Society & The State Office of Local History

Located out of the Bowman House Historical Museum, the Dells Country Historical Society works with the State Office of Local History to jointly further the accumulation and preservation of Dells area history. This partnership applies to both the Dells Country Historical Society and its Bowman House Historical museum and to the State owned H.H. Bennett studio.

The State Office of Local History serves more than 300 county, local and specialized historical organizations that are affiliated with the Wisconsin Historical Society. The Society established the State Office of Local History in 1960. The primary purpose of the State Office of Local History is to provide organizational and educational services to the affiliated historical societies.

²⁶ The Architecture and History Inventory (AHI) is a collection of information on historic buildings, structures, sites, objects and historic districts throughout Wisconsin. The AHI is comprised of written text and photographs of each property, which document the property’s architecture and history.

Historical and Cultural Resource Inventory

Services provided by the State Office of Local History include local history workshops; regional conventions of historical societies; a statewide convention of historical societies held each year at the Wisconsin Historical Society; publication of the newsletter *Exchange*; and on-site consultations about the organization and operation of historical societies. Published instructional materials prepared by the State Office of Local History address such topics as care of historical collections, planning and producing museum exhibits, local history research, and public programming.

The State Office of Local History works in cooperation with the Wisconsin Council for Local History which represents more than 50,000 people from all parts of the state who belong to affiliated historical organizations.

The State Office of Local History carries on a tradition dating back to 1899, when the Brown County Historical Society and the Ripon Historical Society affiliated with the Wisconsin Historical Society. Since then, the more than 300 additional local societies throughout the state have organized and affiliated with the Society. This century-long partnership has received national recognition and it continues to serve as a model for other states.

The Dells Country Historical Society can be contacted at:

Bowman House Historical Museum
714 Broadway, Wisconsin Dells, 53965
Open June 20-Sept 1, Mon, Tues, Wed,
Thurs & Sat, and by appointment.
Daily tours 1pm & 4:30 PM.

Seth Peterson Cottage

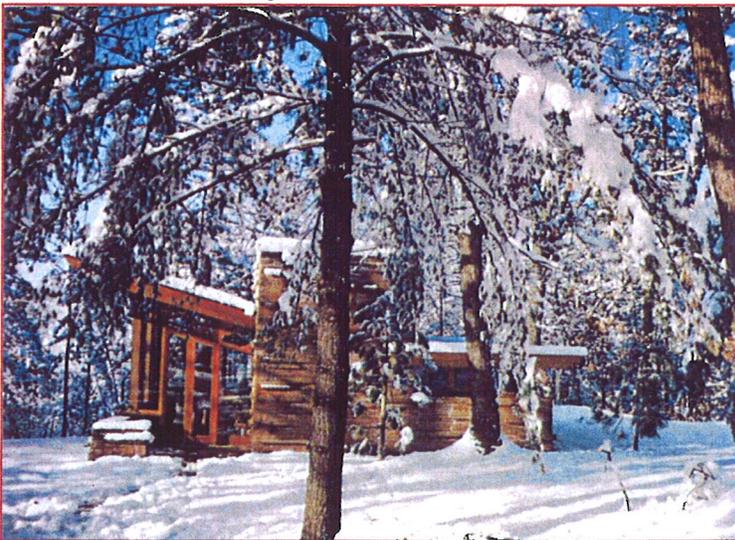


Photo Courtesy of Lois Maverus, Seth Peterson Conservancy, Inc.

Historical and Cultural Resource Inventory

Although not located within the City limits, the Seth Peterson Cottage designed by Frank Lloyd Wright is an architectural point of interest located on Fern Dell Road within Mirror Lake State Park. Seth Peterson was a Wisconsin native with a lifelong interest in Wright and his work. In 1966, the DNR acquired the property and added the land to Mirror Lake State Park. However, the Cottage suffered neglect and was in disrepair. In 1989, concerned citizens founded the Seth Peterson Conservancy, Inc., for the purpose of restoring the Cottage, which was completed in 1992. Balanced on the edge of a wooded bluff overlooking Mirror Lake, the Seth Peterson Cottage is one of Wright's last commissions.²⁷

Belle Boyd

Belle Boyd (1844-1900), Confederate spy, actor, lecturer. Born in Martinsburg, Virginia (now West Virginia), Boyd joined in fund-raising activities on behalf of the Confederacy at the outbreak of the Civil War. After being tried and acquitted for killing a Union soldier who wanted to raise a flag over her house in Martinsburg, Boyd went to live with an aunt in Front Royal, Virginia. There she overheard the plan of General James Shields and his staff for a withdrawal from that Town. She undertook a hazardous journey to inform General T.J. "Stonewall" Jackson of the Union plans to destroy the Town's bridges as part of their retreat. Boyd also served as a courier. In 1865, she published her two-volume memoir, *Belle Boyd in Camp and Prison*. In 1866, she made her debut in *The Lady of Lyons* in Manchester, England before returning to the United States. She appeared in New York in *The Honeymoon* in 1868. She retired the following year, but in 1886 began a career as a lecturer. She died on a speaking tour in Kilbourn (now Wisconsin Dells), Wisconsin, on June 11, 1900. Her gravesite lies to the west of STH 13 near the Indian Cemetery.²⁸



Kilbourn Public Library

The State Historical Society holds covenant on the original Craftsmen style building constructed in 1912 at a cost of \$5,675. Pieces of the original building were moved to the new library on Elm Street in 1999.

²⁷ Seth Peterson Conservancy, Inc.; Baraboo Interactive Services Mirror Lake and Rocky Arbor State Park Visitors Guide

²⁸ 1999 Encyclopedia Britannica, Inc.

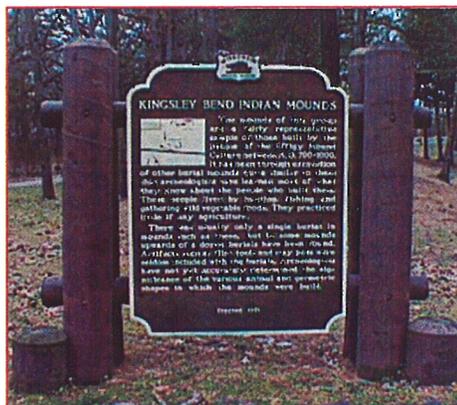
Historical and Cultural Resource Inventory

H.H. Bennett Studio & History Center

On Broadway, in the City's central business district, stands a nineteenth-century Tudor Revival style building that will be preserved for future generations as a Wisconsin State Historic Site. Through a charitable donation from its owners (Bennett's granddaughter), the cooperation of the State Historical Society of Wisconsin, and strong support from the Wisconsin Dells community, the life and work of H.H. Bennett has been commemorated through the development of this living history museum. The H.H. Bennett Studio & History Center celebrates the famed landscape photographer responsible for putting Wisconsin Dells – then Kilbourn - on the map in the mid-to-late 1800's. While Bennett is most well known for his spectacular landscape photographs of the Dells area, he produced many portraits, including several of the native Ho-Chunk people with whom he established both personal and professional relationships. The fully restored building is listed on the State and National Registers of Historic Places and is open to the public.

Historical Markers

The Historical Markers Program took root in 1944, when Governor Walter Goodland appointed an advisory committee to study “how best to mark historic sites in Wisconsin”. For almost fifty years, Wisconsin's Historical Markers Program has been making sense of both important and monumental events that together contribute to the state's multi-layered past. Perhaps the most important aspect of Wisconsin's marking program is that it is truly a program of the people. Every new marker subject is initiated by the public. The State Historical Society processes and approves new applications, but individuals and organizations pay for their own markers and choose subjects of their own interest – so long as these are significant on a local, state, or national level. Marker subjects must also address at least one aspect of Wisconsin history in the following categories: archaeology, architecture, culture, events, ethnic associations, geology, legends, natural history, and people²⁹. To date, Wisconsin has erected 412 markers. Four of these markers can be found within and around Wisconsin Dells.



Marker #177

Kingsley Bend Indian Mounds. Erected 1971. Hwy. 16, 4mi. E of Wisconsin Dells.

Approximately four miles east of the Wisconsin Dells on STH 16 are **the Kingsley Bend Indian Mounds**. The mounds are a fairly representative sample of those built by the people of the Effigy Mound Culture between A.D. 700-1000. It has been through excavation of similar burial mounds that archaeologists have learned most of what they know about the people who built them. The people lived by hunting, fishing, and gathering, but practiced

²⁹ Excerpts from History Just Ahead – A Guide to Wisconsin's Historical Markers, edited by Sarah Davis McBride, SHS 1999.

Historical and Cultural Resource Inventory

little if any agriculture. There was usually only a single burial in mounds such as these but in some mounds 12 burials have been found. Artifacts such as flint tools and clay pots were seldom included with the burials. Archaeologists have not yet accurately determined the significance of the various animal and geometric shapes in which the mounds were built.

Marker #104

Wisconsin Dells. Erected 1961. Hwy. 16, 0.1 mi. W of Wisconsin Dells.

The Indians believed that many ages ago the Great Spirit, in the form of a snake, created the Dells when it forced its huge body through a narrow opening in the rocks. Geological studies, however, show that the Dells were formed some fifteen thousand years ago after a glacier turned the Wisconsin River into a new channel through the center of a sandstone plain. French-Canadian traders used their word "dalles," meaning a through or narrow passage, to describe this section of the Wisconsin River. Wind, weather, and the River have combine to create seven miles of chasms, cliffs, pillars and columns that form part of the many scenic features of the world-famous Dells.

Marker #026

Dawn Manor / Site of the Lost City of Newport. Erected 1955. Hwy. A, 1.5 mi. S of Wisconsin Dells.

Here on the Wisconsin River, the Village of Newport was begun in 1853, planned for a population of 10,000. Assuming that the Milwaukee and LaCrosse Railroad would cross the River here, over 2,000 settlers quickly came to Newport, causing a lively land boom. When the bridge and dam were ultimately located a mile upstream after an alleged secret moonlight survey, Newport was almost completely deserted in favor of Kilbourn City (today Wisconsin Dells). Only Dawn Manor, with its servant quarters, remains. Dawn Manor was completed in 1855 by Capt. Abraham Vanderpoel, friend of President Lincoln and signer of the Wisconsin Constitution. The home is built of Potsdam sandstone, white mahogany and white pine, put together with brass screws and wooden pegs. Dawn Manor housed the art collection of George Raab, one of Wisconsin's famous artists.

Marker #447

Stroud Bank. 314 Broadway, Wisconsin Dells. Columbia County.

In addition to three previously recorded archeological sites in the Dells of the Wisconsin River State Natural Area, the WDNR has revealed seven additional sites since its 1994 acquisition of 1,050 acres from Dells Boat Tours, a subsidiary of the WARF. These sites include rock art, prehistoric artifacts, and a more recent historical kiln and stone cave. Some of these sites have been classified as extremely sensitive. The WDNR believes there is a high probability that additional, undiscovered sites exist on this state-owned land.

It is estimated that nearly 80% of the archaeological sites that once existed in the state have been destroyed or severely damaged, primarily by modern land practices such as

Historical and Cultural Resource Inventory

development and farming. Looting has also damaged many sites. The Wisconsin Dells area contains a number of known archaeological sites, such as the Kinsley Bend Indian Mounds. There are likely numerous other sites that have not yet been discovered, or that have been disturbed or masked by human activities. The following is provided as a means of educating and informing Wisconsin Dells residents and officials about existing regulations that protect and address archaeological sites.

Laws and Statutes – Archaeological Sites

Federal Projects: Section 106 of the National Historical Preservation Act of 1966, as amended, requires federal agencies to insure that their actions (grants, funding, permits, activities such as highway building, etc.) do not adversely affect archaeological sites on or eligible for the National Register of Historic Places. Local development efforts that are in any way making use of federal funding or that require federal permits, must evaluate project activities on known historic or archaeological sites, and may be required to investigate the potential for such resources prior to the approval of federal funding or permits.

State Projects: Archaeological sites can be protected during the course of state agency activities (funding, permits, ground-disturbing projects) if the sites have been recorded with the Office of the State Archaeologist. See Section 44.40 Wisconsin Statutes.

Political Subdivision Projects: Archaeological sites may be protected during the course of village, city, county and other political subdivision projects (e.g. building, road construction, etc.) but only if the site is listed on the National Register of Historic Places. See Section 44.43 Wisconsin Statutes.

Burial Sites: All human burial sites, including cemeteries and Indian mounds, are protected under State law Section 157.70 Wisconsin Statutes. The law applies to both public and private lands. Owners of burial sites may receive property tax exemptions. The State Historical Society of Wisconsin Burial Sites Program administers the law.

Rock Art Sites: Destruction and vandalism of ancient rock art sites listed on the National Register of Historic Places without landowner permission is a felony under Section 943.01 Wisconsin Statutes.

State Lands: It is illegal to remove artifacts or otherwise disturb archaeological sites on state or political subdivision (village, city, county) lands without a permit under the Field Archaeology Act - Section 44.47 Wisconsin Statutes. The law applies to both archaeological sites on public lands and submerged sites such as shipwrecks on publicly owned bottomlands under lakes and rivers. The Office of the State Archaeologist administers permits, which typically are only given to professional archaeologists.

Tax Incentives: Most types of archaeological sites are NOT protected from destruction by private landowner activity on privately owned lands. Exceptions are covered above. As an

Historical and Cultural Resource Inventory

incentive for private landowners to protect archaeological sites on their lands, the state offers a property tax exemption if the landowner formally agrees to protect the site.

Native American Tribal Preservation Programs: The eleven Wisconsin Indian tribes are very active in the preservation of archaeological sites and sacred areas. Most have historic preservation programs or contacts.

Archaeological Consultants: The Office of the State Archaeologist maintains a list of archaeological consultants qualified to conduct archaeological studies to identify and evaluate sites under various federal and state historic preservation laws and statutes.

As is the case with natural resource protection, historical and cultural resource protection will require the City to enhance its efforts to promote an understanding for the area's historic and cultural landscape and discourage development that is incompatible. The City should coordinate to the extent possible with adjacent jurisdictions and Sovereign Nations to ensure protection of important cultural resources as well as collaborate with local, county and state agencies working to protect historic and cultural resources and enhance opportunities for cultural awareness.

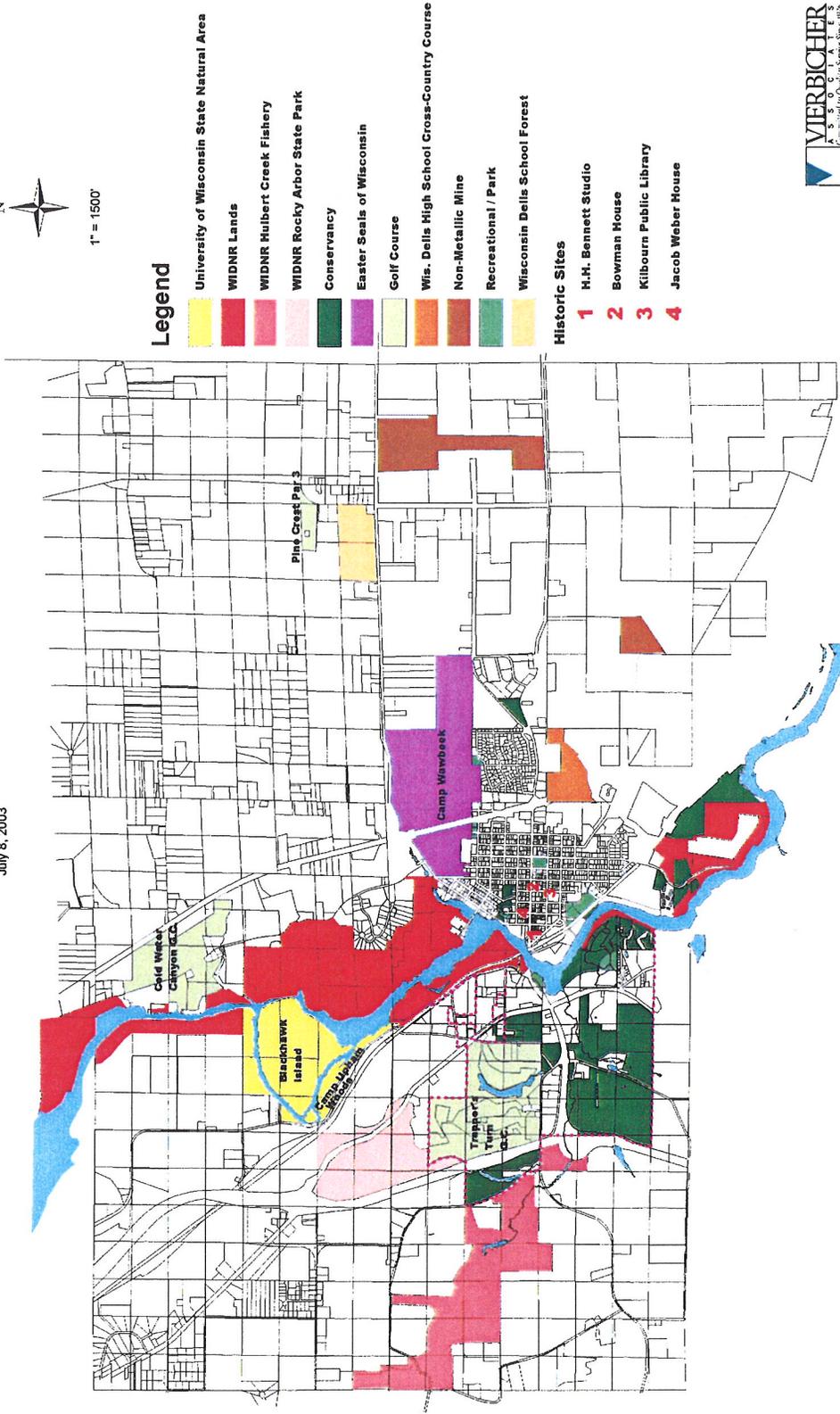
Historical and Cultural Resource Inventory

CITY OF WISCONSIN DELLS AGRICULTURE, CULTURE, AND NATURAL RESOURCES

July 8, 2003



1" = 1500'



Legend

- University of Wisconsin State Natural Area
- WIDNR Lands
- WIDNR Hulbert Creek Fishery
- WIDNR Rocky Arbor State Park
- Conservancy
- Easter Seals of Wisconsin
- Golf Course
- Wis. Dells High School Cross-Country Course
- Non-Metallic Mine
- Recreational / Park
- Wisconsin Dells School Forest

Historic Sites

- 1** H.H. Bennett Studio
- 2** Bowman House
- 3** Kilbourn Public Library
- 4** Jacob Weber House



Public Involvement

Public Involvement

Public participation in the comprehensive planning process is a key component to understanding current conditions and desires for the future and ultimately, the successful implementation of the Plan. For this reason, a number of opportunities for public input were incorporated into the planning process through which this Plan was developed.

Out of the SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis completed by the City Plan Commission in January of 2000, came the following with regard to the Agricultural, Natural and Cultural Resource Element.

Strengths

- Natural Scenery – area and river
- Tourism and revenue brought in
- Rich history of area

Weaknesses

- None identified

Opportunities

- Wisconsin River – potential for improvements for public access; take advantage of natural beauty

Threats

- Potential increase in size of lands in area under sovereign nation status;
- Unfair competition from tax structure

Stakeholder Interviews

A series of interviews with citizens representing a wide variety of interests were conducted at City Hall on January 25 and 30, 2001. The intent was to allow citizens an opportunity to participate in the comprehensive planning process and develop a basic understanding of the issues, concerns and hopes of people in the City. From the interviews, came the following with regard to agricultural, cultural and natural resources.

Public Involvement

Many citizens mentioned that the original draw for the Dells was the unique beauty of the natural surroundings. People generally felt that these natural resources should be carefully protected and that more focus should be placed on them as a tourist draw. A few people made suggestions that could loosely be called “eco-tourism.” For example, developing hiking and biking trails as an important alternative to the waterparks and other amusements. There was widespread desire to see a “riverwalk” developed to provide access to the River from downtown. A somewhat related concept mentioned by a number of senior stakeholders was to refocus on the Native American cultures in the area. All of these comments culminated in a “wish list” associated with the environment, eco-tourism, and the Native culture:

- More parks and accessibility to the River
- Continued boat trips to celebrate the River’s beauty
- Focus on the River – maintain and reflect it in the exterior - a ‘river town’ look
- Preservation of green space and scenic beauty – a unique attribute blended with what people are looking for
- The things that are missing - trading post, moccasin maker, beadwork, basket weaving, and other cultural displays
- It would be nice to have a marina on the river – River Bay is too shallow
- Would like to see something done with the Crandall Property – a magnet for downtown. Take advantage of the riverfront
- More festivals

Policies, Goals, and Objectives

Policies, Goals & Objectives

The following three goals were developed as part of the Issues and Opportunities Element and were used to establish objectives specific to this Plan Element.

1. Increase nature-based recreation and cultural awareness opportunities for residents and visitors.

Objective: Develop nature-based recreational trails to complement the development of a city-wide bicycle trail system and enhance connections to state owned natural and recreational areas.

Objective: Design and construct a well-marked network of nature-based bicycle/pedestrian trails with linkages to both land and water-based attractions and preserve the riverfront.

Objective: Work with the State Historical Society, the Dells Country Historical Society and other local partners to actively preserve and promote area attractions of historical significance.

2. Support the protection and preservation of the natural scenery associated with the Wisconsin River and surrounding areas.

Objective: Review all City land development-related Ordinances and amend, if necessary, to ensure the long-term protection of the Wisconsin River and surrounding areas.

Objective: Guide development to identified “smart growth” areas as land use and development decisions are being made.

Objective: Enhance coordination with the DNR.

Objective: Establish the protection of the Wisconsin River and its tributaries as a high priority municipal policy that should be addressed in all land use development and infrastructure related decisions.

Objective: Capitalize on existing non-metallic mine sites by investigating reclamation plans and timelines. Work with the existing ownership to develop reclamation programs that will result in win-win developments.

Objective: Continue to implement the conservancy-zoning program within the City to preserve and protect natural resource and open space amenities.

Objective: Supplement the City’s historic and cultural heritage and charm by implementing the “Historic Dells Housing” zoning overlay district proposed.

Policies, Goals, and Objectives

3. Capitalize on the area's rich heritage by expanding opportunities for heritage tourism.

Objective: Expand heritage tourism opportunities by identifying important historic resources, promoting their significance, and providing incentives for the preservation and rehabilitation of these structures, sites, or districts.

Objective: Pursue development of a cultural heritage museum jointly with the corporate community and Ho-Chunk Nation.

Objective: Capitalize on the area's heritage by working with local producers of farm products, specialty products, wine, cheese, micro-brew beers, crafts and the like to not only bring their product to market within existing commercial operations within the City, but also by encouraging them to start up new commercial operations focused on this concept.

Objective: Assist with maintaining and expanding the River Marina in order to ensure that water based access to the natural resource amenities of the Dells area is secure.