

Village of Fontana on Geneva Lake, Wisconsin

2009 Park and Open Space Plan

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Introduction and Statement of Need

The primary purpose of this Park and Open Space Plan for the Village of Fontana is to guide the preservation, acquisition, and development of land for park, outdoor recreation, and related open space purposes as needed to satisfy the recreational needs of the Village residents, and to protect and enhance the underlying and sustaining natural resource base.

According to the 2000 Walworth County Park and Open Space Plan prepared by the Southeastern Wisconsin Regional Planning Commission (SEWRPC), "the responsibility for the provision of large resource-oriented parks, resource-oriented recreational facilities, and areawide recreation trails is delegated primarily to the State and County levels of government, while the responsibility for the provision of smaller community and neighborhood parks and associated intensive non-resource oriented recreational facilities is delegated primarily to local units of government."

Municipalities such as the Village of Fontana have, and are expected to continue to focus on the more active recreational facilities that can be tailored to meet specific community needs. Municipalities are better positioned to provide the administration and maintenance required for active recreation programs. They are well equipped to factor their school district's athletic facilities into their overall recreation needs.

This Park and Open Space Plan for the Village of Fontana presents the following information pertinent to park and open space planning:

- Data on resident population;
- Data on land use patterns and natural resource base;
- Information on the existing park sites and open space lands;
- Review of Village park and open space needs and desires;
- Recreational standards; and
- Identification of actions needed to carry out the recommended plan.

This updated plan is also intended to establish eligibility for Federal and State financial and technical assistance in partial support of the acquisition, development, and restoration of park and open space sites and facilities.

Goals and Objectives

The 2000 Walworth County Park and Open Space Plan prepared by SEWRPC was based on regional park and open space preservation objectives, principles and standards. The regional report presented seven objectives toward meeting the recreational needs of the residents of the County:

1. To provide an integrated system of public general use outdoor recreation sites and related open space areas that will allow adequate opportunity to participate in a wide range of outdoor recreation opportunities.
2. To provide sufficient outdoor recreation facilities to allow adequate opportunity to participate in intensive non resource-oriented outdoor recreation activities.
3. To provide sufficient outdoor recreation facilities to allow adequate opportunity to participate in intensive resource-oriented outdoor recreation activities.
4. To provide sufficient outdoor recreation facilities to allow adequate opportunity to participate in extensive land-based outdoor recreation activities.
5. To provide sufficient access areas to allow adequate opportunities to participate in extensive water-based outdoor recreation activities on the major inland lakes and rivers, which are consistent with enjoyable surface water use and the maintenance of adequate water quality.
6. To preserve sufficient high-quality open space lands for protection of the underlying and sustaining natural resource base and enhancement of the social and economic well being and environmental quality of the County.
7. To provide for the efficient and economical satisfaction of outdoor recreation and related open space needs meeting all other objectives at the lowest possible cost.

These objectives are relatively general in order to cover the broadest intentions to provide for an area's recreational needs.

In a meeting of representatives from Fontana in mid-September 2002, it was determined that the Village of Fontana on Geneva Lake was a unique community with a desire to develop a plan that more closely focused on its natural, historic and economic resources. They also indicated that the plan should be reviewed and updated every five years.

In addition to working toward meeting the objectives identified by SEWRPC (listed above), the following five (5) objectives were identified by the Village of Fontana:

1. Enhance and improve the use and condition of existing facilities. This serves as a priority over the acquisition of new parkland, unless such land functions to meet other objectives, such as environmental protection, green space, and preservation of historic character.
2. Decentralize the existing park facilities. Park and open space opportunities should be spaced throughout the Village, providing easy access to all of the population centers.
3. Improve the access to park and open space areas by the development or improvement of linear corridors within the community as well as linking to adjacent communities.
4. Ensure that the majority of park and open space facilities have a resource-based

focus since the ecological health of the environment is a critical component of Geneva Lake and the Village.

5. Emphasize the historical attributes of the Village and its surrounding area.

These objectives were confirmed by the Park Commission in their long-range planning meeting held in January 2007 and during sub-committee meetings in early 2009

Planning Process

Planning involves a decision-making process. The Village of Fontana-on Geneva Lake adopted a Parks and Open Space Plan in 1988, with updates in 1993 and 2003. In 2001, the Village began a comprehensive Master Plan associated with its commercial area. At this time, many park and open space questions came to light, as much of the commercial base of Fontana is associated with the area's waterfront. The Village Community Development Authority, who was conducting the Master Plan development, recommended to the Village Board that the Park and Open Space Plan for the area be updated as well. This would result in a comprehensive set of complementary plans that would guide the Village's growth and development for years to come.

The review of the previous Park and Open Space Plans as well as a review of the current park facilities and services began in late summer. A group of public representatives was convened to discuss the current status of the Village park system and to establish the goals and objectives to guide the Park and Open Space Plan. These representatives included members from: the Fontana Park Commission; the Big Foot Recreation District; the Village Community Development Authority; and the Geneva Lake Conservancy. This group agreed that the purposes for this plan were:

- To clearly describe specific resource conditions and visitor experiences to be achieved in an area's park system, and identify the kinds of management, use and development that is appropriate to meet those conditions, and
- To ensure that there is a foundation for future decision-making.

They further proposed that a comprehensive and integrated planning approach would assure the Village's Park and Open Space Plan would be able to achieve three specific objectives:

1. Advance other governmental planning efforts,
2. Augment the agendas of other conservation agencies, and
3. Advance compatible, but indirectly related, programs and initiatives.

This group met on several occasions to review and guide the direction of the plan, and to dovetail the recommendations with those being made associated with the updated Village

Master Plan. The results of this planning process was the 2003 Park and Open Space Plan.

The 2003 plan was reviewed by the Park Commission and a sub-committee in early 2009. The Village also began work on updating its Master Plan in 2009 and this process continued through the year. The recommendations from the Master Plan are incorporated in this Park and Open Space Plan.

Fontana Environment

An understanding of the important man-made and natural resource features of the Village of Fontana is essential to the preparation of a sound Park and Open Space Plan. This section provides information on the history of the Village of Fontana on Geneva Lake, existing resident population, and current land use patterns.

The Village of Fontana on Geneva Lake is located in south-central Walworth County on the western shore of Geneva Lake. State Highway 67 runs north-south along the western side of the Village, while County Highway B runs in an east-west direction along the southern boundary of the community. The Village is centrally located within 1.0 and 1.5 hours drive of the Chicago, Milwaukee, Madison and Rockford metropolitan areas.

Climate

Since recreational activities and many occupations are influenced by climate, it is an important factor to consider during the planning process. Walworth County falls within the mid-continental zone, which is characterized by long, relatively cold and snowy winters and mostly warm summers with periods of hot, humid conditions. The air temperature varies greatly throughout the year. Frost typically occurs in October through May, with streams and lakes freezing over around late November and ice breaking up in late March or early April. Snow cover is likely from December through February.

The mean annual precipitation in Walworth County is 36 inches. The majority of this precipitation is in the form of rain during the growing season (May through September). Precipitation in the form of sleet and snow averages 47 inches annually. This is equivalent to approximately 4.7 inches of water (~13% of the annual precipitation).

Historic Context

Near the end of the Wisconsin Glaciation, a series of ridges formed between two immense lobes of glacial ice in what is now southeastern Wisconsin. These ridges, or moraines, are 120 miles long. Scattered among them, areas of crater or kettle-like depressions were created by large chunks of melting ice. Geologists named this region the Kettle Moraine. Studies that began in the Kettle Moraine during the 1870s led to key discoveries and the first map of the extent of continental glaciation in North America.
Wisconsin Ice Age Trail Information Center

The history and community of the Village of Fontana on Geneva Lake are inseparable from the surrounding natural environment. This region is at the southern end of the Kettle Moraine, formed 14,000 -30,000 years ago by retreating Wisconsin glaciers. The lake basins and moraine of rolling gravel hills provide a magnificent landscape. Geneva Lake, measuring 20.6 miles around (eight miles long and two miles wide), and approximately 144 feet deep, is the largest lake in the region.

The clear waters of Geneva Lake are the result of natural springs flowing throughout the area. The Potawatomi Indians called the lake "Kishwauketoe", meaning clear water.

The area's landscape and natural resources have made this area a popular spot -from Potawatomi Indian Chief Big Foot to today's residents and tourists. It has been said that Fontana began as a resort area and just stayed that way.

Potawatomi Indians

In 1600, the Potawatomi Indians lived in the northern portion of Michigan's lower peninsula. By 1641, they began their move across Michigan and to Wisconsin as they avoided threatening tribes. By 1665, all of the Potawatomi were living on Wisconsin's Door Peninsula. As the Iroquois Indians were driven back towards New York, the Potawatomi moved southward along Lake Michigan's lakeshore, reaching the southern end by 1695. By 1716 most Potawatomi villages were located between Milwaukee and Detroit expanding into northern Indiana and central Illinois during the 1760's.

The Potawatomi name is a translation of the Ojibwe "potawatomink" meaning "people of the place of fire." Similar renderings of this are: Fire Nation, Keepers of the Sacred Fire, and People of the Fireplace-all of which refer to the role of the Potawatomi as the keeper of the council fire in an earlier alliance with the Ojibwe and Ottawa. In their own language, the Potawatomi refer to themselves as the Nishnabek or "people."

Big Foot, or Maunk-suck as he was called in his Indian language, was the chief of three bands of many Potawatomi that lived on Geneva Lake in what are now Williams Bay, Lake Geneva and Fontana. While his primary residence was in Fontana, his tribe of approximately 500 occupied the Williams Bay area. Nearby Potawatomi villages were in Mukwonago, Oconomowoc, Milwaukee, and Waukesha.

The 1830 Removal Act of the United States government, and the 1831-32 Black Hawk War, led to a pivotal meeting in 1833 in Chicago involving over 5,000 Indians. During this meeting, the Native Americans and the U.S. Government negotiated a treaty for moving the Potawatomi Indians from Michigan, Indiana, Illinois and Wisconsin westward. As a result of this treaty, Chief Big Foot and the local Potawatomi tribe were evicted from the area in 1836. After temporary stops in Missouri's Platte County and Iowa's Council Bluffs region, by 1846 the tribe had moved

to present-day Kansas.

Many roadways and parklands within the Lake Geneva and Fontana area are named after these influential and historic Native Americans and tribes.

Early Settlers

The early settlers in this area came from New York. Mr. Thomas Paine came to the area and settled in Lake Geneva. He claimed land in Fontana, and paid the Van Slykes to live there in order to protect his land and investment. In 1836, Mr. and Mrs. James Van Slyke built a 14 by 16-foot log cabin on the land in the northwest corner of Third Avenue and Lake Avenue. Their cabin was among the earliest in the entire region, as prior to 1833, the land was entirely inhabited by the Potawatomi Indians. The Van Slykes however never formally acquired the land from the U.S. government. In 1839, Dr. Henry Clark purchased the title to 66.06 acres of land in Fontana -that land between the present Highway 67 and the lakeshore, and from Fontana Boulevard and the center of Buena Vista. Dr. Clark later obtained land in what is today Indian Hills, Glenwood, and much of Country Club Estates and the Big Foot Country Club.

In 1839, a group of local landowners met to organize a township government. They agreed to call the entire township (the area which is now Sharon, Walworth, Fontana and the west half of Williams Bay) Fontana -Italian for "Place of many springs." When a representative went to Madison, the state capital, to record this with the state government, the name was surreptitiously changed to Walworth after a judge from New York.

During the 1850's, the majority of the homes were located in the three blocks between Highway 67 and the school grounds. There was little development in the area until the 1890's. Development throughout the western end of the lake was strictly agricultural (dairy farming) and Fontana and Williams Bay remained primarily rural trade centers.

Resort Development

The Village of Lake Geneva grew quickly due to its great potential for water power from the White River outlet. By 1871, Lake Geneva could be accessed by railroad, and the area became a haven for the wealthy families of Chicago. Chicago's great fire in 1871 caused many of these families to lose their homes and/or businesses. Many came to the Lake Geneva area to build temporary housing and businesses, however many stayed permanently as they were lured by the area's beautiful landscape and growing economy. By 1900, the shoreline of Geneva Lake had been almost completely developed and used by private residents, resort parks, and private camps. There were only a few public beaches and parks along the shoreline in Fontana, Williams Bay and Lake Geneva.

Below is a timeline evidencing the rate and type of development that occurred in Fontana.

- 1869 Belvidere Park Club was started by families from Belvidere, Illinois. It was the first club built on the lake.
- 1875 Edward Ayer, a lumberman who became wealthy by selling railroad ties to the railroad, built the first large estate in Fontana.
- 1875 Edward Ayer also built the summer tent colony known as The Harvard Club, named after his hometown of Harvard, Illinois.
- 1875 Doric C. Porter opened the Porter's Park summer tent colony. This colony operated for 24 years.
- 1876 Gardner platted five residential lots in the Harvard Club region.
- 1882 Glenwood Springs was developed.
- 1887 11 business lots were platted along the lakefront.
- 1900 The area supported two fine summer hotels -Menier Hotel and Glenwood Springs Hotel.
- 1901 Warren F. Furbeck opened Buena Vista Park.
- 1902 Steams and Gerould divided the lakeshore land between Belvidere and Buena Vista into separate lots.
- 1924 Fontana became an incorporated village, with a resident population of 214.
- 1924 The Geneva Lake Improvement Association was formed and deeded land to the Big Foot Country Club.
- 1927 DeWitt Roberts and Joseph O'Brien developed Indian Hills as a year round residential community.
- 1928 Club Unique was developed.
- 1929 Geneva Lake Improvement Association deeds land that would later be known as Country Club Estates to developer Arthur B. Jensen. With the exception of minor land additions to existing development, no more land in Fontana was platted until 1957.
- 1931 The Property Owners Association of Country Club Estates deeds "Easement Park" to the Village. This is the sand portion of the present Village beach south of the beach house.
- 1949 The Village installed a modern underground water system throughout the entire village -excepting Country Club Estates and The Gardens.
- 1956 The Village installed a sewer system and disposal plant.

Local Industry

According to local history, between 1875 and 1925, almost all of Fontana's economy was associated with summer visitors. For example, people worked as house servants, gardeners, and craftsmen. There was some industry in the area, however.

- 1845 Richard Montague built and operated a sawmill, across the street from the present Fontana school.
- 1857 Carlos Douglass constructed and operated a flour mill on Mill Street.

- 1860 Carlos Douglass converted the sawmill to operate as a flour mill.
- 1880 N.K. Fairbanks and Levi Z. Leiter established a trout hatchery in the spring fed pools at Big Foot Country Club, now known as the Seven Sacred Springs.
- 1896-1915 The Boyle Ice Company of Chicago cut ice from Lake Geneva and delivered it to the Chicago area.
- 1898-1920 The Chicago, Harvard and Geneva Lake Railway Company carried freight (sand, gravel and ice) and passengers through the area to Chicago.
- 1900's Two gravel pits operated in the area, shipping sand and gravel to Chicago and throughout the region.

Today's transportation system allows local residents to work throughout the area. Many residents commute as far as Milwaukee and Chicago for employment. During the summer season, many residents service the tourist and boating trade, providing boat and repair services as well as housing and food services.

As of 2009, Fontana supported the land uses presented in Table 1. The dominant land cover in Fontana is undeveloped, open space including water, woodlands, wetlands, and other recreational lands. These land uses cover approximately 51% of the Village. The predominant development is residential, comprising 34% of the area.

Table 1: Land Use In Fontana on Geneva Lake 2009

Source GIS Inventory, Vanderwalle & Associates

Land Use	Acres	Percent Land Cover
Residential	738	33.92%
Commercial	8	0.37%
Industrial	6	0.28%
Transportation, Communication and Utilities	212	9.74%
Government and Institutional	26	1.19%
Recreational *	324	14.89%
Agricultural	345	15.85%
Woodlands / Wetlands	443	20.36%
Surface Water	24	1.10%
Other **	50	2.30%
Total Area	2176	100.00%

* Includes intensively used area of public and non-public recreation sites, as well as off-street parking areas with more than ten spaces.

** Includes surface water, extractive, landfills, and unused lands.

Population Context

The number of households is of particular importance in land use and public facility planning because it greatly influences the demand on existing and future recreational sites and facilities. The age distribution of the population may be expected to influence the location and type of recreational facilities as well.

According to records from the U.S. Census Bureau, and the Wisconsin Department of Administration, the 1990 population of Fontana on Geneva Lake was 1,635 residents; the 2000 documented population was 1,754 residents, reflecting a growth of 7.3% over the 10-year span. The 2008 population was 1,874, an increase of 6.8%. Again, according to records from U.S. census Bureau, the Wisconsin Department of Administration, and SEWRPC, the Village of Fontana is the slowest growing population among the villages in Walworth County. The average growth of the surrounding villages from 1990 to 2000 was 33.9% and 8.8% from 2000 to 2008.

As part of SEWRPC's 2020 regional land use plan for southeast Wisconsin, they developed three population growth alternatives. Using these development scenarios, SEWRPC developed the population projections for the year 2020 presented in Table 2. The SEWRPC definition of each alternative is described below:

Table 2: SEWRPC Population Projections for the Village of Fontana 1990 -2020

Projection Scenario	Planned Increment 1990 - 2020		Total
	Population Number	Percent Growth	
1990 Population	1,740		
2008 Population	1,874		
Recommended Plan	700	40.2	2,440
High Growth Decentralized Plan	2,940	169.0	4,680
High Growth Centralized Plan	1,180	67.8	2,920

* Existing and Proposed Population in the Region by Sewer Service Area as determined by SEWRPC

Recommended Plan:

"This alternative may be characterized as an "intermediate-growth centralized" plan. This plan accommodates population and employment growth that may be expected under an intermediate-growth scenario projection of population, households, and employment. With respect to land use patterns, this alternative seeks to moderate, to the extent practicable, the historic decentralization of population and employment, and associated urban development, away from the older urban centers of the region."

High-Growth Decentralized Plan:

"This plan accommodates population and employment growth which may be expected under a high growth scenario projection of population, households, and employment. With respect to land use patterns, this alternative anticipates continued decentralization of population and employment, and associated urban development, away from the older urban centers of the region."

High Growth Centralized Plan:

"This plan accommodates population and employment growth which may be expected under a high-growth scenario projection of population, households, and employment. With respect to land use patterns, this alternative emphasizes a centralized development pattern for the region and anticipates a reversal of historical decentralization of population and employment, and associated urban development, away from the older urban centers of the region."

For the purposes of this report, the year 2020 SEWRPC projection using the recommended plan, calculating a resident population of 2,440, will be used as the basis of assessing future park and open space needs. This represents an increase of 566 residents over today's current population. A more comprehensive profile of the Village population, describing the statistical makeup of the area's households, is presented in Appendix 1.

Another aspect, which affects the use and need of public park and open space sites and facilities, is the transient population of an area. Fontana is greatly affected by the influx of seasonal residents as well as daily/weekend tourists. According to SEWRPC, 21% of the housing units within Walworth County were for seasonal, recreational and occasional use. This is significantly greater than the seasonal housing rates throughout southeast Wisconsin (2%) and for the entire state (7%).

The U.S. Census Bureau developed the following profile for the year 2000, for the Village of Fontana on Geneva Lake (Table 3). According to this profile, the housing for seasonal, recreational and occasional use represents 59% of the total housing units, and 96% of the total vacant housing. Clearly, the seasonal population change in the Village of Fontana is significant.

Table 3: Summary of U.S. Census Bureau Population Profile for the Village of Fontana on Geneva Lake for the Year 2000

Total Population	1,754
Family households	525
Nonfamily households	239
Households with individuals under 18 years of age	185
Households with individuals 65 years and older	249
Average household size	2.30

Average family size	2.79
Total Number of Households	764
Total Housing Units	1,974
Occupied housing units	764
<i>Owner occupied units</i>	650
<i>Renter occupied units</i>	114
Vacant housing units	1,210
<i>Seasonal, recreational, or occasional use</i>	1,165

Physical Environment

According to the GIS survey conducted by Vanderwalle & Associates in 2009, The Village of Fontana consists of 2,176 acres. The major land uses are residential (738 acres or 34%), woodlands (443 acres or 20%), agricultural (345 acres or 16%) and recreational (324 acres or 15%).

Surface Drainage

The surface waters of Walworth County flow to the Mississippi River through the Fox (Illinois) River and Rock River basins. The majority of the Village of Fontana on Geneva Lake is located within the Fox River watershed, with the far south end falling within the Rock River watershed.

Surface Waters

Fontana on Geneva Lake contains several valuable surface water resources. The surface waters of the village include Geneva Lake and Potawatomi and Van Slyke Creeks. Geneva Lake is the largest lake in Walworth County, with a surface area of 5,262 acres. There are 20.6 miles of shore, with one and one half miles of public frontage. This deep spring lake has a maximum depth of 144 feet and has been classified an AQ-2 resource by SEWRPC. This ranking refers to aquatic areas of countywide or regional significance. Geneva Lake contains good overall fish diversity and provides habitat for critical fish species. However, as the Geneva Lake Environmental Agency reports, the lake is beginning to show biological changes due to extensive development.

Potawatomi and Van Slyke Creeks are cold-water trout streams with good fish populations. These creeks have also been designated by SEWRPC as AQ-2, indicating that they are aquatic area sites of countywide or regional significance, providing critical aquatic habitat. These waterways flow into Geneva Lake from the southwestern portion of the Village. While transporting surface runoff, these waterways are fed by a series of groundwater springs.

Flood Lands

Flood lands are the wide, gently sloping areas contiguous to a stream channel. For planning and regulatory purposes, flood lands are normally defined as the areas, excluding the stream

channel, subject to inundation by the 100-year recurrence interval flood event. Flood land areas often contain important natural resources, such as high value woodlands, wetlands, and wildlife habitat and, therefore, constitute prime locations for resource-based parks and open space areas.

Wetlands

Wetlands are areas covered or saturated by surface water or groundwater at a frequency or duration sufficient to support the growth of vegetation adapted for saturated soils. The location and extent of wetlands in Walworth County was documented by SEWRPC in 1995. According to their survey, Fontana on Geneva Lake contained 87 acres of wetland in 1995, comprising 3.4% of the total land in the Village. Many of the wetland areas occur within the primary environmental corridors along Van Slyke and Potawatomi Creeks. These include both emergent as well as forested wetland communities. Several isolated wetland pockets occur throughout the Village. They are noted in both the Country Club Estates and Abbey Springs Country Club golf courses.

A natural fen habitat has been identified within the Village, located east of South Main Street and south of Dewey Avenue. While many wetlands are the result of groundwater seepage, fens are unique systems because the waters are specifically rich in calcium and other minerals, and are alkaline in nature. As a result, fens contain plant species that are not commonly found elsewhere.

Woodlands

Woodlands cover approximately 443 acres, or 20% of the total lands in the Village. Two of the three Primary Environmental Corridors identified by SEWRPC (see Environmental Corridors below) that occur in this area support primarily woodland habitats. The woodlands in this area are mature deciduous communities, supporting a mix of ash, oak and hickory tree species. Woodlands serve many important functions, including providing wildlife habitat, sustaining plant and animal diversity, regulating surface water runoff, and contributing to clean air and water.

Wetland areas have many important natural functions, including:

- *habitat for unique plants and animals;*
- *flood control;*
- *filtering precipitation and runoff;*
- *recharging groundwater;*
- *supplying baseflow to streams;*
- *providing opportunities for education and research;*
- *supporting sites for recreational hunting and birding; and*
- *adding to the aesthetic value of the community.*

Natural and Geologic Resources

In 1994, SEWRPC conducted a comprehensive inventory of Walworth County's natural and geologic resources as part of the Commission's natural areas and critical species habitat protection and management plan. Their findings are presented below.

Natural Areas

Fontana has one identified natural resource area. This area is the Fontana Prairie and Fen, a ten-acre area currently owned by the Village of Fontana. SEWRPC classified this site as NA-3, a natural area of local significance. This actively managed area includes a wet mesic prairie complex and a calcareous fen of moderate quality. Uncommon species, including the state-designated threatened beaked spike rush (*Eleocharis rostellata*), are found in this area.

Critical Species Habitat

SEWRPC classified Potawatomi Creek as a critical aquatic habitat area. Furthermore, they have indicated that this creek is a cold-water trout stream, with good fish populations, of countywide or regional significance.

Geological Sites

Fontana is located in a landscape dominated by the Kettle Moraine. This physiographic feature consists of conical hills, depressions, and narrow ridges. The Kettle Moraine area has been classified as a GA-1 site, indicating it has statewide or greater significance.

SEWRPC did not identify any areas of geological significance in their 1994 countywide survey. The sites were selected on the basis of scientific importance, significance in industrial history, natural aesthetics, ecological qualities, educational value, and public access potential.

Environmental Corridors

SEWRPC has identified two categories of environmental corridors: primary and secondary. The differences in these classifications relate to the overall size of the corridor, the diversity and type of plant and wildlife communities present, the integrity of the natural community, and the extent of human disturbance.

- According to SEWRPC, Primary Environmental Corridors contain the best remaining woodlands, wetlands and wildlife habitat areas. By definition, they are a minimum of 400 acres in size, two miles in length, and 200 feet in width. They contain remaining high-value woodlands, wetlands and wildlife habitat areas as well as all major bodies of water and shorelands. There are 556 acres classified as primary environmental corridor within the Village.
- Secondary environmental corridors generally connect with the primary environmental corridors and are at least 100 acres in size, and a minimum of one mile long. These corridors are typically located along small perennial and intermittent streams, and are often remnants of primary environmental corridors that have been disturbed. They support a variety of natural habitats and systems. There are 16 acres classified as

secondary environmental corridor within the Village.

The protection of the primary environmental corridors from additional intrusion by incompatible land uses, and thereby from degradation and destruction, is one of the principal objectives of the SEWRPC Park and Open Space Plan for Walworth County. Furthermore, the protection of the natural resources within primary environmental corridors is considered the responsibility of all levels of government -State, County, and local municipalities.

According to SEWRPC, primary environmental corridors occur across a significant portion of the Village of Fontana. There are three major corridors that extend from the lake's edge and through the village area. Two of these corridors are woodland systems. The third corridor follows the wetlands and woodlands associated with the Potawatomi Creek community. The location of these corridors is presented below, and in Figure 1.

1. West of North Lake Shore Drive: This corridor extends from the wooded areas in the Duck Pond Recreational Area, across Highway 67, and follows the undeveloped woodland area located primarily on the west side of North Lake Shore Drive into Williams Bay. It supports an isolated open water area, located between North Lower Garden Road and South Lower Garden Road. The corridor connects to the lake shore of Geneva Lake in the area between North and South Lower Garden Roads. This corridor supports a diversity of upland deciduous woodland species.
2. Extending southwest of The Abbey Marina: This corridor supports diverse wetlands and woodland habitats along the Potawatomi Creek waterway. It extends along both sides of the Big Foot Country Club golf course, and behind the residential development on the northwest side of Shabonna Drive and Tarrant Drive. It also extends westward across Highway 67, and includes the Fen area and the wetlands and woodlands located west of South Main Street beyond the school property.
3. South of South Lake Shore Drive: This primary environmental corridor extends southwestward from the Village's eastern boundary, across Highway B east of the Country Club Estates golf course. It meanders through the undeveloped portions of the Abbey Springs Country Club residential community: south of the residential development on Briarwood Drive and north of the development of Deer Path. The corridor connects to the Geneva Lake shore east of Green Drive and west of Lakeland Drive. Like the environmental corridor located along North Lake Shore Drive, this corridor supports a mature, deciduous forested community. There are also several pockets of wetland habitats.

Isolated Natural Resource Areas

SEWRPC has identified isolated natural resource areas as areas isolated from environmental corridors by urban development or agricultural uses. As they are isolated, these areas often provide the only available wildlife habitat in an area. According to SEWRPC, these areas should be preserved in natural open uses, being incorporated for use as parks and open space reservations.

SEWRPC mapped two isolated natural resource areas in Fontana. Their locations are described below and presented on Figure 1.

1. Woodland: SEWRPC mapped an isolated woodland area south of South Lake Shore Drive and west of Brickley Drive, behind the residential development along Arrowhead Drive. Nearly half of this woodland area has been lost due to recent residential development. The area is isolated from the nearby environmental corridors by residential development.
2. Wetland: SEWRPC mapped an isolated wetland area west of Mill Street and south of West Main Street. The approximately 11-acre area extends to South Main Street, immediately across from the current elementary school. This area supports emergent and forested wetlands associated with a spring-fed drainageway flowing from the west side of South Main Street, towards Geneva Lake. A small area of upland forest is also included in this area. (The Village purchased this area in 2005 to protect it from development. It is now a village park area, the Hildebrand Conservation Area).

Prime Agricultural Land

According to the survey conducted by SEWRPC in 1995, there are no prime agricultural lands within Fontana. (A parcel of land zoned agricultural was brought into the Village in 2005. The area is zoned for a residential conservation subdivision, but is currently in use as agricultural land.)

Natural Resource Amenities

Fontana on Geneva Lake contains a variety of natural resource amenities, ranging from Geneva Lake and spring-fed creeks to woodlands to wetlands. Through careful planning and management, areas containing these amenities can provide valuable recreational opportunities while protecting habitat for a variety of wildlife.

On-road marked bicycle routes and the Lake Geneva Trail allow residents and visitors to Fontana the opportunity to view and enjoy many of the amenities located within the village.

INSERT FIGURE 1 Map of environmental corridors, existing parks and village-owned properties

Inventory of Current Outdoor Recreation Facilities

In Spring 2002, the Big Foot High School Board of Education created the Big Foot Recreation District. This new organization functions to provide and manage the recreation programs serving the Big Foot High School district, which includes the school districts for the Villages of Fontana, Walworth, and Sharon, and the Big Foot portions of the Townships of Sharon, Walworth, Linn, Reed and Delavan. Residents within these areas have open access to all the school facilities listed in Table 4. The majority of these facilities are intensive, non-resource based.

Table 4: Big Foot Recreation District Recreational Facilities, 2002

An inventory of the existing Village-owned park and open space sites and outdoor recreation facilities indicated that in 2002, there were ten such sites, which together encompassed about 324 acres, or about 15% of the Village. The following listing describes the types and number of publicly owned facilities within Fontana.

Developed Facilities -Ownership

Owned by Walworth County

As of 2002, there are no park or open space facilities owned by Walworth County within the Village of Fontana.

Owned by the State of Wisconsin

As of 2002, there are no park or open space facilities owned by the State of Wisconsin within the Village of Fontana. This includes lands owned by the Wisconsin Department of Natural Resources, the Wisconsin Department of Transportation, and the University of Wisconsin.

Owned by Local Governments or Public School Districts

The following list describes Fontana's current publicly owned park and open space areas. These sites as well as other undeveloped, Village-owned lands are exhibited in Figure 1. Each area is then described below; photographs exhibiting these areas are presented in Appendix 3.

Table 5: Park Sites Owned by the Village of Fontana and The Fontana School District

Site Name	Acreage	Ownership
Duck Pond Recreational Area	109	Village
Mohr Public Park	0.21	Village
Pioneer Park	0.5	Village
Fontana Elementary School and Mill Pond Natural Area	4	School District
Big Foot Nature Study Area	15	Village

Site Name	Acreage	Ownership
Hildebrand Conservation Area	14	Village
Headwaters	2.59	Village
Fontana Fen	10	Village
Fontana Beach	6	Village
Reid Park	4	Village
Fontana Marine Service	1	Village
Boat Access Site	1	Village
Lakeview Park	0.47	Village
Geneva Lake Shore Path	16,500 lin. ft*	Public Easement
TOTAL ACRES (excluding trails)	167.77	

* linear feet

Duck Pond Recreational Area - 109 Acres

This area is located in the northwest portion of the Village, west of Highway 67. This 109-acre area can be separated into two distinct areas: a developed portion and an undeveloped portion. The developed portion supports a mix of active, non-resource based recreational facilities. Improvements to this area include the construction of a recreational building that provides restrooms and concessions, two baseball fields, a batting cage, and space for approximately three soccer fields, although no soccer goals have been installed at this time.

The undeveloped portion of this area is located west of the developed area. This area supports an unimproved, informal dirt walking/jogging trail, which follows the ridge encircling the area previously used as the holding ponds for the Village's wastewater treatment plant. The interior portion of this area is highly disturbed and supports pioneer vegetative communities – open field, scattered trees, and a few isolated small ponds. Furthermore, a portion of this area is currently used as the Village recycling and mulching center where residents can dump tree and grass clippings.

There is considerable land linking the developed area and the enclosed, undeveloped area, and the developed area with the park entrance immediately off Highway 67. A paved roadway connects the area between the playfields and the old holding ponds. Much of the area surrounding this roadway, like the area within the holding pond area, is highly disturbed and supports pioneer field vegetation. The area north and east of the playfields, and extending to the park entrance, supports mature woodland. This forested area supports a mix of deciduous and evergreen trees. There is an informal disc

golf course in this area. There are informal, and un-maintained footpaths traversing through these woods. A few structures associated with the Village's Department of Public Works are located within this wooded area.

The gateway to Duck Pond consists of an approximately three-acre, triangular-shaped parcel located at the northern entrance to the Village, immediately west of Highway 67, and north of the Duck Pond Recreational Area entrance road. This parcel is scenic and unique in the area. It is a sparsely forested area, with pockets of open space. It supports a mix of mature, deciduous trees and an area that has recently been planted with the goal of recreating a prairie habitat. This site is very visible from the roadway as one enters the Village. A new bicycle path along Highway 67 helps link this area and the entire Duck Pond recreation area to the Village center.

Mohr Public Park - 0.21 Acres

This park is a small easement given to the Village on a residential lot, providing pedestrian access to Lake Geneva and the Geneva Lake Shore Path. It is located at the end of Mohr Road.

Pioneer Park - 0.94 Acres

This park is located at the corner of Third Avenue and Lake Street. This is primarily a passive use park, offering a game table, park benches for viewing the lake, and a drinking fountain. This is the site of the first non-native American residence in Fontana. Mr. and Mrs. Van Slyke constructed a 14 X 16-foot log cabin on this site in 1836.

Fontana Elementary School and Mill Pond Natural Area - 4.0 Acres

The elementary school grounds support playground equipment and an open area for field games. The field is not to regulation field standards and does not support structures such as a baseball backstop or soccer goals. There is also a blacktopped area with four basketball hoops and marked lines for hopscotch.

The Mill Pond Natural Area is a joint project between the Fontana Grade School and the Village of Fontana. This natural area supports a natural spring and coldwater creek, woodlands, and wetland areas. There is an existing pedestrian trail system through the forested area south of the school building.

Big Foot Nature Study Area - 15.0 Acres

This recreated native prairie and oak savanna is located on Brick Church Road, and is leased from the Village by the Big Foot Area School District. Originally developed to serve educational purposes for the local schools, it is poorly used by the schools. The area is open to the public. There has been little if any management of the area to sustain it as a viable prairie/savanna natural community.

Hildebrand Conservation Area and Mill House Pavilion - 14.0 Acres

This area supports a rich diversity of habitat types including upland forest, wetland forest, and emergent wetland between Mill Street and Main Street. Van Slyke Creek flows from Headwaters Park to Mill Street through this area. A trail goes through the area from Mill Street to the Mill House Pavilion. The Park Commission has developed a maintenance plan for this park to try and restore more native vegetation and improve the quality of the stream for trout. On the west side of the area is the Mill House Pavilion which sits on the site of the former mill house. The pavilion serves as a site for educational activities for the community and Fontana Grade School.

Headwaters Park – 2.59 Acres

This area opposite the Fen on Main Street and Dewey Avenue contains the headwaters of Van Slyke Creek. There is a walking trail into the park area.

Fontana Fen - 10.0 Acres

Located between Main Street and Dewey Avenue, this natural area exhibits fen and prairie restoration work. Open to the public, this area is also used as a nature study area by local school groups. There is currently one small parking area and a series of permanent (mowed grass) trails. Some educational signs exist along the trails explaining the functions and values of fens and prairie systems.

This area had been donated to the Village of Fontana with the stipulation that the fen remain in its native or restored state.

Village Beach - 6.0 Acres

This is the only public beach on Geneva Lake within the Village of Fontana. There is currently a beach building that provides lockers and restrooms. There is also an anchored pier and grass play area. Lifeguards are on site during the summer season. A fee is charged for all non-residents six years of age and older.

Reid Park - 4.10 Acres

This park is located in the central business area along Fontana Boulevard, and partially fronts on Lake Geneva. The primary park area provides a softball field with associated bleachers and backstop, playground equipment, picnic tables, grills, and a gazebo. Several smaller park sites are near or immediately adjacent to this park, and are in all practicality considered part of Reid Park. These separate park areas include the boat access site, Lakeview Park, and the Geneva Lake Shore Path. Each is described below.

Boat Access Site - 1.0 Acre

This site is the only public boat access site in the Village of Fontana. It is located on Lake Street, just south of the intersection with Bay View Avenue. The launch is sized so that two boats can be launched simultaneously. Parking for the

associated cars and boat trailers is located adjacent to Fontana Boulevard, between High Street and Reid Street.

Lakeview Park - 0.47 Acres

This park is located on Lake Street, adjacent to the beach house at the Village Beach, and provides seats and a viewing area for the lake.

Geneva Lake Shore Path

A portion of this public trail that follows the shoreline of Lake Geneva crosses through the Village of Fontana. The entire trail is approximately 20 miles long. Approximately 3.13 miles of this trail traverse through Fontana.

Village Owned - Undeveloped Lands

There are currently two Village-owned parcels that are of note with regards to the area's open space and recreational needs. These parcels are presented on Figure 1 and include the following sites.

- An approximately 29.35-acre, linear-shaped parcel located east of Country Club Estates, north of Highway B and west of Indian Hills Road, adjacent to Pheasant Ridge. The parcel located east of the Country Club Estates "Back 40" is an undeveloped wooded area. Currently, there are unimproved trails through this area, connecting to the "Back 40" area.
- An approximately one-acre parcel located immediately south of the Fen, on the southern side of Highway 67. This site is open and currently maintained as lawn.

Other

Some of the privately owned facilities are available for public use and provide services for golf, tennis and swimming. These areas include the 9-hole Country Club Estates Golf Course (open to the public), the 18-hole Abbey Springs Golf Course (open to the public), and the recreation core and swimming pool at Abbey Springs (membership available to the public). In addition, there are several private clubs and associations that provide swimming beaches and pools, playgrounds, and boat launching sites for their members and guests. The Seven Sacred Springs are a series of spring-fed ponds and streams located within the Big Foot Country Club property. These ponds hold historic value, as they were the sites of previous Potawatomi Indian activities. A summary of these sites is presented in Table 6.

Table 6: Private & Public Interest Resource-Oriented Park and Open Space Sites

Site Name	Acreage	Ownership
Abbey Springs Country Club	152	Private

The Abbey	70	Commercial
Big Foot Country Club	231	Private
Country Club Estates Golf Course	80	Semi-Private
Seven Sacred Ponds	1	Semi-Private

Developed Facilities - Facilities and Services

Water Access

The Regional Park and Open Space Plan developed by SEWRPC recommends that rivers and major lakes (defined as lakes with a surface area of 50 acres or more), be provided with adequate public access, including carry-in-boating and motor-boat access.

Trails and Bicycle Ways

According to SEWRPC, Fontana supports the majority of on-road, marked bicycle routes in the County. The primary routes are located along the southern portion of Highway 67, as it enters Walworth; along Fontana Boulevard to South Lake Shore Drive; along Highway B extending the length of the Village, and along a portion of Brick Church Road.

The Geneva Lake Shore Trail is a privately owned and publicly accessible maintained trail that provides pedestrian access around the entire lake. This trail passes the Fontana public beach and then follows along Lake Street, becoming a shoreline trail again at the corner of Kinzie Avenue and Lake Street. Approximately 3.13 miles of this estimated 20-mile trail traverse through the Village of Fontana.

Historic Sites

Historic sites are often valued for their recreational, educational, and cultural values. There are more than 500 such sites recorded in Walworth County. The Village of Fontana supports one recorded historic site -the Douglass-Stevenson House. This building, currently owned and occupied by the Geneva Lake Conservancy, was listed on the Wisconsin State Historical Society register in 1986.

Previous Comprehensive Outdoor Recreation Plans and Needs Assessments

State Comprehensive Outdoor Recreation Program (SCORP)

The most recent State Comprehensive Outdoor Recreation Program (SCORP) was prepared in 2005 to assess the status of current outdoor recreation in Wisconsin. The study reviewed the current participation rates, the supply of outdoor recreation resources, and issues identified

that may have a significant impact on outdoor recreation in the future. Table 7 summarizes some of the findings presented in this report.

These findings indicate that Fontana should keep the following trends in mind as they review and plan their open space and recreational needs for the foreseeable future:

- There will most likely be an increased demand for family-oriented recreational facilities.
- There will most likely be an increased demand for local, nearby recreational facilities, as people will search for immediate resources as they experience greater limitations on their free time.
- The tourist-associated demand on local recreational sites and facilities will continue in the future.
- The demand for extensive, resource-based recreational facilities will grow with the rate of the local population growth.
- Municipalities should consider the diverse demands of varied user groups, as some prefer active recreation activities, while other prefer passive recreation.

With regards to state funding, the SCORP report identified the following projects and programs as priorities:

- Development or renovation projects that meet the needs and deficiencies defined in the SCORP report.
- Land purchases that protect those resources most threatened by land use changes. Waterfront parcels and recreational lands near urban centers should receive the greatest priority.
- Acquisition and development projects that provide "outdoor classroom" type spaces for learning outdoor skills, ethics and resource stewardship.
- Projects that improve access to recreation and promote outdoor activities to help increase the health of Wisconsin residents.

Table 7: 2005 WI State Comprehensive Outdoor Recreation Program: Summary of Findings

Goals	To aid recreation providers in developing an adequate supply of recreational lands and facilities, and to promote the conservation of important natural resources, this SCORP presents several goals and actions. These include the need to: protect, restore, and enhance Wisconsin's natural resources for outdoor recreation; to understand and manage the growing issue of Wisconsin outdoor recreation conflicts; to continue to provide Wisconsin outdoor recreation and educational programming; to continue to provide and enhance public access to Wisconsin recreational lands and waters; to understand the threats and opportunities of Wisconsin's developing urban areas and areas of rapid population growth; to maintain and enhance funding opportunities for Wisconsin outdoor recreation; and to promote Wisconsin outdoor recreation as a means to better health and wellness for state citizens.
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<p>Overall Recreation Demand</p>	<p>Wisconsin’s population grew 7.3% between 1994 and 2004 and is expected to grow another 3.3% by 2010. This growth, along with the state’s sizeable population of baby boomers now reaching retirement age, will create a larger demand for passive recreational activities.</p> <p>NSRE survey data was used to examine people’s preferences and participation in a range of outdoor recreational activities. From this data, several outdoor recreation participation segments were identified.</p> <table border="0"> <thead> <tr> <th style="text-align: left;"><u>Segment</u></th> <th style="text-align: right;"><u>% of Wisconsin Population</u></th> </tr> </thead> <tbody> <tr> <td>Inactives</td> <td style="text-align: right;">17</td> </tr> <tr> <td>Passives</td> <td style="text-align: right;">14</td> </tr> <tr> <td>Non-consumptive Moderates</td> <td style="text-align: right;">14</td> </tr> <tr> <td>Nature Lovers</td> <td style="text-align: right;">16</td> </tr> <tr> <td>Active Nature Watchers</td> <td style="text-align: right;">16</td> </tr> <tr> <td>Water Bugs</td> <td style="text-align: right;">8</td> </tr> <tr> <td>Motorized Consumptives (Hunt and Fish)</td> <td style="text-align: right;">7</td> </tr> <tr> <td>Enthusiasts</td> <td style="text-align: right;">8</td> </tr> </tbody> </table>	<u>Segment</u>	<u>% of Wisconsin Population</u>	Inactives	17	Passives	14	Non-consumptive Moderates	14	Nature Lovers	16	Active Nature Watchers	16	Water Bugs	8	Motorized Consumptives (Hunt and Fish)	7	Enthusiasts	8
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<p>Overall Recreation Supply</p>	<p>The need for an increased supply of recreation land and facilities is evident on a variety of levels. On a landscape scale, there are a number of important areas within the state that deserve increased attention for environmental protection and preservation. At the local level, municipal and county parks are in need of facility upgrades and continued management.</p>																		
<p>Tourism</p>	<p>Although recreation demand in Wisconsin is largely determined by the activities and preferences of Wisconsin residents, out-of-state visitors also influence it. Visitors create higher levels of recreation demand on the available resources.</p>																		

A Park and Open Space Plan for Walworth County, 2000 – SEWRPC

The following is a summary of the park and open space needs as determined by SEWRPC in their inventory and assessment conducted in 2000.

Major Park Sites:

Based on current and project County populations (year 2020), there is a need for approximately 460 acres of additional land in major park sites within Walworth County. Taking into account the proximity of such parks to populated areas, no additional acres are recommended within the Village of Fontana.

Intensive Resource-Oriented Recreation Facilities

Camping

There are currently sufficient public camping facilities to meet the needs within the County.

Golf Course

One additional public golf course is recommended to operate within Walworth County.

To best serve the needs of the population areas, SEWRPC recommends this golf course be located in the northern and eastern portion of the county.

Picnic Facilities

There are an adequate number of picnic tables at major parks to meet the needs of the existing and future (year 2020) residents.

Swimming Beaches

The existing public and private swimming beaches are adequate to serve the current and projected population.

Open Space Preservation

SEWRPC has identified 71,858 acres (20% of the County) of open space lands to be protected. The protection of these lands can be accomplished via a combination of public or nonprofit conservation organization ownership, or via protection by zoning regulations. These lands correspond with the primary environmental corridors along Van Slyke and Potawatomi Creeks, and the wooded areas at the northern and southeastern portions of the Village.

Primary Environmental Corridors

The non-urban areas designated as Primary Environmental Corridors should be acquired by a public agency or nonprofit conservation organization, and preserved as natural areas.

Isolated Natural Resource Areas

Where practical, these areas should be protected. They can be incorporated in parks, reservations, or stormwater retention/detention areas.

Critical Species Habitat

These areas should be preserved and managed to maintain their natural value and protected by acquisition by public agencies or nonprofit conservation organizations. Fontana's Fen Natural Area is an area SEWRPC has identified for protection in this area. The Fen is currently owned and maintained by the Village of Fontana.

Historic Sites

Local units of government should support efforts relating to the preservation of historical sites and buildings within their jurisdiction.

Nature Study Area

At the time of the 2000 SEWRPC study, there was currently no nature study area within the County.

The three most important recommendations from the 2000 Park and Open Space Plan

prepared by SEWRPC are:

1. The preservation of primary environmental corridors in essentially natural, open areas.
2. The maintenance of the best remaining farmland in long-term agricultural uses.
3. Encouragement of a more compact pattern of urban development, one that can be efficiently served by such essential public facilities and services as centralized sanitary sewerage, water supply, and mass transit.

Village of Fontana on Geneva Lake Comprehensive Master Plan, 1991

The Village's 1991 Comprehensive Master Plan addressed many issues associated with the area's park and open space facilities, primarily emphasizing the development a green space system throughout the Village. The following is a summary of the recommendations associated with the creation of this green space system, the improvements to the Duck Pond Recreation Area, and the creation of a new neighborhood park.

Green Space System

The system should include linear open space corridors as well as agricultural lands. Lands proposed for inclusion in the greenway included: "environmental corridor areas that contain features such as wetlands, lands with slopes over 15%, floodplains, woodlands, wildlife and nature preserves, groundwater recharge areas, groundwater retention ponds, lands with highly scenic views and other sensitive natural areas." Recommended land uses within the greenway included: "non-intensive agricultural uses such as silviculture, orcharding, truck farming, and permanent crops; open space and recreation areas such as play fields, golf courses, hiking trails, horse riding facilities and bike trails; public uses in an open setting such as schools and other institutional uses, general aviation airport facilities, public well fields, public medical facilities; and low density residential uses such as large lot rural estates and cluster development." The control of these lands would be through a variety of planning tools including zoning and acquisition.

Pedestrian and Bike Trail System

The Master Plan proposed a trail system that would effectively link various destinations within the Village: the lakefront, the Village center, Village Hall, the Duck Pond Recreational Area, the Fontana elementary school, and a proposed neighborhood park located along Indian Hills Road.

Duck Pond Recreation Area

The master plan of this recreational area should include the development of a natural area and trail system, the development of a water detention/retention basin on the west side of the site, and the creation of a neighborhood park in the eastern portion of the site -to include at least one softball field, soccer field, playground equipment, tennis courts, a basketball court,

benches and picnic tables, a parking area, and associated restroom facilities.

New Neighborhood Park

To address park and open space needs in the eastern portion of the Village, the plan recommended the development of a two to five-acre neighborhood park in the Indian Hills Road area. The park should provide play area, softball and soccer fields, and associated benches, shelter and restroom facilities.

Village of Fontana on Geneva Lake Comprehensive Master Plan 2009

The stated goal of the 2009 Comprehensive Plan is “intended to help the Village preserve and protect the natural environment, enhance the Village’s unique community character, and guide future growth and development to ensure continued community prosperity.” The plan addresses many issues associated with the area’s park and open space facilities, primarily emphasizing the development of a green space system with bike and pedestrian access throughout the Village and preserving the health of Geneva Lake and the natural areas in the Village. Following is a summary of the goals of the plan that related to parks and open space:

- The Village will continue to place a strong emphasis on lakefront preservation and shoreland protection.
- Conserve the existing land use and development pattern of the lakeshore within the limits of existing development regulations.
- Preserve and protect the Village’s natural resource base; and in particular the quality and integrity of Geneva Lake.
- Develop strategies and techniques to prevent overuse of Geneva Lake within the guidelines established by the Wisconsin DNR.
- Link natural resource preservation with recreational opportunities.
- Preserve historically and culturally significant buildings and structures.
- Continue to preserve and protect archaeological resources.
- Maintain the Village as a predominantly single-family residential and natural resource-based, recreational community.
- Promote bicycling as recreational activity and a practical transportation alternative.
- Continue to develop a local bicycle and pedestrian trail network and work to connect to the regional trail network.
- Continue to implement the Village’s Greenspace Plan.
- Promote the Village as a haven for recreational and nature-based tourism.
- Collaborate with the County, neighboring communities, and other interest groups to protect resources of regional importance, such as Geneva Lake and agricultural lands.

Village of Fontana on Geneva Lake Park and Open Space Plans, 1988, 1993, 2003

The 1988 Park and Open Space Plan is based primarily on the Regional Park and Open Space Plan for Southeastern Wisconsin prepared by SEWRPC in 1977. Fontana applied six of the objectives presented in the Regional Plan towards its own Park Plan. These objectives are summarized below:

- Sufficient outdoor recreation facilities to allow adequate opportunity to participate in intensive non-resource-oriented outdoor recreation activities;
- Opportunities to participate in intensive water-based outdoor activities on Geneva Lake;
- Preservation of sufficient high-quality open space land for the protection of the area's natural resource base;
- Preservation of Fontana's historical, cultural and natural heritage;
- Opportunities for recreation activities to be conducted under inclement weather conditions; and
- Efficient and economical satisfaction of outdoor recreation.

To meet these objectives, the Plan made the following recommendations:

- Develop the old holding pond area as a recreational site, providing all of Fontana's intensive, non-resource based facilities.
- Enhance opportunities and facilities for accessing Geneva Lake, including improving the boat launch and providing buoys.
- To encourage the development of parks in the Village's north and eastern portions, requirements for residential subdivisions should be modified such that the subdivider dedicate a portion of the site for park or playground purposes.
- Develop trails and educational information for the Fen.
- Establish a Fontana Historical Society.
- Construct a community center and open shelter to provide space for community events as well as relief from inclement weather.
- Apply to the Local Park Aid and LAWCON grant programs to obtain funding for the proposed park development activities.

The 1993 and 2003 Park and Open Space Plan reiterated the objectives and recommendations of the 1988 Plan while providing more specific recommendations for each existing park area.

Accepted Facility Provision Standards

There are established standards for the provision of outdoor recreation facilities:

- Recommending a minimum acreage of local parkland based upon the area's population (eight acres per 1,000 population), and
- Recommending a percentage of landmass that should be set aside according to

the percentage of developed/developable land and undeveloped land (3% of developed/developable lands).

The following table presents the per capita acreage requirements for urban outdoor recreation sites. As presented earlier, the Village's recreational and open space lands (including agricultural, wetlands and woodlands) comprise 31.6% of the Village land cover. The Village of Fontana exceeds the recommended per capita acreage requirements for outdoor recreation sites for both its current population level and the predicted population for the year 2020. These nationally accepted standards are useful in providing some context as to what a community's open space might be, however they do not take the location of the facilities into account. Thus, this plan's intent is to meet residents' recreational needs regardless of total acreage requirements. Appendix 4 presents the recommended number and distribution of specific outdoor recreation sites and facilities based on an area's population.

Table 8: Per Capita Acreage Requirements for Urban Outdoor Recreation Sites

Public General Use Outdoor Recreation Sites	Min. Standard Net Acreage Requirement (acres per 1,000 persons)	Existing Net Acres	Per Capita Acreage Requirements			
			2008 population (1,874)		Plan Design Year 2020 (population 2,440)	
			Net Acreage Req't ^A	Net Acreage Need ^B	Net Acreage Req't ^A	Net Acreage Need ^B
Fontana	8	167.77	15	0	19.5	0

A. The acreage requirement for public, general-use outdoor recreation sites was determined by multiplying the standard acreage requirements times the appropriate population in thousands of persons.

B. Acreage need was determined by subtracting the existing acres from the acreage requirement. If the remainder was a negative number, the minimum acreage requirement was exceeded and no per capita acreage need was identified.

Recommendations for Future Recreational Opportunities

The primary purpose of this Park and Open Space Plan is to guide the acquisition and development of lands and facilities needed to meet the outdoor recreational needs and desires of the resident population, while protecting and/or enhancing the underlying natural resource base.

The following recommendations are made in response to previous comprehensive open space and recreational plans (SCORP, SEWRPC, Village Master Plan), as well as to the objectives developed by SEWRPC for Walworth County and by Fontana representatives for their Village.

State Comprehensive Outdoor Recreation Program (SCORP)

The findings of this report indicate that Fontana should ensure continued maintenance

and possible expansion of their existing family-oriented recreational sites as well as their resource-based recreational facilities. Specifically, this would address the management of the existing Duck Pond Recreational Area, Reid Park, Fontana Beach, Big Foot Nature Study Area, Hildebrand Conservation Area, Headwaters, the Fen, and the Mill Pond Nature Area.

Park and Open Space Plan for Walworth County (SEWRPC)

The findings of this report indicate Fontana should take steps to ensure the acquisition of the non-urban areas currently designated as primary environmental corridors. The Village itself could acquire these lands, or they could work with local nonprofit conservation organizations to ensure the preservation and management of these lands to maintain their natural value. The SEWRPC report further indicates that areas designated as critical species habitat should be equally protected. The critical species habitat area mapped by SEWRPC is located in the Fen Natural Area. Measures should be taken to ensure the continued preservation and management of this site in its natural state.

The SEWRPC report also identifies the protection of isolated natural resource areas. Unlike lands classified as primary environmental corridors or critical species habitat, these lands may be incorporated into parks, or may be used as part of a stormwater management program.

The preservation of historical sites and buildings is another recommended management measure made by SEWRPC. The Douglass-Stevenson Mill in Fontana is currently owned and maintained by the Geneva Lake Conservancy. Measures should be taken to ensure the future, long-term protection of this site and building. A catalogue of local historic sites and buildings should be developed to guide future historic preservation and education actions. The rich history of this area could be better incorporated into the visible fabric of the community -historic markers, educational signs, historic building design guidelines, and even trail markers would do much to bring to light the historic base of this Village.

Village of Fontana on Geneva Lake Comprehensive Master Plan, 1991

The Master Plan stated, "A key element of the entire master planning process has been the development of strategies and policies creating a permanently protected green space system in and around the Village of Fontana on Geneva Lake." An essential element in the maintenance of this green space was the incorporation of a set of proposed development standards into the Village Zoning Ordinance and Subdivision Ordinances. Measures have been taken to modify the Village zoning to aid in the protection of the area's open space.

The report recommended the establishment of designated pedestrian and bike trails.

Measures should be taken to update the locations of existing and proposed trails as well as to ensure the trails are clearly and properly marked. Adequate provisions for the trails should be made when associated road improvements are being made. Linkages between the Village's existing park and open space facilities should be a priority as park plans are updated and new lands are acquired. For example, pedestrian access along Van Slyke Creek, through the Village-owned properties, could be linked with existing trails located on The Abbey's property. This series of trails would provide valuable access between the commercial area and the waterfront as well as a valuable opportunity for environmental education regarding the headwater system for Geneva Lake.

The Master Plan makes several specific recommendations for the development of the Duck Pond Recreation Area. As much of this development has not occurred, the Village should re-assess its goals for this area. The western portion of this site has not been developed to date, and offers great potential. The use of the site's trails and the wooded area in the eastern portion of the site should be enhanced to take advantage of the site's natural beauty. A restoration and management plan for the protection of the wooded area should be developed.

The Plan also recommended the development of a neighborhood park in the Indian Hills Road area. There still remains a need for recreational facilities to serve the residents in the eastern portion of the Village. Addressing the uses of existing Village-owned lands, or incorporating the development of public park space in conjunction with new residential development can meet this need.

Village of Fontana on Geneva Lake Park and Open Space Plans, 1988, 1993

Many of the actions recommended in these reports have been completed:

- the Duck Pond Recreation Area has been developed to support a wide variety of intensive, non-resource based recreational activities including a children's playground, restroom and concession facilities, and associated storage buildings;
- an open shelter has been constructed;
- the boat launch has been improved; and
- trails and educational information has been developed for the Fen.

Village of Fontana on Geneva Lake Park and Open Space Plan 2003

Many of the actions recommended in this report have been completed:

- Duck Pond Recreation Area: Developed Area
Provide sufficient picnic benches and trash receptacles.
The provision of additional shelters may be needed to meet the safety and use needs of the large number of people using the diverse facilities on this site.
- Duck Pond Recreation Area: Undeveloped Area
Update a master plan for the currently undeveloped western portion of the park.

- Fontana Elementary School and Mill Pond Natural Area
The drainageway flowing along the west side of Main Street should be enhanced to improve its natural aquatic habitat.
- Reid Park
The construction of an open-air shelter for use by park, beach, and playfield patrons should be considered.
The installation of lighting within the park area should be explored.
- Geneva Lake Shore Path
The full extent of the trail should be maintained as a trail. The current trail surface should be improved.
- Undeveloped Village Lands
Restrict the use of the land west of Highway 67 at the northern entrance of the Village for passive recreation and open space. Incorporate this parcel with the Duck Pond Recreational Area. This additional land should be included in any additional Master Planning for this park. This site and location serves well as an entrance to the park area, and an embarking site for local trails.
Restrict the use of the parcel located east of the elementary school and west of Highway 67 for passive recreation and open space. A management plan for this area should be prepared to ensure its long-term viability, including measures for controlling invasive species, improving wildlife habitat, and limiting site erosion.
- General
Development of a tree protection ordinance to ensure the protection of mature trees and forested systems in the area,
Improved access and use of the newly planted oak savanna area, just north of the entrance to Duck Pond Recreation Area on Highway 67.

Expanding on the objectives set forth in these reports, measures should be taken to ensure the continuation of preservation of high-quality open space and natural areas within the Village. This would include conducting a thorough assessment of the conditions of the existing natural areas on Village-owned properties. Once an assessment of areas such as the woodlands at the Duck Pond Recreation Area, the wetlands associated with Van Slyke Creek and the headwaters of Geneva Lake, and the woodland and wetlands of the undeveloped land adjacent to Highway B and east of Country Club Estates is conducted, appropriate restoration/enhancement and management plans should be developed.

Assessment of SEWRPC and Fontana Planning Objectives

As presented earlier in this report, the Village of Fontana has accepted seven of the park and open space preservation, acquisition, and development objectives formulated by SEWRPC in their Regional Park and Open Space Planning program. Complementing each objective, SEWRPC has developed a set of planning standards that aid in the quantitative assessment of the objectives. The Village supplemented these objectives,

adding specific criteria unique to the area itself and reflecting the area's cultural and environmental background. The following review presents the objectives and an assessment of the current status of the existing park and open space facilities with regards to meeting these objectives. The objectives have been classified as SEWRPC or Fontana to identify the originating source. This assessment lists the objectives in the order they have been presented in this report. This order however, does not necessarily reflect their level of priority. The priorities of the recommendations are presented in the section entitled "Priorities and Action Items".

The need to provide such recreational facilities is dependent on the existing and future size and distribution of Fontana's resident population. For the purposes of this review, the need for outdoor recreation facilities is determined by a review of the number and location of existing facilities in comparison with the number and location of facilities recommended for the current and future population. The Park and Open Space Planning standards were developed by SEWRPC, and specify requirements for the quantity and distribution of outdoor recreation sites and facilities. SEWRPC has projected the population of Fontana for the year 2020 to be approximately 2,440. This represents an approximately 23% increase over the area's current resident population of 1,874.

Objective 1 (SEWRPC)

To provide an integrated system of public general use outdoor recreation sites and related open space areas, which will allow adequate opportunity to participate in a wide range of outdoor recreation opportunities.

Public Outdoor Recreation Sites

According to SEWRPC, the public general use outdoor recreation site requirements presented in Appendix 4 should be met.

- Fontana provides a sufficient number of park facilities and school-site facilities based on its year-round population.
- The distribution of the sites throughout the Village, to meet the maximum service radius, does not however, meet the recommended standards. Residents must travel a greater distance to access the public outdoor recreation facilities than recommended. When including both public and semi-private facilities (specifically those associated with Country Club Estates), the distribution of sites does meet the service radius.

Recreation Related Open Space

According to SEWRPC, the following standards should be met for resource related activities:

1. A minimum of 0.16 linear miles of recreation related open space consisting of linear recreation corridors should be provided for each 1,000 persons in the Village.
2. Recreation corridors should have a minimum length of 15 miles and a minimum width of 200 feet.
3. The maximum travel distance to recreation corridors should be five miles in urban areas and ten miles in rural areas.
4. Resource-oriented recreation corridors should maximize the use of:
 - a. Primary environmental corridors as locations for trail-oriented activities.
 - b. Outdoor recreation facilities provided at existing public park sites.
 - c. Existing trail-type facilities within the Village.

- **Fontana's existing park and open space facilities meet the standards for open space access, size, and availability.**

Objective 2 (SEWRPC)

To provide sufficient outdoor recreation facilities to allow adequate opportunity to participate in intensive non resource-oriented outdoor recreation activities.

The SEWRPC standards for the provision of such non-resource oriented outdoor recreation activities as baseball, basketball, ice-skating, playfield, playgrounds, soccer, softball, and tennis, are presented in Appendix 4.

- **Including those facilities owned by the Fontana schools, the Village of Fontana provides sufficient intensive non-resource oriented outdoor recreation facilities.**
- **The distribution of the sites throughout the Village to meet the maximum service radius, does not however meet the recommended standards. Residents must travel a greater distance to access the public intensive non-resource oriented outdoor recreation facilities than recommended.**

Objective 3 (SEWRPC)

To provide sufficient outdoor recreation facilities to allow adequate opportunity to participate in intensive resource-oriented outdoor recreation activities.

The SEWRPC standards for the provision of such intensive resource-oriented outdoor recreation activities as camping, golf, picnicking, and swimming are presented in Appendix 4.

- **Including those facilities owned by the Village of Fontana as well as County owned, private, and those available within the Big Foot School District, there are sufficient intensive resource-oriented outdoor recreation facilities provided. Given the scale and nature of the activities, it is possible to include the facilities provided by sources outside the Village boundary.**
- **The distribution of the sites throughout the Village, and throughout the recommended service area to meet the maximum service radius, also meets the recommended standards.**

Objective 4 (SEWRPC)

To provide sufficient outdoor recreation facilities to allow adequate opportunity to participate in extensive land-based outdoor recreation activities.

The SEWRPC standards for the provision of such extensive land-based outdoor recreation activities as biking, hiking, horseback riding, nature study, pleasure driving, and snowmobiling are presented in Appendix 4.

- **The Village of Fontana meets the SEWRPC minimum per capita public facility requirements for biking, hiking, and pleasure driving.**
- **No public horseback riding, nature study, or snowmobiling facilities are provided within the Village of Fontana.**

The nature of these activities permits them to be provided at a more regional level having a greater service area. The Walworth County Parks and Open Space Plan indicates that with the exception of a nature study facility, these recreational activity needs are met within the County. Measures taken to extend existing trails to link with other communities should include provision for the use of these trails by horseback riders.

Objective5 (SEWRPC)

To provide sufficient access areas to allow adequate opportunities to participate in extensive water-based outdoor recreation activities on the major inland lakes and rivers, which are consistent with enjoyable surface water use and the maintenance of adequate water quality.

The SEWRPC standards for extensive water-based outdoor recreation activities include the provision of public access sites for lake access, river access, boat launch ramps, and boat slips as presented in Appendix 4.

- **The Village of Fontana meets the SEWRPC minimums established for the provision of public access sites to inland lakes and waterways, based on per capita facility requirements as well as size of lake.**

Objective 6 (SEWRPC)

To preserve sufficient high-quality open space lands for protection of the underlying and sustaining natural resource base and enhancement of the social and economic well being and environmental quality of the County.

SEWRPC separates their definition of high-quality open space areas into two categories – primary environmental corridors and prime agricultural lands. Their standard for the protection of primary environmental corridors states: "All remaining non-urban lands within the designated primary environmental corridors in the Region should be preserved in their natural state." SEWRPC has two standards for the protection of prime agricultural lands.

1. "All prime agricultural lands should be preserved" and
 2. "All agricultural lands should be preserved that surround adjacent high-value scientific, educational, or recreational sites and are covered by soils rated in the regional detailed operational soil survey as having very slight, slight, or moderate limitations for agricultural use."
- **With regard to the primary environmental corridors occurring within the Village of Fontana, the Village has stated a goal of protecting these lands in their natural state. Some lands are currently protected via previous acquisition, ownership, or easements held by the Geneva Lake Conservancy.**
 - **Areas that exhibit prime agricultural soils may support development or other natural systems such as forest, prairie or fen. Several of these natural areas, including the Big Foot Prairie and Fen, are currently being preserved based on their existing natural resource use.**

Objective 7 (SEWRPC)

To provide for the efficient and economical satisfaction of outdoor recreation and related open space needs meeting all other objectives at the lowest possible cost.

The standard set by SEWRPC with regards to this objective is very general, stating "The sum total of all expenditures required to meet park demands and open space needs should be minimized."

- **The Village of Fontana works towards minimizing its park and open space expenditures by reviewing proposed projects within the context of their updated master plan as well as existing local and county Park and Open Space Plans.**

Objective 1 (Fontana)

Enhance and improve the use and condition of existing facilities. This should be a priority over the acquisition of new park/and, unless such land additions function to meet other objectives.

The Village of Fontana currently owns and maintains 12 park facilities, and through its agreement with the Big Foot School District, has access for its residents to an additional 48 recreational facilities (including those available through the Fontana School) – see Tables 4 and 5. In addition, the Village owns several parcels of land that are currently undeveloped. Based on interviews and field investigations, it does not appear that these facilities are used to their fullest capacity, while maintaining each site's unique environmental resources. Recommendations for improving the usage of the existing facilities are presented in the Action Plan below.

Objective 2 (Fontana)

Decentralize the existing park facilities. Park and open space opportunities need to be spaced throughout the Village, providing easy access to all of the population centers.

With the exception of the recreation activities associated with Geneva Lake, the majority of the outdoor recreation facilities are located in the northwestern portion of the Village. These facilities are primarily associated with the Fontana Elementary School, Duck Pond Recreation Area, Hildebrant Conservation Area, Headwaters Park and the Fen area. The Village population center however, is primarily located on the south side of the marina outlet, in the southeastern portion of the Village. For many residents, the recreation facilities provided in the Towns of Linn and Williams Bay, available through the Big Foot School District agreement, are closer. Recommendations for providing additional park and open space facilities in the southeastern portion of the Village are presented in the Action Plan below.

Objective 3 (Fontana)

Improve the access to park and open space areas by the development or improvement of linear corridors.

Current access to the existing park and open space areas is focused on vehicular access. Pedestrian and cycle access is limited to existing sidewalks or roadways and the new bike path on Highway 67. This results in indirect and often lengthy trips for pedestrians and cyclists. The existing trails should be maintained – properly marked, signed and lit as

necessary.

SEWRPC has mapped two primary environmental corridors that follow the drainageways that flow through the Village. These corridors, along with plans associated with new residential and/or commercial development, provide opportunities for improving the existing off-road pedestrian and cycle access to the area's recreational areas. Recommendations for the inclusion of trails through these areas are expanded in the Action Plan provided.

Objective 4 (Fontana)

The majority of park and open space facilities should be resource-based, as the health of the environment is critical to both the lake and the Village itself.

The residents of the Village of Fontana are ensured access to a wide variety of non-resource based recreational facilities through the Big Foot School District recreational program. Given Fontana's lakeside location and its prevalence and regional importance of natural spring, waterway and wetland ecosystems, there is an opportunity for Fontana to provide its residents as well as the other communities located within the Big Foot School District with distinctive resource-based facilities. Measures to enhance the Village's existing resource-based recreational areas should be taken to secure their long-term protection as well as use. The Village should review its goals and maintenance plan for the following existing areas: Fontana Beach, Mill Pond Nature Area, Big Foot Nature Study Area, Hildebrand Conservation Area, Headwaters Park, the Fontana Fen, and even the forested and wetland areas occurring in the Duck Pond Recreational Area.

Future interest in new park and open space land should focus on lands that provide resource-based recreational elements. The Village of Fontana supports many unique wetland as well as bluff and shoreline habitats that would provide such resource-based recreational and educational elements.

Furthermore, it is important that the management of the Village's open space and undeveloped lands be conducted in a sustainable manner. Adverse environmental impacts associated with typical maintenance practices should be identified and limited to the extent practicable.

Objective 5 (Fontana)

Measures should be taken to emphasize the historical aspect of the Village and its surrounding area.

It is clear that the Village of Fontana is proud of its history – Pioneer Park is located at the site of the homestead of the first settlers; Big Foot Prairie is named after the Potawatomi Indian Chief that lived in Fontana during the 1830's; the Geneva Lake

Conservancy is housed in the historic Douglass Stevens House in Fontana. There are measures which can be taken to highlight the natural and cultural history of this area, keeping the area's tie to its past as it continues to grow.

Priorities and Action Items

The following recommendations relate directly to the accepted park and open space objectives and the findings associated with the application of the appropriate standards. Again, the recommendations are presented in the order of the identified Park and Open Space Objectives. Table 9 presents the priorities of these recommendations.

Objective 1 (SEWRPC):

Measures should be taken to provide general outdoor recreation facilities in the predominantly residential area in the Village's southeastern section. In order to address the distribution and access requirements. Such facilities include picnic areas, softball and/or baseball diamonds, soccer fields and other playfields, tennis courts, playgrounds, and basketball courts.

Objective 2 (SEWRPC):

As indicated for Objective 1, measures should be taken to provide intensive non-resource based sites and facilities in the southeastern portion of the Village. For both Objective 1 and Objective 2, it is recommended that the Village consider the use of its current land holdings in this area, specifically the parcels near Indian Hills Road and Kenosha Avenue (Highway B), adjacent to the Pheasant Ridge subdivision, to meet these needs.

Objective 3 (SEWRPC):

The current sites and facilities meet the needs associated with this objective.

Objective 4 (SEWRPC):

While the Village meets the per capita requirement for land-based recreational areas, measures should be taken to improve the signage associated with biking on public roadways.

There are considerable opportunities for improving the use of the few existing hiking trails within the Village as well as providing additional trails. There are currently hiking trails through the forested portions of the Duck Pond Recreation area. Many of these trails are unmarked and poorly maintained. Given the terrain of this area, trail improvements would provide unique hiking and cross country skiing experiences, as well as pedestrian access to and through the entire recreation area.

The possibilities for providing pedestrian access to existing facilities, especially

improving access for those distant areas currently underserved by recreational sites, should be well explored. Options such as trails accessing the wetland area immediately east of the Fontana Elementary School, access agreements for use of the existing trails within the Abbey property, and trails linking the developed area south of the marina area, would provide valuable east-west access.

Objective 5 (SEWRPC):

The current sites and facilities meet the needs associated with this objective.

Objective 6 (SEWRPC):

According to SEWRPC, "All remaining non-urban lands within the designated primary environmental corridors in the Region should be preserved in their natural state: There are several parcels located within the primary environmental corridor following Van Slyke Creek that are undeveloped. The Village should take measures to protect these parcels from residential and commercial development, via direct purchase or through the placement of conservation easements. The Village should ensure passive use activities be permitted on these lands.

Objective 7 (SEWRPC):

The Village of Fontana should continue to be judicious and responsible in their allocation of funds for park and recreational sites and facilities. To ensure the funds are used in a comprehensive manner, allocations should be consistent with the current Village Master Plan and Park and Open Space Plan. Furthermore, the Village should diligently consider the applicability and availability of state, federal and private grant programs.

Objective 1 (Fontana):

The following improvements to existing facilities should be explored. In addition, measures to meet the recreational needs for all the parks and open space areas should be provided, including seating, bike stands, appropriate lighting, waste containers, and adequate parking and signage. The Village should take steps to standardize the use and design of common park elements including signage, lighting, seating, historical markers, and architectural details.

Duck Pond Recreation Area: Developed Area

- Provide adequate lighting for any and all new recreational site development within the western portion of the site for safety purposes.
- Provide appropriate lighting for the existing sports fields (baseball, soccer) to increase the usability of these facilities.
- Install regulation quality soccer goal posts in the lawn area currently developed and maintained for field sports.
- Install appropriate score boards for field sport facilities.

- This large developed area could support additional non-resource based facilities that are limited in the area, such as basketball, volleyball or tennis courts, a sledding hill and/or hockey/skating areas.

Duck Pond Recreation Area: Undeveloped Area

- Improve and mark the hiking/cross country skiing trails through the forested area. Extend existing trails through the entire site, and link to other recreational trails and sites.
- Consolidate the area currently used for the disposal of compost and yard waste in order to improve the aesthetics of the area, create greater usable space for recreational activities.
- Conduct appropriate studies to determine compatible uses within the undeveloped portion of the site. The potential need for capping certain areas associated with the previous waste treatment facility should be clarified before further plans are developed.

Mohr Park

- Measures should be taken to ensure the continued public access to Geneva Lake and the Geneva Lake Shore Path through this park. Signage should be provided to clearly mark the area as a public park.

Pioneer Park

- To meet the objectives associated with Objective 5 (Fontana), encouraging the promotion of the area's cultural past, measures should be taken to highlight the park's local significance as the site of the first settlers in Fontana. Such measures could include signage and site design that reflects the site's previous use.

Fontana Elementary School and Mill Pond Natural Area

- The school should maintain its current recreation facilities and continue its association and responsibilities associated with the Big Foot District Recreational Area.
- Environmental educational information, similar to that provided for the Fen, should be developed and made available to people visiting this site.

Hildebrand Conservation Area and Headwaters Park

- The existing trail system should be improved and extended and connect to the trail system within the Fontana Fen. If possible, boardwalks should be constructed to improve access through low lying areas.
- The maintenance plan should be reviewed annually to ensure that the goals of the plan are being met. A plan should be developed for the upland areas of the Hildebrand Conservation Area.

- Restoration of the stream should continue to be a priority, to improve the habitat for the brook and brown trout.

Big Foot Natural Study Area

- Informational signs, regarding plants, prairie ecology, or management practices, should be installed to indicate the value and uniqueness of this site. Mowed paths, similar to those created and maintained at the Fen, could be provided to encourage people to move within the site and explore the area further.
- A long-term management plan should be prepared to maintain this site as an upland prairie. Accordingly, budgetary needs associated with this site's management should be met.
- Measures should be taken by the Village and the Big Foot Recreation District to encourage active use of this site by the local schools as well as the active participation in managing this site.

Fontana Fen

- Appropriate ecosystem management measures should be continued. Such measures include appropriate measures to limit the invasion of weed species, and cleaning of existing and/or new birdhouses. A general maintenance plan for this site should be prepared and followed.
- Given the uniqueness of this site, and its great value and use by local and regional wildlife species, consideration should be given to the installation of a raised viewing platform for observing birds and wildlife.
- For educational purposes, the boundaries of the actual "fen" ecosystem should be identified – either on a map or in the field via stakes/flags.
- All appropriate measures should be taken to maintain and protect the hydrology of this site to ensure protection of the fen habitat.

Village Beach

- A maintenance plan should be prepared to insure the health of the grass, which is subject to intense use during the summer months.

Reid Park (Including boat servicing facility, Boat Access by Pioneer Park, and Lakeview Park)

- The Lakefront Redevelopment plan indicates modifications to this area, including revamping of the parking facilities and the possible construction of a new building to replace the current boat servicing facility.
- Options for year-round use of this park, such as the provision of ice skating areas, should be explored.
- The Village should maintain Lakeview Park as an area for scenic viewing of the lake.

Geneva Lake Shore Path

- Easy access should be maintained to this trail system. There are scattered access points to this trail, such as at Mohr Public Park. All access points should be well marked and maintained for public access.
- The full extent of the trail should be maintained as a trail and the signage should be more apparent .

Undeveloped Village Lands

- Restrict the use of the parcel located east of the Country Club Estates Back 40 for recreation and open space. Develop a Master Plan for this park area that incorporates the passive and active recreational needs that are currently not provided to the residents in this area of the Village.
- Develop a pedestrian trail system linking several of the Village owned areas including the spring and headwaters of Van Slyke Creek and Geneva Lake and the wetland system along Van Slyke Creek and the Fen.

Objective 2 (Fontana):

Acquisition and development of parkland in the southeastern portion of the Village should be explored. Possible development opportunities include the development of existing land owned by the Village, and requirements for the incorporation of smaller, pocket parks to be constructed as part of new residential development plans.

Objective 3 (Fontana):

Measures should be taken to improve the condition, safety and signage associated with existing trails: bike trails along roadways, pedestrian paths through existing easements, and surfaced trails within existing parks. For example:

1. The SEWRPC report indicates the presence of several bike trails through the Village, however these are not adequately marked.
2. There is an existing unpaved pedestrian path connecting the residential area in Country Club Estates to Shabonna Drive. This path has not been maintained, yet provides a valuable linkage to the parks along Lake Shore Drive.
3. The Village should pursue the addition of trails through the Abbey property leading from Highway 67 to Shabonna Drive near Big Foot Country Club.

Furthermore, a comprehensive system, which effectively links the existing parks to each other and possibly to parks and trails within adjacent municipalities, should be planned and publicized via a printed flyer. This would allow the Village to effectively expand and link their trail system as land is developed.

Objective 4 (Fontana):

The Village of Fontana has several parklands, which emphasize the area's natural resources. Intrusion of the area's natural resources should be kept to a minimum. As described under Objective 1 (Fontana) there are measures which would enhance the use and optimize the site's resource values:

1. The addition of a wildlife viewing platform at the Fen,
2. The addition of trails or educational/informational signs at the Big Foot Prairie Natural Area,
3. Signs and/or access to the spring heads which feed the many creeks flowing through the area as well as Geneva Lake,
4. Design emphasis on the aesthetic value of the many waterways flowing through the Village,
5. The provision of pedestrian access and improvements to the existing wetland systems located at the Duck Pond Recreational Area, and
6. Consolidation of the waste recycling area at the Duck Pond Recreation Area to reduce its impact on the site's stormwater runoff.

Objective 5 (Fontana):

As previously indicated, historic markers, educational signs, historic building design guidelines, and even trail markers would do much to bring to light the historic base of this Village.

- The Village should centralize its historic data and provide public access.
- The current map of area historic sites and buildings should be updated.
- A flyer highlighting historic sites and information should be created.

Table 9: Priorities of Recommended Action Items

HIGH PRIORITY	Implement resource management plans for existing natural areas including the Hildebrand Conservation Area, Headwaters Park, and the Fen.
	Continue to refine Community Development Authority Plan for use and development of the undeveloped portion of Duck Pond Recreation Area - specifically improving trail use (see Action Items for Objective 1 - Fontana).
	Implement maintenance plans for all existing park and natural areas to insure infrastructure and areas are well maintained.
	Implementing year-round use of Reid Park
	Develop trail system linking natural areas through the Village's environmental corridors and along Van Slyke Creek (Headwaters Area) to enhance passive recreational use opportunities.
	Maintain and enhance technical and funding partnerships including the Big Foot Recreation District, the Geneva Lake Conservancy, and the Village Parks Commission.

	Explore grant-based and other funding opportunities to facilitate the implementation of Park Plan recommendations and outreach objectives. Encourage in-kind cost sharing from technical partners.
MEDIUM PRIORITY	Enhance community-based appeal and use of trails through strategic improvements to the trail system through the Mill Pond Natural Area.
	Facilitate a sense of community cohesion, connectedness, involvement and outreach with planned bicycle and pedestrian trail signage and directional markers throughout the Village, coupled with advancing conservation-based educational tools.
	Install wildlife and natural area habitat viewing platform at the Fen to encourage conservation-based, informational outreach opportunities.
	Seek opportunities to protect and consolidate open green space into ecological corridors to reduce future fragmentation.
LOW PRIORITY	Consider acquisition and conservation-based improvements to parkland in the southeastern portion of the village.
	Maintain and improve accessibility that is well marked to the Geneva Lake Shore Path, building in opportunities for information/education outreach and enhanced passive-recreational use.
	Develop informational/outreach tools to enhance community based ecological participation and passive recreational use of the Big Foot Nature Study Area.
	Together with its technical and funding partners, find opportunities to promote the rich cultural history of the Village of Fontana through targeted information/educational outreach programs, tours and other venues.

General Recommendations:

- The Parks and Open Space Plan should be adopted as an element of the Village of Fontana Comprehensive Master Plan.
- The Plan should be reviewed periodically to incorporate regional planning initiatives so it can be a living document that will grow and change with the Village's needs.
- The Village of Fontana should maximize partnerships with other open space preservation agencies to expand funding opportunities.
- The Village of Fontana should work with appropriate staff and outside agencies to identify, map and develop viewsheds and areas of significant beauty.
- To the extent possible, the Village of Fontana should develop and improve connectivity between existing and future public – and appropriate private – open space.
- Open space acquisitions and development should be coordinated with preservation initiatives of other agencies, including but not limited to: the state of Wisconsin, Walworth County, and non-profit organizations.
- The Village of Fontana should enhance the recreational opportunities offered to

all.

Maintenance of preserved open space, recreational waterways, and parklands will require well-planned management activities. These include:

- Protecting and enhancing riparian buffers.
- Controlling invasive and non-native species, and
- Identifying stewardship responsibilities and establishing relationships with regional planning and natural resource agencies.

The long-term viability of recreational facilities and the preservation of critical natural resources depend on several factors. These include:

- Funding
- Land and waterway management policies and practices
- Facility operations and maintenance
- Partnerships

Operation and Maintenance Responsibilities

Development of parklands and trails includes constructing facilities that visitors can see – trails, picnic areas, restrooms, parking lots, etc. – and less obvious infrastructure such as plumbing, electrical systems, storage etc. All must be integrated into the park system in a way that ensures that construction of later park improvements does not conflict with the enjoyment of existing facilities. This requires the development of operation and maintenance plans that take into account all phases of construction.

Proper maintenance of park properties and trails will be a critical aspect of the Village Department of Public Works. Department operations and should be adequately funded. Maintenance activities at these facilities should include, as necessary, such activities as the provision, paving, and resurfacing of parking lots and walkways; resurfacing of volleyball, basketball, and tennis court areas; provision, repair, or replacement of such support facilities as park benches, picnic tables, and drinking fountains; provision, repair, or replacement of restroom facilities, water supply facilities, maintenance buildings, and picnic shelters, and the maintenance of lawns and other landscape plantings. These responsibilities will not decrease with time. Usage patterns typical of a county parks system will require an ongoing commitment to ensure future generations' enjoyment and safety.

Partnerships

Partnerships are essential to achieving the Village's goals. There are tremendous opportunities to coordinate efforts with other public and private sector initiatives to ensure implementation of the Village's plan. Activities ranging from trail maintenance

and park clean up to historic preservation and environmental education can be aided by volunteers and supported by a host of other groups. Collaborations between municipal agencies and non-profit organizations enhance the opportunities for obtaining funding for a variety of projects. These groups will be called upon to provide valuable information, expertise and volunteer resources to further mutual goals. Potential shared service arrangements and public/private partnerships include:

- Natural resource and environmental education groups
- Trail advocacy groups
- Historic preservation groups
- Arts and cultural organizations
- Local, state and federal agencies.

These broad-based partnerships – including private individuals, businesses, non-profits, foundations, and the government – can encompass many jurisdictions and address a wide variety of issues. Successful partnerships involve everyone with a stake in the future of the community. Such efforts thrive on the active participation of local government, the private sector, community-based organizations, faith-based organizations, and individual citizens. Furthermore, successful efforts to create or maintain healthy, livable communities often achieve lasting solutions when economic, and environmental challenges are pursued simultaneously.

Conclusion

The Village of Fontana on Geneva Lake has shown itself to be a unique community – rich in natural resources and community pride. There are considerable opportunities for enhancing the resources of this area for the betterment and enjoyment of the Village residents as well as residents of the entire lake area. Furthermore, given the value of the natural communities and waterways occurring within Fontana, there is an implicit obligation for future residents to ensure the long-term viability of these systems.

This Park and Open Space Plan presents the Village's intent to protect and preserve the existing park and open space areas. This document should serve as a guide, along with the Village's Comprehensive Master Plan, as Village residents and decision-makers face future development and resource protection pressures. Implementation of this Plan over time will ensure a pleasant and sustainable environment with diverse recreational opportunities for the Village residents.

APPENDIX 1

Comprehensive Profile of Village of Fontana Population

Village of Fontana - Population Statistics

Source: U.S. Census Bureau

In 1990, about 7,700 housing units in Walworth County, representing 21 percent of the total housing stock, were reported in the Census as being held for seasonal, recreational, or occasional use. This compares with 2% for the Southeastern Wisconsin region, and 7% for the state. In addition, there are approximately 2,000 units available at hotels and resorts in the County. The relatively large proportion of such units in Walworth County suggests that the total number of persons in the County may significantly increase during portions of the year, particularly in the summer months.

According to the U.S. Census Bureau, the population of Fontana-on-Geneva Lake increased 7.3% from 1990 (1,635) to 2000 (1,754). Population projections for 2020 were compiled by SEWRPC, under three different scenarios.

- The first scenario, the recommended plan by SEWRPC, projects that Fontana will experience a 40.2% population increase over the next 20 years, which corresponds to an additional 700 persons in the village.
- Another scenario is that of a high-growth decentralized plan. In this scenario, it is projected that Fontana's population will increase by 169%, corresponding to an additional 2,940 persons.
- The third scenario is a high-growth centralized plan, which projects an increase of 67.8% or an additional 1,180 persons.

While population numbers are important by themselves, general demographic characteristics are invaluable in constructing any management plan.

In 2000:

- The median age of residents of Fontana was 45.5.
- Of the 1,754 residents, 20.1% were under 18 years old and 77.1% were over 21 years.
- The age groups with the most representatives were 45 to 54 years (15.5%), 35 to 44 years (14.7%) and 65 to 74 years (12.1%).
- There were a total of 764 households recorded in Fontana. Of these, 525 were considered family households and 239 were considered nonfamily households.
- The average family size was 2.79 persons and the average household size was 2.3 persons.
- These households occupy 764 of the 1,974 total housing units in Fontana.

- Of the 1,210 vacant housing units, 96.3% are for seasonal, recreational, or occasional use. This reflects the seasonal population changes that occur in Fontana.

Census Data for the Village of Fontana -Year 2000

Year		2000
Total Population		1,754
Number of Households		764
	With people under 18 present	185
	With people 65 or older	249
	Single-person households	207
		<i>Male</i>
		90
		<i>Female</i>
		117
		<i>Householder 65 or older</i>
		85
	Multiple person households	557
		<i>With people 65 or older present</i>
		164
	Family Households	525
		<i>With people under 18 present</i>
		184
		<i>With people 65 or older present</i>
		159
	Married Couple Family	464
		<i>With people under 18 present</i>
		161

Data Source - U.S. Census Bureau

APPENDIX 2

Funding Programs

Funding Source	Eligible Applicants	Eligible Projects	Typical Funding Amounts and Cycle
Federal			
Land and Water Conservation Fund	State and local governments.	Acquisition, development and redevelopment of parks, trails, general conservation	
USDA NRCS Wetland Reserve Program	Landowners (NRCS determines final eligibility)		
Great Lakes Program Funding (GLNPO)	State pollution control agencies, interstate agencies, other public or nonprofit private agencies, institutions, and organizations are eligible; for-profit organizations are not; partnership can be built using any combination of the above for better opportunity to win a grant	Habitat Ecological Protection & Restoration Environmental Education, Invasive Species management; partnership building	
Great Lakes Basin, Great Lakes Aquatic Habitat Network and Fund		Protect and Restore Wetlands, Aquatic Habitats	\$500 to \$3500
Wisconsin Environmental Education Board	Private organizations, communities, and School Programs in partnership are good partner matches for funding eligibility	Environmental Education initiatives	February 2010 \$5,000 to \$30,000
US EPA Environmental Education Grants	Governmental agencies, School districts, non-profit organizations	Training educators, developing educational programs	\$15,000 to \$25,000
Recreational Trails Act	Municipalities, school districts	Develop and maintain motorized and non-motorized trail facilities.	

Funding Source	Eligible Applicants	Eligible Projects	Typical Funding Amounts and Cycle
NPS National Recreational Trails			
NFWF Challenge Grant Program	All	Priority actions promoting fish and wildlife conservation and wildlife habitat	
National Endowment for the Arts Design Program	Non-profit organizations	Projects that create design awareness, improve the designs of architecture, landscape architecture, urban design and planning, historic preservation graphic design.	
US Geological Survey-Water Resources Research Grant		Topics addressing non-point source pollution	
North American Wetlands Conservation Act	Organizations	Matching grants for wetland restoration, acquisition and enhancement	1:1 matching
Clean Vessel Act Grant Program	An agency of a State designated by the Governor	Prevent recreational boat sewage from entering US waters. Planning and construction of pump out stations	\$14,000 – \$790,000
State of Wisconsin			
Wisconsin Warren Knowles-Gaylord Nelson Stewardship	Local governments, non-profit organizations	Land acquisition for development of recreational resources.	
Stewardship Local Assistance Grants	Local governments	Land acquisition, development and restoration; nature-based recreation.	
Community-based Restoration program (NOAA)		Small scale, locally driven habitat restoration projects that foster natural resource stewardship within communities	
Foundations			

Funding Source	Eligible Applicants	Eligible Projects	Typical Funding Amounts and Cycle
The Conservation Fund Kodak American Greenways Awards	Non-profit organizations, local governments	Creation of greenways, blueways, trails and open space systems throughout America	\$2,500 no required match
The Geraldine R. Dodge Foundation	501c (3) org.	Environmental education and outreach, ecosystem preservation	\$10,000 - \$100,000 no required match
Eastman Kodak Charitable Trust		Supports environmental conservation, education, senior and youth organizations, community centers.	
Sara Lee Foundation	All	Educational and community enhancement projects, historic preservation, resource conservation matching (capital grants)	matching
Project Water Education for Teachers	All	Equipment for environmental education regarding water resources	
Project WILD	Schools	Outdoor classroom development grants	
Weeden Foundation	All	Land acquisition and protection through conservation actions, protect biodiversity	
American Land Conservation Program (Mellon Foundation)	Non-profit Org.	Acquire and preserve key tracts of land which are in danger of being lost to urban sprawl and environmentally insensitive development.	
Rails to Trails Conservancy		Technical assistance	
Trust for Public Land	Public agencies and communities	Conservation real estate -acquire and protect lands as parks, gardens, recreation area and wilderness.	
Recreational Equipment, Inc (REI)	All	Funding and gear donations for active outdoor recreation	

Funding Source	Eligible Applicants	Eligible Projects	Typical Funding Amounts and Cycle
Youth Garden Grants		Equipment and Products to schools, community centers, for the creation of youth gardens	
River Network Mini-Watershed Grants	Conservation groups	Support short-term organizational development projects	\$4,000
Natural Resource Foundation of Wisconsin		Education Related to Wisconsin's Natural Resources	Up to \$1,000
Schoenleber Foundation, Inc.		Restoration and Management	
Marshall & Ilsley Foundation, Inc.		Restoration and Management	
The Kresge Foundation	Strengthen the capacity of charitable organizations to provide effective programs of quality; support a range of organizations reflecting almost the entire breadth of the nonprofit sector	challenge grant toward an organization's capital project to reward good programs, It offers an opportunity to build institutional capacity by helping an organization broaden and deepen its base of support from the private sector and by encouraging volunteer involvement	

APPENDIX 3

Photographic Index of Existing Village Park and Open Space Areas

Duck Pond Recreational Area

Reid Park

Fontana Beach

Pioneer Park

Boat Access Site

Fontana School

Big Foot Nature Study Area

Hildebrand Conservation Area

Headwaters Park

Fontana Fen

Lakeview Park

Seven Sacred Springs

Mohr Public Park

Geneva Lake Shore Path

APPENDIX 4

Per Capita Public Outdoor Recreation Standards

Site Type	Size (Acres)	Publicly Owned Park and School Sites							
		Parks				Schools			
		Minimum Per Capita Public Requirements (acres/1,000 person)	Typical Facilities	Maximum Service Radius (miles)		Minimum Per Capita Public Requirements (acres/1,000 person)	Typical Facilities	Maximum Service Radius (miles)	
				Urban	Rural			Urban	Rural
Multi-community	100-249	2.6	Campsites, swimming beaches, picnic areas, golf course, ski hill, ski touring trail, boat launch, nature study area, playfield, softball and/or baseball diamond, passive activity area	4.0	10.0	***	***	***	***
Community	25-99	2.2	Swimming pool or beach, picnic areas, boat launch, nature study area, softball and/or baseball diamond, soccer field and other playfields, tennis courts, passive activity area.	2.0	***	0.9	Playfield, baseball diamond, softball diamond, tennis court	0.5-1.0	***

Site Type	Size (Acres)	Publicly Owned Park and School Sites							
		Parks				Schools			
		Minimum Per Capita Public Requirements (acres/1,000 person)	Typical Facilities	Maximum Service Radius (miles)		Minimum Per Capita Public Requirements (acres/1,000 person)	Typical Facilities	Maximum Service Radius (miles)	
				Urban	Rural			Urban	Rural
Neighborhood	Less than 25	1.7	Wading pool, picnic areas, softball and/or baseball diamonds, soccer fields and other playfields, tennis court, playground, basketball court, ice skating rink, passive active area.	0.5-1.0	***	1.6	Playfield, playground, baseball diamond, softball diamond, tennis court, basketball court.	0.5-1.0	***

Source - SEWRPC, 2002

APPENDIX 5

Glossary of Terms

aquifer: a level of water lying beneath the surface of the soil. This is the source for much drinking water in North America. The water table is the top of the aquifer.

basin: an area drained by a river and its tributaries. best management practices: the conservation measures and management practices intended to lessen or avoid a development's impact on surrounding land and water. (DNR)

community: in reference to plants, an interacting assemblage of plant populations sharing a given habitat.

carrying capacity: An assessment of a natural resource's or system's ability to accommodate development or use without significant degradation. (DNR)

conservation: preserving and renewing, when possible, human and natural resources. The use, protection, and improvement of natural resources according to principles that will ensure their highest economic or social benefits.

covenant: a legally binding restriction of the future use of a piece of land.

critical species habitat: areas, outside of natural areas, where the chief value lies in their ability to support rare, threatened or endangered species. SEWRPC

ecosystem: a natural environment considered a complex whole that functions as a unit; a biological community of interacting organisms and their physical environment.

environment: the totality of the physical conditions of the earth or a part of it.

environmental corridors: linear areas of natural resources that are critical to maintaining water quality and quantity and to providing habitat linkages that maintain biological diversity. Environmental corridors are often associated with rivers and streams. Identification is based on the presence of one or more of the following elements: 1) rivers, streams, lakes and associated shorelands and floodlands; 2) wetlands; 3) woodlands; 4) prairies; 5) wildlife habitat areas; 6) wet, poorly

drained and organic soils; 7) rugged terrain and high relief topography.

erosion: the wearing away of the earth's surface by the action of water, wind, etc.

exotic: a plant or animal species that has been introduced into an ecosystem that is not its native habitat. Because exotics lack natural predators in their new habitats, their population grows rapidly.

fen: in a broad sense, wetlands that are predominately supported by groundwater discharge; fens can be segregated by soil chemistry, water chemistry, and vegetation, e.g., calcareous fens.

floodplain: the area alongside a river or other body of water that is subject to flooding.

floodway: the channel of a stream and adjacent area reserved to facilitate passage of a 100-year frequency flood. The wide gently sloping areas contiguous to, and usually lying on both sides of, a stream channel. For planning and regulatory purposes, they are areas, excluding the stream channel, subject to inundation by the 100-year recurrence interval flood event. (SEWRPC)

forbs: herbaceous plants, excluding the grasses, rushes and sedges; especially used to describe broad-leaved, flowering plants.

groundwater: water found in soil or in pores, crevices, etc. in rock.

habitat: the natural home of an organism.

impervious/impermeable: a ground cover such as cement, asphalt, or packed clay or rock through which water cannot penetrate; this leads to increases in the amount and velocity of runoff and corresponds to increases in soils erosion and nutrient transport.

invasive species: Most invasive species are ecological pioneers and colonizers which, once introduced, quickly establish themselves in ecologically disturbed communities. Invasive species typically displace native flora due to faster growth rates, efficient dispersal mechanisms, and tolerance of a wider range of conditions. Invasive species often lack natural predators and diseases which control populations in their native environments. As the diversity and populations of native plants decrease, so does the variety of habitats available for wildlife. (source DNR)

major streams: those which maintain, at a minimum, a small continuous flow

throughout the year except under unusual drought conditions. SEWRPC

marsh: a type of wetland dominated by soft-stemmed vegetation such as cattails, reeds, and sedges.

mesic: intermediate between dry and wet conditions; moderately moist.

native: an indigenous species, originating naturally in a specific area.

natural areas: tracts of land or water so little modified by human activity, or sufficiently recovered from the effects of such activity that they contain intact native plant and animal communities believed to be representative of the landscape before European settlement. SEWRPC

non-point source pollution: pollution from sources other than waste treatment plants and direct wastewater discharges.

pervious surface: a ground cover through which water can penetrate at a rate comparable to that of water through undisturbed soils.

planning: a rational process for formulating objectives and meeting those objectives through the preparation and implementation of plans.

point source pollution: pollution arising from direct wastewater discharge or from treatment plant effluents.

riverine: of or on a river or river bank; riparian.

sedimentation: consolidation of matter that is carried by water or wind and deposited on the surface of the land.

Smart Growth: an approach to land-use planning and growth management that recognizes connections between development and quality of life. The features that distinguish smart growth approaches vary. In general, smart growth invests time, attention, and resources in restoring community and vitality to center cities and older suburbs. In developing areas, the approach is more town-centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial, and retail uses. Smart-growth approaches preserve open space and other environmental amenities. The term is also used to refer to Wisconsin's comprehensive planning law. See s. 66.1001, Wis. Stats. (source-WDNR)

stewardship: an ethic of responsible management for long term sustainability of a resource

stormwater management: the reduction of the quantity of runoff which affects flooding, or of pollutants generated at a development site and carried in stormwater. (DNR)

stormwater runoff: describes the water that flows overland during a rainstorm.

subwatershed: area of a river basin based on the tributaries and their watersheds as defined by the area's natural topography.

succession: a sequence of changes whereby a plant or animal community successively gives way to another until a climax community is reached.

sustainable: able to be maintained at a particular level without causing damage to the environment or depletion of the resource.

sustainability: long-term management of ecosystems intended to meet the needs of present human populations without compromising resource availability for future generations.

urban sprawl: low-density, automobile-dependent, and land-consumptive outward growth of a city; the spread of urban congestion and development into suburban and rural areas adjoining urban areas. (source-WDNR)

watershed: the area of land from which surface water drains to a single outlet.

water table: the upper surface of groundwater or that level below which the soil is saturated with water. It is at least 6 inches thick and persists in the soil for more than a few weeks.

wetlands: areas saturated or inundated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.