

Agricultural, Natural and Cultural Resources

Major Findings

- ❑ Three watersheds become one when the Mullet and Onion River connect to the Sheboygan River within the City of Sheboygan Falls.
- ❑ Farming operations still occur on undeveloped portions of the city, but to a limited degree.
- ❑ Local, State and federal regulations limit development in areas considered “environmentally sensitive”.
- ❑ Topography in Sheboygan Falls varies by 140 feet.
- ❑ Soils and surface water issues are not critical factors in land development because of the provision for public water, sanitary sewer, and stormwater lines.
- ❑ The City of Sheboygan Falls has a Historic Preservation Ordinance that is administered by a Historic Preservation Commission.

Recommendations

Agricultural Resources

- ❑ The City needs to consider regulations that would improve the aesthetic appearance of their community, especially on major entryways.
- ❑ The City should continue to identify and properly abandon old and unused wells and any remaining septic systems.
- ❑ The City should consider developing a strategy to clean-up and redevelop potential brown-field sites.

Natural Resources

- ❑ Future development plans need to incorporate the protection of environmentally sensitive areas, such as woodlands, waterways, floodplains and wetlands.
- ❑ The City should be proactive in working with the County, State, and other pertinent agencies in reducing sediment and nutrient loads into Lake Michigan from the Onion River, Mullet River, and Sheboygan River Watersheds.
- ❑ To help protect its groundwater resources, the City should be active in identifying and properly abandoning old and unused wells and failing septic systems.
- ❑ The City should consider developing a strategy to clean-up and redevelop potential Brown-field sites.

Goal, Objectives, and Policies

Goal

- ❑ Conserve, protect, and improve the natural and cultural resources, and provide a safe, clean and orderly environment for the residents of Sheboygan Falls.

Objectives

1. **Environmental Preservation:** Encourage urban development and redevelopment of land within the city, while maintaining the integrity of the environment.

2. **Historic Properties and Structures:** Be proactive in the preservation of architecturally or historically-significant structures.
3. **Major Highway Entrances:** Determine ways of improving the aesthetic appearance of major entrances to the city by the use of additional landscaping, limitation of the type and size of signage, and encouraging existing property owners to improve the appearance of their properties.
4. **Farming Operations:** As a holding zone for undeveloped land, allow the cropping of vacant parcels in the city, but not farm animal operations.
5. **Vacant Land Maintenance:** Revise City ordinances to allow for crop-farming operations to occur on land that is lying dormant and unused in the city limits.

Policies

1. Use the City's ordinances and Wisconsin Department of Natural Resources (WDNR) regulations to protect environmental corridors from development.
2. Require the preservation of environmental corridors in the City's subdivision review and approval process.

Background Information

Agricultural Resources

Drainage District Program

- ❑ The Wisconsin Department of Agriculture, Trade, and Consumer Protection regulates the drainage district program. The Department has regulated the program since 1989.
- ❑ There is one drainage district in Sheboygan County. It is, however, located in the southern portion of the county and does not include the City of Sheboygan Falls.
- ❑ More information on this program can be found at:
http://www.datcp.state.wi.us/arm/agriculture/land-water/ag-impact-stmts/drainage_district.jsp

Natural Resources

- ❑ Natural resources within the City of Sheboygan Falls are an important factor in future uses of the land. The management and preservation of these resources is important for sustaining economic uses of the land and maintaining the quality of life enjoyed by the city's residents.
- ❑ Environmental characteristics, including topography, drainage patterns, floodplains, wetlands, and soil properties, are among the features that determine whether an area is suitable for a specific type of development.

Topography (see Map 3)

- ❑ Land relief within the city is approximately 140 total feet, ranging in elevation from approximately 620 feet above sea level along the banks of the Onion River, to approximately 760 feet in the city's northwest corner, near Hamann Drive.

- ❑ Most of the city has either 0-2% slopes or 2-6% slopes. Some areas of the city, especially near the rivers, have relatively steep slopes.

Geology

- ❑ The landscape of Sheboygan Falls was largely influenced by the Valdres ice sheet of the Green Bay lobe during the Wisconsin glaciation, and is situated in what is known as the Green Bay-Lake Winnebago-Rock River Lowland.
- ❑ Thick sandstone beds lie underneath a cap of gray dolomite bedrock under the area now occupied by Sheboygan Falls. These sandstone beds house a large groundwater aquifer.

Soils

- ❑ Sheboygan Falls is located in an area that is comprised of the Kewaunee-Waymor-Manawa soil association. This soil association varies from somewhat poorly drained to well drained, and is typically loamy or clayey.
- ❑ Manawa soils are occasionally flooded for brief periods of time, have a water table within one to three feet of the soil surface in the fall and early spring, are subject to high frost action, and are too wet and impermeable to be used for conventional septic tanks.
- ❑ Kewaunee soils are not usually subject to flooding, have a groundwater table between three and five feet, are subject to high frost action, and are too wet and impermeable to be used for conventional septic tanks.
- ❑ Waymor soils are not usually subject to flooding, have groundwater tables that are typically greater than five feet below the soil surface, are only moderately susceptible to frost action, and are too impermeable to be used for conventional septic tanks.
- ❑ These soil traits should be taken into account for the design and planning of buildings, roads, and infrastructure.

Surface Waters, Wetlands, Floodplains, and Watersheds

- ❑ Water-related resources are highly regulated. Local, state and federal regulations and ordinances need to be thoroughly reviewed when development is proposed for property that is in or near any of these resources. This is especially important as navigable waterways and mapped wetlands are scattered throughout the city, and portions of the city are located in areas that are susceptible to flooding events.
- ❑ The WDNR owns and manages a large area of wetlands along the Sheboygan River, with a large portion in the floodplain. This land is accessible from two access points within public right-of-way for persons to walk through during dry periods.

Surface Waters

- ❑ This link leads to the WDNR's Surface Water Data Viewer, an interactive GIS site that allows users to identify the locations of water features such as navigable streams and wetlands. <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=SurfaceWaterViewer.deswaters>
- ❑ The Sheboygan Falls is situated along the Sheboygan River, a water body that is classified by the WDNR as "An Area of Special Natural Resource Interest" (ASNRI). An ASNRI is an area that may have special sensitivity or is of ecological significance.
- ❑ The Mullet River has also been classified an ASNRI.
- ❑ Detention ponds, the lagoon, and quarry combined are less than fifty acres.
- ❑ The Sheboygan River, Mullet River and Onion River have been deemed a Priority Navigable Waterway (PNW).
- ❑ According to the WDNR's Surface Water Data Viewer, approximately forty navigable waterways are found in the city. The majority of these waters discharge into the Sheboygan River.

Wetlands (see Map 1)

- ❑ Development in wetlands can destroy important environmental benefits, including the filtering of stormwater runoff and the provision of habitat for wildlife.
- ❑ Mapped wetlands are present within the city. Some of the wetland areas are associated with the water courses that flow through the city, but others appear to be located in topographic lows that have poor drainage.
- ❑ This link (<http://dnr.wi.gov/org/water/fhp/waterway/>) is a useful point of reference for community officials, developers, and interested persons to find information on wetlands as they relate to development projects or protection issues. The page provides links to specific administrative rules, discussions on wetland laws and programs, and other wetland issues.
- ❑ The WDNR and the U.S. Army Corps of Engineers (ACOE) have regulating authority over all wetlands, including the placement of fill materials within a wetland. In general, the most restrictive regulations (either WDNR or ACOE) apply in a situation where development is being proposed. The U.S. Department of Agriculture incorporates wetland preservation criteria into its crop price support program.
- ❑ Sheboygan County has a Shoreland-Wetland Zoning Ordinance that should be consulted prior to any development around navigable waters and wetlands.

Floodplain (see map 4)

- ❑ Portions of the city are susceptible to flooding. According to the FEMA flood rate map produced for the city, these areas are located in the city's south half, along the Sheboygan River, Mullet River, Onion River, and several unnamed waterways.
- ❑ Future development in and around these areas will be restricted.
- ❑ Building can occur between the floodway and floodfringe if the lowest first floor elevation is two feet above the 100-year flood elevation, or the basement is floodproofed.

Watersheds

- ❑ The city is within the Manitowoc/Sheboygan Water Management Unit.
- ❑ The Sheboygan Falls is part of the Onion River, Mullet River, and Sheboygan River Watersheds.
- ❑ The Onion River and the Sheboygan River have been selected as priority watersheds due to the high sediment and nutrient loads they discharge into Lake Michigan.

Woodlands (see Maps 1 and 10)

- ❑ Development in woodlands can destroy important environmental benefits that these areas provide to the community, including the provision of habitat for wildlife.
- ❑ Wooded areas in the city provide habitat for wildlife and serve as an aesthetic amenity for the community.
- ❑ Woodlands are scattered throughout the city. Most are found along stream corridors or in wetland areas. Woodland areas provide both aesthetic and practical benefits, and should be preserved whenever possible.

Environmentally Sensitive Areas

- ❑ Environmentally Sensitive Areas (ESAs) are areas within a landscape that encompass especially valuable natural resource features which should be protected from development.
- ❑ The following areas within the city should be considered environmentally sensitive:
 - Navigable waters with a 75-foot buffer
 - Non-navigable waters with a 15- to 30-foot buffer, depending on drainage area
 - WDNR wetlands require a 15- to 50-foot building buffer, depending upon the quality of the wetland

- FEMA floodplains
- Moderately steep to steep areas (greater than twelve percent)
- Areas that provide habitat for threatened and endangered species
- Historically- or archeologically-significant sites
- State-owned lands and lands owned by land trusts, or on which there is a conservation easement.
- Areas mapped as hydric soil

State Natural Areas

- State Natural Areas (SNAs) protect significant landscape features, geological formations, and archeological sites throughout Wisconsin. These areas are valued primarily for research and educational purposes, while providing safe havens for plants and animals that are rare or scarce in number. Site protection is provided by land acquisition, donations, conservation easements, and cooperative agreements.
- Sheboygan County currently has eight SNAs. The closest SNA to Sheboygan Falls is Kohler Park Dunes, a 135-acre area that contains active and stabilized lake dunes, interdunal wetlands, and a small dry-mesic white pine forest. Three threatened plants are found in the dunes: clustered broom-rape (*Orobanche fasciculata*), dune goldenrod (*Solidago simplex var. gillmanii*) and dune thistle (*Cirsium pitcheri*). Kohler Park Dunes is owned by WDNR and was designated a State Natural Area in 1969.
- For more information on SNAs go to www.dnr.state.wi.us/org/land/er/sna/index.htm.

Groundwater

- The City of Sheboygan Falls contracts with the City of Sheboygan to purchase water. The City has built a water distribution system to supply the entire city with public water. As a result, the City does not need to depend upon groundwater for their source of water.
- According to the State's Groundwater Susceptibility Map, Sheboygan Falls is located in an area deemed to be less susceptible to groundwater contamination because of relatively deep depths to bedrock and groundwater (greater than 100 and 20 to 50 feet, respectively). These two characteristics are often found in areas that are less susceptible to groundwater contamination. The low permeability and fine texture of soils in the city also act as a protective buffer against potential groundwater pollutants, which is why the city is considered less susceptible to groundwater pollution.
<http://wi.water.usgs.gov/gwcomp/find/sheboygan/susceptibility.html>
- Approximately 33% of private wells in the region surrounding Sheboygan County contained detectable levels of herbicides. Pesticide contamination occurs most commonly in agricultural areas.
- More information regarding groundwater that is specific to Sheboygan County can be found at the following website: <http://wi.water.usgs.gov/gwcomp/integrate/develop.html>
- Areas of high groundwater should be avoided for development because of the potential negative impact on the quality of the groundwater and the cost of mitigating the impacts of high groundwater levels on the building foundations.
- The Wisconsin Groundwater Coordinating Council (GCC) is an interagency group whose purpose is to increase the efficiency and facilitate the effective functioning of state agencies in activities related to groundwater management. More information about the council's responsibilities, actions, activities, and coordination efforts with local officials can be viewed at this web site: www.dnr.wi.gov/org/water/dwg/gcc/index.htm

Metallic and Non-Metallic Mineral Resources

- ❑ There are no active non-metallic operations in the City of Sheboygan Falls.
- ❑ The WDNR has principal regulating authority for metallic mining activities in the state. Further information regarding metallic mining in Wisconsin can be viewed at www.dnr.wi.gov/org/aw/wm/mining/metallic/.

Wildlife Habitat and Threatened and Endangered Species (see Map 5)

- ❑ Federal and State records provide general information on wildlife habitat and threatened and endangered species, and should be consulted as part of the review process for new development projects.
- ❑ Information on wildlife habitat and threatened and endangered species is available from the WDNR at <http://www.dnr.state.wi.us/org/land/er/nhi/>.
- ❑ Occurrences of rare terrestrial species are indicated in the southeast corner of the city.

Public Wildlife Recreation Land

- ❑ The WDNR acquires and manages public lands that provide opportunities to hunt, fish, hike, canoe, or view wildlife. The State of Wisconsin has been acquiring land to meet conservation and recreation needs since 1876, with more than 1,290,000 acres available for such use.
- ❑ The WDNR groups the public wildlife recreation land by their individual counties. Sheboygan County has four wildlife areas. The closest to Sheboygan Falls is the Adell Wildlife Area. This site contains 209 acres of state-owned land and 2,400 acres of leased hunting land. It includes a mix of forest, cropland, and marsh. The wildlife area gets stocked with pheasants during the season.
- ❑ Each area has unique wildlife, recreational opportunities, and physical features. Likewise, each area has special rules and terms of use that require strict adherence to. Persons utilizing these areas can find specific information by consulting the following web page: http://dnr.wi.gov/org/land/wildlife/wildlife_areas/

Air Quality

- ❑ The air quality monitoring station nearest to the City of Sheboygan Falls is in the City of Sheboygan. Sheboygan County currently meets all air quality attainment requirements.
- ❑ The City of Sheboygan Falls should be active in the political process in which counties are designated as attainment or non-attainment.
- ❑ More information on air quality is available at: <http://dnr.wi.gov/air/>

Cultural and Historic Resources

State and National Register of Historic Places

- ❑ A primary responsibility of the Wisconsin Historical Society's Division of Historic Preservation (DHP) is to administer the State and National Register of Historic Places programs. According to the State Register of Historic Places, two historic districts with multiple properties have been inventoried in the City of Sheboygan Falls.
- ❑ Information regarding the State and National Register of Historic Places can be found by contacting the DHP at (608) 264-6500 or at: www.wisconsinhistory.org/hp/register/

**Table 6
Historic Properties Located in the City of Sheboygan Falls**

Location	Historic Name
501 and 517 Monroe St. and 504, 508, and 516-518 Water St.	Cole Historic District
Roughly bounded by Broadway, Monroe, Pine, and Buffalo Streets and the Sheboygan River	Downtown Historic District

Architecture & History Inventory

- ❑ A search of the DHP’s on-line Architecture & History Inventory (AHI) revealed 107 sites within the City of Sheboygan Falls (listed in the Appendix).
- ❑ This information can be found by contacting the DHP at (608) 264-6500 or at: www.wisconsinhistory.org/ahi.
- ❑ One way that the City has been proactive in helping to preserve certain properties and structures was by adopting a Historic Preservation Ordinance, administered by an appointed Historic Preservation Commission.

Community Design

- ❑ There are two basic categories of community design standards – built environment and natural environment. Examples of the former would be guidelines developed on the appearance and size of buildings, signs, and other man-made structures. The latter would include the protection of viewsheds given the topography of Sheboygan Falls and other natural features that appeal to the aesthetic nature of people.
- ❑ It is clear that future residential development in Sheboygan Falls will have an impact on the built environment. In a city, design standards focus less on specific buildings and more on the areas in which development can take place with a minimal impact on the natural environment. Encouraging development to occur in areas where there is existing development can help the City meet the objectives of providing guidance to the built environment and protecting the natural environment.
- ❑ The challenge in developing and implementing community design standards and guidelines is that they tend to be subjective, meaning not everyone will agree with the design that results from the standards and guidelines being followed. One person’s view of the physical appearance of a building or the aesthetic value of a wetland area may differ dramatically with another person’s view. One objective should be to find the proper balance between maintaining the natural beauty of an area and developing it as the community continues to grow.
- ❑ A prime example of how community design can be more seriously considered in Sheboygan Falls is to adopt regulations that require developers to submit landscape plans and building elevations prior to issuance of building permits for new construction or major remodeling projects.