NATURAL RESOURCES PLAN

LOSS OF HABITAT FOR UNIQUE SPECIES

The Town and Village of Black Creek have an abundance of important natural resources. As discussed earlier in this chapter, natural areas in the community provide important wildlife habitat for a number of threatened and endangered species. Habitat loss and fragmentation are often the results of poorly planned development. In a community that values its natural environment, it will be important that each community utilize local land use tools (zoning ordinance, subdivision ordinance, etc.) to guide development away from the most sensitive habitat areas to insure the long-term viability of a healthy ecosystem.

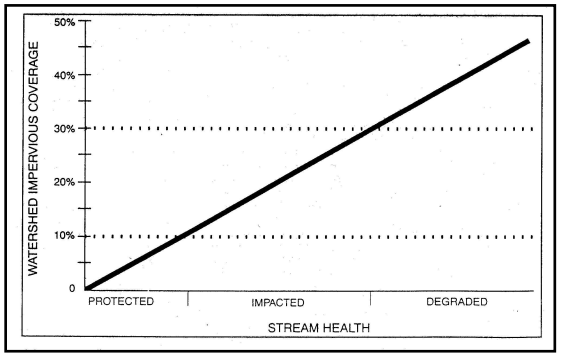
PRESERVATION OF SURFACE WATER QUALITY

Historically, water quality was degraded by point sources, or direct discharges to lakes and rivers from industry, municipal sewerage districts and the like. Since the passage of the Federal Water Pollution Control Act of 1972 (the Clean Water Act), the United States had taken dramatic steps to improve the quality of water resources. No longer are industries allowed to discharge untreated waste directly to surface waters.

Today, the greatest threat from a cumulative standpoint to streams and lakes comes through nonpoint-source water pollution. Nonpoint-source water pollution, or runoff, cannot easily be traced to a single point of origin. It occurs when rainwater or snowmelt flows across the land and picks up soil particles, organic wastes, fertilizers and other contaminants that become pollution when carried to surface and/or groundwater. Nonpoint pollution, in the form of nitrogen, phosphorus and total suspended solids (soil particles), contaminates streams and lakes, increases the growth of algae and harmful aquatic weeds, covers spawning beds and feeding areas, and turns streams into conveyances of stormwater. The main sources of nonpoint pollution include impervious surfaces, agricultural fields, and residential lawns.

Impervious Surface

A correlation exists between the percentage of impervious surface in a watershed and surface water quality (see graph). Stormwater runoff from impervious surfaces such as roads and roofs has an adverse effect on surface waters. As the percentage of impervious surfaces increases in a watershed, lakes and streams experience greater degradation from stormwater runoff.



Courtesy Center for Watershed Protection

According to the Center for Watershed Protection (CWP) in Ellicott City, Maryland, more than 30 different scientific studies have documented that stream, lake, and wetland quality declines sharply when impervious cover in upstream watersheds exceeds ten percent.

Agricultural Fields

Conventional agricultural practices expose topsoil to erosion from wind and precipitation. Plowed fields, row crops, the conversion of wetlands, and the overuse of commercial pesticides and fertilizers all intensify nonpoint source pollution loading to surface waters. By utilizing techniques such as conservation tillage, nutrient management planning, wetland restoration, grazing management, cover crops, and agricultural buffers, farmers can dramatically reduce nonpoint source pollution as well as the cost of farming.

Lawn Fertilizers, Herbicides, and Pesticides

Wisconsin and Minnesota residents use more fertilizers and pesticides on their lawns per capita than those of any other state.[7] Upwards of 95% of the chemicals applied to residential lawns are washed into storm drains and then into nearby creeks and streams following rain events. In northern climates, turf grass effectively utilizes fertilizer only during the fall. Fertilizers applied during spring and summer months contribute to algae blooms and eutrophication of surface waters. Moreover, many turf grass herbicides/pesticides, even those that claim to be focused on specific weeds or pests, kill beneficial organisms and are suspected causal factors in a number of autoimmune and endocrine illnesses in people and pets.

CONSERVATION-BASED DEVELOPMENT

Conservation-based development is a tool that is intended to minimize the amount of disturbance to the natural landscape by preserving onsite resources identified during the planning stages of development. Resources commonly targeted for preservation include wetlands, streams and ponds, riparian corridors, natural or sensitive habitat areas, steep slopes, view sheds, and agricultural lands.

The goal is to successfully integrate a development with its environment and unique natural surroundings, rather than having the environment functioning apart from the development altogether. Such an approach minimizes the site disturbance footprint by confining development to within existing open spaces and taking advantage of site topography by constructing roads on natural ridgelines. A conservation-based development typically involves a developer and his/her

[7] Source: USEPA, Fertilizer and Pesticide Use on Turf Grasses IN THE U.S. and their Effects on Surface Waters, 1998.

team of surveyors, engineers, and landscape architects conducting site assessments to identify features of interest to preserve from which a design layout is generated.

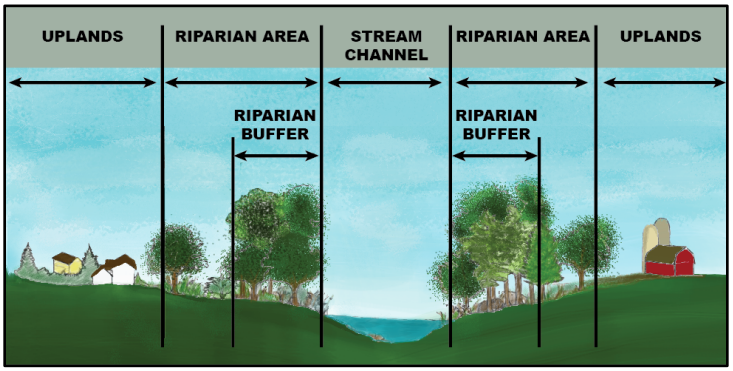
The following principles are integral to an effective conservation-based development design:

- Preservation and protection of natural drainage patterns.
- Protection of sensitive natural resources.
- Maintenance of existing topography.
- Clearing and grading as little as possible.
- Minimize the amount of impervious cover.
- Maintaining a community determined ratio of preserved open space to developed area.

Local governments may implement conservation-based concepts for residential development within the zoning and subdivision ordinances and for commercial and industrial development through the site plan review process. For additional information related to conservation-based development for subdivisions please refer to *Chapter 2: Housing*.

RIPARIAN BUFFERS[8]

Riparian buffers are zones adjacent to water bodies such as lakes, rivers, and wetlands that protect water quality and wildlife, including both aquatic and terrestrial habitat. These zones minimize the impacts of human activities on the landscape and contribute to recreation, aesthetics, and quality of life.



Courtesy USEPA

Buffers can include a range of complex vegetation structure, soils, food sources, cover, and water features that offer a variety of habitats contributing to diversity and abundance of wildlife such as mammals, frogs, amphibians, insects, and birds. Buffers can consist of a variety of canopy layers and cover types including: ephemeral (temporary-wet for only part of year) wetlands, ponds, and spring pools; shallow and deep marshes; wetland meadows; wetland mixed forests; grasslands; forests; and prairies. Riparian zones are areas of transition between aquatic and terrestrial ecosystems that provide numerous benefits to wildlife

[8] Excerpted from Managing the Water's Edge: Making Natural Connections, USEPA

and people including pollution reduction and recreation. Riparian buffers are widely considered to be the single most effective protection for water resources.

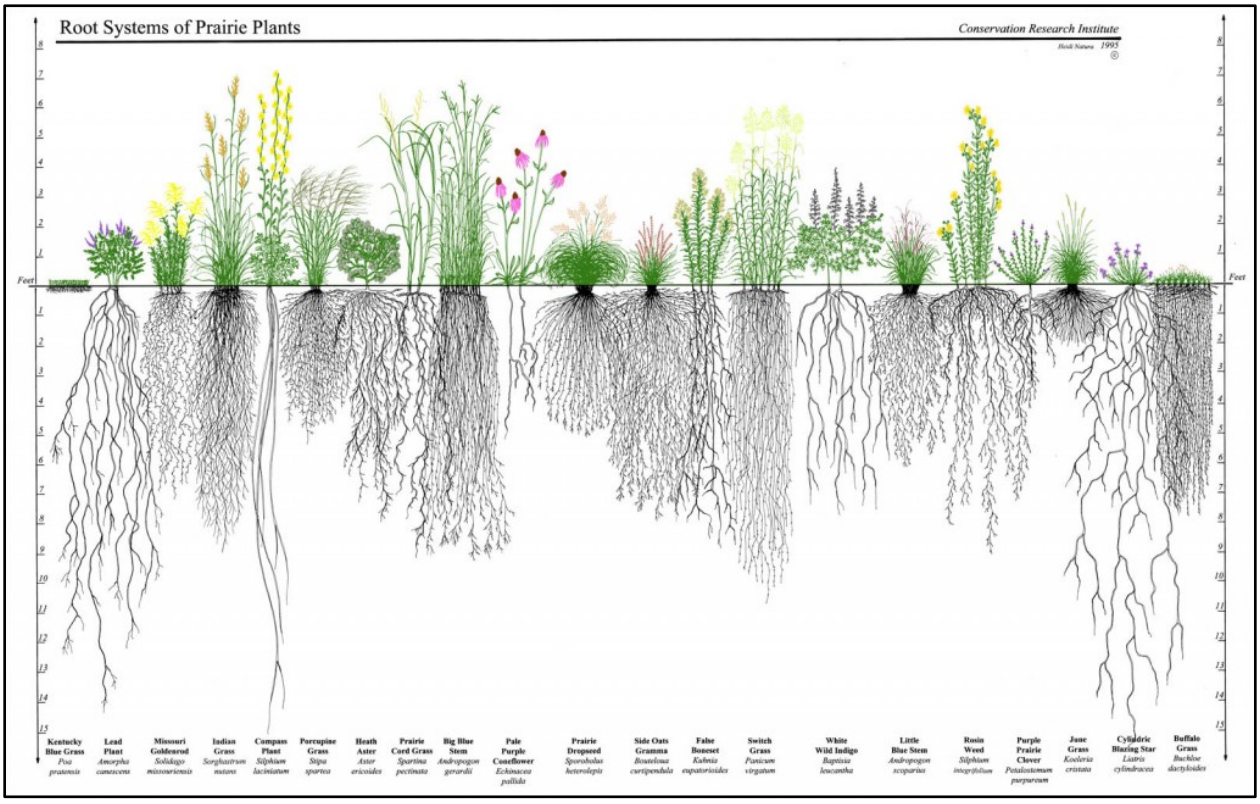
NATIVE LANDSCAPES

A native landscape is generally defined as one comprised of species that occur naturally in a particular region, ecosystem, or habitat and that were present prior to European settlement. Landscaping with native wildflowers, grasses, shrubs, and trees improves the environment. Natural landscaping brings a taste of wilderness to urban, suburban, and corporate settings by attracting a variety of birds, butterflies, and other animals. Once established, native plants do not need fertilizers, herbicides, pesticides or watering, thus benefiting the environment and reducing maintenance costs.[9]

The benefits of native landscapes include:

- Environmental - Once native plants are returned to the land, many species of birds, mammals, reptiles and beneficial insects return as well, restoring a vital part of the web of life. Landscaping with natives enriches the soil, decreases water run-off, and filters the pollution caused by nonpoint source pollution from commercial sites, subdivisions, parks, and farms.
- Economic - Over the long term, native landscaping is more cost-effective than traditional landscaping and requires no fertilizers, pesticides, or irrigation. Natives also increase infiltration reducing the need for expensive stormwater management infrastructure (see image above).
- Aesthetic - While traditional landscapes use one or two species of grass, native landscape designs can include dozens of species of trees, shrubs, grasses, and wildflowers. Each is unique and constantly evolving, and thrives in wet, dry, sunny, and shaded locations.
- Educational - Native landscapes provide hands-on opportunities for people of all ages to learn about habitats and ecosystems.

[9] Excerpted from Landscaping with Native Plants in the Great Lakes Region, USEPA.



Comparing the root system of typical turf grass (far left) with those of grass and flower species native to Wisconsin. Deeper root systems provide greater opportunities for infiltration of precipitation and snow melt thereby reducing the incidents of flood events. Courtesy Conservation Research Institute

~~HISTORICAL AND~~ CULTURAL RESOURCES

~~Cultural resources, like natural resources, are valuable assets, which should be preserved. At this time, recognized historic and cultural resources in the Black Creek community are limited. This situation can be attributed to the area's close proximity to Green Bay and Appleton where a wide variety of cultural resources and historic districts are available.~~

St. Mary's Church, Village of Black Creek, WI

~~Nevertheless, Black Creek does take great pride in its history and traditions.~~

Historical and cultural resources are valuable community assets warranting preservation. The term "cultural resources" typically refers to historic buildings and structures and archaeological sites; however, municipalities are granted the authority to identify the places that are cultural significant within their boundaries irrespective of the National Register of Historic Places or the State Historical Preservation Office. One of the most effective ways to do so is through a local historic preservation ordinance. A historic preservation ordinance can establish procedures to designate historically and culturally sensitive properties and places and to review projects that have the potential to negatively affect these important places.

Another way in which local governments can protect historically significant structures and places is through the use of overlay zoning in the zoning ordinance. An overlay zone is an additional layer of regulations for a particular area that is laid atop the underlying or base zoning regulations. A design review board, site plan review committee, or historic preservation commission administers the regulations within the historic overlay zone.

Finally, the designation of 'secondary conservation areas' within the conservation subdivision components of a local subdivision ordinance allows a community to identify structures and places that should be preserved during the residential development process.

CHURCHES

There are four churches in the Black Creek Community. The churches are identified on the *Utilities and Community Facilities Map*.

- St. Mary's Church
- Immanuel Evangelical Lutheran Church
- Community Bible Church
- St. John's United Church of Christ

Numerous facilities also exist beyond Black Creek in nearby communities. Residents have easy access to these nearby facilities via town and county roads and the STH 47 and STH 54 corridors.

CEMETERIES

There are six cemeteries in the Black Creek Community. The cemeteries are identified on the *Utilities and Community Facilities Map*.

- St. Mary's Cemetery
- Lutheran Cemetery
- Lutheran Cemetery
- Sassman Cemetery
- St. John's Cemetery
- Town Cemetery

LIBRARIES

The Black Creek Village Library is located at 507 South Maple Street, Black Creek, Wisconsin 54106. Information about this facility is provided in the Utilities and Community Facilities Chapter. Additional information is available on the Internet at: ***http://www.owls.lib.wi.us/bc~~l~~/***

MUSEUMS~~/HISTORIC RESOURCES~~

Museums protect valuable historic resources for community enjoyment. There are several museums and other historic resources located nearby in Appleton and Green Bay. Residents are welcome to visit these facilities and enjoy the exhibits and other amenities they have to offer. Likewise, additional historic resources can be found in other nearby communities accessible via STH 47, STH 54, and ~~USH~~ I-41. There are no museums or historic districts currently located in the Town or Village. ~~located in Black Creek, nor are there plans to designate such areas.~~

WISCONSIN STATE HISTORICAL SOCIETY[10]

The mission of the Wisconsin State Historical Society (WSHS) is to maintain, promote and spread knowledge relating to the history of North America, with an emphasis on the state of Wisconsin. WSHS helps people connect to the past by collecting, preserving, and sharing stories. Its guiding principles are to:

- Reach out and partner with the broadest possible public.
- Present and promote sound and authentic history.
- Share its riches of staff, collections and services in ways that captivate and respect its many audiences.
- Collect and safeguard evidence of Wisconsin's diverse heritage according to the highest standards of stewardship

[10] Excerpted from Wisconsin State Historical Society website, 2015.

Architecture and History Inventory

Local structures listed on the AHI

The Wisconsin Architecture and History Inventory (AHI) is a digital source of information on more than 140,000 historic buildings, structures and objects throughout Wisconsin. Each property has a digital record providing basic information about the property and most include exterior images. The AHI contains information on buildings, structures, and objects that illustrate Wisconsin's unique history. It documents a wide range of historic properties such as round barns, log houses, cast iron bridges, small commercial buildings, and Queen Anne houses, among others. As of April 2015, the AHI listed thirty structures within the Town and/or Village of Black Creek.

Inclusion in the AHI conveys no special status or advantage. The inventory is merely a record of the property resulting from site reconnaissance conducted by staff of the Wisconsin State Historical Society.

~~The Wisconsin Architecture and History Inventory (AHI) includes listings in the Town and Village of Black Creek. Properties listed in the AHI are part of the State of Wisconsin official historic catalogue. The AHI is comprised of written text (and some photographs) of each property, which document the property's architecture and history. Most of the properties became part of the AHI as a result of systematic architectural and historical surveys. Inclusion in the AHI conveys no special status or advantage; it is merely a record of the property. The AHI inventory is housed at the State Historical Society of Wisconsin in Madison and is maintained by the Society's Division of Historic Preservation. For a complete list of catalogued historic sites in the Black Creek, visit the AHI on the Internet at *www.shsw.wisc.edu/ahi/*.~~

The Black Creek community supports the activities of the Outagamie County Historical Society and the State Historical Society to identify and protect historic resources. Given the limited number of historic resources in the community, and limited Village and Town staff, Black Creek will not seek to develop its own historic preservation ordinance. If, in the future, residents desire additional historic preservation measures, the Village/Town may establish a committee to develop a program for historic preservation.

~~Current Policies and Trends~~CULTURAL RESOURCES PLAN

SECONDARY CONSERVATION AREAS

As discussed in *Chapter 4: Housing*, conservation subdivisions provide a means by which local government, landowners, and developers may preserve important natural and cultural features present on a given piece of property. They do so by identifying *secondary conservation areas* (SCA) to be preserved during the residential development process. Unlike primary conservation areas (wetlands, flood plains, steep slopes, etc.), SCAs are cultural, natural, and agricultural resources that hold particular value within a given community. Examples of cultural SCAs may include architecturally significant homes, structurally sound barns, fencerows, and windmills, among others. Most importantly, SCAs are determined at the local level based upon local values.

HISTORIC PRESERVATION

The term historic preservation refers to the protection, rehabilitation, restoration, and reconstruction of cultural resources. Cultural resources can include structures, sites, and objects having historical, archaeological, social, or cultural significance within a community. Historic preservation ordinances are the tool typically utilized by local government to protect cultural resources.

Historic preservation ordinances provide protection to individual sites and structures or historic districts through a permitting process that requires advance review of proposed projects by a preservation commission or other administrative body. While similar in many respects, preservation ordinances can differ widely from place to place. Variations arise due to differing levels of political support for preservation. The most effective ordinances are tailored to meet the individual needs of the community and the resources being protected.

Courtesy Wisconsin Historical Society

CERTIFIED LOCAL GOVERNMENT PROGRAM[11]

Local units of government that have enacted historic preservation ordinances may consider being certified to participate in the state and federal Certified Local Government (CLG) program. The CLG program provides special grants to fund planning and educational activities. The Division of Historic Preservation at the Wisconsin

[11] Excerpted from Wisconsin Historical Society website.

Historical Society administers the CLG program. Wisconsin has forty-four Certified Local Governments.

Jointly administered by the NPS in partnership with SHPOs, the CLG program is a cost-effective local, state and federal partnership that promotes historic preservation at the grassroots level across the nation. Working closely with such national organizations as the National Association of Preservation Commissions, the CLG program seeks:

- To develop and maintain local historic preservation programs that will influence the zoning and permitting decisions critical to preserving historic properties.
- To ensure the broadest possible participation of local governments in the national historic preservation program while maintaining preservation standards established by the secretary of the Interior.

AGRICULTURAL, NATURAL, AND CULTURAL RESOURCE PROGRAMS

The following pages describe the various federal, state, and local programs that are available to aid the Village in implementing its agricultural, natural, and cultural resources plan.

UNITED STATES DEPARTMENT OF AGRICULTURE

Conservation Reserve Enhancement Program

The Conservation Reserve Enhancement Program (CREP) is an offshoot of the Conservation Reserve Program, the country's largest private-land conservation program. Administered by the Farm Service Agency, CREP targets high-priority conservation issues identified by local, state, or tribal governments or non-governmental organizations. In exchange for removing environmentally sensitive land from production and introducing conservation practices, farmers, ranchers, and agricultural landowners are paid an annual rental rate. Participation is voluntary, and the contract period is typically 10–15 years, along with other federal and state incentives as applicable per each CREP agreement.

Natural Resource Conservation Service – Environmental Quality Incentives Program

The Environmental Quality Incentives Program (EQIP) is a voluntary program that provides financial and technical assistance to agricultural producers through contracts up to a maximum term of ten years in length. These contracts provide financial assistance to help plan and implement conservation practices that address natural resource concerns and for opportunities to improve soil, water, plant, animal, air and related resources on agricultural land and non-industrial private forestland. In addition, a purpose of EQIP is to help producers meet Federal, State, Tribal, and local environmental regulations. Owners of land in agricultural or forest