



WOODLANDS

Prior to settlement, the vegetation of Outagamie County was entirely forested with areas of mixed conifer-northern hardwood forest. As people moved to the area, much of the forests were cleared for agricultural crops. This pattern is also true for the Black Creek area. In the Town, the extensively farmed uplands are interspersed with woodlots. Areas of depression in the Town include several significant wetlands that are covered by forest and shrub-scrub vegetation.

The WDNR Managed Forest Law provides opportunities for conservation of contiguous woodland environments for wildlife and plants inhabiting these areas. For more information visit: www.dnr.state.wi.us/org/land/forestry/publications/

The *Natural Features Map* delineates the location of these areas. Because woodlands are an important natural feature to residents, woodland areas should be protected from future encroachment through the use of easements, conservation subdivisions and other preservation techniques.

WILDLIFE HABITATS

Unfortunately there is not a **single** source of comprehensive habitat information for the Town and Village of Black Creek.

WILDLIFE HABITAT FRAGMENTATION

A primary threat to wildlife is **fragmentation** -- the breaking up of larger habitat areas into smaller sections. Fragmentation decreases wildlife population sizes, isolates habitat areas and creates more edges -- where two dissimilar habitats meet (i.e. grassland and residential subdivisions). The Town and Village of Black Creek support rural development patterns that maintain contiguous wildlife corridors.

Resident observation is the best available local resource about wildlife habitat areas. Primary wildlife habitat areas correspond to the forested areas and wetland areas shown on the *Natural Features Map*, including the Black Creek and Duck Creek corridors. These areas provide food and cover for deer, raccoons, skunk and other small creatures common in the area. The local farm fields also serve as a food source for deer in the area. The remaining areas (i.e. residential areas, road corridors, and other developed areas) are not classified as primary wildlife habitat areas - though certainly animals do wander into these areas.

Some information about wildlife habitats is also available from the WDNR. Much of the available information about rare plant and animal species is based on watershed areas. For example, in the Wolf River Basin (a small portion of which is in Black Creek), there are over 143 rare animal species and 57 rare plant species. Similarly, numerous endangered, threatened and otherwise rare species live in the Lower Fox Basin (a small portion of which is in Black Creek), including the endangered Barn Owl and the threatened Small White Lady's Slipper. It is important to understand that not all of these plants and animals are found in the Town and Village of Black Creek. However, given the environmentally sensitive areas in the community, consideration must be given to wildlife habitats and rare/endangered species when development projects (e.g. subdivisions, road construction, etc.) occur in the community.

The WDNR is concerned about loss of wetlands, aquatic habitat and open land to development, as well as, pollution to surface and groundwater. Moreover, simplification of diverse habitat and loss of special places that support rare species are also major concerns of the WDNR.

THREATENED AND ENDANGERED SPECIES

Based on information contained in Wisconsin's Natural Heritage Inventory, there are 24 aquatic animal and six aquatic plant species that are threatened, endangered or a species of special concern in Outagamie County. There are an additional 13 terrestrial (land based) animals and seven terrestrial plant species that are threatened, endangered or a species of special concern in Outagamie County.

~~Unfortunately, there is not a specific species list or map available for the Black Creek area. Available county and basin maps are general and do not specially identify habitat areas within the Black Creek area. The reason for this is because the WDNR does not want people to visit or otherwise intrude on the habitats of endangered and threatened species. The WDNR is attempting to identify and catalog endangered plant and animal species across the state. For a complete, up to date list, refer to www.dnr.state.wi.us. The state and federal government have programs and laws in effect to protect threatened and endangered plant and animal species in the Black Creek area and beyond.~~

WORDS TO KNOW ...

From the Wisconsin Status category:

- *Endangered*: continued existence in Wisconsin is in jeopardy
- *Threatened*: appears likely, within the foreseeable future, to become endangered
- *Special Concern*: species for which some problem of abundance or distribution is suspected but not yet proven
- *Rule*: protected or regulated by state or federal legislation or policy; neither endangered nor threatened

Federally-listed threatened, endangered, proposed, and candidate species list for Outagamie County lists the bald eagle (*Haliaeetus leucocephalus*) as threatened and the karner blue butterfly (*Lycaeides melissa samuelis*) as endangered.

EXOTIC AND INVASIVE SPECIES

Non-native, or exotic, plant and animal species have been recognized in recent years as a major threat to the integrity of native habitats and species, as well as a potential economic threat (damage to crops, tourist economy, etc). The WDNR requires that any person seeking to bring a non-native fish or wild animal for introduction in Wisconsin obtain a permit. The Town and Village of Black Creek can help combat exotic species by educating residents about non-native species and encouraging residents to use native plants in landscaping. An invasive species is defined as, “A species whose introduction does or is likely to cause economic or environmental harm or harm to human health.” The definition includes any species that is not native to a given ecosystem. Invasive species can be added to a community by natural range extensions as a result of human activity. Non-native invasive plants and animals threaten biodiversity by displacing species native to the region. They also pose a threat to agricultural, forestry, and fishery options costing an estimated \$137 billion in damages annually in the United States.



Examples of invasive plant species prevalent in Outagamie County include reed canary grass, purple loosestrife, and Canada thistle.

Invasive Species Commonly Used in Landscaping

The following species, often used in residential and commercial landscaping, are classified as invasive by the WDNR:

- Norway maple
- Bigtooth aspen
- Grey dogwood
- Red osier dogwood
- Wayfaringtree
- Smooth sumac
- Staghorn/Stagham sumac
- Purple loosestrife
- Hawthorne
- Japanese barberry

METALLIC AND NON-METALLIC MINING RESOURCES

The geologic and glacial history of Outagamie County is reflected in its mineral resources that provide a substantial volume of total aggregate material used in construction activities throughout the county and the region. Many of the larger quarries in the county are located to the south of Black Creek, in the Town of Center. Currently, there are no pits or quarries in the Village and two active sand and gravel pits in the Town as described below:

- Reihl Pit, Section 31, owned by Jule & Joan Vanhandel. 7 Acres Active. 71 Acres in Reserve. Reclamation Plan Due July 22, 2004 **Still Active?**
- Ott Road Pit, Section 20, owned by MCC. 6 Acres Active. 22 Acres in Reserve. Reclamation Plan Due August 2004. **Still Active?**

As part of NR 135, Wisconsin Administrative Code, adopted in December 2000, any community in Wisconsin could adopt an ordinance to establish requirements for reclamation of non-metallic mines, such as gravel pits and rock quarries. If a Town decided not to develop its own ordinance, a county could develop an ordinance for the area instead. Likewise, regional planning agencies could develop ordinances for counties within their region to adopt. The ordinances must establish reclamation requirements to prevent owners and operators of quarries and gravel pits from abandoning their operations without proper reclamation of the mines.

The ECWRPC, under an agreement approved in July 2001 will be the regulatory authority for administering five individual, county-adopted, Non-Metallic Mining Reclamation Ordinances for Winnebago, Calumet, Outagamie, Waupaca and Shawano Counties. This agreement transfers permit issuance and reclamation plan review/approval authority to the ECWRPC for the program, however, the individual counties will still be responsible for the actual enforcement of the ordinance requirements should any problems arise with a site/operator/landowner. It is important to understand that the ECWRPC only oversees the reclamation aspect of active sites in these counties as it relates to the NR135 requirements. Zoning or other operational issues of sites are still handled by the counties, cities, villages and towns under their existing zoning regulations. The four quarries/pits in Black Creek do not have reclamation permits with the ECWRPC at this time.

The process of siting a mine continues to be a local matter governed under existing zoning procedures by local authorities. The new reclamation requirements through NR 135 add to the status quo, but do not replace or remove any other current means of regulation. The requirements neither regulate active mining process nor have any effect upon local zoning decisions like those related to the approval of new mine sites.

Under the law, any landowner of a demonstrated “marketable non-metallic deposit” may register the site for mining. Local zoning authority can object to the application if the zoning does not permit it. Registration expires after a 10-year period and may be extended for a single 10-year period if it is demonstrated that commercially feasible quantities continue to exist at the property. Otherwise, remediation action is required.

Towns rezoning property in a manner consistent with a Comprehensive Plan are not required to permit non-metallic mining operations that are inconsistent with the plan.

SOILS

Soils are the physical base for development and agriculture. The more than 40 soil types found in Black Creek are identified on the *Soil Types Map*. Five soil associations (grouping of individual soil types based on geographic proximity and other characteristics) are present in the Black Creek community: Hortonville-Symco, Carbondale-Keowns-Cathro, Menominee-Grays-Rousseau, Winneconne-Manawa, and Onaway-Solona.⁶

Occupying the majority of the Town and Village are the loam soils of the **Hortonville-Symco association**. Formed under mixed hardwood forests, the surface layer of these soils is a black silt loam. Hortonville soils are well drained occupying gently to steeply sloping plains and ridges. Symco soils are somewhat poorly drained and lie on flat to gently sloping plains. Both soils are well suited for crop production, although Symco soils often require drainage improvements.

Generally, soils near the Duck Creek and Black Creek are the soils of the Carbondale-Keowns-Cathro association. This association consists of nearly level soils in depressional areas and drainageways. These soils are poorly drained and nearly level. Most areas of this association remain in wooded wetlands and are best suited for wildlife habitat.

Soils of the Menominee-Grays-Rousseau association are found in the southwest corner of the township. Rousseau loamy fine sand is the predominant soil in this grouping. This soil is gently sloping and is moderately well to well drained. Low natural fertility somewhat limits the productivity of these soils for raising crops.

Soils of the Winneconne-Manawa association are found to the west of the Village. Winneconne soils are well drained and nearly level to sloping. These silty clay loams are found somewhat higher on the landscape than the similar Manawa soils that formed in drainageways and depressions. Both soils are extensively cropped, but inadequate drainage limits productivity in some areas.

Soils of the Onaway-Solona association are found in the northwest corner of the township. This association consists of nearly level to moderately steep soils on glacial till plains. Most crops commonly grown in the county do well on soils of this classification. Most of this association is used for crops, permanent pasture, or woodlands. There are limitations with this soil association for septic tank adsorption and other non-farm uses.

The maps provided on the next two pages illustrate the different soil types in Black Creek and their ability to support development. Knowledge of their limitations and potential difficulties is important in evaluating crop production capabilities and other land use alternatives, such as residential development. Soil problems that limit development potential include: slumping, compaction, erosion and high water tables. Severe soil limitations do not always mean a site cannot be developed, but rather that more extensive construction measures may have to be taken to prevent damage to the land or structures. These maps are important reference tools for predicting development patterns. These maps should not be used as the primary data source when developing a parcel. Individual soil surveys and other tools should be used.

⁶ *Soil Survey of Outagamie County*, United States Department of Agricultural Soil Conservation Service, 1978.

The soils that are capable of supporting building development (i.e. dwellings with basements) are illustrated on the *Building Suitability Map*. In the Black Creek community, areas identified as “severe risk” are not recommended for development given wet conditions.

The *Sanitary Suitability Map* is very similar to the *Building Suitability Map*, but more areas are classified as able to accommodate on-site sanitary systems than building foundations in the southwest corner of the Town.

AIR QUALITY

The following information is from the Wisconsin Department of Natural Resources:

“A few common air pollutants are found all over the United States. These pollutants can injure health, harm the environment and cause property damage. EPA calls these pollutants criteria air pollutants because the agency has regulated them by first developing health-based criteria (science-based guidelines) as the basis for setting permissible levels. One set of limits (primary standard) protects health; another set of limits (secondary standard) is intended to prevent environmental and property damage. A geographic area that meets or does better than the primary standard is called an attainment area; areas that don't meet the primary standard are called non-attainment areas.”

Outagamie County is an attainment area. The nearest air quality monitoring stations are located in the cities of Appleton and Green Bay. ~~More information on air quality is available at:~~ www.dnr.state.wi.us/org/aw/air/.

