

## **Chapter 7: Agricultural, Natural, and Cultural Resources**



### **Introduction**

This chapter provides an inventory of existing agricultural, natural, and cultural resources in the Town of Buchanan. Issues associated with these resources are discussed and a vision, with supporting goals and objectives, is presented.

Wisconsin’s Comprehensive Planning Law includes 14 goals for local comprehensive planning. The goals listed below specifically relate to planning for agricultural and natural resources:

- Protection of natural areas, including wetlands, wildlife habitats, lakes, woodlands, open spaces and environmental corridors.
- Protection of economically productive agricultural areas.
- Protection of agricultural lands for agricultural purposes.

### **VISIONS, VALUES AND SWOT EXERCISES**

During the Visions, Values, and SWOT exercises, participants were asked to identify the attributes, both positive and negative, that identify Buchanan to residents and visitors. The rural character and natural environment of the community we identified in all exercises. When asked to offer the things most valued in Buchanan, attendees at the May 16, 2005 Kick-off Meeting listed the natural environment, rural living and mature trees as important community resources. As can be realized from these three exercises, and the Community Survey responses on the following page, this community sees its future tied to the agricultural, natural, and cultural environment within which it exists.

### **Agricultural, Natural, and Cultural Resources Vision**

In 2025, throughout Buchanan, natural areas, farmland, and open spaces enhance recreational opportunities for residents and provide habitat for wildlife. Woodlands, wetlands, prime agricultural lands, and the Fox River remain the landscape features in the eastern part of Buchanan. In the western part of the Town, residential and commercial areas have been developed with protected open spaces and abundant landscaping. Residents and visitors enjoy access to the natural environment via a network of local and county trails connecting neighborhoods to the CE Trail, the Fox River, High Cliff State Park and surrounding communities.

Community-based organizations continue to provide leadership in developing educational and cultural activities for the residents of Buchanan.

## Community Survey Results

In addition to the comments expressed by residents as part of the SWOT, Value and Visioning Exercises (refer to Chapters 1 & 2), the Community Survey also provides an important indication of resident opinions. The two survey questions highlighted below relate directly to Agricultural, Natural and Cultural Resources in the Town of Buchanan. Both questions reveal a commitment to farming and natural resources.

| <b>TABLE 24.0: Would you encourage or discourage the following kinds of future economic development in Buchanan?</b> |                            |                   |                  |                           |   |
|--|----------------------------|-------------------|------------------|---------------------------|---|
|  | <b>STRONGLY DISCOURAGE</b> | <b>DISCOURAGE</b> | <b>ENCOURAGE</b> | <b>Strongly Encourage</b> | <b>NEITHER ENCOURAGE NOR DISCOURAGE</b> |
| <b>LARGE-SCALE LIVESTOCK OPERATIONS</b>  | 41.3%                      | 34.1%             | 9.2%             | 0.9%                      | 14.5%                                   |
| <b>AGRICULTURE-RELATED BUSINESS</b>  | 15.7%                      | 20.8%             | 37.7%            | 4.2%                      | 21.7%                                   |
| <b>SINGLE-FAMILY FARMS-NICHE ORGANIC FARMS</b>   | 8.7%                       | 11.8%             | 50.9%            | 12.5%                     | 16.1%                                   |

| <b>TABLE 25.0: How important to you are the following natural resources and landscape features in and around Buchanan?</b> |                         |                    |                  |                       |                           |
|--|-------------------------|--------------------|------------------|-----------------------|---------------------------|
|  | <b>VERY UNIMPORTANT</b> | <b>UNIMPORTANT</b> | <b>IMPORTANT</b> | <b>Very Important</b> | <b>NEUTRAL/NO OPINION</b> |
| <b>FARMLAND</b>  | 3.3%                    | 17.3%              | 40.7%            | 31.0%                 | 7.7%                      |
| <b>WOODED AREAS</b>  | 2.2%                    | 5.3%               | 35.1%            | 55.5%                 | 1.9%                      |
| <b>FOX RIVER, CREEKS, STREAMS, AND THEIR BANKS</b>   | 2.4%                    | 4.4%               | 36.7%            | 53.6%                 | 3.0%                      |
| <b>WETLANDS/MARSH</b>  | 3.2%                    | 17.3%              | 34.4%            | 35.3%                 | 9.8%                      |

## Agricultural Resources

In 2006, agriculture is the primary land use in Buchanan - accounting for nearly fifty-six percent of the Town's land base. However, it is also among the most threatened use because in Buchanan, residential and commercial growth typically has occurred on land that was once farmed. Accordingly, development pressures decrease available agricultural acreage.

Productive farm soils are located throughout the Town (refer to *Agricultural Productivity Map*). Existing agricultural lands are most concentrated in the eastern part of the community. A variety of factors threaten the long-term viability of farming in Buchanan. They include:

- A projected population of more than 10,381 by the year 2025;
- Potential future annexation of land by the City of Kaukauna;
- The desire for large-lot residential development that takes farmland out of production;
- The increasing median age of farm operators combined with fewer young people interested in farming;
- The high demand for residential housing in Buchanan and the Fox Valley.

To ensure that farming remains an important ongoing land use in Buchanan, this Comprehensive Plan seeks to identify prime agricultural areas to be protected from residential and commercial development. The location of these farming areas were selected based upon their long-term suitability for agricultural uses and the willingness of landowners to continue farming.

A variety of tools are available to local governments and farmers to preserve prime agricultural lands. These include Wisconsin’s Farmland Preservation Program, various Natural Resource Conservation Service programs, and the purchase or transfer of development rights, among others. These programs are most effective in communities where farming will remain a primary land use over time. Successful farmland preservation efforts are dependant upon the support of local farmers and their ability to pursue new markets to sustain operations over time.

## Long Term Sustainability of Farming in Buchanan

This section provides options available to the Town and local farmers to preserve locally owned agricultural operations. Strategies to protect farmland include:

- Conservation-based subdivision designs;
- Land trusts and conservation easements;
- Specialty farming;
- Agriculture Protection Zones;
- Incentive Zoning; and
- Overlay Districts.

The Economic Development Element of this plan also discusses more options for protecting viable farm operations including: permitting value-added operations such as cheese making and on- and off-farm direct retailing (roadside farm stands) and transitioning from conventional to organic farming techniques.

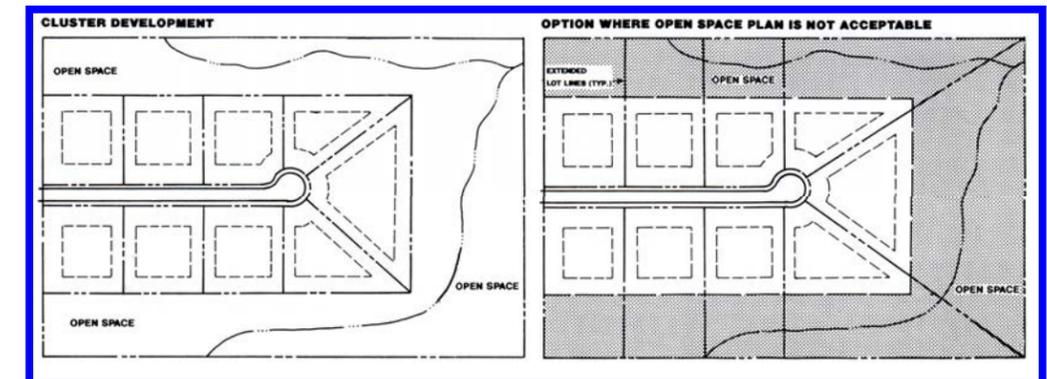
## Farmland and Open Space Preservation Tools<sup>1</sup>

### Conservation-Based Development

Conservation-based development techniques may involve the establishment of a conservation easement (refer to Housing Element for more information). In a conservation subdivision, homes are “clustered” together so that a greater proportion of the land is protected from development.

- A typical conservation subdivision will require that 40% of a site be set aside and preserved as undevelopable open space.
- Protection and maintenance of the conserved area can be accomplished through a conservation easement held by a land trust, homeowners association, government body, or through deed covenants.
- The areas to be conserved must be protected indefinitely.
- The land designated for protection will be preserved as natural habitat, open space, or farmland. If it is farmland, special consideration should be given to where residential development is located (e.g. prevailing winds, buffers, etc) to allow farm uses to coexist harmoniously with residential uses.
- In conservation subdivisions, the development of walking and bicycle trails is encouraged, particularly to provide limited access to protected natural areas.

In some situations, it is not feasible to reduce the lot size to develop a conservation subdivision (as described in Chapter 2). In these situations, lot lines can be extended so that there is no commonly owned open space, but rather private open space. Areas beyond the home sites can then be deed-restricted against further development, keeping the property open without creating a “common” open space. If viewed from above there is no difference in the resulting development. In Buchanan, the Rueden Ridge development is a great example of this situation. Private easements were used to create open space within the confines of a traditional ordinance. This approach is more cumbersome to approve, but the preservation result is the same.



SOURCE: Fred Heyer, *Preserving Rural Character*, American Planning Association PAS Report No. 429.

NOTE: Illustration is to represent concept only. Cul-de-sac development is not encouraged in the Town due to snow removal concerns. If a cul-de-sac is desired, space must be provided for ample snow removal.

<sup>1</sup> Washington County, Farmland & Open Space Preservation Tools, June 22, 2005



## LAND TRUSTS AND CONSERVATION EASEMENTS

Land trusts provide another option to landowners seeking to protect natural areas and farmland. Land trusts provide landowners with advice on protection strategies that best meet the landowner’s conservation and financial needs. Land trusts accept lands donated by landowners for conservation purposes. Land trusts can also work with landowners to establish *conservation easements* (see box).

## SPECIALTY FARMING

Thus far, this chapter has focused on traditional agricultural operations (e.g. crop and family farming). Specialty or niche farming provides an alternative to conventional agricultural production, particularly for smaller farms attempting to compete with large agricultural operations. Buchanan’s location and ready highway access provides an opportunity to market directly to the larger population centers of Northeastern Wisconsin and the Fox River Valley. Marketable agricultural products may include:

- Organic milk and cheese from local dairy operations.
- Organic vegetables and produce (sold locally at a collective farmers’ market in Buchanan or in nearby cities).
- Aquaculture products.
- Pumpkin patches, berry farms, and orchards that allow visitors to pick their own produce.
- Walnuts, maple syrup, and pine trees (for landscaping or holidays) from local tree farms.
- Horse farms (offering boarding and potential future trail access).

Organic food is a fast-growing industry in the United States. Products that once occupied a boutique marketplace niche are becoming mainstream, as consumers seek healthier alternatives to conventional farm produce. Organic and specialty farming counter the notion that farms must become very big or be lost to development. They provide a profitable choice for small, local farmers. Additional information about strategies to sustain agriculture through specialty farming are included in the Economic Development Chapter. In addition, the Future Land Use Chapter identifies agricultural districts to target farm preservation.

## AGRICULTURE PROTECTION ZONING (EXCLUSIVE AGRICULTURE ZONING)

Agriculture protection zoning is intended to preserve agriculture as a permanent land use. The most important characteristic of an agriculture protection zoning ordinance is the extent to which it limits the intrusion of new, nonagricultural uses (usually non-farm dwellings). Implementation of an agricultural protection zoning ordinance depends on farmers and other rural residents to be open, agreeable, and supportive of a regulation that limits the amount of non-farming development that is permitted in the agricultural areas of the community. This tool helps maintain a sense of “rural character” by restricting non-farm-related development and requiring relatively large minimum parcel sizes (35 acres or more). In addition, agricultural zoning benefits farmers by providing them protection from large-scale urban development whose residents might find their farming practices a nuisance. The Town of Buchanan has an Exclusive Agricultural District and currently utilizes this tool.

There is no Exclusive Agricultural Zoning in Buchanan at this time. In the past, there had been no interest among landowners to establish such a district. This type of zoning does exist in Calumet County and in other areas of Outagamie County (example Black Creek).

### *What is a Conservation Easement?*

A conservation easement is a **voluntary legal agreement** between a landowner and a land trust or government agency that limits present and future development of a parcel.

Under a conservation easement, the **landowner retains ownership** of the land (within the terms of the easement – e.g. only for farmland or natural space, not for development) and the land trust takes the responsibility for protecting the land’s conservation values.

Donated conservation easements that meet federal tax code requirements can provide significant **tax advantages** to landowners because their land will be taxed as undevelopable land, which is a much lower rate than developable land. Qualified easements may also generate charitable contribution deductions for income and transfer tax purposes.

| Agricultural Protection Zoning  |   |
|---|---|
| Benefits  | Limitations   |
| <ul style="list-style-type: none"> <li>• Helps prevent agricultural land from becoming fragmented by residential development</li> <li>• Clearly identifies agriculture as primary land use</li> <li>• Easily implemented by municipalities</li> <li>• Able to protect large areas of agricultural land</li> </ul> | <ul style="list-style-type: none"> <li>• Does not permanently preserve agricultural land</li> <li>• Does not protect agricultural land from annexation</li> </ul> |

**INCENTIVE ZONING (DENSITY BONUS INCENTIVES)**

Local units of government may use density bonuses as part of their development review and/or subdivision approval process. This approach assumes that if specified criteria are met, then a proposed development would be approved with more use of a site (such as more dwelling units per acre) than would otherwise be permitted by the community. That is, greater development density would be allowed if certain conditions are met. These “density bonuses” are a form of incentive that a community can offer to a developer who does the kind of development that a community seeks.

Density bonuses may be used to achieve a wide array of community objectives, such as preservation of agriculture land, open space, and conservation of wetlands, water bodies, forests, meadows and other natural features that the community values. A list of density bonus criteria would need to be incorporated into Buchanan’s subdivision, zoning, or other development review regulations. In Wisconsin, the Town of Caledonia in Racine County and the Town of Cedarburg in Ozaukee County use this form of incentive zoning.

**Example: Incentive Zoning (Density Bonus Incentives)**

The Town of Cedarburg in Ozaukee County has added terms to its zoning ordinance that allows builders to create more lots than normally allowed in development based upon the development’s design and layout. To qualify for bonus lot consideration, all open space must be contiguous and held in common. The maximum number of bonus lots the Plan Commission and Town Board may award is one lot per 25 acres of development with a maximum of four (4) bonus lots for any development. There is no guarantee of bonus lots being granted, as the final discretion rests with the Plan Commission and Town Board at the time the proposal is reviewed.

| Incentive Zoning (Density Bonus Incentives)  |   |
|--|---|
| Benefits   | Limitations   |
| <ul style="list-style-type: none"> <li>Allows for the protection of environmentally sensitive areas while providing development to occur on the property.</li> <li>Does not impose any direct costs on the landowners and developers.</li> </ul> | <ul style="list-style-type: none"> <li>Neighbors may oppose due to concerns of increased density of development.</li> <li>May not be mandatory tool; thus there is little assurance that desired project designs will be implemented by developers.</li> <li>Can be difficult for local officials to enforce unless bonus criteria are clearly spelled out in an ordinance or policy document.</li> </ul> |

**OVERLAY DISTRICT**

An overlay district is used to establish alternative land development requirements within a specific area of a community that requires special attention, such as an environmentally sensitive area or rapidly developing highway corridor. The overlay is superimposed over conventional zoning districts. It consists of a physical area with mapped boundaries and an ordinance detailing requirements that are either added to, or in place of, those of the regulations. Overlay districts specify requirements that take precedence over those of the underlying districts they cover.

**Example: Overlay Districts**

An example of a community utilizing overlay district is the Town of Kewaskum in Washington County. The Town currently has three overlay districts, Lowland Conservancy Overlay District, Historic Preservation Overlay District, and Planned Unit Development Overlay District. The intent of the Lowland Conservancy Overlay is to preserve, protect, and enhance ponds, streams, and wetland areas. Any applicant who proposes a use or structure within the district must present a detailed plan and specifications to the Plan Commission who will evaluate them and determine if the proposal is not in conflict with the purpose of the overlay district.

| Overlay Districts   |  |
|---|--|
| Benefits  | Limitations  |
| <ul style="list-style-type: none"> <li>Help protect natural resources in desired areas in the community</li> <li>Easily implemented</li> <li>Recognizes land dedicated to agriculture or other specific use</li> <li>Help protect large blocks of land</li> </ul> | <ul style="list-style-type: none"> <li>Additional zoning requirements</li> <li>Not a permanent solution to protect land from development pressures</li> <li>Sanctions for withdrawing from district may not be strong enough to discourage conversion out a specific land use</li> </ul> |

**“OPTIONS REVIEW” FOR DEVELOPERS**

This tool requires developers to consult with public agencies and local non-profit organizations working on farmland/open space preservation prior to coming forward with subdivision or site plan applications. This creates the opportunity to explore ways to protect portions of the site for preservation for the purpose of farmland use and/or natural resource conservation. One major limitation to this type of tool is that a community utilizing this tool may find that developers may choose not to implement any of the preservation options proposed since they are not mandatory

| “Options Review” for Developers   |  |
|---|--|
| Benefits  | Limitations  |
| <ul style="list-style-type: none"> <li>Opportunity for developers to consult with public agencies and local organizations to explore farmland and open space preservation areas of developments.</li> </ul> | <ul style="list-style-type: none"> <li>Staff resources needed to implement program</li> <li>Not mandatory, therefore developers may choose not to participate</li> </ul> |

## Natural Resources<sup>2</sup>

A correlation often exists between the presence and prevalence of open space and the positive feelings people have about their community. In this way, maintaining the natural environment is a key factor in enhancing positive “quality of life” attitudes among local residents.

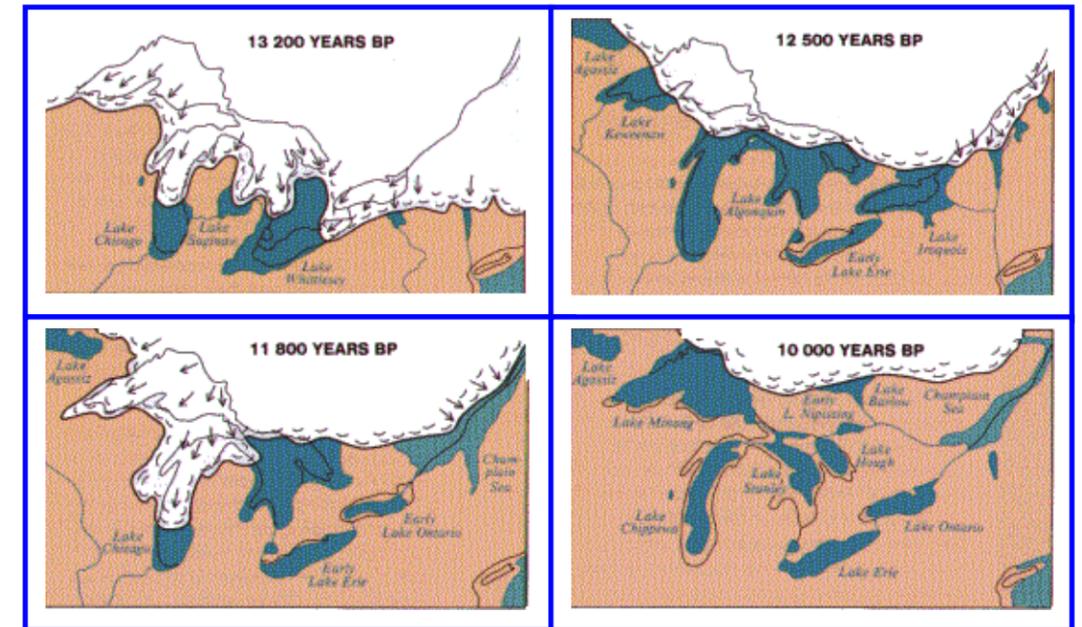
In many respects, the natural landscape determines where development can and can’t happen. Diverse topography limits the type and density of development that can occur. Certain soils types have limitations that preclude development upon them. Preservation of natural resources (wetlands, surface and groundwater, woodlands, shorelines) is an important priority in Buchanan. Local residents value the benefits provided by a healthy and diverse natural environment. Many of Buchanan’s natural assets are shown on the *Natural Features Map* in this chapter.

This portion of the chapter seeks to provide the natural resources found in Buchanan. The topics addressed here correspond to those topics required under the Wisconsin Comprehensive Planning Law. Where possible, additional sources of more information and regulatory requirements are highlighted.

### GLACIATION, TOPOGRAPHY, AND GEOLOGY

Buchanan, like most of Wisconsin, owes its unique landscape to the cumulative affects of past ice ages. More than 95% of Wisconsin’s natural lakes and many of its major rivers (including the Fox and Wisconsin Rivers) were formed during the last glacial recession. The Wisconsin Glacial stage began approximately 65,000 years ago and lasted about 54,000 years. The ice that covered most of the state was up to one mile thick in places and extended in five lobes: the Superior, Chippewa, Wisconsin Valley, Green Bay, and Lake Michigan lobes. The Green Bay lobe extended along the eastern part of the state carving out Green Bay, the Fox River, and Lake Winnebago and reaching as far south as the city of Madison. As these lobes receded, they left glacial lakes in their path. The last glacier in Wisconsin began receding about 11,000 years ago.

The Town of Buchanan is part of the Eastern Ridges and Lowlands geographic province of Wisconsin. Topography in the Town is characterized by flat to gently rolling, interrupted only by the ravines cut out by Garners Creek, Kankapot Creek and other streams and tributaries. Elevation in the Town varies from 600 to 800 feet above sea level. The lowest elevation in the Town as well as Outagamie County is about 600 feet where the Fox River enters Brown County in the northeast corner of the Town. The highest elevation in the Town is about 800 feet and is found in the southeastern corner of the Town. Steep slopes exist along Garners Creek, Kankapot Creek and the Fox River.



SOURCE: Original source unknown.

### SOILS

Soils provide the physical base for agriculture and development within the Town. Knowledge of the limitations and potentials of the soil types is important in evaluating crop production capabilities or when considering the construction of buildings, the installation of utilities, or other uses of the land. Some soils exhibit characteristics such as slumping, compaction, erosion, and/or high water tables which place limits on development. Severe soil limitations do not necessarily indicate areas that cannot be developed, but rather indicate that more extensive construction measures may need to be taken to prevent environmental and/or property damage. Such construction techniques generally increase the cost of development and the utilities needed to service the development. Soil types in Buchanan are shown on the map on page 10.

All of the soils within the Town of Buchanan belong to the Winneconne-Manawa Association. The Winneconne-Manawa Association is well drained to somewhat poorly drained, nearly level to sloping, medium textured and moderately fine textured, slowly permeable or very slowly permeable soils that are underlain by silty clay glacial till or clay lacustrine sediments.

<sup>2</sup> Portions excerpted from the *Town of Buchanan Comprehensive Plan*, January 1998.



## WATERSHEDS AND DRAINAGE

The surface water drainage system for the Town of Buchanan is located in the Fox River drainage basin. The stream and tributaries in the Town are generally oriented toward the north and east, toward the Fox River. Several streams and tributaries, that are part of the Garners Creek drainage basin, drain the western portion of the Town, west of STH 55. Garners Creek discharges into the Fox River in Combined Locks. The area immediately east of the Garners Creek drainage basin drains into Kankapot Creek, a perennial stream which empties into the Fox River in Kaukauna. Except for the area adjacent to the Fox River, as previously described, the eastern part of the Town is located in the Plum Creek drainage basin. Plum Creek empties into the Fox River just west of Wrightstown.

## LAKES

The Town of Buchanan does not have any named lakes. The nearest lake to the Town of Buchanan is Lake Winnebago.

## GROUNDWATER & AQUIFERS

Groundwater is the primary source of potable water for the residents in the eastern part of Buchanan. (More information about drinking water in Buchanan is provided in the Utilities and Community Facilities Element.) The ground beneath Buchanan is comprised of glacial outwash and till. These deposits rest upon a layer of dolomite limestone which itself sits upon a layer of granite. It is from the aquifer formed by these glacial deposits that the majority of Buchanan's eastern residents draw their potable water.

Aquifers are strata, or layers, of gravel, sand, or porous, fractured, or cavernous rock capable of holding and/or conducting water. When fully charged, an aquifer is saturated with water. Water collects in the recharge area and flows, or percolates, to the lowest point of the aquifer. Recharge areas serve a function similar to that of headwaters for a river. They are the entry point for rainwater and snow melt into the aquifer. As the entry point, recharge areas are one of the most likely venues for contamination of groundwater.

In communities without municipal water supplies, people get their water from private wells. In most cases these wells draw water from aquifers with recharge areas located outside of the community. In many instances, the recharge area may be located in another county altogether. How fast the water percolates depends upon the type of aquifer. Those comprised of sand and gravel are highly permeable. Limestone aquifers are less so. In slowly percolating aquifers the water from a faucet may have fallen as rain hundreds, or thousands, of years ago. The distance and rate that water percolates through, and the depth from the surface of, an aquifer play key roles in the determining the purity of water drawn from it. The farther the distance and slower the percolation rate, the greater the level of purification that occurs. Aquifers located deep underground, particularly those covered by an impervious layer of deep clays or shale, are less susceptible to ground water contamination. Land uses related to residential, commercial, industrial, and agricultural development all pose a risk to groundwater resources. Failing septic systems, unregulated landfills, leaking underground storage tanks, the uncontrolled application of fertilizers and pesticides, and road salt are all sources of contamination. Water quantity is another area of potential concern. As the population of the community continues to grow, more strain will be placed upon the aquifer. The long-term viability of the sand and gravel aquifer as a potable water source is not yet known.

### *What is an aquifer?*

An aquifer is a layer of gravel, sand, or porous, fractured, rock capable of holding or conducting water. When fully charged, an aquifer is saturated with water. Most, if not all, private wells in Buchanan draw water from an aquifer made up of glacial outwash very near the surface.

## WETLANDS & FLOODPLAINS

Wetlands act as a natural filtering system for sediment and nutrients such as phosphorus and nitrates. They also serve as a natural buffer, protecting shorelines and stream banks from erosion. Protection of wetlands in the Town is important since they serve vital environmental functions including flood control, water quality improvement, groundwater recharge and wildlife habitat. .

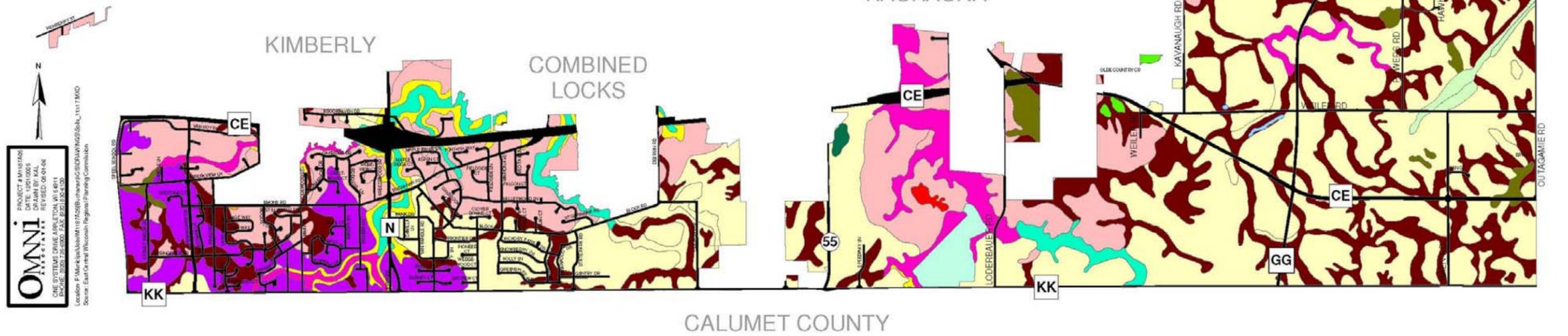
# SOIL TYPES MAP

## TOWN OF BUCHANAN

OUTAGAMIE COUNTY, WI



| Legend |                            |
|--------|----------------------------|
|        | BELLEVUE SILT LOAM         |
|        | BRIGGSVILLE SILT LOAM      |
|        | CARBONDALE MUCK            |
|        | HEBRON LOAM                |
|        | HORTONVILLE SILT LOAM      |
|        | KEWAUNEE SILT LOAM         |
|        | KEWAUNEE SOILS             |
|        | KOLBERG SILT LOAM          |
|        | LAND FILL                  |
|        | MANAWA SILTY CLAY LOAM     |
|        | POYGAN SILTY CLAY LOAM     |
|        | SUAMICO MUCK               |
|        | UDIFLUENTS                 |
|        | UDORTHENTS                 |
|        | WINNECONNE SILTY CLAY LOAM |
|        | WATER                      |
|        | ROADS                      |



A complex set of regulations by various local, state, and federal agencies places numerous limitations on the development and use of wetlands and shorelands. The *Shoreland-Floodplain-Wetland Ordinance* adopted by Outagamie County regulates shoreland use and development within 300 feet of the ordinary high watermark of navigable rivers or streams or to the “landward side of the floodplain, whichever distance is greater” and shoreland use and development within 1,000 feet of the ordinary high watermark if navigable lakes, ponds or flowages. The Department of Natural Resources regulates the placement of structures and other alterations below the ordinary high watermark of navigable streams and lakes. The United States Army Corps of Engineers has authority over the placement of fill in many wetlands. Wetland preservation criteria is incorporated by the U.S. Department of Agriculture into its crop price support program. Prior to placing fill or altering wetland resources, the appropriate agencies should be contacted to receive authorization.

Wetland areas in Buchanan are limited due to the rolling topography and the well established drainage ways that are found in the Town. The Town of Buchanan has very few mapped wetlands as shown on the DNR’s Wetland Inventory Maps (available on-line at [www.wisconsin.gov](http://www.wisconsin.gov)). But the Town’s wetlands exhibit a diversity of hydrologic and vegetative characteristics. Some of the wetlands have areas with wet soils which are forested with broad leaved deciduous trees, some have areas with either wet soil or standing water which support broad leaved deciduous scrub-shrub, others have areas with either persistent or narrow-leaved persistent emergent/wet meadow vegetation types, and still others are either grazed or farmed in dry years.

Floodplains serve many important functions related to flood and erosion control, water quality, groundwater recharge and fish and wildlife habitats. Areas susceptible to flooding are considered unsuitable for development because of risks to lives and property (see *Building Suitability Map* on page 15). Regulations place limitations on the development and use of wetlands and floodplains. Under sections 87.3 and 144.26 of the Wisconsin Statutes, a municipality has the authority to accord greater protection to wetlands, shoreland and floodplain areas.

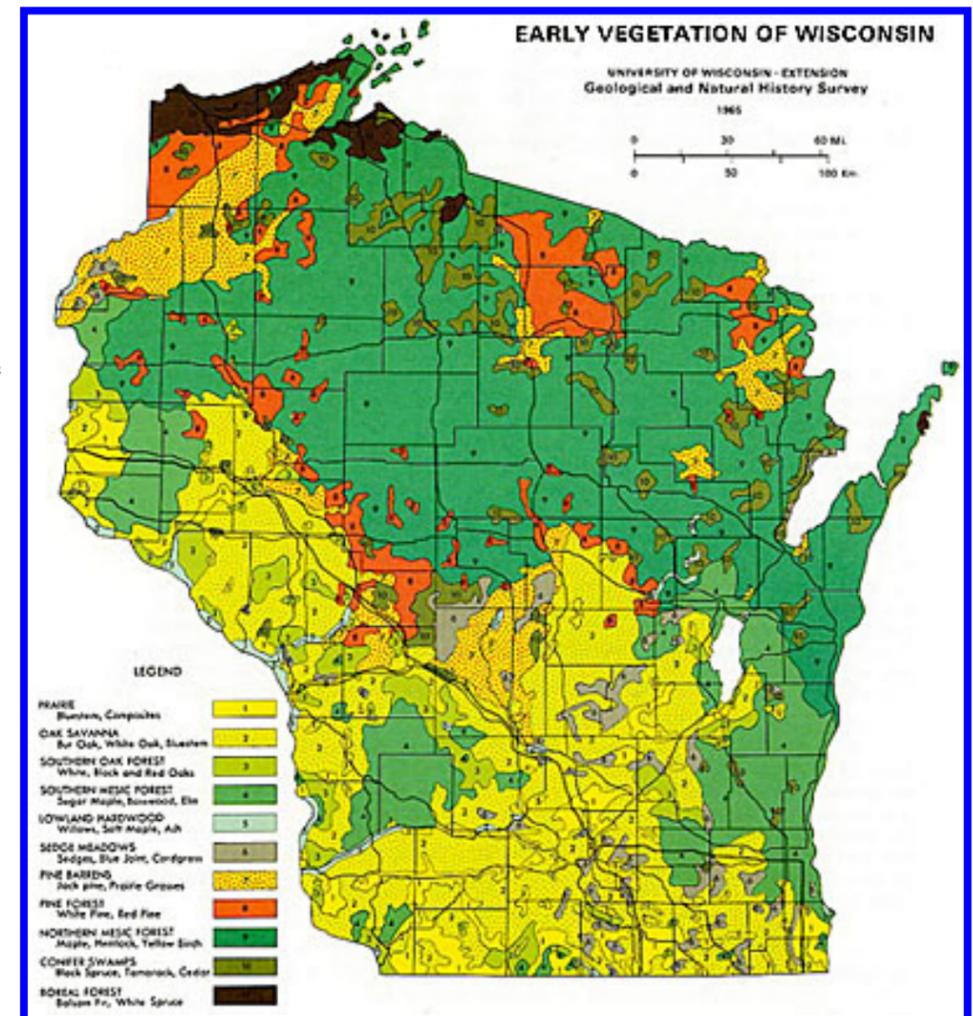
Areas susceptible to flooding are considered unsuitable for development because of risks to lives and property. The FIRM Flood Insurance Rate Map identifies some areas along the Fox River in the northern part of the Town as areas subject to flooding. In addition, one small area along the ravine of an unnamed tributary to Garners Creek adjacent to the Village of Combined Locks within the Town is also subject to flooding. The golf course located on Weiler Road helps provide flood protection to surrounding farmland areas through a series of drainage ways and ponds that provide surface water storage capacity.

Outagamie County has adopted Chapter 16, *Shoreland-Floodplain-Wetland Ordinance*, regulating development in designated flood hazard areas. Within the adopted zone, residents of the Town are eligible to participate in the federal Flood Insurance Administration’s insurance program. The flood insurance program requires all structures constructed or purchased in designated flood hazard areas, with loans from federally insured banks, be covered by a flood insurance policy.

### WOODLANDS

The first record of vegetation in Wisconsin occurred in the 1800’s, when the U.S. General Land Office completed a land survey of the entire state. In the Town of Buchanan, the native vegetation was composed primarily of deciduous forest (sugar maple, basswood, elm, yellow birch). During the last half of the nineteenth century much pre-settlement forestland was cut and cleared for agriculture.

Presently, woodland areas in the Town of Buchanan are scattered throughout the community. Some of the most densely wooded areas are found along established drainage ways in the Town such as Garners Creek, Kankapot Creek and the Fox River. Areas along the Fox River are heavily wooded due to steep banks which limit development. It is encouraged that these banks remain wooded to prevent erosion and protect water quality.



SOURCE: Wisconsin Geological and Natural History Survey, 1976.

## WILDLIFE HABITAT

The primary threats to wildlife in Buchanan, as elsewhere, are habitat loss and habitat fragmentation. Habitat loss typically occurs through the destruction of natural and agricultural lands during the commercial or residential development process. Fragmentation occurs when large contiguous areas of wildlife habitat are broken apart during commercial and residential development and new road construction. When fragmentation occurs, the remaining wildlife areas are known as *habitat islands*. Reconnecting fragmented habitat islands is the most effective way of increasing wildlife diversity. To address these two important issues, this plan recommends the preservation of continuous areas of open spaces, environmental corridor protection (see below) trail network development, and the use of conservation-based subdivision designs.

## ENVIRONMENTAL CORRIDORS

Environmental corridors are components of the landscape connecting natural areas, open space, and wildlife habitat. They provide physical linkages between fragmented habitat areas and provide animals and insects a means of travel to and from feeding and breeding places. Fish and wildlife populations, native plant distribution, and even clean water all depend upon movement through corridors. Most native species decline when habitat areas are fragmented due to agricultural operations or residential and commercial development. Wildlife populations isolated in one location, like a stand of trees or a secluded wetland, can overpopulate or die out without adequate corridors allowing free and unimpeded movement.

The functional effectiveness of a corridor depends on the type of species that use it, its size and shape, and its edge effects. Larger corridors offer greater habitat diversity. Linear corridors tend to be less diverse but offer important migration routes. Edge effects include the penetration of wind, light, and sound, as well as visibility beyond and into surrounding areas. They are crucial in determining the type of habitat a corridor will provide.

One way to think of environmental corridors is to compare them to hallways. A building contains hallways, which are places of concentrated movement back and forth; and rooms, which are destination points where people eat, work, play, and sleep. The hallways serve to link places of activity. Just as hallways enhance the operation of a building, environmental corridors increase the value of natural resource areas. Areas of concentrated natural resource activity (“rooms”), such as wetlands, woodlands, prairies, lakes, and other features, become more functional when linked by environmental corridors (“hallways”).<sup>3</sup>

In suburban environments, corridors often lie along stream and riverbanks. More than seventy-percent of all terrestrial wildlife species use riparian corridors. In farming areas, fencerows provide important habitat links for songbirds and other wildlife. In Wisconsin, fencerows were used to mark-off ownership of farm fields. Stones and stumps cleared from cultivated areas were laid along property lines or to separate “forties,” the common forty-acre field. During the 1920’s the federal government advocated tree-lined fencerows as a means of reducing topsoil loss. Nation-wide, farmers began planting trees along fence lines to reduce wind erosion. Over time, these fence lines became more complex, providing habitat for a variety of plant and animal species. As more of Wisconsin’s farms are converted to subdivisions, these important areas wildlife habitat are lost.

## THREATENED AND ENDANGERED SPECIES

WDNR defines an endangered species as *any species whose continued existence as a viable component of this state’s wild animals or wild plants is determined by the Department to be in jeopardy on the basis of scientific evidence*. Threatened species are defined as *any species which appears likely, within the foreseeable future, on the basis of scientific evidence to become endangered*. The United States Fish and Wildlife Service (USFWS), maintains a listing of all threatened and endangered species in the nation. WDNR maintains a similar listing of all endangered and threatened species for the state of Wisconsin. It is against the policy of the USFWS to identify specific areas where species may exist. However, WDNR does provide list of rare plant and animal species on a county basis. The following endangered (E) and threatened (T) animal species are known to exist, or are suspected of existing, in Outagamie County<sup>4</sup>:

- Bald Eagle (T)
- Red-Shouldered Hawk (T)
- Blanding’s Turtle (T)
- Cerulean Warbler (T)
- Henslow’s Sparrow (T)
- Salamander Mussel (T)
- Snuffbox (mussel) (E)
- Grey Egret (T)
- Piping Plover (E)
- Wood Turtle (T)
- Yellow Rail (T)
- Cerulean Warbler (T)



<sup>3</sup> SOURCE: *Environmental Corridors: “Lifelines for Living”*; University of Illinois Extension; *Fact Sheet Series*, 2001-013.

<sup>4</sup> SOURCES: *Threatened and Endangered Species System (TESS)*, Wisconsin Department of Natural Resources, 2002.

For a complete listing of Wisconsin's Endangered and Threatened animal and plant species and natural communities, go to <http://www.dnr.state.wi.us/org/land/er/>.

### 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 of Buchanan can help combat exotic species by educating residents about non-native species, encouraging residents to use native plants in landscaping, and developing ordinances.

For a complete listing of invasive plants and animals, visit: <http://www.dnr.state.wi.us/invasives/>.



Spotted Knapweed  
Source:  
<http://dnr.wi.gov/invasives/fact/knapweed.ht>

### METALLIC AND NON-METALLIC MINING RESOURCES

As part of NR 135, Wisconsin Administrative Code, adopted in December 2000, any community in Wisconsin may adopt an ordinance to establish requirements for reclamation of non-metallic mines, such as gravel pits and rock quarries. If a town decides not to develop its own ordinance, a county may develop an ordinance for the area in its stead. Likewise, regional planning agencies may develop ordinances for counties within their region. 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 mine or quarry.

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 processes 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. The local zoning authority may object to the application if the zone does not permit non-metallic mining as a use. 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.

There are no gravel pits in the Town of Buchanan at this time. No applications for new gravel pits are pending.

### AIR QUALITY

A few common air pollutants are found throughout the United States. These pollutants can impair human health, harm the environment and cause property damage. The United States Environmental Protection Agency (USEPA) calls these *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 exceeds 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. Based on available data from the Wisconsin Department of Natural Resources, Buchanan appears to have good-moderate air quality. The closest non-attainment areas to Outagamie County include Door, Kewaunee, and Manitowoc Counties, which are classified as having seasonally unhealthy conditions for sensitive groups of people (e.g. elderly, children, asthmatics). The nearest air quality monitoring stations are located in Appleton and Green Bay. More information on air quality is available at [www.dnr.state.wi.us/org/aw/air/](http://www.dnr.state.wi.us/org/aw/air/).

One of the primary contributors to diminished air quality in Buchanan is emissions from automobiles, trucks, and farm equipment. Providing access to mass transit, encouraging carpooling, and providing a trail system are some of the methods often discussed as means of limiting the amount of air pollution caused by motor vehicles.

## **BUILDING AND SANITARY SUITABILITY MAPS**

The maps provided on the next couple of pages illustrate the suitability for development in the Town of Buchanan based on local soil types found in Buchanan. Knowledge of soil 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.

The *Building Suitability Map* reveals that some of the better lands for building suitability are located on the easternmost end of the township. However, these lands are not particularly suited for traditional on-site sewage disposal systems (as shown on the *Sanitary Suitability Map*), are beyond the Darboy Sanitary District, and are some of the most productive agricultural lands in the Town. Development in this portion of the Town should either be served by the sanitary district or utilize innovative sewage treatment technologies permissible under COMM 83. Please note the maps provided on the next two pages do not illustrate sanitary suitability for all systems permissible under the state plumbing code and COMM 83. As such, individual properties may have buildable sites that can be served using systems permissible under COMM 83. For more information about the state plumbing code and innovative treatment systems refer to the Utilities and Community Facilities Element of this plan.



# SANITARY SUITABILITY

## TOWN OF BUCHANAN

OUTAGAMIE COUNTY, WI



**Legend**

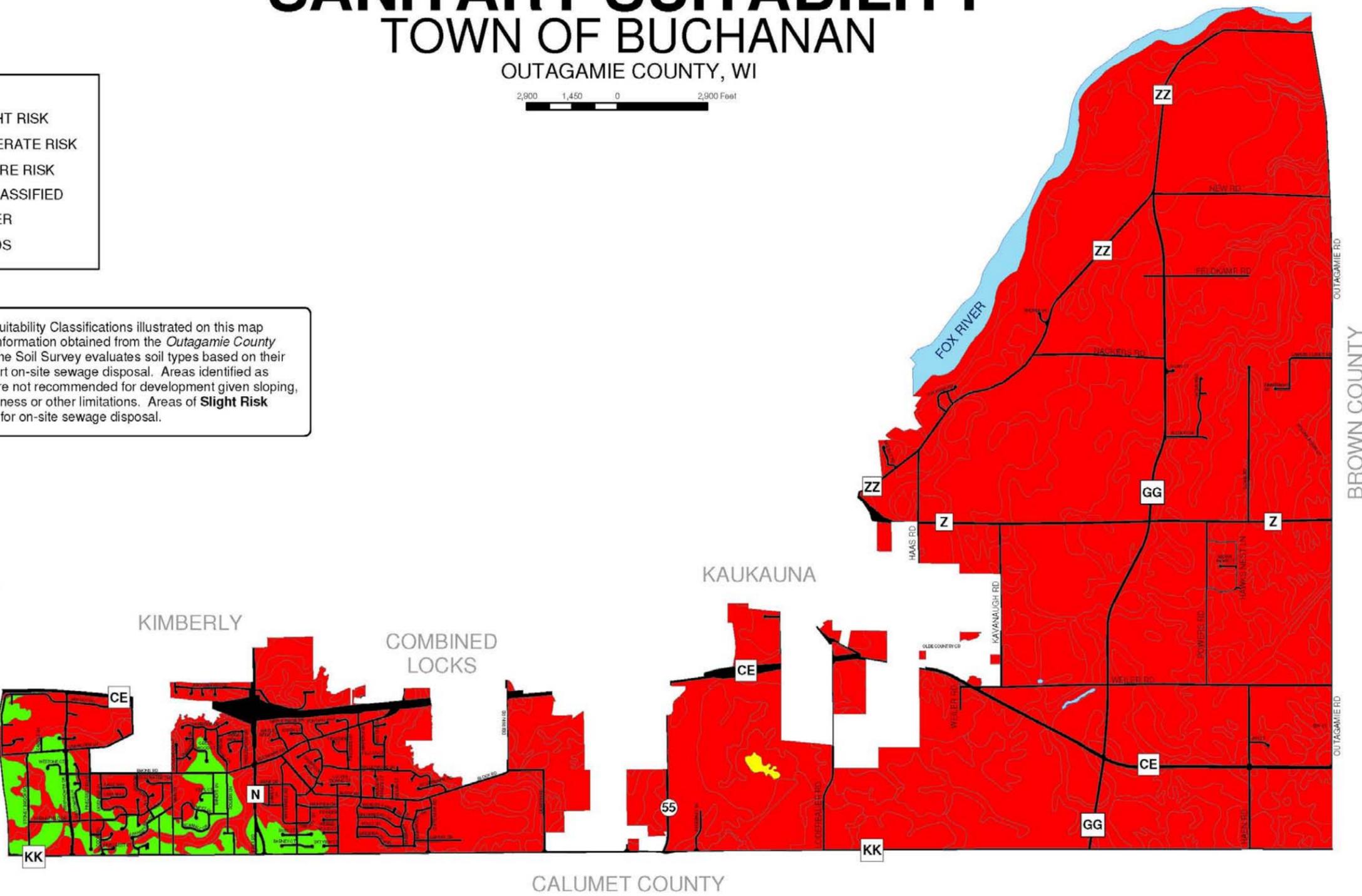
- SLIGHT RISK
- MODERATE RISK
- SEVERE RISK
- UNCLASSIFIED
- WATER
- ROADS

The Sanitary Suitability Classifications illustrated on this map are based on information obtained from the *Outagamie County Soil Survey*. The Soil Survey evaluates soil types based on their ability to support on-site sewage disposal. Areas identified as **Severe Risk** are not recommended for development given sloping, steepness, wetness or other limitations. Areas of **Slight Risk** are well-suited for on-site sewage disposal.

**OMNI**  
Aerial & Survey  
INCORPORATED  
1000 W. WISCONSIN ST., SUITE 100  
MILWAUKEE, WI 53233  
TEL: 414.224.1100  
WWW.OMNIAERIAL.COM

PROJECT #1101020  
DATE: 1/20/2025  
DRAWN BY: KAL  
REVISION: 06/01/24

Location: P:\Projects\1101020\1101020\GIS\Output\1101020\_Suitability\_Buchanan\_1117.MXD  
Source: East Central Wisconsin Regional Planning Commission



## Cultural Resources<sup>5</sup>

Historical and cultural resources, like natural resources, are valuable community assets warranting preservation. Town governments, like other governments in Wisconsin, have the authority to preserve their historical heritage (Wisconsin Statutes §60.64). One of the most effective ways to do so is through a local historic preservation ordinance. The 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.

The Wisconsin Historical Society has created the *Architecture and History Inventory* (AHI), an internet-based search engine that provides architectural and historical information on approximately 120,000 properties in Wisconsin. The AHI contains information on buildings, structures, and objects that illustrate Wisconsin's unique history. The AHI documents a wide range of historic properties such as round barns, log houses, cast iron bridges, small town commercial buildings, Queen Anne houses, among others. The Wisconsin Historical Society lists the following structures in Buchanan on its AHI:

- House – Located on north side of CTH KK, ¼ mile west of CTH N. Structure is described as “neo-classical entrance portico, bungalow style dormers”.
- 5378 CTH ZZ – Style of house is “American Foursquare”.
- Nagan House – 4026 CTH ZZ – Style of house is “Dutch Colonial Revival”.
- Dercks House – 3731 CTH ZZ – Style of house is “Bungalow”.
- Dave Feldkamp Garage – 5781 CTH ZZ – Style of garage is “Astylistic Utilitarian Building”.
- Allison Drive Bridge (stone arch bridge) – less than 20 such bridges remain in Wisconsin.

## Preservation Tax Incentives

The Federal government encourages the preservation of historic buildings through various means. One of these is the program of Federal tax incentives to support the rehabilitation of historic and older buildings. The Federal Historic Preservation Tax Incentives program is one of the Federal government's most successful and cost-effective community revitalization programs. The Preservation Tax Incentives reward private investment in rehabilitating historic properties such as offices, rental housing, and retail stores. Current tax incentives for preservation, established by the Tax Reform Act of 1986 (PL 99-514: Internal Revenue Code section 47 [formerly Section 48(g)]) include:

- A 20% tax credit for the *certified rehabilitation of certified historic structures*; and,
- A 10% tax credit for the rehabilitation of *non-historic, non-residential* buildings constructed before 1936.

More information on this and other programs to protect and restore historic structures, is available from the Wisconsin State Historical Preservation Officer. These programs may be particularly useful in preserving the historic stone arch bridge in Buchanan.

## Comparison to Surrounding Plans

To ensure consistency with surrounding communities, existing plans from adjacent municipalities were reviewed. Through intergovernmental cooperation, Buchanan will work with surrounding communities to realize the visions of Buchanan and the other municipality. While some plans are currently being developed and updated (Calumet County, Outagamie County, East Central Wisconsin Regional Plan Commission), the spirit of the documents are consistent in a desire to retain productive farmland, preserve natural resources, and protect important historical resources. What follows is some more specific information as it relates to the completed Kaukauna and Harrison plans.

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<sup>5</sup> Much of the text included in the following paragraphs was excerpted from *Town Governments and Historic Preservation*, Wisconsin Historical Society, 2004.

## **CITY OF KAUKAUNA**

The City of Kaukauna Comprehensive Plan Environmental Chapter discusses natural features shared by Buchanan and Kaukauna. The City of Kaukauna Comprehensive Plan states: “properties which may come available along the Konkapot Creek may also be considered for acquisition and used as part of an urban wildlife corridor”. Along with Konkapot Creek, the Fox River is identified as a water resource to be protected through education and land preservation. Buchanan is encouraged to work with Kaukauna to protect these valuable natural resource corridors.

The City of Kaukauna plan also encourages a uniform landscaping theme to be implemented throughout the Fox Cities. Requirements of this theme include wide landscape buffering for commercial/industrial developments that border residential areas. Along major transportation routes, new signage and aesthetic requirements would be implemented. Buchanan should consider working with Kaukauna to explore the uniform landscaping requirement in the Fox Cities.

## **TOWN OF HARRISON**

The Town of Harrison Comprehensive Plan does not address specific natural/cultural resources directly associated with Buchanan. A goal of the plan is to “protect the productive agricultural lands in the Town for long-term farm use and maintain agriculture as a major economic activity and way of life; and conserve, protect, and enhance the natural resources and environmentally sensitive areas that exist in the Town”. Buchanan will continue to work with the Town of Harrison to protect and preserve natural and agriculture areas along common boundaries as desired by local landowners.

The Town of Harrison plan also states “the Town should not support the creation of any new landfill or quarry/gravel pit operations within the Town boundaries”. This objective has the potential to impact the of Buchanan. If Harrison refuses to accept the creation of new landfills or non-metallic mining operations, the Town of Buchanan could potentially see an increase in the requests. Buchanan is encouraged to work with the Town of Harrison and surrounding communities to ensure the proper placement of landfills and non-metallic operations to ensure the land is being used to the greatest extent practicable.

## **Agricultural, Natural & Cultural Resources Issues and Concerns**

This section describes the major concerns expressed during the planning process and those revealed in inventory portion of this chapter. Strategies to address these concerns are included in the Goals, Objectives, and Policies section at the end of this chapter.

### **SUSTAINING FARMLANDS AND NATURAL AREAS IN A GROWING COMMUNITY**

Given the projected growth rate in the Town and surrounding area, there is a real concern about the impact development will have on natural areas and farmland. Preservation of natural resources and farmland is important to preserving the rural character of the area, maintaining wildlife habitat, and the providing green infrastructure (e.g. wetlands and floodplains for storm water management, scenic areas, etc.) needed to sustain Buchanan’s high quality of living.

In addition to the conservation subdivisions discussed earlier in this chapter, another means of preserving important landscapes, both natural and agricultural, is to establish a purchase and/or transfer of development rights (PDR/TDR) program. A PDR or TDR program would allow Buchanan to “send” development from farmland and natural resource areas to designated “receiving” areas. Advantages of these approaches include:

Compensation for landowners

Permanent protection of farmland and natural resources

Voluntary use of the program (landowners are not forced to participate)

In a PDR program, a land trust, local government, or some other agency (usually linked to local government), makes an offer to a landowner to buy the development rights on the parcel. The landowner is free to turn down the offer, or to try to negotiate a higher price. When the development rights to a farm are sold, the farmer receives payment equal to the difference between the fair market value of the land a developer would pay if it could be developed and the price the land would command for agricultural use. In return for this payment, a conservation easement is recorded on the deed to the property. The easement stays with the land in perpetuity. The private landowner still retains the right to occupy and make economic use of the land for agricultural purposes. The landowner gives up the right to develop the property for some other use in the future. Farmers are not compelled to sell their development rights. The main disadvantage of PDR is cost. Development rights can be expensive to purchase, so funding for PDR needs to be selectively targeted to preserve and protect agricultural land that is most worthy of preservation. As a result, not every farmer who wants to sell his or her development rights will be able to do so.

| Purchase of Development Rights  |   |
|---|---|
| Benefits  | Limitations   |
| <ul style="list-style-type: none"> <li>• Permanently protects land from development</li> <li>• Landowner is paid to protect their land</li> <li>• Local governments can target locations effectively</li> <li>• Land remains in private ownership and on the tax rolls</li> <li>• Program is voluntary</li> </ul> | <ul style="list-style-type: none"> <li>• Can be costly for local unit of government, therefore land is protected at a slower rate</li> <li>• Land remains in private ownership – typically no public access</li> <li>• Since program is voluntary, it can be challenging to preserve large tracts of contiguous land</li> </ul> |

| Transfer of Development Rights  |   |
|---|---|
| Benefits  | Limitations   |
| <ul style="list-style-type: none"> <li>• Permanently protects land from development</li> <li>• Landowner is paid to protect their land</li> <li>• Local governments can target locations effectively</li> <li>• Low cost to local unit of government</li> <li>• Utilizes free market mechanisms</li> <li>• Land remains in private ownership and on tax roll</li> </ul> | <ul style="list-style-type: none"> <li>• Can be complex to manage</li> <li>• Receiving area must be willing to accept higher densities</li> <li>• Difficult program to establish</li> <li>• Program will not work in rural areas where there is little to no development pressure on the area to be preserved</li> <li>• Limited to Cities/Villages/Towns, no statutory authorization in Wisconsin for countywide program</li> <li>• May require cooperative agreements among several local governments to establish sending and receiving zones</li> </ul> |

TDR involves transferring development rights from one piece of property to another. In this approach, a landowner is compensated for selling his/her development rights. However, rather than simply eliminating these rights, they are transferred to another property in the Town that is planned for development. That landowner has the right to develop his/her property and also use the transferred rights they purchased from the other landowner to develop at a greater density or intensity (e.g. smaller lot sizes to locate more homes in a single area). This approach results in the preservation of farmland and natural areas in designated “sending” zones and more intensive development in the designated “receiving” zones.

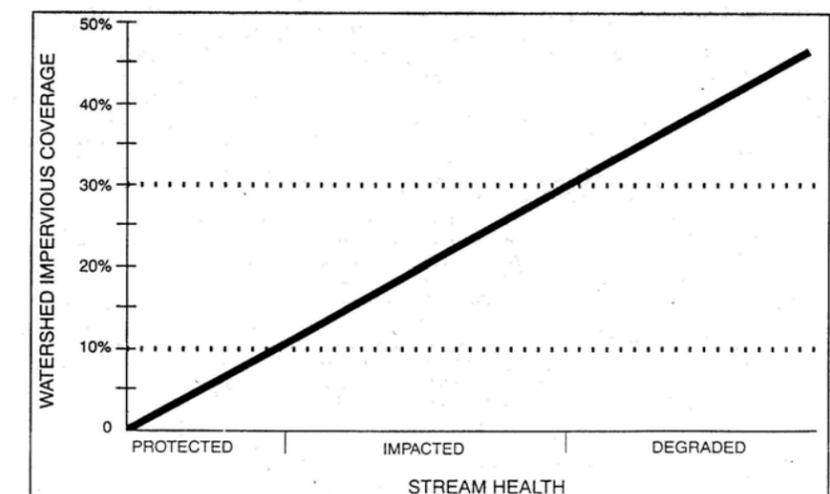
### PRESERVATION OF SURFACE WATER QUALITY

Development in a watershed has direct and predictable effects on the lakes, streams, and wetlands within the watershed. 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 has taken dramatic steps to improve the quality of our water resources.

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), contaminate streams and lakes, increase the growth of algae and harmful aquatic weeds, cover spawning beds and feeding areas, and turn blue rivers into conveyances of stormwater. The sources of nonpoint pollution include:

- **Impervious Surfaces**

A positive correlation exists between the percentage of impervious surface in a watershed and surface water quality (see graph at right). 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. 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 10%.” In 1999, CWP developed criteria that allowed local governments and watershed organizations to predict the effects upon surface water quality resulting from increases in impervious surfaces within a watershed. CWP classified watersheds into three groups, each defined by the percentage of impervious surface within the watershed.



SOURCE: Tom Schueler, Center for Watershed Protection, 1995.

- **Agricultural Fields**

Plowed fields, row crops, winter manure spreading, lack of riparian buffers, wetland conversion, and the over use 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, manure confinement, and agricultural buffers, farmers can dramatically reduce nonpoint source pollution as well as the cost of farming;

- **Fertilizers, Herbicides, and Pesticides**

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 is only capable of ingesting fertilizer during the fall. Fertilizers applied during spring and summer months contribute to algae blooms and eutrophication of lakes and streams (the annual “greening” of Lake Winnebago is a result of the over use of commercial and residential fertilizers). Most herbicides, even those that claim to be focused on specific “weeds” or “pests”, kill healthy aquatic and terrestrial organisms and are suspected causal factors in many autoimmune and endocrine illnesses in humans and pets. By reducing or eliminating the amount of pesticides and herbicides applied to lawns, and fertilizing once per year during the month of September, Buchanan residents can greatly improve water quality and aquatic habitat in local lakes and streams.

The Implementation Chapter will discuss a variety of tools, best management practices, and funding sources to aid in the reduction of nonpoint source water pollution in the Town of Buchanan.

## **PROTECTION OF GROUNDWATER**

With all of Buchanan’s supply of potable water coming from groundwater sources, susceptibility to contamination remains a concern. As discussed in *Chapter 6: Utilities and Community Facilities*, sources of groundwater contamination include leaking fuel tanks, surface discharges, and natural substances present in the subsurface geology. A common naturally occurring contaminant of groundwater in the Fox basin is arsenic. Although no private wells in Buchanan have yet tested positive for arsenic, it is important to note that arsenic has been detected in amounts greater than 10 parts/billion in Outagamie, Brown, Shawano, Manitowoc, and Winnebago Counties. To protect residents for potential arsenic exposure, all wells in Outagamie County are required to be cased by order of the WDNR. This requirement has increased the cost of drilling wells in the Town of Buchanan to approximately \$20,000.

Homeowners can protect groundwater quality by properly sealing abandoned wells and using "best management practices" on lawns and farm fields. Best management practices include improving roadway and property drainage, minimizing pesticide and fertilizer use, and following application guidelines when pesticides or fertilizers are necessary to decrease the risk of contaminating potable water supplies. Recycling programs that reduce the solid waste stream and proper disposal of hazardous household wastes also reduces the risks of contamination to nearby residential wells.

## **ATCP 51 - LIVESTOCK SITING RULE**

On September 16, 2005, the Wisconsin Department of Agriculture's Board gave final approval of ATCP 51 establishes standards for the siting of livestock operations. In its approval, the Board added an amendment to have the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) annually review ATCP 51 to see if any modifications are needed.

ATCP 51, implements Wisconsin’s Livestock Facility Siting Law (s. 93.90, Stats.). The law does not require local approval of new and expanding livestock operations, but if local approval is required by a community, the local government must grant or deny approval according to this rule. A local government may not consider other siting criteria, or apply standards that differ from this rule, except as specifically authorized in the law. This rule applies to new or expanded facilities that keep cattle, swine, poultry, sheep or goats. Under the law, a local government may not deny or prohibit the siting or expansion of a livestock facility of any size unless one of the following applies:

- The site is located in a non-agricultural zoning district.
- The site is located in an agricultural zoning district where the livestock facility is prohibited. The zoning prohibition, if any, must be clearly justified on the basis of public health or safety. The law limits exclusionary local zoning based solely on livestock facility size.
- The proposed livestock facility violates a valid local ordinance adopted under certain state laws related to shoreland zoning, floodplain zoning, and construction site erosion control or stormwater management.
- The proposed livestock facility violates a state building, electrical or plumbing code for that type of facility.
- The proposed livestock facility will have 500 or more “animal units” (or will exceed a lower threshold incorporated in a local zoning ordinance prior to July 19, 2003), and the proposed livestock facility violates either 1) the standards in the rule or, 2) a stricter local standard by ordinance. Those standards must be based on scientifically defensible findings of fact that clearly show the standards are necessary to protect public health or safety.

With respect to future applications for new livestock facilities and the expansion of existing operations to include more than 500 animal units, the Town of Buchanan will deny applications in areas with non-agricultural zoning (e.g. residential, commercial, etc.). Applications will also be denied in areas within the Darboy Sanitary District because these areas are expected to transition to a non-agricultural use. Applications for new livestock facilities or expansion of existing farm operations to include more than 500 animal units in other areas of the Town will be subject to state requirements included in ATCP 51.

## **Coordination with Other Comprehensive Plan Elements**

The development of the Agricultural, Natural and Cultural Resources Element requires coordination with all of the required plan elements. For example, when considering economic development strategies, the limitations presented by natural resources (e.g. wetlands, floodplains) was important to consider as were the benefits natural areas provide to the local quality of living. Below is a description of the critical issues addressed with respect to the Land Use and Housing Elements. These elements are profiled because their coordination with the Agricultural, Natural and Cultural Resources Element is critical to the success of the plan.

### **LAND USE**

Residents of the Town have clearly indicated that the preservation of natural resources is a priority. As a result, when the *Future Land Use Map* was developed, special consideration was given to this desire. Environmental corridors are identified and protected. In addition, the goals, objectives, and policies in this chapter include provisions to protect floodplains, wetlands, streams, lakes, and other natural resources.

### **HOUSING**

Housing, if not carefully located and planned for, can result in negative effects upon farming and the natural environment. Housing development can fragment farming operations and wildlife habitat areas. The additional traffic, people, and services associated with residential development can quickly impact rural character. The Town of Buchanan would like to encourage development within its boundaries primarily in those areas where services are readily available. Directing development in the Town will help to protect natural resources and farmlands in surrounding communities. This strategy for housing development is reflected in the *Future Land Use Map*.

## **Agricultural, Natural, and Cultural Resources Goals, Objectives, and Policies**

The goals, objectives, and policies for the Agricultural, Natural, and Cultural resources chapter can be found in Chapter 12: Implementation.