

Chapter Six



Natural Resources and Open Space

Huron County is endowed with a variety of natural features that are worth preserving. Most of the County's land area is characterized as rural. Indeed, as discussed later in this chapter, some 224,000 acres (out of 317,614 total) were devoted to farmland in 2005.

The on-line Huron County Profile available at the Ohio Department of Development website provides the following breakdown of land cover: This simple breakdown leaves no doubt as to the primarily agricultural nature of land use for the vast majority of Huron County's land. (This table is also discussed in Chapter 5, "Present and Future Land Use").

Table 6-1: Land Cover in Huron County¹

Type of Cover	Acres (Percent)
Total	317,614.5 (100.0%)
Urban (open, impervious surfaces)	4,996.3 (1.6%)
Agriculture/Open Urban Areas	249,784.8 (78.6%)
Shrub/Scrub	519.7 (0.2%)
Wooded	56,874.4 (17.9%)
Open Water	1,418.8 (0.4%)
Non-forested wetlands	3,934.7 (1.2%)
Barren	85.7 (0.0%)

Source: ODOD, Office of Strategic Research

Huron County has an abundance of natural resources that will continue to define and add immeasurable value to its landscape. The County's farmland includes over 18,000 acres of woodland, aside from natural habitats occurring along river corridors and other locations. A State-managed wildlife area is preserved by the Ohio Department of Natural Resources to the south and west of Willard, providing further protection. However, the tension between preservation and development is always present, as family farms are sold, or acreage along road frontage is sold in five or ten acre lots to create an opportunity for new rural homeowners. The potential for rural development also increases with the availability of water, as new rural water lines are extended to serve new clients throughout the County.

¹ This information is intended to provide a "general impression" of the geographic makeup of the county. Source data consist of satellite imagery with 30-meter resolution (each pixel represents a 30-by-30 meter section), which is then interpreted to fit one "type of cover" category based on its bandwidth and further analysis through formulas that help determine likeliest land use or land cover.

The number of septic system permits required from the County Health Department has continued to indicate steady rural growth.

Indeed, unchecked, unplanned development would present a threat to the continued stewardship of the county's natural resources. However, steps are being taken to more closely monitor and coordinate planned development, and to provide developers with critical information concerning their plans. This includes better provision of information, such as the newly available Huron County Soil Survey on CD-ROM², and a land data base and aerial photography now accessible through the County Auditor's website. Further, the County is adopting new amendments to their subdivision regulations that will provide developers and would-be homeowners with better environmental and other information about potential building sites, on which to make development decisions. This chapter's recommendations include support for the more focused coordination of information and decision making with regard to rural development.

The goals developed by the Steering Committee regarding natural resources are as follows:

1. Promote and support public access to resources.
2. Maintain as much green space and natural features as possible, as areas develop.
3. Strive to maintain, preserve, and improve all natural resources as well as the development of sites to allow for the enjoyment of these areas by its residents and visitors alike.
4. Be mindful that the county's natural resources can be used to develop its economic base.
5. Encourage the development of subdivisions with smaller lots, slowing the consumption of farmland. Without farmland preservation, Huron County stands to lose its rural character.
6. Allow for development while preserving and conserving agricultural lands and natural resources
7. Promote projects that convert brownfields and other environmentally altered property to productive use
8. Ensure an adequate and perpetual supply of water for existing and planned land uses throughout the county.

Related goals were developed under the heading of "community character", and they include the following:

1. Develop and maintain an open relationship between cities, villages, townships, and the county.
2. Maintain the rural quality of life within the county along with maintaining the historic character of its communities.
3. Maintain the small town, friendly character of Huron County.
4. Preserve the character of central business districts as centers of business, shopping, and entertainment.
5. Tie farmland preservation to subdivision development to help maintain the rural character of Huron County.

² Available from the Huron Soil and Water Conservation Service office on Fair Road in Norwalk.

The Steering Committee wishes to ensure that the County's natural assets be protected and preserved, and that growth be encouraged when it takes place in a manner that minimizes negative impacts on those natural features. One aspect of such protection is farmland preservation. Also, while historic preservation involves the protection of man-made rather than natural assets, it is included in this chapter as another set of existing attributes that should not be lost to unmitigated growth.

The chapter will begin with a discussion of its physical and natural characteristics, followed by a discussion of farmland preservation and historic preservation. A set of recommendations, with background information provided as appropriate, will conclude the chapter.

Huron County's Natural Features

Geology

Glacial action that transpired thousands if not millions of years ago – specifically, the Devonian period - have produced the modern day geology of Huron County. Over time, the Huron and Vermilion Rivers have produced some steep walled valleys and topographic relief.

Glaciers were responsible for leveling the land and hollowing out the Great Lakes. Glacial action in northern Ohio generally followed the lowlands and the rock debris deposited by the ice is called "till".

Higher elevations in the county are found along its southern boundary. The county generally slopes downward to the north and the west. The highest point above sea level is where SR 13 crosses into Richland County, which stands at 1,174 feet above sea level.

Soils³

Most of the soils in Huron County are highly productive if drainage systems, erosion control measures, and other management practices are applied. Poor natural drainage is the main limitation in the less sloping parts of the County. Erosion is a hazard in the gently sloping to very steep areas. Farmers have been increasingly applying conservation tillage measures such as no till farming and installing sod waterways to control erosion of topsoil.

Huron County is in the Central Lowland Physiographic Province, which includes most of the glaciated parts of Ohio. The County is mainly in till plains, with a small portion of the northwest corner on lake plains.

³ The reader is encouraged to consult the [Soil Survey of Huron County](#) produced by the U.S. Department of Agriculture, Natural Resource Conservation Service, for detailed information on soil types and characteristics pertaining to specific parcels and areas. Much of the information in this section is taken from that document.

Several glaciers formerly covered the County, with the resulting mantle of glaciated drift ranging from two feet or less to more than 150 feet in thickness. This is underlain by limestone in the northwest corner of the County, and by shale or sandstone throughout the remainder of the County.

The northeastern part of the County, including Townsend, Wakeman, Hartland, and Clarksfield Townships, is an example of glacial deposits called ground moraines. Bennington, Cardington, and Condit are the major soils in ground moraines such as these.

The till plains in the southern end of the County are part of the Defiance End Moraine crossing the whole state, and the Fort Wayne End Moraine. The Defiance moraine occurs in the western part of the county, including northern Richmond Township and southern Norwich Township, and extending eastward. The Fort Wayne moraine is along the southern edge of the county, in New Haven, Ripley, and Greenwich Townships. Major soils include Bennington and Cardington.

Small rounded hills formed when ice and glacial debris was deposited, called kames, exist in Bronson, Fairfield, Greenfield, and Fitchville Townships. Chili soils are found on the kames.

Lake plains start south of Bellevue in Lyme Township, and continue southeasterly through Ridgefield and Norwalk Townships. Kibbie, Pewamo, and Tuscola are the dominant soils on lake plains.

Sandy or gravelly beach ridges consisting of Chili, Oshtemo, Otisville, and Spinks soil types exist along U.S. Route 20 between Norwalk and Bellevue, State Route 61 north of Norwalk, and Sand Hill Road. The Willard Marsh, a glacial lake basin, exists in the southwestern part of the county. This basin, located in southeastern Richmond and southwestern New Haven Townships, consists mostly of Carlisle, Colwood, and Lenawee soils.

The rich, black, muck soil in the Celeryville area of southern Huron County is almost 80 percent organic matter. Green, leafy vegetables thrive in these fields. The specialized crops and the soil experience diseases, insects and weed growth uncommon to other areas of the state. Scientists overcome these challenges with new cultural practices and management techniques. Area growers use transplants to lengthen the growing season and improve stand uniformity over direct seeding. With as many as five crops grown on each acre in a single season, disease management can be challenging for growers.

It should be noted that, with the exception of the steep slopes experienced in the vicinity of the county's rivers and tributaries, topography does not present a deterrent to development in Huron County, which is relatively level to gently rolling. The county's soils present some hindrances in some areas, but with proper mitigation, most of the county's soils can be developed with residential or commercial structures, as well as agricultural uses. Farming practices and incentive programs have helped guide farmers toward practices that minimize erosion and improve water quality within the flow of runoff throughout the agricultural areas of the county. These include proper tiling and ditch maintenance, no till or minimum till farming, precision farming, and the development of buffer lands along riparian corridors and concentrated flows of the Huron and Vermilion River watersheds.

such as septic system upgrades, chemical mixing pads, livestock exclusion from waterways through fencing and other means, and buffer strips between croplands and streams or rivers.

Other ongoing programs that are available to eligible landowners include the Lake Erie Conservation Reserve Enhancement Program (CREP), which provides cost share funding for a variety of practices including grass filter strips, wetland restoration, field windbreaks, and riparian buffers and tree planting near watercourses; and the Environmental Quality Incentives Program (EQIP), a voluntary conservation program in which producers receive financial and technical assistance to install and implement conservation practices on eligible agricultural land, following conservation plans approved by the local Soil and Water Conservation District. Applications are received by the Natural Resources Conservation Service (NRCS).

Ground Water



View of the Huron River dam in Monroeville

The depth to ground water and the quality and quantity of the water vary considerably throughout Huron County. Glacial deposits range from two to 150 feet or more in thickness. Available water supplies occur as reservoirs in coarse-grained lenses and stratified layers of sand and gravel.

A few areas can yield as much as 400 gallons per minute. Some of the highest yields in the county (100 to 400 gallons per minute) are produced in the cavernous limestone and dolomite in the extreme northwest corner of the county. Also, in general, the greatest amount of water has been found in wells drilled along a band extending

from Norwalk to Willard, on the extreme western edge of the county, and just west of New London. However, in most areas, wells in the finer grained glacial deposits, underlain by shale or sandstone and shale, yield less than ten gallons per minute. The water from the wells in these areas may have relatively high levels of hardness, iron, and sulfates. In areas where the supply of ground water is inadequate, shallow wells, cisterns, and ponds provide additional water. Water throughout Huron County is frequently found to be sulfurous.

A groundwater pollution potential report for Huron County was prepared for the Ohio Department of Natural Resources in 2003. Within that report, a ground water pollution potential map of the county was prepared using the DRASTIC mapping process. The DRASTIC system consists of two major elements: the designation of mappable units, termed "hydrogeologic settings", and the use of a relative rating system for pollution potential. Huron County lies entirely within the Glaciated Central hydrogeological setting. A buried valley lies roughly just east of the Huron River and extends southwesterly from Norwalk. North of Norwalk, the valley can have maximum yields up to 500 gallons per minute, due to its fairly coarse, thick sand and gravel, but to the southwest, this material is mixed with finer-grained materials and the valleys seldom exceed 100 gpm.

The 2003 report noted that bedrock aquifers vary considerably across the County; in the far northwest corner, limestones and dolomites yield from 25 to 100 gpm. To the east and south, the shale becomes too thick and the ground water quality becomes marginal; the Ohio shale found there is a poor aquifer, commonly yielding less than 5 gpm. Poor aquifers are also found along the southern edge of the County. Wells are commonly drilled through this formation and into the underlying Berea sandstone where possible.

The ground water pollution potential mapping program optimizes the use of existing data to rank areas with respect to vulnerability to contamination. The ground water pollution potential map was prepared to assist planners, managers, and local officials in evaluating the potential for contamination from various sources of pollution. The resulting map is included within this plan.⁴

Flood Plains



Flooding along Norwalk Creek near downtown Norwalk, June 2006

With several branches of the Huron and Vermilion Rivers coursing through the county, there are numerous areas where flood plains prohibit development beyond agricultural use of land. Portions of Huron County have, unfortunately, been subjected to significant flooding and damage in recent years during periods of intense precipitation.

Flood plains serve several important functions in controlling floods and erosion, and can be viewed as natural extensions of waterways. Construction in a flood plain reduces the flood plain's storage capacity. The next flood may then crest even higher and often inundate areas outside the historic floodplain. Flood plain maps have been developed by the Federal Emergency Management Agency and the National Flood Insurance Program, to identify areas where 100-year floods are likely to occur. The 100-year flood plain refers to the area next to the waterway most likely to flood once within a one hundred year period. Regulations prohibit development in the floodways. The largest flood plains in Huron County are associated with the Huron and Vermilion Rivers, as well as some tributaries that flow into them (such as Norwalk Creek, which flows through the City of Norwalk, downstream from the city's reservoir).

Regulations addressing limitations on development in flood plains are adopted and enforced by Huron County for all unincorporated areas, and by each municipality within the County. Local governments are required to adopt flood plain regulations in order to be eligible for disaster relief from the Federal government. Recent experiences within the County have attested to the critical importance of this resource. It is recommended that local officials be

⁴ The full pollution potential report can be found at http://www.dnr.state.oh.us/water/gwppmaps/PDF_GISMap_wReport/Huron_PP_Report_wMap.pdf

aware of the location of 100 year floodplains within their jurisdictions, and consider adopting open space uses for these flood plains.⁵

Wetlands

Wetlands are a critical natural resource that functions in several ways that are beneficial to people and wildlife. The 48 contiguous states contained an estimated 103.3 million acres of wetlands in the mid-1980s. In general, they are areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants and promotes the development of characteristic wetland (or hydric) soils. They can provide important fish and wildlife habitat. Also important, they function as a water filtration system, recycling nutrients and purifying the water. They can also absorb excess water and release it back into a watershed slowly, preventing flooding and minimizing flood damage. The value of wetlands has increased as development has resulted in more and more impervious surfaces.

Inland wetlands, such as those in Huron County, are most common on floodplains along rivers and streams, in isolated depressions surrounded by dry land, along the margins of lakes and ponds, and in other low-lying areas where the groundwater intercepts the soil surface or where precipitation sufficiently saturates the soil. These wetlands can include marshes and wet meadows, swamps, and wooded swamps.

There are numerous wetlands throughout Huron County, far too numerous in all regions of the County to summarize here. Information on wetland sites can be obtained from the Ohio Environmental Protection Agency and the National Wetlands Inventory Maps. Wetlands are protected under federal law and development on wetlands is strictly limited. The major federal regulatory tool for this is Section 404 of the Clean Water Act, jointly administered by the Environmental Protection Agency and the Army Corps of Engineers. Section 404 establishes a permit program to regulate the discharge of dredged or fill material into waters of the United States, including most wetlands. The Natural Resource Conservation Service (sharing an office with HSWCD in Huron County) has the lead responsibility for identifying wetlands on agricultural lands. EPA also offers a number of non-regulatory programs to supplement the 404 program, including a contractor-operated telephone hotline (800/832-7828, or WETLANDS-HOTLINE@EPAMAIL.EPA.GOV) to allow easy access to the EPA for information about wetlands.

The Huron Soil and Water Conservation District has developed an article to provide information on minimizing erosion and sedimentation problems encountered during the land development process. This article includes a list of "general principles for effective water management and erosion/sedimentation control". The application of these principles and associated practices will be considered on their individual merits, subject to approval by

⁵ For a local determination of flood plains, FEMA maps are available for purchase from the following website: <http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

the County Engineer and HSWCD. These principles are significant enough to be reprinted here for planning purposes, to provide effective erosion and sedimentation control:

1. Identification by the developer at the preliminary planning phase of onsite and off site areas vulnerable to erosion and sedimentation.
2. Obtaining and completing Notice of Intent application from the OEPA and NPDES (National Pollutant Discharge Elimination System).⁶
3. Proposal by developer at preliminary engineering phase for control of erosion and sedimentation. Permanent as well as temporary methods of control should be noted.
4. Development of a construction sequence that minimizes disturbed areas and keeps them exposed for the shortest time possible.
5. Preservation of existing trees, shrubs, grasses, and other plant life is encouraged where possible. The existing vegetation may be useful in slowing runoff.
6. Protection of exposed critical areas with temporary vegetation and/or mulch during construction.
7. Provision of fast-growing grasses or sodding until more permanent seeding is established.
8. Installation and maintenance of permanent vegetation, including the use of sod and structures, as soon as possible to help control water and sediment damage.
9. Interception or diversion of runoff originating upgrade and away from the construction site so as to minimize the amount of flow over the construction site.
10. Installation and maintenance of sediment basins (debris or desilting basins and silt traps) to remove sediment from runoff waters from land undergoing construction.
11. Installation and maintenance of terraces, diversions, and grassed waterways as part of the water disposal system to further control water and sediment damage.
12. Construction, seeding, sodding, and protection with fabric material of drainage swales until vegetation is established.
13. New construction and drainage swales shall be seeded within three weeks after they are installed.
14. No driveway shall be constructed which will cause removal or lowering of a curb line, unless a catch basin is reconstructed nearby.

⁶ These can be found at the website www.epa.state.oh.us/pic/facts/fslist.html.

Sand and Gravel

Sand and gravel extraction operations have existed in limited capacity within Huron County. One such area that has produced sand and gravel is the Cole Valley area just southwest of Norwalk, where Valley Beach Park and neighboring uses exist today.

Climate

Climate in Huron County is varied over the course of the year. Winter precipitation results in a good accumulation of soil moisture by spring, minimizing droughtiness in most of the soils during the summer. Normal annual precipitation is adequate for crops.

Average winter temperature is 27 degrees F. and the average daily minimum temperature is 19 degrees. The lowest temperature on record is -25 degrees, recorded in Norwalk on April 5, 1963. In summer, the average temperature is 70 degrees and the average daily maximum temperature is 82 degrees. The highest recorded temperature (June 26, 1952) is 102 degrees.

Of total annual precipitation, nearly 22 inches, or about 60 percent, usually falls in April through September, and the growing season for most crops falls within this period. Thunderstorms occur on about 36 days each year; tornadoes and severe thunderstorms occur occasionally.

The average seasonal snowfall is about 30 inches. The greatest snow depth at any one time during the period of record was 30 inches. On the average, 23 days have at least one inch of snow on the ground, but the number of such days varies greatly from year to year.

The average relative humidity in mid-afternoon is about 60 percent. Humidity is higher at night, and the average at dawn is about 80 percent. The sun shines 65 percent of the time possible in the summer and 30 percent in winter. The prevailing wind is from the southwest, and average wind speed is highest (at 12 miles per hour) in the spring.

Preservation of Natural Areas



Huron River branch in Greenwich Township

acres has decreased over time as woods have been cleared for agricultural or other use.

Many areas with poorly drained soils and little growth potential have been maintained as woodlands. Additionally, while Huron County is not the location for any State parks, the State of Ohio acquired and preserved more than 1,500 acres of the Willard Marsh area for ecological and wildlife conservation. In 1964, Huron County had approximately 35,000 acres of woodlands, and nearly 7,400 of those acres were being pastured. The number of woodland

Huron County is home to the 1,676-acre Willard Marsh Wildlife Area, located four miles southwest of Willard. Access is provided via Section Line Road, which intersects US 224 three miles west of Willard. This Wildlife area, owned by the Ohio Department of Natural Resources, is very flat, with little natural drainage. Approximately two-thirds of the area is woodland, and the remainder is open land and brush land. Present management of the area includes annual maintenance of open areas and sharecropping agreements with local farmers to aid in controlling plant succession and to provide wildlife foods. Ditches were also constructed for waterfowl production.

Areas of Scenic and Natural Beauty

Many of Huron County's roadways provide a variety of views of the natural beauty that exists throughout the County. A trip along SR 61 between Norwalk and New Haven reveals a series of hills and valleys. Marshes, cliffs, river valleys, and wooded areas all exist within the County and many are accessible by road.



Current bike trailhead in Monroeville

The Huron County Rails to Trails organization, in conjunction with the Lorain County Park District, is working to make Huron County's natural features accessible to bicyclists, hikers, and equestrians, beginning with a completed trail joining Norwalk and Monroeville. This 3.3-mile section of the North Coast Inland Trail links Northwest Street in Norwalk with Peru Center Road in Monroeville. Further expansion of Huron County's portion of this east-west trail is being planned, someday joining a trail system from Lorain County to Sandusky County.

The Huron County Park District maintains the Shady Lane Park on the south side of Norwalk, adjacent to a number of County owned properties. This park includes a fitness trail, running track, and a summer concert series is often planned for this venue. The Park District also maintains a Nature Trail and Land Lab, often used for school programming, on the north side of South Norwalk Road, just west of the Christie Lane School. This facility includes a wheelchair accessible trail, hiking trails, a picnic area, a butterfly garden, and a pavilion that is available for rent.



View of the walking trail at Willard's reservoir

While access to the waterfront in the Holiday Lakes area, a private residential lake that serves some 435 homes for recreational purposes located north of Willard, is limited and private, most of Huron County's reservoirs have been designed with public access, use, and enjoyment in mind. Especially notable in this regard are the reservoirs in New London, Norwalk, Greenwich, and Willard, where park funding has been used to develop a variety of picnic areas, walking tracks, landscaping, and other amenities, including accommodations for fishing. Swimming is permitted in the New London reservoir. These reservoirs, located outside

municipal areas or on the edge of a municipality, coupled with a number of municipal parks and park systems, provide public recreational space for all within the County, in lieu of a more elaborate system of County parks.

Prime Farmland



Prime farmland, as defined by the U.S. Department of Agriculture, is the land that is best suited to food, feed, forage, fiber, and oilseed crops. It may be cultivated land, pasture, woodland, or other land, but it is not urban or built-up land or water areas. It is used for food or fiber crops or is available for those crops. The soil qualities, growing season, and moisture supply are suitable for a well-managed soil to

produce a sustained high yield of crops in an economic manner. Prime farmland produces the highest yields with minimal expenditure of energy and economic resources, and farming it results in the least damage to the environment.

About 297,600 acres in the Huron County Soil Survey area, or nearly 94 percent of the total acreage, met the soil requirements for prime farmland, in the 1994 Soil Survey of Huron County conducted by the U.S Department of Agriculture, Soil Conservation Service. Most of this acreage that is cultivated is used for corn or soybeans.

Because Huron County's most common use of land is for agriculture, it is important to include discussion of trends in this land use. New data have been released since the Huron County Farmland Preservation Plan was written in 1999. The following is an updated description of the status of farming in Huron County.

Ohio Crop Data from the National Agricultural Statistics Service indicates the following acreage by crop.

Table 6-2: Huron County Crops and Acreage

Crop	2002	2003	2004	2005
Winter wheat	22,300	26,800	22,500	22,100
Wheat	22,300	26,800	22,500	22,100
Corn for grain	59,600	60,000	61,700	69,300
Soybeans	94,300	84,600	91,500	89,600
Hay	7,200	7,400	7,000	6,700

Source: National Agricultural Statistics Service

In recent years, the total acreage devoted to farmland has decreased, from an estimated 228,000 acres and 870 farms in 2002 to 224,000 acres and 850 farms in 2005. Acreage per farm has only increased slightly, from 262 acres in 2002 to 264 acres in 2005.

Soybeans are by far the largest crop in terms of committed acreage. However, the acreage devoted to corn has grown in recent years, from 59,600 to 69,300 acres in four years. Winter wheat, wheat, and hay have held relatively steady, while soybean acreage has actually decreased somewhat. In 2005, Huron County ranked 16th out of Ohio's 88 counties for corn for grain, 20th in soybeans, 15th in wheat, and 60th in hay. Another important agricultural use of land is vegetable production on the valuable muck soils near Celeryville, south of Willard. Specialty crops, such as tomatoes, cabbage, sugar beets, and other vegetables, are grown on a relatively small acreage on the lake plains and beach ridges, including the muck soil in the Willard Marsh, located in the Celeryville area.

Livestock is another important component of agriculture in Huron County. In 2005, there were 11,000 cattle and calves, 3,700 milk cows, 12,400 hogs and pigs, and 2,200 sheep and lambs. Huron County ranked 51st in cattle and calves, 20th in milk cows, 33rd in hogs and pigs, and 14th in sheep and lambs.

In terms of production value from agriculture, the following are the 2005 cash receipts from marketing of farm commodities, by commodity. Crops (particularly corn and soybeans) yield somewhat greater receipts than livestock, although livestock has become an important component in the County's overall agribusiness.

Table 6-3: 2005 Cash Receipts from Crops and Livestock

Commodity	2005 Cash Receipts	Commodity	2005 Cash Receipts
Corn	\$19,456,000	Dairy and Milk	\$10,508,000
Soybeans	\$22,208,000	Cattle and Calves	\$2,476,000
Wheat	\$4,063,000	Hogs and Pigs	\$3,138,000
Oats and Hay	\$1,288,000	Poultry and Other	\$529,000
Other Crops	\$9,788,000	Total	\$73,455,000
Average receipts per farm, 2004	\$85,413	Average receipts per farm, 2003	\$74,500

Source: Ohio Dept. of Agriculture, Annual report.

The actual use of farmland can be broken down by using data from the U.S. Census. The most recent Census data are from the 2002 Census of Agriculture.

Huron County farms in 2002 covered 228,346 acres, with an average size of 264 acres and a median size of 113 acres. Of these 228,346 acres, 199,433 acres were in cropland, and 181,438 of those acres were harvested cropland. This was a decrease from 190,713 acres of harvested cropland in 1997. In 2002, 2,922 acres of cropland were used for pasture or grazing (down from 3,845 acres in 1997). A significant amount of acreage (13,986 acres) was reported as "cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed". Woodland on farms accounted for another 18,594 acres in

2002 (down from 20,911 acres in 1997). Additional pastureland and rangeland accounted for 3,567 acres, and "farmland in house lots, ponds, roads, wasteland, etc." took up 6,752 acres (actually down from 7,099 acres in 1997; it is likely that some farm acreage counted in 1997 became converted to new lots and houses along roadway frontage).

Huron County agribusiness made extensive use of federal programs that support good land and resource preservation practices. For example, from 2002 to 2006, Huron County farmers applied for and received \$1,900,764 in EQIP dollars, using a program that provides incentives for land or structure conservation practices. Over this same time frame, over \$8 million were received by Huron County farmers from various Farm Bill programs of the U.S. Department of Agriculture.

Historic Preservation



The Octagon House in the Village of Monroeville

Huron County has a rich history dating to its association with the State of Connecticut and designation as a portion of the "Firelands". The County, which originally also included the current Erie County, was authorized in 1809 and organized in 1815. Norwalk was made the county seat in 1818 and Erie County was created in 1838.

Many historically significant structures remain throughout Huron County. A number of them have been included in the National Register of Historic Properties, while undoubtedly, many have not been registered. The registry includes the following properties:

Table 6-4: Huron County Properties Listed on the National Register

Property	Location	Type of Property
Miller-Bissell Farmstead	SR 60, New London Township	Significant agriculture architecture
John Wright Mansion	SR 113, Bellevue, Lyme Twp.	Second Empire residence
Seth Brown House	Brown St., Monroeville	Greek Revival residence
John Hosford House	Sandusky St., Monroeville	Octagon shaped residence
Zion Episcopal Church	Ridge St., Monroeville	Residence
Huron County Courthouse and Jail	E. Main and Benedict, Norwalk	County facilities (jail not in use)
West Main Street District	Both sides of W. Main St., six blocks, Norwalk	Religious structures and residences of various styles (Federal, Greek Revival, Queen Anne, etc.)
Phoenix Mills	E. of Steuben on Mill Rd.	Commercial building, sandstone
Macksville Tavern	Peru Hollow Road	Commercial building, Federal style
Mead-Zimmerman House	E of Greenwich on SR 13	Residence
Dunton House	Benedict Avenue, Norwalk	Late Victorian residence
Gregory House	1 E. Main St., New London	Commercial building
Hunts Corners	Sandhill Rd. and SR 547	District with 13 buildings: dwellings, religious, agricultural outbuildings

Source: Ohio Historic Preservation Office

Listing a site in the National Register is one preservation tool. Others can include applying for communities to become Certified Communities, eligible for small grant programs, through OHPO's process, and obtaining tax credits for private entities that improve listed properties. If a property is determined to be sufficiently significant, the listing can accord the building or district certain recognition. Income-producing properties that are listed may be aided financially by federal tax incentives, such as a 20 percent investment tax credit for certified rehabilitation. Listed properties are given special consideration in the planning of federally funded projects, and section 3408.0 of the Ohio Building Code offers alternatives to code compliance for listed or eligible buildings regarding any proposed construction or repair. Finally, a listing is often a prerequisite for funding applications for rehabilitation work through various private, nonprofit organizations, such as the National Trust for Historic Preservation.

Policy Statements and Recommendations

1. Practice Efficient Land Use Policies

While Huron County is largely rural, and may not need to address principles of sustainable development throughout the entire county, the principles associated with "new urbanism", which advocate development within and near established urbanized areas and activity centers, are worth considering when endeavoring to preserve and not encroach upon the county's natural resources and other sensitive areas.

The principles of New Urbanism are presented on the next page for application when a new development project is under consideration. The use of a Joint Economic Development District or Cooperative Economic Development Agreement, described in Chapter 8, offers another means of guiding development to unincorporated areas that are adjacent to and coordinated with urbanized municipal areas.

2. Incorporate Huron County's New Subdivision Regulations:

Huron County has recently approved new amendments to their subdivision regulations that bring them in line with new State legislation in Amended Substitute Senate Bill 115. That bill took effect April 15, 2005, and permitted rules to be adopted to allow the planning authority to approve lots without a plat in the size range from 4 to 20 acres, exempting parcels of land if they are to be used exclusively for agricultural or personal recreational purposes. Lots between 4 and 20 acres are then not, by definition, a "subdivision", but are subject to a mid-level review that is nearly identical to the previous "Minor Subdivision" review process. Also, this allows for lot splits of Minor Subdivisions that are reviewed without a plat to still be reviewed for compliance with health and sanitary regulations, including rules governing household sewage disposal systems.

The most important new authority granted to counties under SB 115 is the power to adopt rules so that new parcels of up to 20 acres may become subject to this new mid-level review and approval process, whereas previously, any parcel over five acres was not, by definition, a subdivision, and thus not subject to any review. Now, the administrative official must determine that the proposed division is not contrary to applicable zoning, health, sanitary,

access management, building code (pertaining to existing surface and subsurface drainage), household sewage disposal system, and lot frontage and width-to-depth ratio rules.⁷ In Huron County's Subdivision regulation changes adhering to the provisions of S.B. 115, there are five basic changes, largely addressing the need to regulate the creation of large rural parcels of five to twenty acres. These include the following:

- a. "Large lot divisions" are defined as the creation of a parcel or parcels in the range of five to twenty acres per the Ohio Revised Code section 711.133.
- b. As part of the procedures for subdivision approval for minor subdivisions, termed lot splits, a property review needs to be performed by the Huron Water and Soil Conservation District for each parcel covering soil characteristics and a storm drainage evaluation, together with proposals for new storm water drainage outlets and septic system curtain drains if applicable, and the associated fees must be paid. This provision ensures that proper site review is conducted and environmental impacts of development are considered prior to development.
- c. Minor subdivision / lot split approval by the Planning Commission is to be based on a set of criteria that more comprehensively address environmental and related considerations:
 1. Topographic contours and/or grading and drainage plan for on lot wastewater systems;
 2. Existing or potential building, well, and sewage system locations and design;
 3. Soil type delineation, soil borings, test pits, and/or soil scientist reports as applicable;
 4. Deed wording addressing lot development, conditions, or restrictions;
 5. New or additional roadway easements and/or utility easements (roadway easements must be conveyed by a separate instrument prior to the approval of the minor subdivision or lot split);
 6. Appropriate flood plain status;
 7. Access management practices or measures;
 8. Recording data for the minor subdivision deeds previously approved from the parcel;
 9. Drainage improvements and other applicable requirements of the Huron County Engineering and Surveying Standards for Subdivision Development including applicable fees as approved by the various county agencies;

⁷ The reader is encouraged to consult revised Chapter 711 of the Ohio Revised Code for further details on the new rules governing large lot developments.

10. Written endorsement of the minor subdivision/lot split from health and zoning authorities, the Soil and Water Conservation District, and County Auditor, and possibly the County Engineer if there are access management issues;
 11. A plan illustrating all minor subdivision/lot split subdivisions and/or lot splits of adjacent parcels within the past year and a recording date of each one;
 12. The subdivider shall mark the proposed lot corners with stakes and colored flagging; and
 13. A boundary survey by a professional land surveyor.
- d. If approval is in order under these provisions, the reviewing authority shall, within seven working days after submission, approve the proposal and stamp the presented conveyance, and the authorized representative shall sign and date the conveyance.

Such large lots, of five to twenty acres, must conform to a minimum frontage of 250 feet along an existing, improved road, and a lot width to depth ratio where the building setback line shall not exceed three times the width of the lot, unless applicable zoning regulations specify otherwise. The subdivision regulations further provide that no more than five lots, including the original tract, may be approved without going through the major subdivision process, which became effective January 1, 2007.

The effect of these changes is to bring additional control and guidance to the development of lots that are five acres and larger. These lots were previously outside the purview of the review and analysis process, and these changes will provide more control over the conversion of undeveloped land and farmland to residential and other uses.

3. Adopt Recommendations Presented in the 1999 Farmland Preservation Plan

It has been seven years since the Huron County Farmland Preservation Plan was developed and presented to the County. The following is a selected list of recommendations from that report, that are aligned with the goals and objectives of this comprehensive plan and thus should be considered as the County continues to develop.



- In order to educate the county about farmland issues, it would be valuable to offer a one-day seminar to offer more in-depth information about topics related to farmland development. Suggested topics include principles of sound land use planning, an inventory of environmental criteria in the development of rural sites (many of which are listed in the next section), the status and pace of farmland conversion in Huron County, farmland

preservation tools in use in similar counties, and available information resources and contact points on available programs in Huron County and related environmental issues.

- A core of basic information, including a clear how-to guide on all relevant and required planning and review processes (such as in the subdivision guidelines discussed previously), should be placed in the hands of prospective and actual purchasers of rural real estate. The information, in the form of a brochure or pamphlet, can be distributed by Realtors, lenders, county agencies, townships, libraries, and other locations.

The information should cover the issues and factors to be considered, such as soil, water, sewage systems, regulations and assessments, community features, and natural features and drainage. Also, it should clearly list the steps needed to make sure all these factors are considered adequately. The pamphlet should include a one or two-page flowchart summarizing steps to be taken when purchasing rural property.

The information can also include some eye-opening (to some) realities about rural living, such as rural roads and the prevalence of farm machinery, weather impacts, lengthy school bus trips, sewer and septic service, trash and recycling, property lines and fences, zoning, fire protection, nature, and impacts of farming (sights, smells, weed control).

- Encourage infill development whenever possible. Development should be encouraged where public utilities are already in place or easily accessible.
- Promote clustering of development where possible, in such a way that the use of buildable land is minimized, houses or other buildings are located closer together, and open space can then be maximized. A rural cluster development typically consists of residential subdivision lots grouped together on a portion of a property being subdivided with the remaining area placed into a permanent preservation parcel. The purpose of rural cluster development regulations is to encourage the preservation of the rural and scenic quality of the landscape and farmland while allowing attractive low density clustered residential development. Cluster development may be permitted only when it is located and designed to minimize adverse impacts on agricultural land, surrounding farming operations, sensitive environmental features, and the intended use of the proposed preservation parcel(s) for the subdivision.
- Review and apply, as appropriate, available farmland and resource preservation tools and their applicability to Huron County. Existing and potential tools include:
 - Purchase of Development Rights, where the landowner sells a conservation easement to a government or conservation organization, and the agency pays the landowner the difference between the value of the land for agricultural purposes and its value for "highest and best use".
 - Transfer of Development Rights, allowing landowners to transfer the right to develop one parcel of land to a different parcel. The parcel where the rights originate is restricted with a permanent conservation easement, and the parcel owner where rights are transferred can build at a higher density than ordinarily permitted.

- Land trusts are local, state, or regional nonprofit organizations directly involved in protecting land for its natural, recreational, scenic, historic, or productive value. Such trusts exist within north central Ohio, and they are prepared to purchase or accept donated land or conservation easements.
- Voluntary agricultural districts can be formed within local zoning to provide limited protection from eminent domain, land use and building restrictions, and special assessments for utilities.
- CAUV can be used as an incentive for farmland preservation, and recoupment penalties, equal to the difference between CAUV value and a low market value, are made for land taken out of production. Using a higher market price based on actual selling prices could help maintain farmland.
- Finally, Ohio, like all states, has right-to-farm legislation, which helps strengthen the legal position of farmers when neighbors sue for private nuisance, and protects farmers from anti-nuisance ordinances and unreasonable controls on farming operations.

The Ohio Department of Agriculture, Office of Farmland Preservation, offers three programs that are designed to help preserve the State's agricultural land.⁸ The Agricultural Easement Purchase Program uses a portion of the State's Clean Ohio Fund to provide up to 75 percent of the points-based agricultural value of a farm's development rights. A payment cap has been set at \$2,000 per acre, with a maximum of \$500,000 per farm. All easement transactions are permanent. A two-tier ranking system is used to select the farms preserved in each funding round.

The Agricultural Easement Donation Program provides a perpetual easement and restrictions on agricultural land that remains even if the land is transferred to a new owner. Donations of easements are evaluated on a case-by-case basis. Land must be enrolled in CAUV, and any liens or mortgages on the farm must be subordinated to the easement. There are also guidelines for accepting donated easements regarding minimum farm size, subdivision of the land, and number of housing units.

Finally, the Ohio Agricultural Security Area (ASA) Program authorizes one or more landowners, of at least 500 acres of contiguous farmland, to request from the Boards of County Commissioners and Township Trustees to enroll into an ASA for a ten-year period. ASAs promote agricultural retention by creating special areas where agriculture is encouraged and protected. ASAs provide certain benefits to farmers, including protection from nonagricultural development, a critical mass of land to keep farming viable, and possible tax benefits for investing in new and real agricultural property.

Agriculture as a primary economic force, industry, and land use within Huron County should be supported by encouraging development of food processing and other agriculturally related businesses (such as biodiesel or ethanol processing plants, which are currently under

⁸ More information on these programs is available at www.ohioagriculture.gov/farmland or 614/728-6210.

development throughout much of Ohio and the Midwest). Agribusiness can be promoted through local tourism efforts, and the importance of Huron County agriculture should be publicized.

4. Follow established procedures for erosion and sedimentation control



Ditch improvements along Ridge Road south of Norwalk

One significant impact of any development upon the environment is the erosion and sedimentation that results from altered patterns and pathways for storm drainage. Huron County and its Soil and Water Conservation District have taken steps to address this fact, and this comprehensive plan incorporates and supports their recommendations and procedures.

Typical problems encountered with new developments include a large increase of area exposed to soil erosion and runoff; increased volumes of runoff, soil movement, sediment and peak flows caused by removal of natural cover, increase in impervious surface areas,

changes in drainage areas and the volume and duration of water concentration caused by grading and related factors, reduction of water intake of soils from compaction by construction equipment, and prolonged exposure of unprotected sites to adverse weather. Other deleterious factors may include altering the ground water regime that may adversely affect drainage systems, slope stability, vegetation, and the establishment of new plants; exposing subsurface materials that are too rocky, too acid, or otherwise unfavorable for establishing vegetation; encroachment on floodplains and waterways; and poor scheduling of construction activities.

Four basic principles to provide a helpful framework for looking at stormwater plans were cited in an Ohio State University Extension document entitled "Stormwater and Your Community". These principles include:

- Control, divided into source control and runoff control. Source control measures focus on pollution prevention through containment measures, spill prevention and cleanup, waste reduction, public education, and reduced use of fertilizers and pesticides. Runoff control measures focus on minimizing runoff from new developments, and siting infrastructure to discourage development in environmentally sensitive areas.
- Collection, or capture and storage of runoff for more timely release through use of retention basins (holding stormwater until it infiltrates in the ground) and detention basins (designed to slow and hold stormwater before releasing it).

- Conveyance, through the use of systems to drain and direct the flow of runoff generated on a site. This is often accomplished with catch basins feeding into storm sewers, or through the use of vegetated depressions and swales.
- Cleansing, commonly accomplished through techniques that promote filtration and settling of pollutants and their natural processing by vegetation and soil. Filtering devices include engineered structures like sediment basins and porous pavement, but also include natural systems like stream buffers and vegetated filter strips. Ponds and constructed wetlands can also serve to clean water.

The “general principles for effective water management and erosion/sedimentation control” as presented by the Huron Soil and Water Conservation District (HSWCD) and listed on page 8 of this chapter suggest that these soil and water conservation practices should be applied in practical combinations to provide effective erosion and sedimentation control.

In addition to these principles and practices, it is noted that all subdivisions shall be reviewed by the County Engineer to see if control measures are needed to minimize water, erosion, and sediment problems. An erosion and sediment control plan shall be submitted for all subdivisions containing more than ten lots or having proposed street construction. Those with less than ten lots, which are a portion or phase of a larger proposed allotment, shall submit a tentative NPDES erosion and sediment control plan for the entire allotment. The County Engineer, upon recommendation from HSWCD, shall accept or suggest modifications of all erosion and sedimentation control plans.

Stormwater management can become more formalized. In Erie County, any person performing any non-farm, earth-disturbing activity that disturbs 20,000 square feet or more on five or more contiguous acres of land must file a Stormwater Management Plan and obtain a Stormwater Management Permit. For 20,000 square feet on less than five acres, a Drainage Plan is required, as well as a Stormwater Management Permit. If less than 20,000 square feet will be disturbed, a Stormwater Management Permit will still need to be obtained. The County conducts plan checking and field inspections to assure completion of storm drainage facilities.

5. Incorporate environmental considerations in all development planning and review processes.

A previous section in this chapter discussed the changes in Huron County Subdivision Regulations that will require more formalized and inclusive reviews and mitigation of environmental issues. It is recommended that the following factors, many of which are taken from the seminal publication, “Caring for the Land: Environmental Principles for Site Design and Review” (Bruce Hendler, 1977), also be considered.

- Avoid draining and building in freshwater wetlands to maintain their natural “sponge” action and thus the water table. This also preserves the wildlife habitat and recreational potential of these areas.

- Maintaining steeply sloping areas as open space will reduce risks. Proper planning retains major gullies and steep slopes in open space.
- Retention of vegetation helps control runoff, stabilizes slopes, and attracts wildlife. Trees provide a buffer along shores, fields, and other areas, and the less attractive “windclipped” trees on the edge of a wooded area or buffer effectively protect the rest of the trees. A buffer of trees or shrubs reduces noise and provides privacy, and vegetation can “dampen” the severity of the weather by protecting against wind, snowdrifts, and sunlight. A variety of vegetation along a flat terrain can reduce monotony and provide attractive “character” to a site.
- Valuable mineral deposits should be identified and reserved; the surface should be restored when extraction operations are complete.
- The identification of historic sites and buildings, and adopting legal measures to protect them, can accommodate development while preserving the County's historic, cultural, and architectural heritage.
- Significant building setbacks, away from roadways, offer such advantages as privacy, buffering from road noises, freedom to place the structure where it gets the most sun or looks best, helping assure filtration of contaminants from the roadway, providing safety for pedestrians and those in the structures, and making driving past the subdivision more pleasant.
- Building design considerations include the size of the building (does it complement the site by respecting the physical scale of the site or area, trees, and landform?), materials and design (harmonizing with surroundings), and planting and landscaping with species that are native to the region.
- Established footpaths, corridors parallel to existing transportation routes, and abandoned transportation rights-of-way (such as the North Coast Inland Trail) offer significant potential for recreational use such as hiking, biking, and cross-country skiing.
- Planning should incorporate consideration of the unique character of the landscape and the visual variety throughout the county.
- The approach to a community or the county should be considered a “gateway” that gives an impression of the area's unique character, develops a “sense of place”, and leads the traveler to positively anticipate arrival.
- Consider topography, or the “lay of the land”. Remember that southern slopes provide more sunlight and heat, and that development below the crest of a hill reduces its visibility to others, preserves the natural landform, increases the availability of a water supply, and higher land reduces the chance of problems with drainage and septic systems.

- Septic systems must be planned to avoid environmental barriers. Units located on proper soil and slope will permit effluent from septic systems to be purified enough to remove germs and odor. The septic system should be located sufficiently far from a water supply, and from any watercourse or standing body of water.
- Soil characteristics to consider include how wet or impervious they are (for best use of septic systems), suitability for stability in supporting buildings, and erosion potential.
- Permeable surfaces that absorb rainfall and other water are reduced as roofs, roads, and parking lots are developed. Properly designed drainage systems can reduce erosion and pollution potential. Development should avoid naturally occurring wet spots and flood plains.
- If the features surrounding a proposed site are primarily rural in character, then the development should reflect that character and not compete with it.

6. Incorporate recommendations of the Steering Committee

In the development of this Comprehensive Plan, the Steering Committee did not generate a series of recommendations specifically addressing natural resources and open space. However, during the discussion of related topics, a number of recommendations were produced that pertain to this topic. Some of them are repeated under other headings. The following is a summary of those recommendations:

- a. Improve the understanding and enforcement of existing regulations, such as septic system requirements, through the development of a single document for prospective property owners that provides a checklist of required regulatory and approval processes, complete with clear identifications of contact persons for each. Disseminate the document widely to ensure that it gets into the hands of those who need it.
- b. (Economic Development) Support Huron County's agricultural sector, which is the primary land use in the county, by taking steps to preserve farmland and minimize its loss, and by seeking complementary businesses such as value added food processing. Large scale farming operations must conform to standards of health and environmental integrity.
- c. (Utilities) Stormwater management should be addressed throughout the county by aggressively eliminating combined sewers, including provisions for retention in new subdivision regulations, enclosing highway ditches where feasible, and including stormwater standards within a county thoroughfare plan.
- d. When industrial site needs cannot be satisfied by existing available buildings or sites within municipalities, land which is adjacent to or in close proximity to those municipalities should be given highest priority. A major reason is the availability or

low development cost of infrastructure extensions, proximity to employment bases, and orderly growth considerations. Priority sites should also be located adjacent to or in close proximity to appropriate transportation routes (highway and rail), corridors, and intersections.

Encourage infill housing that is developed on available vacant property within municipalities, where necessary infrastructure and roadway systems already exist. In cases where subdivisions are planned for unincorporated areas, encourage their development adjacent to or in close proximity to municipal areas, where utility extensions and roadways can be efficiently extended or modified to accommodate residential growth. Residential growth should be targeted wherever possible to areas in relatively close proximity to employment, shopping, and service centers.

- e. Adopt and enforce the recommended, revised new subdivision regulations for Huron County (see page 15-17 of this chapter). Further, funding should be sought where possible to conduct an inventory and prioritization of critical natural resources. Specifically, drainage infrastructure must be analyzed and prioritized because of the limited resources available to address flooding, stream blockage, and drainage issues throughout the county and its unincorporated areas.

