Appendix T – Chapter V

TRENDS, NEEDS, OR PLANS
THAT MAY AFFECT FARMLAND PRESERVATION

INTRODUCTION

Section 91.10 (1) (b) of the Wisconsin Statutes requires that a farmland preservation plan identifies, describes, and documents non-farm development trends, plans, or needs related to housing, transportation, utilities, energy, communications, business development, community facilities and services, waste management, municipal expansion, and environmental preservation that may affect farmland preservation and agricultural development in the County. Understanding the trends, plans, or needs associated with these elements is important to farmland preservation planning because of the effects they have on the demand for land. A plan that accounts for future demand can incorporate strategies that provide the necessary amount of land for all of the County's needs while preserving agriculture. This chapter analyzes and summarizes trends, needs, and plans for each of the aforementioned elements.

HOUSING (AND RESIDENTIAL DEVELOPMENT)

Trends and Needs

The following summarizes housing (and residential development) trends and needs as documented in Chapter II of Washington County’s comprehensive plan as well as other chapters in this plan.

- In 2009, there were 51,473 households with an average household size of 2.53 persons per household in Washington County. The number of households in the County has increased over the last few decades while the average number of persons per household has decreased. This trend has continued through 2009 and is typical throughout Wisconsin reflecting the fact that family sizes (average number of children per family) have decreased and unmarried persons have increasingly tended to establish their own households rather than live with family.

- The median household income in the County was $60,549 in 2009, which was $3,136 more than the Region’s median household income of $57,413, $10,556 more than the State’s median household income of $49,993, and $10,328 more than the Nation’s median household income of $50,221.

- Population and household projections for the year 2035 were prepared by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) in 2004-2005. Under the Regional

\[ \text{In 2009, there were 51,473 households with an average household size of 2.53 persons per household in Washington County.} \]

\[ ^1 \text{See Chapter II of Washington County’s comprehensive plan for details on how population and household projections were determined.} \]
Land Use Plan, the projected population for Washington County in 2035 is 157,265 persons (see Table 19 in Washington County’s comprehensive plan). This is a projected increase of 39,769 persons, or about 34 percent, over the 2000 population level of 117,496. Changes in the number and size of households will accompany changes in the size of the resident population. Taking the assumptions from the regional land use plan into consideration with the projected average household size of 2.45 persons per household, the projected number of households for Washington County in 2035 is 62,849. This is a projected increase of 19,006 households, or about 43 percent, over the 43,843 households in 2000.

- Local governments in Washington County developed population and household projections for 2035 to use in local comprehensive plans that refine the systems level projections developed by SEWRPC for the Region and County. These projections form the basis used to plan for land use, housing, transportation, utilities, and other community facilities for each local comprehensive plan through the planning design year of 2035. The resultant population projection was 184,512 persons for Washington County in 2035. This is a projected increase of 67,016 persons, or about 57 percent, over the 2000 population level of 117,496. Using the projected average household size (as determined by local governments) of 2.54 persons per household, the population projection selected by local governments would result in 74,587 households in Washington County in 2035. This is a projected increase of 30,744 households, or about 70 percent, over the 43,843 households in 2000. The final population and household projections chosen by each local government for use in preparing local comprehensive plans is set forth in Table 25 of Washington County’s comprehensive plan.

- **Weaknesses and Threats Identified Through S.W.O.T. Analyses**

Multiple strength, weakness, opportunity, and threat (S.W.O.T.) analyses were conducted during the comprehensive planning process. Weaknesses and threats identified regarding housing in Washington County include: lack of affordable housing, rising housing costs, lack of senior housing, and the location of residential developments.

**Plans**

The following summarizes how existing plans address housing (and residential development) as documented in Chapters VI and IX of Washington County’s comprehensive plan.

- **Regional Land Use Plan**

The regional land use plan recommends a centralized regional settlement pattern within defined urban service areas. New urban development is encouraged to occur largely as infill in existing urban centers and in urban growth areas emanating outward from existing urban centers. The regional plan also recommends that existing developed areas be conserved and enhanced; that new urban development occur at densities which can efficiently and effectively be supported by public sanitary sewerage, water supply, and other services; and that urban development occur only in those areas that are covered by soils suitable for such development and which are not subject to special hazards such as flooding or erosion.

The regional land use plan recommends that prime agricultural land be preserved for long-term agricultural use and not be converted to either urban development or to other forms of rural development. An exception is prime agricultural land located adjacent to existing urban centers and within planned urban growth/sewer service areas, which is proposed to be converted to urban use to provide for orderly growth of those urban centers.

In addition to preserving prime agricultural lands and environmental corridors, the regional land use plan seeks to maintain the rural character of other lands located outside planned urban service areas. The plan

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2 Includes the portions of the City of Hartford and Village of Newburg that extend outside of Washington County.
encourages continued agricultural and other open space uses in such areas. The plan seeks to limit development in such areas primarily to rural-density residential development, with an overall density of no more than one dwelling unit per five acres. Where rural residential development is accommodated, the regional plan encourages the use of conservation design, with homes grouped together on relatively small lots surrounded by permanently preserved agricultural, recreational, or natural resource areas such as woodlands, wetlands, or prairies sufficient to maintain the maximum recommended density of no more than one home per five acres.

- **Washington County 2035 Land Use Plan**

  The land use plan for Washington County for the year 2035 is presented on Map 84 of Washington County’s comprehensive plan. Table 108 in the comprehensive plan sets forth the number of acres and percent of the County in each land use category on the Land Use Plan Map. The plan map indicates where certain types of urban development should be encouraged while preserving agricultural and environmentally significant land and resources. The Washington County land use plan map is a compilation of the land use plan maps prepared by each of the cities, towns, and villages in the County. The Town of Barton Land Use Plan for the year 2035, however, uses a “phased plan” approach to land use planning. The County’s year 2035 land use plan presented on Map 84, as that map pertains to the Town of Barton, includes the Town of Barton’s Phase 3 land use plan for the years 2025 to 2035. The plan addresses housing related land use categories such as “Agricultural and Rural Residential” development and “Residential Development” as follows:

  **Agricultural and Rural Residential**

  Agricultural and rural residential uses occupy 80,529 acres, or about 29 percent of the County, on the 2035 land use plan map. The agricultural and rural residential category would allow all agricultural uses, as well as rural-density residential development with an average density of one home for each five to 34.9 acres. The plan encourages the continuation of agricultural activity in these areas, whether it is conventional farming or hobby farming (for example, the keeping of horses on residential lots, where permitted by local zoning ordinances). Where rural-density residential development is accommodated, local governments are encouraged to require the use of conservation subdivision design or lot-averaging techniques to help preserve rural character and provide a buffer between adjacent farmland and residential uses. In some cases, the common open space in conservation subdivisions may be used for agriculture.

  **Residential Development**

  Residential uses occupy 47,434 acres, or about 17 percent of the County, on the 2035 land use plan map. This compares to 37,996 acres of residential lands in the County in 2006, or an increase of 9,438 acres or about 25 percent between 2006 and 2035. Residential categories include a suburban density residential category, which would include predominantly single-family homes at densities equating to lot sizes of between one and five acres; a medium-density urban residential category, which would include single-family and potentially two-family homes at densities equating to lot sizes of 10,000 square feet to one acre; and a high-density urban residential category, which would include single-, two-, and multi-family homes at a density of less than 10,000 square feet per dwelling unit. Of the residential land uses, 31,155 acres, or about 66 percent, are in the suburban residential category; 13,737 acres, or about 29 percent, are

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3 Washington County’s 2035 Land Use Plan is being updated to include land use plan maps adopted by local governments after the County plan was adopted in April 2008.
in the medium-density residential category, and 2,542 acres, or about 5 percent, are in the high-density residential category.

**Ordinances**

Local governments have substantial influence over agricultural resources in the County, especially with regard to providing protection for agricultural lands and providing areas for development through local comprehensive plans and zoning ordinances. A zoning ordinance divides a community into districts for the purpose of regulating the use of land and structures; the height, size, shape, and placement of structures; and the density of housing.

Housing structure type, housing unit size, and lot size are controlled by local government zoning regulations. The zoning authority of cities, villages, and towns in Washington County represents an important influence on housing development patterns. Zoning regulations can substantially determine the location, size, and type of housing. A 2006 inventory was conducted as part of the comprehensive planning process of existing residential zoning districts in each local government to help provide a basis for determining the effect of zoning regulations on various types of housing. The results of the inventory are presented in Table 149 of the comprehensive plan. Map 75 in Chapter VI of the comprehensive plan shows generalized zoning in effect in 2000.

Residential zoning districts include minimum lot size requirements, which specify the smallest land area a residential structure can be constructed upon. Lot size requirements are important because larger minimum lot size requirements can add to the total price of developing a residence by increasing land and land improvement costs; however, larger minimum lot sizes may be appropriate in areas without urban services, or in environmentally sensitive areas.

Minimum lot size requirements are typically smaller in local governments, or portions of local governments, that are served by public sewer and water. Public sewer and water services are available in the Cities of Hartford and West Bend, and all of the villages in the County, although not all of the areas within the Village of Germantown or Village of Slinger are provided with sewer and water services. Several towns provide sanitary sewer service to portions of the Town through utility or sanitary districts. See the “Utilities and Energy” section of this chapter for more information.

All of the local zoning ordinances enacted by Washington County communities include minimum floor area requirements for homes and multi-family units. These requirements are important because the cost of housing units typically increases for larger homes. Minimum floor area requirements generally correlate to minimum lot size requirements; the larger the minimum lot size requirement, the larger the minimum floor area requirement. Many local governments also relate the minimum floor area required to the number of bedrooms in the home or apartment.

**TRANSPORTATION**

**Trends and Needs**

The following summarizes transportation trends and needs as documented in Chapter IV of Washington County’s comprehensive plan.

- Between 1975 and 2000, the amount of land used for urban uses, including residential, commercial, industrial, and transportation uses, increased by about 21,000 acres, from about 28,000 acres to about 49,000 acres, or about 75 percent. The amount of land used for agriculture decreased by about 33,000 acres, or by about 19 percent.
- Urban land uses consist of residential; commercial; industrial; governmental and institutional; and transportation, communication, and utility uses. Urban land uses encompassed about 48,936 acres, or about 18 percent of the County, in 2000. Land used for transportation, utilities, and communications facilities encompassed about 15,616 acres, or about 32 percent of all urban land and about 6 percent of the total County.

- The street and highway system serves several important functions, including providing for the movement of through vehicular traffic; providing for access of vehicular traffic to abutting land uses; providing for the movement of pedestrian and bicycle traffic; and serving as the location for utilities and stormwater drainage facilities. The arterial street and highway system is intended to provide a high degree of travel mobility, serving the through movement of traffic between and through urban areas. Arterial streets and highways accounted for 425 miles in 2005. The primary function of land access streets is to provide access to abutting property. Collector streets are intended to serve primarily as connections between the arterial street system and the land access streets. WisDOT maintains a detailed database of county and local street information in the “Wisconsin Information System for Local Roads” (WISLR).

- **Weaknesses and Threats Identified Through S.W.O.T. Analyses**
  Multiple strength, weakness, opportunity, and threat (S.W.O.T.) analyses were conducted during the comprehensive planning process. Weaknesses and threats identified regarding transportation in Washington County include: lack of public transportation, lack of major east/west corridor, scattered low density development increasing travel time, need to expand park and rides, and lack of funding.

**Plans**
The following summarizes how existing plans address transportation as documented in Chapters VI and IX of Washington County’s comprehensive plan.

- **Regional Transportation System Plan**
The regional transportation system plan is intended to provide a vision for, and guide to, transportation system development in the Region for 20 or more years into the future. It is a multimodal plan of recommended transportation actions designed to address existing and anticipated future transportation problems and needs. The plan consists of four principal elements: public transit, systems management, bicycle and pedestrian facilities, and arterial streets and highways. Future needs for transit, street and highway, and other transportation improvements considered in the regional transportation planning process are derived from the future growth proposed in the regional land use plan. The 2035 regional transportation system plan and modifications to that plan recommended by the Washington County jurisdictional highway system plan advisory committee are described in the Transportation Element (Chapter XI) of Washington County’s comprehensive plan.

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Washington County’s 2035 Land Use Plan5
Washington County’s 2035 Land Use Plan addresses transportation related land uses through the following land use categories:

Street and Highway Rights-of-Way
All existing street and highway rights-of-way (as of January 1, 2007) are shown on Map 84 in Washington County’s comprehensive plan as a separate category. Chapter XI in the comprehensive plan provides additional information regarding planned transportation facilities in Washington County. There are 15,661 acres, or about 6 percent of the County, within existing street and highway rights-of-way.

Other Transportation and Utilities (Except Streets and Highways)
This category includes transportation facilities other than street rights-of-way, such as airports, park-ride lots, and railroad rights-of-way. It also includes private and public utilities that provide residents and businesses with electric power, natural gas, communications, water, and sewage and solid waste management facilities and services. This category occupies 1,464 acres, or about 1 percent of the County, on the 2035 land use plan map.

Jurisdictional Highway System Plan
In 1975 the Washington County Board of Supervisors adopted an initial jurisdictional highway system plan. That plan, with a design year of 1990, was intended to help provide the County, over time, with an integrated highway transportation system that would effectively serve and promote a desirable land use pattern in the County, abate traffic congestion, reduce travel time and costs, and reduce accident exposure. The initial plan has been amended periodically to cope with growing traffic demands; maintain an integrated County highway system; adjust the existing jurisdictional highway system to better serve the major changes in traffic patterns taking place within the County; and achieve an equitable distribution of arterial street and highway development and maintenance costs and revenues among the various levels and units of government. The County jurisdictional highway plan was updated in 2007 and 2008 to reflect the recommendations of the new regional plan, and is described in Chapter XI of Washington County’s comprehensive plan.

A Public Transit Plan for Washington County
The current public transit plan for Washington County6 sets forth the findings and recommendations from a study of transit service needs in Washington County and the means by which those needs might best be met. The primary focus of the plan was to provide transit service for Milwaukee County residents to jobs in Washington County through the establishment of the Washington County Commuter Express Service (described in Chapter V of Washington County’s comprehensive plan). The service has evolved over time to primarily provide traditional work commute trips from Washington County to downtown Milwaukee and Wauwatosa. The transit plan also recommended the establishment of shared-ride taxicab services. Shared taxicab services are currently provided by Washington County and the Cities of Hartford and West Bend. Additional information regarding public transit in Washington County is provided in Chapters IV and XI of Washington County’s comprehensive plan.

5 Washington County’s 2035 Land Use Plan is further described earlier in this chapter and Chapter IX of Washington County’s comprehensive plan.
UTILITIES AND ENERGY

Trends and Needs
The following summarizes utility and energy trends and needs as documented in Chapter V of Washington County’s comprehensive plan.

- Sewer service areas within the County include the Cities of Hartford and West Bend and surrounding areas; the Villages of Jackson, Kewaskum, Newburg, and Slinger and surrounding areas; portions of the Village of Germantown; and the unincorporated hamlet of Allenton in the Town of Addison. About 50,128 acres, or 18 percent of the County, were within existing planned sanitary sewer service areas in 2006. About 15,084 acres, or about 5 percent of the County, and 71,500 residents, or 61 percent of the population, were served by public sanitary sewers in 2000.

- Sanitary districts in Washington County include the Allenton Sanitary District in the Town of Addison, the Hilldale Sanitary District in the Town of Hartford, the Scenic Drive Sanitary District in the Town of Trenton, the Silver Lake Sanitary District in the Town of West Bend, and the Wallace Lake Sanitary District in the Towns of Barton and Trenton. There are also two utility districts in the County; the Bark Lake Utility District in Richfield and the Pike Lake Utility District in the Town of Hartford. The Bark Lake Utility District provides street lighting service. The Pike Lake utility district includes land within the boundaries of the Pike Lake Protection and Rehabilitation District, but extends outside lake district boundaries. Sanitary sewer service is provided by the Pike Lake utility district, which discharges to the City of Hartford sewage treatment plant.

- The Big Cedar Lake Management District and the Little Cedar Lake Protection and Rehabilitation Districts, both located partially in the Town of West Bend and partially in the Town of Polk, have adopted sanitary district powers in addition to their lake district powers, but neither district provides sanitary sewerage services. The Big Cedar Lake District provides trash collection services for properties in the district.

- Washington County regulates private onsite wastewater treatment systems (POWTS) for any development that is not served by sanitary sewer. Development in this case applies to residential, commercial, and industrial uses. Chapter 25 of the Washington County Code of Ordinances sets forth the regulations for POWTS in both incorporated (city and village) and unincorporated (town) areas of the County. Between 1980 and 2006, permits were issued for 10,913 POWTS in Washington County.

- Groundwater is the source of water for residential, commercial, and industrial uses in Washington County. Portions of Washington County served by public water utilities encompassed about 13,800 acres, or about 5 percent of the County, in 2000. An estimated 66,800 County residents, or about 57 percent of the County population, were served by public water utilities in 2000. Private water supply systems in the County served about 260 acres in 2000. Other users get their water from private wells.

- The Cities of Hartford and West Bend and the Villages of Jackson, Kewaskum, Newburg, and Slinger have extensive, although not all-inclusive, curb and gutter storm sewer systems. Portions of the Village of Germantown and hamlet of Allenton also have curb and gutter storm sewer systems. All other communities, which include the Towns of Barton, Erin, Farmington, Germantown, Hartford, Jackson,

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7 Information updated since comprehensive plan was adopted and published.
Kewaskum, Polk, Trenton, Wayne, West Bend, the Village of Richfield, and rural portions of the Town of Addison outside Allenton may have limited curb and gutter systems but rely heavily on roadside swales and culverts to collect stormwater and runoff. Many local governments require the use of wet detention basins to help control stormwater runoff and meet the water quality goals specified in Chapter NR 151 of the Wisconsin Administrative Code, regardless of whether they use curb and gutter or roadside swales to convey stormwater.

- Solid waste collection in Washington County was provided by a combination of public and private services in 2006. Solid waste is deposited at general-use landfills accepting municipal waste in adjacent counties. There are no landfills in Washington County that accept municipal or residential waste. Each local government in the County operates a recycling program.

- In a telephone survey of more than 1,200 Washington County residents conducted in 2006, 82 percent of respondents indicated support for expanding wind power. As displayed in Table T-34, Dodge and Fond du Lac Counties, located adjacent west and north of Washington County respectively, are home to a total of 253 commercial wind turbines that generate nearly 400 megawatts of power which can power more than 99,000 households. Portions of Washington County do contain the topography desired for wind farm development.

<table>
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<th>County</th>
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<th>Year of Start Date</th>
<th>Number of Turbines</th>
<th>Megawatts</th>
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<td>Babcock &amp; Brown &quot;Butler Ridge&quot;</td>
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<td>WI Power &amp; Light &quot;Cedar Ridge&quot;</td>
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Source: RENEW Wisconsin and Washington County.

- **Weaknesses and Threats Identified Through S.W.O.T. Analyses**
  Multiple strength, weakness, opportunity, and threat (S.W.O.T.) analyses were conducted during the comprehensive planning process. Weaknesses and threats identified regarding utilities and energy in Washington County include: lack of space for garbage (landfills), lack of encouragement for renewable energy sources, high utility costs, and problems with sanitary sewage.

**Plans**
The following summarizes how existing plans and/or ordinances address utilities as documented in Chapters VI and IX of Washington County’s comprehensive plan.

- **Water Quality Management Plan**
  In 1979, the Regional Planning Commission adopted an areawide water quality management plan for Southeastern Wisconsin as a guide to achieving clean and healthy surface waters within the seven-county Region. The plan has five elements: a land use element; a point source pollution abatement element; a

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non-point source pollution abatement element; a sludge management element; and a water quality monitoring element.

The point source pollution abatement element of the regional water quality management plan is of particular importance to land use planning. That plan element recommends major sewage conveyance and treatment facilities and identifies planned sewer service areas for each of the sewerage systems in Southeastern Wisconsin. Under Wisconsin law, major sewerage system improvements and all sewer service extensions must conform with the water quality management plan.

Sanitary sewer service areas in Washington County are shown on Map 49 in Chapter V of Washington County’s comprehensive plan. A list of adopted sewer service area plans in Washington County is set forth in Table 95 of the comprehensive plan. Additional information regarding areas provided with sewer service and sewerage facilities is provided in Chapter V of the comprehensive plan.

• Water Quality Management Plan Update
The Commission worked with the Milwaukee Metropolitan Sewerage District (MMSD) to update the regional water quality management plan9 for the area within the Kinnickinnic River, Menomonee River, Milwaukee River, Root River, and Oak Creek watersheds; the Milwaukee Harbor estuary; and the adjacent nearshore areas draining to Lake Michigan. The planning area included that portion of Washington County located east of the subcontinental divide, or about 59 percent of the County (see Map 20 in Chapter III of Washington County’s comprehensive plan). The interagency effort used the U.S. Environmental Protection Agency’s recommended watershed approach to update the water quality management plan and to develop the MMSD’s 2020 Facilities Plan for the study area, called the Greater Milwaukee Watersheds. The plan recommends standards to control point and nonpoint pollution sources, and provides the basis for decisions on community, industrial, and private waste disposal systems.

• Regional Water Supply Plan
The Commission adopted a regional water supply plan for the Southeastern Wisconsin Region in 2010.10 The regional water supply plan together with the abovementioned groundwater inventories and a ground water simulation model form the SEWRPC regional water supply management program. The preparation of these three elements included interagency partnerships with the U.S. Geological Survey, the Wisconsin Geological and Natural History Survey, the University of Wisconsin-Milwaukee, the Wisconsin Department of Natural Resources, and many of the area’s water supply utilities.

The regional water supply plan includes the following major components:
- Water supply service areas and forecast demand for water use.
- Recommendations for water conservation efforts to reduce water demand.
- Evaluation of alternative sources of supply, recommended sources of supply, and recommendations for development of the basic infrastructure and institutional structures required to deliver that supply.
- Identification of groundwater recharge areas to be protected from incompatible development.

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- Specification of new institutional structures necessary to carry out plan recommendations.
- Identification of constraints to development levels in subareas of the Region due to water supply sustainability concerns.

**Washington County 2035 Land Use Plan**

Washington County’s 2035 Land Use Plan addresses utility related land uses through the following land use category:

*Other Transportation and Utilities (Except Streets and Highways)*

This category includes transportation facilities other than street rights-of-way, such as airports, park-ride lots, and railroad rights-of-way. It also includes private and public utilities that provide residents and businesses with electric power, natural gas, communications, water, and sewage and solid waste management facilities and services. This category occupies 1,464 acres, or about 1 percent of the County, on the 2035 land use plan map.

**Chapter 25 (Sanitary Code) of the Washington County Code of Ordinances**

As noted in Chapter V of Washington County’s comprehensive plan, Washington County regulates private on-site wastewater treatment systems (POWTS) for any development in the County that is not served by a public sanitary sewer system. The number and type of POWTS located in the County as of 2006 are set forth in Table 78 in Chapter V of the comprehensive plan. The authority to regulate POWTS comes from Chapters Comm 5, Comm 16, Comm 82, Comm 84 through 87, and Comm 91 of the *Wisconsin Administrative Code*. Chapter 25, the Sanitary Code, of the Washington County Code of Ordinances sets forth the regulations for POWTS in the County. Chapter 25 of the County Ordinance should be updated periodically to allow for advancements in POWTS technology over the comprehensive plan design period in accordance with changes to the *Wisconsin Administrative Code*.

**NR 151 and NR 216 of the Wisconsin Administrative Code**

Chapter NR 216 of the *Wisconsin Administrative Code*, which is intended to reduce the discharge of pollutants carried by stormwater, requires county and local governments in urbanized areas, which are identified based on population and density, to obtain a Wisconsin Pollutant Discharge Elimination System (WPDES) Stormwater Discharge Permit. The code requires that the designated county or local government meet State standards to control pollution that enters a municipal storm sewer system and develop a storm sewer system map, a public information and education program, a stormwater and erosion control ordinance, an illicit discharge detection program, and a plan to reduce suspended solids.

Chapter NR 151 of the *Wisconsin Administrative Code* requires that municipalities with a WPDES permit reduce the amount of total suspended solids in stormwater runoff by 20 percent by 2008 and by 40 percent by 2013, with respect to stormwater runoff from areas of existing development with no controls as of October 2004. The Village of Germantown is part of the Milwaukee urbanized area and must obtain a permit from the DNR under Phase I stormwater regulations. The Village of Germantown has applied for a permit as part of a group of other communities in the Menomonee River watershed. Phase II of NR 216 requires municipalities outside urbanized areas with a population greater than 10,000 and a density over 1,000 persons per square mile to obtain a WPDES Stormwater Discharge Permit. As a result of Phase II requirements, the Cities of Hartford and West Bend, Washington County, and the Village of Richfield will be required to obtain permits. Washington County is required to obtain a permit only for coverage of...

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**Note:** Washington County’s 2035 Land Use Plan is further described earlier in this chapter and Chapter IX of Washington County’s comprehensive plan.
its facilities in the City of West Bend, City of Hartford, and the urbanized portions of the Villages of Germantown and Richfield.

In addition, regardless of whether a municipality is required to have a stormwater discharge permit under Chapter NR 216, Chapter NR 151 requires that all construction sites that have one acre or more of land disturbance must achieve an 80 percent reduction in the amount of sediment that runs off the site. With certain limited exceptions, those sites required to have construction erosion control permits must also have post-development stormwater management practices to reduce the total suspended solids (sediment) that would otherwise run off the site by 80 percent for new development, 40 percent for redevelopment, and 40 percent for infill development occurring prior to October 1, 2012. After October 1, 2012, infill development will be required to achieve an 80 percent reduction. If it can be demonstrated that the solids reduction standard cannot be met for a specific site, total suspended solids must be controlled to the maximum extent practicable.

Under the requirements of Chapter NR 151, as of March 10, 2008, incorporated municipalities with average population densities of 1,000 people or more per square mile that are not required to obtain municipal stormwater discharge permits must implement public information and education programs relative to specific aspects of nonpoint source pollution control; municipal programs for management of leaf and grass clippings; and site specific programs for application of lawn and garden fertilizers on municipally-owned properties with over five acres of pervious surface. This requirement applies to virtually all cities and villages.

COMMUNICATION

Trends and Needs
The following summarizes communication trends and needs as documented in Chapters V and VII of Washington County’s comprehensive plan.

- **Telecommunications Service and Facilities**
  Telecommunication facilities in Washington County are documented in Table 82 and Map 54 of Washington County’s comprehensive plan. Although there are many telecommunication service providers, there are only a few basic types of communication services. These are:

  1. Voice Transmission Services; including: “Plain Old Telephone Service” (POTS); cellular wireless; satellite wireless; packet-based telephone networks; and Internet voice services;
  2. Data Transmission Services, including: the Internet; ATM-Frame Relay, and third generation (3G) cellular wireless networks;
  3. Multimedia Services, including: video, imaging, streaming video, data, and voice; and
  4. Broadcast Services, including AM/FM terrestrial radio, satellite radio and television, terrestrial television, and cable television.

Antennas providing wireless cell phone service were inventoried in 2005 as part of the regional telecommunications plan. The location of wireless telecommunications towers and antennas in Washington County are shown on Map 54 and listed in Table 82 of Washington County’s comprehensive plan. Providers with facilities in the County include Ameritech, AT&T, Charter Communications, Cingular, Motorola, NConnect, Netwurx, Nextel, Prime Co, Sprint, TeleCorp, T-Mobile, SBC, U.S. Cellular, Verizon, Verizon North, Voice Stream Wireless, and Time-Warner Cable.

- In a telephone survey of more than 1,200 Washington County residents conducted in 2006, 72 percent of respondents indicated support for expanding high speed internet service.
Weaknesses and Threats Identified Through S.W.O.T. Analyses

Multiple strength, weakness, opportunity, and threat (S.W.O.T.) analyses were conducted during the comprehensive planning process. A weakness identified regarding communication in Washington County was a lack of broadband service in parts of the County.

Plans

The following summarizes how existing plans and/or ordinances address communication as documented in Chapters VI and IX of Washington County’s comprehensive plan.

- **Regional Telecommunications Plan**
  Telecommunications have become increasingly important in the local, national, and global economies. SEWRPC has undertaken a regional telecommunications planning effort to create a better understanding of telecommunications networks and the provision of services such as wireless and wireline telecommunications and high speed, broadband telecommunications throughout the Region. An inventory of wireless telecommunications providers and antennas providing cell phone service in Washington County is included in SEWRPC Planning Report No. 51, *A Wireless Antenna Siting and Related Infrastructure Plan for Southeastern Wisconsin*, published in September 2006. In addition to presenting inventories of both infrastructure and performance for the existing cellular/PCS mobile wireless networks operating in the Region, the plan describes a recommended wireless telecommunications plan for the Region.

  The wireless communications plan recommended in Planning Report No. 51 consists of two levels of wireless networks – a wireless backhaul network\(^{12}\) plan and a community-level wireless access network plan. The plan sets forth an approach to implement both the regional wireless backhaul network and community level wireless network plans. The proposed plan implementation process is intended to influence, rather than replace, existing competitive private sector, market-driven planning in order to promote the public interest within the Region. The Towns of Addison and Wayne worked with SEWRPC to develop a community level wireless access network plan. The Town of Wayne is currently working with HeirComm Networks to implement its plan.

  A regional broadband access plan, which built upon the wireless telecommunications plan, was completed in 2007.\(^{13}\) Upon implementation, this plan will support a mix of wireline and wireless networks that will provide fourth generation (4G) video, voice, and data communications services to the entire Region. A central feature of the recommended plan is the potential for cooperative efforts between the public and private sectors in which infrastructure costs are shared between the public safety and commercial networks. Implementation of the recommended plan will require county or multi-county action, although partial implementation can be achieved at the community or multi-community level.

- **Washington County 2035 Land Use Plan**\(^{14}\)
  Washington County’s 2035 Land Use Plan addresses communication related land uses through the “Other Transportation and Utilities” category described on page 102 of this document.

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\(^{12}\) A backhaul network is designed to convey wireless communications data from multiple users in a relatively small service area to a centralized access point. Multiple access points in a larger service area in turn transmit wireless data to a cable Internet connection (gateway) maintained by a local exchange company. Information is also disseminated from the Internet to the access network, then to local users through the backhaul network.


\(^{14}\) Washington County’s 2035 Land Use Plan is further described earlier in this chapter and Chapter IX of Washington County’s comprehensive plan.
BUSINESS DEVELOPMENT

Trends and Needs
The following summarizes business development trends and needs as documented in Chapter II of this plan as well as Chapter XIII of Washington County’s comprehensive plan.

- As stated in Chapter II of this plan, farm proprietor employment and farm employment in general have experienced a decline in recent years.

- While the agricultural sector constitutes a small and declining share of the regional economy, it still constitutes a viable economic sector. Wisconsin agriculture is expected to hold a comparative advantage in the dairy and vegetable segments. However, due to continued technological advances in genetics and mechanization, cost pressures from national and global competition, and modern management practices, the employment levels in agriculture may be expected to continue to decline. The continued conversion of farmland to urban uses may also be expected to reduce agricultural employment in the Region.

- While the overall number of jobs in Washington County is projected to increase between 2000 and 2035, jobs in agricultural, agricultural services, forestry, mining, and unclassified jobs are projected to experience a decline of 156 jobs or by about 7 percent.

- The status of agriculture has evolved over recent years. As a whole, farm operators are getting older and are less likely to participate in farming as a full-time occupation. Between 1982 and 2007, the average age of principal farm operators in Washington County increased from 50 to 56. Nearly 30 percent of principal operators in Washington County are age 65 or older – a typical retirement age among other professions. More than half are age 55 or older.

- In Washington County, the number of principal farm operators reporting farming as their primary occupation declined from 552 in 2002 to 437 in 2007 or by 21 percent over the last five years. This is likely due to a combination of factors, including difficulty covering operational expenses on small and mid-sized farms, a desire for more stable wages and health insurance, and an increase in residential-lifestyle farms.

- An emerging trend since 2000 is the presence of immigrant labor on dairy farms. Roughly 40 percent of hired workers on Wisconsin dairy farms are recent immigrants, primarily of Hispanic descent.

- In Washington County, 16 percent of principal farm operators are women, an increase of 6 percent from 2002 to 2007. Women comprised 31 percent of all farm operators in 2007, a decrease of 4 percent since 2002.

- A list of desirable businesses was developed by the HUED workgroup during the comprehensive planning process based in part on the information presented in Chapter XIII of Washington County’s comprehensive plan and consideration of the recommendations in the Washington County Economic Development Strategic Plan and the Milwaukee 7 Strategic Framework. Desired agricultural business and industries for Washington County included:

15 The HUED workgroup focused primarily on developing the Housing, Utilities and Community Facilities, and Economic Development elements of Washington County’s comprehensive plan.
Niche agriculture, including organic farming; food production for local restaurants, micro-breweries, and other niches; and crop production for the bio-fuel industry

Continuation of dairy farming and other existing types of agriculture

Food processing

During a brainstorming exercise conducted with the HUED workgroup during the comprehensive planning process, the County’s perceived strengths and weaknesses regarding attracting and retaining desirable businesses and industries that may be related to agriculture include:

Strengths

- Strong regional cooperation and promotion through the Milwaukee 7 economic development initiative
- Strong educational system including high schools, UW-Washington County (UWWC), and Moraine Park Technical College (MPTC); and proximity to Milwaukee area universities and colleges, including Milwaukee Area Technical College (MATC)\(^{16}\)
- High quality of life, including good healthcare; recreational and open space amenities; rural character; high quality public services; low crime rate; cultural opportunities; and location in the Milwaukee Metropolitan Area
- Highway system, USH 41/USH 45, and good access to Milwaukee and Chicago
- Access to transportation and/or shipping through rail, local airports, General Mitchell International Airport, and the Port of Milwaukee
- Educated and skilled workforce
- County and local governments that are receptive to business needs
- Consistent population growth
- Fair Park (meeting, convention, and exhibition facilities that operate year-round to showcase area businesses)

Weaknesses

- Lack of jobs with pay levels high enough to afford housing in the County
- Lack of affordable workforce housing
- Too many educated young people leaving the County
- Aging of the County’s workforce population
- High land costs
- Lack of availability of business services
- County residents can be reluctant to change and fearful of new business ideas
- “NIMBY” (Not In My Back Yard) attitude in some cases

Many goals, objectives, policies, and programs that are identified in Washington County’s comprehensive plan that directly address agriculture are listed in Chapter III of this farmland preservation plan.

\(^{16}\) Communities within the Germantown School District are within the MATC service area.
Plans
The following summarizes how Washington County’s 2035 Land Use Plan addresses business development as documented in Chapter IX of Washington County’s comprehensive plan.

- **Washington County 2035 Land Use Plan**\(^{17}\)
  Washington County’s 2035 Land Use Plan addresses business development related land uses through the following land use categories:

  *Mixed-Use*
  The mixed-use category occupies 3,453 acres, or about 1 percent of the County, on the 2035 land use plan map, and would include a mix of residential, commercial, and institutional uses. Parcels designated for mixed use should be developed in accordance with a site plan approved by the local government concerned, and typically would be subject to planned unit development or traditional neighborhood development regulations in the local zoning ordinance. Mixed use areas are generally located along arterial highways. The concept is that commercial and institutional uses would be located adjacent to the arterial highway and would help to buffer residential uses from highway noise. Each local government would determine the uses allowed within this category by specifying the uses and allowable densities in their community comprehensive plan and zoning ordinance.

  *General Commercial*
  General commercial uses occupy 4,064 acres, or about 2 percent of the County, on the 2035 land use plan map. This category includes retail stores; services, including drycleaners, barber shops, banks, and restaurants; and business and professional offices. This category also includes downtown business districts and community and neighborhood shopping centers.

  *Office/Professional Services*
  The office/professional services category occupies 568 acres, or less than 1 percent of the County, on the 2035 land use plan map. This category is more limited in the types of uses permitted than the general commercial category; primarily because it would include only limited retail uses. The office/professional services category includes a variety of business uses such as the offices and professional services of doctors, dentists, architects, engineers, attorneys, computer programmers, graphic artists, insurance agents, travel agents, financial planners, and other similar recognized professions and consultation services. This category may also include corporate headquarters, financial institutions, and medical facilities.

  *Business/Industrial*
  The business/industrial category occupies 2,261 acres, or about 1 percent of the County, on the 2035 land use plan map. This category would allow a mix of industrial, office, retail, and service uses, and reflects the modern business park where a mix of office and industrial uses are typically accommodated. It is

\(^{17}\) *Washington County’s 2035 Land Use Plan is further described earlier in this chapter and Chapter IX of Washington County’s comprehensive plan.*
anticipated that these areas would be developed in a park-like setting with landscaping, consistent signage, and similar building materials and designs to present an integrated image to customers.

*Industrial*

The plan envisions that the areas devoted to industrial land uses would occupy 3,971 acres, or about 1 percent of the County. This category would accommodate manufacturing and other industrial uses, such as outdoor storage of commercial vehicles and building materials.

**Organizations and Programs**

Although Washington County does not have a specific plan to guide business development in the County other than from the perspective of land use, a number of economic development organizations and programs have been created to assist in the establishment, retention, and expansion of area businesses, some of which could possibly be utilized to assist agribusiness development. Such organizations and programs are described in Part 2 of Chapter XIII in Washington County’s comprehensive plan (beginning on page 539).

**COMMUNITY FACILITIES AND SERVICES**

**Trends and Needs**

The following summarizes community facility and service trends and needs as documented in Chapter V of Washington County’s comprehensive plan.

- The Cities of Hartford and West Bend and the Villages of Germantown, Jackson, Kewaskum, and Slinger each have a municipal police department that provides service 24 hours a day, seven days a week. The Village of Newburg and the Town of Trenton also have police departments. These two departments do not operate 24 hours a day, seven days a week, and the Washington County Sheriff’s Department provides service to these areas when the municipal police departments are not operating. All unincorporated areas in the County and the Villages of Newburg and Richfield are served by the Washington County Sheriff’s Department.

- There were 14 fire departments serving the County in 2006, which include the Allenton Volunteer, Ashippun Volunteer (Dodge County), Boltonville Volunteer, Fillmore Volunteer, Germantown, Hartford, Jackson, Kewaskum, Kohlsville Volunteer, Newburg Volunteer, Richfield, Slinger Volunteer, St. Lawrence Volunteer, and West Bend fire departments. There were also 32 emergency medical service (EMS) zones in the County served by 15 EMS departments in 2006.

- There were 4 fire departments serving the County in 2006, which include the Allenton Volunteer, Ashippun Volunteer (Dodge County), Boltonville Volunteer, Fillmore Volunteer, Germantown, Hartford, Jackson, Kewaskum, Kohlsville Volunteer, Newburg Volunteer, Richfield, Slinger Volunteer, St. Lawrence Volunteer, and West Bend fire departments. There were also 32 emergency medical service (EMS) zones in the County served by 15 EMS departments in 2006.

- There were 4 public safety answering points (dispatch centers) in Washington County taking emergency calls 24 hours a day.

- There were two hospitals in the County offering a full range of medical services in 2006, Saint Joseph’s Hospital located in the Town of Polk and Aurora Medical Center of Washington County located in Hartford. Saint Joseph’s Hospital had 138 beds and Aurora Medical Center of Washington County had 71 beds in 2006.

- There were 36 public schools in five high school districts and 26 private schools in the County in 2006 serving elementary and secondary grades. There is also one college and one technical college.
Plans
The following summarizes how Washington County’s 2035 Land Use Plan addresses community facilities and services as documented in Chapter IX of Washington County’s comprehensive plan.

- **Washington County 2035 Land Use Plan**\(^{18}\)
  Washington County’s 2035 Land Use Plan addresses community facility and service related land uses through the following land use category:

  **Governmental and Institutional**
  The governmental and institutional land use category includes governmental and institutional buildings and grounds for which the primary function involves administration, safety, assembly, or educational purposes. This includes public and private schools, government offices, police and fire stations, libraries, cemeteries, religious institutions, hospitals, nursing homes, and similar facilities. The plan envisions that the areas devoted to such uses would occupy 2,876 acres, or about 1 percent of the County.

WASTE MANAGEMENT

Trends and Needs
The following summarizes waste management trends and needs as documented in Washington County’s Land and Water Resource Management Plan\(^{19}\) and Chapter V of Washington County’s comprehensive plan.

**Human Waste**
- Waste materials, including pharmaceuticals, hazardous substances, tires, and electronic goods are potential sources of pollutants to the land and water resources of Washington County. Improper disposal of these wastes into landfills, roadside ditches and waterbodies is a concern of our generation as well as future generations.
- Working with partners, the County organizes and hosts countywide “Clean Sweep” waste collections. The program facilitates safe and convenient disposal of acceptable waste products through licensed, State-approved organizations.
- Solid waste collection in Washington County was provided by a combination of public and private services in 2006. Solid waste is deposited at general-use landfills accepting municipal waste in adjacent counties. There are no landfills in Washington County that accept municipal or residential waste. Each local government in the County operates a recycling program.
- Washington County regulates private onsite wastewater treatment systems (POWTS) for any development that is not served by sanitary sewer. Development in this case applies to residential, commercial, and industrial uses. Chapter 25 of the Washington County Code of Ordinances sets forth the regulations for POWTS in both incorporated (city and village) and unincorporated (town) areas of the County. Between 1980 and 2006, permits were issued for 10,913 POWTS in Washington County.
- **Weaknesses and Threats Identified Through S.W.O.T. Analyses**
  Multiple strength, weakness, opportunity, and threat (S.W.O.T.) analyses were conducted during the comprehensive planning process. Weaknesses and threats identified regarding waste management in

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\(^{18}\) Washington County’s 2035 Land Use Plan is further described earlier in this chapter and Chapter IX of Washington County’s comprehensive plan.

\(^{19}\) Documented in Land and Water Resources Management Plan (2nd Revision 2011-2020), Washington County, Wisconsin, October 2010, prepared by the Land and Water Conservation Division of the Washington County Planning and Parks Department.
Washington County include: lack of space for garbage (landfills) and no solution for waste materials management.

**Animal Waste**
- According to the 2008 Census of Agriculture, Washington County was home to 35,500 cattle and calves and 1,500 hogs and pigs. These animals produce as much waste as a city of approximately 650,000 people. This manure can be a valuable and economical source of fertilizer, however, if improperly managed, it can adversely impact water quality and aquatic life.

- Significantly lowered oxygen levels occur as a direct result of the decomposition of animal wastes in streams and lakes. Furthermore, animal waste contains high concentrations of phosphorus and nitrogen. When added to the ecosystem, they create conditions favorable for the occurrence of eutrophication, thereby inducing similar problems caused by commercial fertilizer runoff. Bacteria (e.g. fecal coliform) and ammonia (a toxic form of nitrogen) are also associated with raw waste. Both are harmful, and in extreme cases, fatal, to both animals and humans.

- The major sources of manure runoff in the County are from Animal Feeding Operations (AFOs), improper storage and field spreading practices, and stream pasturing. The Wisconsin Priority Watershed Program has been highly successful in certain areas of the County, but manure management practices must be implemented by all livestock farms in the County.

**Plans**
The following summarizes how the Land and Water Resources Management Plan addresses waste management.

- **Land and Water Resources Management Plan**
  - An updated Land and Water Resources Management Plan was adopted by the County Board in October 2010. The following goals, objectives, and planned actions and outcomes were identified within the plan for animal and hazardous human waste management:
    - **Goal:** Reduce the human and environmental risks posed by animal waste.
      - **Objective:** Continue application of the County’s Manure Storage Ordinance (Chapter 16).
    
    **Planned Actions and Outcomes**
    - Continue to provide high quality technical review and planning assistance.
    - Continue updates to Chapter 16 of the County Code to include new State and Federal standards.
    - Continue to develop an inspection procedure and inspection schedule for manure storage facilities.
    - Inspect 10% of facilities annually based on procedure; take follow-up action as needed.
    - Educate producers, town officials, agricultural lenders and contractors regarding ordinance requirements through a minimum of 1 method annually (e.g., event displays, presentations, website, brochures, newsletters, etc.).

    - **Objective:** Ensure that all livestock operations have no: overflowing manure storage facilities, unconfined manure stacks within Water A manure storage facility. Reducing the human and environmental risks posed by animal waste is a goal outlined in Washington County’s Land and Water Resources Management Plan.

Overflow of manure from storage facilities can be harmful to human health and water quality.
Quality Management Areas, direct runoff from feedlots or stored manure to water resource, and/or animals in streams where degradation of the streambank has or will likely occur.

**Planned Actions and Outcomes**

- Continue to map existing livestock operations.
- Continue to conduct on-site inventory of existing operations to determine compliance.
- Continue to develop and revise producer farm resource conservation plans which address these objectives.
- Educate producers, town officials, agricultural lenders and contractors regarding these objectives through a minimum of 1 method annually (e.g., event displays, presentations, website, brochures, newsletters, etc.).
- Assist a minimum of 5 producers annually to implement corrective measures.
- Develop a monitoring and inspection procedure that encompasses State Performance Standards.
- Promote waste-spreading BMPs that prevent runoff to water resources through a minimum of 1 method annually (e.g., event displays, presentations, website, brochures, newsletters, etc.).
- Inspect 10% of operations annually and take follow-up action as needed.

**Objective:** Assist with the planning and development of livestock expansions.

**Planned Actions and Outcomes**

- Continue to provide technical assistance for expansion projects.

**Goal:** Reduce the human and environmental risks posed by hazardous waste.

**Objective:** Provide convenient and cost effective methods for County residents to dispose of unused hazardous waste, thereby protecting County natural resources.

**Planned Actions and Outcomes**

- Establish permanent annual funding for the full-service Clean Sweep program.
- Continue to promote partnerships with local governments, health care facilities and the business community involving program initiatives.
- Continue to promote and conduct annual Countywide full-service Clean Sweep Collections incorporating pharmaceutical, electronic goods, tires, hazardous waste, etc. through a minimum of 4 methods annually
  - (e.g., event displays, presentations, website, brochures, newsletters, press releases, etc.).

**Objective:** Increase awareness on the hazards of dioxins and other toxins/carcinogens emitted by open burning.

**Planned Actions and Outcomes**

- Provide educational materials to residents through a minimum of 1 method annually (e.g., event displays, presentations, website, brochures, newsletters, etc.). Provide information to producers as part of farm assessments.
MUNICIPAL EXPANSION

Trends and Needs
The following summarizes municipal expansion trends and needs as documented in Chapter IV of Washington County’s comprehensive plan.

- **Urban Growth Ring Analysis and Historical Urban Growth**
  SEWRPC utilizes an urban growth ring analysis and a land use inventory to inventory and monitor urban growth and development in the Region as shown on Map 36 of Washington County’s comprehensive plan. The Commission land use inventory is a more detailed inventory that places all land and water areas in the Region into one of 66 land use categories, providing a basis for analyzing specific urban and nonurban land uses. The inventory results, as they apply to the County, are summarized in Part 1 of Chapter IV in Washington County’s comprehensive plan.

- **Weaknesses and Threats Identified Through S.W.O.T. Analyses**
  Multiple strength, weakness, opportunity, and threat (S.W.O.T.) analyses were conducted during the comprehensive planning process. Weaknesses and threats identified regarding municipal expansion in Washington County include: annexation of farmland for development, pressures to sell agricultural land, lack of consistent zoning and planning, rapid development, annexing and/or subdividing without sewer services, blurring between rural and urban areas, high cost of land values because of aggressive growth, land use patterns do not allow for efficient delivery of government services and result in higher costs, and loss of property owner’s rights.

Plans
The following summarizes how existing plans address municipal expansion as documented in Chapters VI and IX of Washington County’s comprehensive plan.

- **Regional Land Use Plan**
  As previously stated in this chapter, the regional land use plan sets forth the fundamental concepts that are recommended to guide the development of the seven-county Southeastern Wisconsin Region. See the housing section of this chapter in which the Regional Land Use Plan is further described.

- **Municipal Boundary Agreements**
  Boundary agreements currently exist between the following local governments:
  - Village and Town of Jackson
  - City and Town of West Bend
  - City of Hartford, Village of Richfield, and Towns of Erin and Hartford

  More information regarding municipal boundary agreements can be found in Chapter VI of Washington County’s comprehensive plan.

- **Intergovernmental Agreements**
  Intergovernmental agreements currently exist between the following local governments:
  - City of Hartford and Town of Erin
  - City of Hartford and Village of Slinger

  More information regarding municipal boundary agreements can be found in Chapter VI of Washington County’s comprehensive plan.
Ordinances

A zoning ordinance is a public law that regulates and restricts the use of property in the public interest. The primary function of zoning should be to implement an adopted master or comprehensive plan. Indeed, Section 66.1001(3) of the Wisconsin Statutes requires that zoning, land divisions, and official mapping decisions made by local and county governments be consistent with local and county comprehensive plans as of January 1, 2010.

A zoning ordinance divides a community into districts for the purpose of regulating the use of land and structures; the height, size, shape, and placement of structures; and the density of housing. A zoning ordinance typically consists of two parts: a text setting forth regulations that apply to each of the various zoning districts, together with related procedural and administrative requirements; and a map delineating the boundaries of zoning districts.

The following summarizes how existing ordinances may impact farmland preservation as documented in Chapters VI of Washington County’s comprehensive plan.

- **Zoning Ordinances**
  Each city, town, and village in Washington County has adopted and enforces its own zoning ordinance. Local governments have substantial influence over agricultural resources in the County, especially with regard to providing protection for agricultural lands and providing areas for development through local comprehensive plans and zoning ordinances. In towns, town zoning applies in all areas of the town except the shoreland area. The County enforces shoreland and floodplain zoning regulations in shoreland areas in the towns.

- **Extraterritorial Zoning Regulations**
  The Wisconsin Statutes authorize cities and villages to adopt extraterritorial zoning regulations for adjacent unincorporated areas, in cooperation with the adjacent town, within three miles of a city of the first, second, or third class, and within 1.5 miles of a city of the fourth class or villages.

  No permanent extraterritorial zoning regulations were in effect in Washington County in 2010. More information regarding extraterritorial zoning regulations in Washington County can be found in Chapter VI of the County’s comprehensive plan.

- **Land Division Regulations**
  A land division ordinance is a public law that regulates the division of land into smaller parcels. Land division ordinances provide for appropriate public oversight of the creation of new parcels and help ensure that new development is appropriately located; lot size minimums specified in zoning ordinances are observed; street rights-of-way are appropriately dedicated or reserved; access to arterial streets and highways is limited in order to preserve the traffic-carrying capacity and safety of such facilities; adequate land for stormwater management, parks, drainageways, and other open spaces is appropriately located and preserved; street, block, and lot layouts are appropriate; and adequate public improvements are provided. Land division ordinances can be enacted by cities, villages, towns, and counties, with the latter’s approval authority applying only in unincorporated (town) areas and limited objecting authority applying within cities and villages. Thus, within towns, it is possible for both counties and towns to have concurrent jurisdiction over land divisions. Cities and villages also have “extraterritorial” plat approval jurisdiction over subdivisions proposed in town areas near their corporate boundaries.

  The Washington County land division ordinance regulates land divisions in towns that initially or by subsequent divisions create five or more lots of five acres each or less in area within a five-year period. In addition, the Washington County shoreland and floodplain zoning ordinance includes land division regulations for areas located in the shoreland district. As required by Chapter NR 115 of the Wisconsin Administrative Code, the ordinance regulates land divisions creating three or more lots of five acres or
less within a five-year period. Washington County also has authority under Section 236.10 of the Statutes to review and approve all subdivisions located in unincorporated portions of the County.

All cities and villages in the County have adopted a land division ordinance, and all of the towns except the Town of Germantown have adopted a land division ordinance. Under Chapter 236, local governments are required to review and take action on plats for subdivisions. Table 100 in Chapter VI of Washington County’s comprehensive plan provides a summary of the scope of land division ordinances adopted by local governments in Washington County.

- **Extraterritorial Platting Authority**
  Under Section 236.10 of the Statutes, a city or village may review, and approve or reject, subdivision plats located within its extraterritorial area if it has adopted a subdivision ordinance or an official map. Section 236.02 of the Statutes defines the extraterritorial plat review jurisdiction as the unincorporated area within three miles of the corporate limits of a city of the first, second, or third class, or within 1.5 miles of the corporate limits of a city of the fourth class or a village. The Cities of West Bend and Hartford, and the Villages of Germantown, Jackson, Kewaskum, Newburg, Richfield, and Slinger have extraterritorial plat authority over adjacent land in unincorporated areas.

- **Official Mapping Ordinances**
  Section 62.23(6) of the Wisconsin Statutes allows the Common Council of any City to establish an official map for the precise identification of right-of-way lines and boundaries of streets, highways, waterways, and parkways and the location and extent of railroad rights-of-way, public transit facilities, parks, and playgrounds. An official map is intended to be used as a precise planning tool for implementing master and comprehensive plans and for insuring the availability of land for the above features.

  All of the towns in Washington County have adopted village powers and created a town plan commission. The clerk of any city, village, or town in the County that adopts an official map by ordinance or resolution must record a certificate showing that the city, village, or town has established an official map with the Washington County register of deeds.

  One of the basic purposes of the official map is to discourage the construction of structures and their associated improvements on land that has been designated for future public use. Local government subdivision ordinances can also require land shown on the official map to be dedicated for street, park, or other public use at the time land is subdivided. The official map is a plan implementation device that operates on a communitywide basis in advance of land development and can thereby effectively assure the integrated development of the street and highway system, and unlike subdivision control, which operates on a plat-by-plat basis, the official map can operate over the entire community in advance of development proposals. The official map is a useful device to achieve public acceptance of long-range plans in that it serves legal notice of the government’s intention well in advance of any actual improvements. The Cities of Hartford and West Bend and the Villages of Jackson and Kewaskum have adopted official maps. The maps were last updated in 1997, 2001, 2007, and 2001, respectively.

**ENVIRONMENTAL PRESERVATION**

**Trends and Needs**

The following summarizes environmental preservation trends and needs as documented in Chapter III of Washington County’s comprehensive plan and Chapters II and III of the County’s draft park and open space plan.

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20 Waterways may be placed on the map only if included within a comprehensive surface water drainage plan.
• **Conservation Reserve Enhancement Program**
  The Conservation Reserve Enhancement Program (CREP) is a Federal-State-Local partnership between the USDA Farm Services Agency (FSA), the NRCS, the Wisconsin Department of Natural Resources (DNR), DATCP, and participating County Land Conservation Departments (LCD) throughout Wisconsin. The goal of CREP in Washington County is to establish riparian buffers and/or restore wetlands along navigable streams in order to reduce upland sediment (erosion) and pollution from entering surface waters. Agricultural lands that are currently being farmed are eligible for this program through 15-year contracts or through permanent conservation easements.

• **Soil and Water Resource Management Program**
  In 2004 the County elected to no longer participate in the CREP program, however, through annual grants from the DATCP Soil and Water Resource Management (SWRM) Program, the County has continued to promote the installation of riparian buffers. Landowners agreeing to the same restrictions required by CREP receive the same financial incentives that were offered through the CREP as CREP Equivalent Payments. Similar to CREP, agricultural lands that are currently being farmed are eligible for this program through 15-year contracts or through permanent conservation easements.

• **Conservation Reserve Program**
  The USDA administers the Conservation Reserve Program (CRP) to help provide water quality protection, erosion control, and wildlife habitat in agricultural areas. Under the CRP, the landowner enters into an agreement to restore or protect lands for a 10-year or longer period in return for cash payments or assistance in making conservation improvements.

• **Wetland Reserve Program**
  The Wetland Reserve Program (WRP) is a program aimed at protecting wetlands on private property. This is typically done by providing a financial incentive to landowners to restore wetlands that have been drained for agricultural use. Landowners who choose to participate in the program may sell a conservation easement to the USDA or enter into a cost-share restoration agreement with the USDA to restore wetlands. The landowner retains private ownership of the wetland area but limits future uses.

• **Environmental Corridors and Isolated Natural Resource Areas**
  Environmental corridors and isolated natural resource areas are described in Chapter III of Washington County’s comprehensive plan. In 2000, about 60,300 acres, comprising about 22 percent of the County, were encompassed within primary environmental corridors. About 9,800 acres, comprising about 3 percent of the County, were encompassed within secondary environmental corridors. Isolated natural resource areas encompassed about 6,450 acres, or about 2 percent of the County.

• **Natural Areas, Critical Species Habitat, and Aquatic Sites**
  Natural areas, critical species habitat, and aquatic sites are described in Chapter III of Washington County’s draft park and open space plan. As of 2009, a total of 94 natural areas, encompassing about
16,852 acres, or about 6 percent of the County, have been identified. Of the 94 identified sites, eight are classified as NA-1 sites (statewide or greater significance) and encompass about 3,267 acres, 29 are classified as NA-2 sites (countywide or regional significance) and encompass about 5,715 acres, and 57 are classified as NA-3 sites (local significance) and encompass about 7,870 acres.

Twenty-one critical species habitat sites have been identified in Washington County. These sites encompass an area of 615 acres, or less than 1 percent of the County. There are also 60 aquatic habitat sites supporting threatened or rare fish, herptile, or mussel species in the County, including 188 miles of rivers and streams and 2,749 acres of lake waters.

- **Park and Open Space Sites** As of 2009, there were 26,652 acres of park and open space land encompassing about 10 percent of Washington County in fee simple ownership. An additional 2,734 acres were under conservation or other easements intended to protect the natural resources of a site.

  o **Owned by Washington County**

    In 2009, Washington County owned 16 park and open space sites, including seven major parks encompassing 1,229 acres; seven other park and outdoor recreation sites encompassing 154 acres; and two special outdoor recreation sites, not considered part of the County park system, encompassing 141 acres. In all, these 16 sites encompass 1,524 acres, or less than 1 percent of the County.

  o **Owned by the State of Wisconsin**

    In 2009, there were 31 State owned park and open space sites encompassing 12,551 acres, or about 5 percent of the County. Of these 31 sites, 23 sites encompassing 12,155 acres were owned by the Wisconsin Department of Natural Resources; five sites, encompassing 305 acres were owned by the Wisconsin Department of Transportation; and three sites, encompassing 91 acres, were owned by the University of Wisconsin.

  o **Owned by Local Governments and Public Schools**

    In addition to County and State owned park and open space sites, there were 158 park and open space sites owned by local governments and public schools in Washington County in 2009. Those sites encompassed about 3,602 acres, or about 1 percent of the County. Local governments owned 124 of the park and open space sites and public schools owned 34 of the sites.

  o **Commercial and Organizational Park and Open Space Sites**

    In 2009 there were 108 of these sites encompassing about 6,547 acres, or about 2 percent of the County. These sites include privately-owned golf courses, schools, subdivision parks, hunting clubs, campgrounds, boat access sites, horse stables, and soccer parks.

  o **Private and Public-Interest Resource Oriented Park and Open Space Sites**

    There are a number of conservation organizations active in Washington County, including the Ozaukee Washington Land Trust, the Cedar Lakes Conservation Foundation, The Nature Conservancy, and other non-profit conservation organizations. These organizations acquire lands for resource protection purposes. Such
organizations owned 32 sites encompassing 2,427 acres in 2009. A religious organization, the Carmelite Fathers, also own a 446-acre site (Holy Hill), and the Big Cedar Lake Protection and Rehabilitation District owns three sites encompassing 149 acres for resource protection purposes.

- **Weaknesses and Threats Identified Through S.W.O.T. Analyses**
  Multiple strength, weakness, opportunity, and threat (S.W.O.T.) analyses were conducted during the comprehensive planning process. Weaknesses and threats identified regarding environmental preservation in Washington County include: lack of protection for natural resources (including funding and community involvement), impervious surfaces preventing groundwater recharge, abuse/overuse of groundwater supply, and loss of wetlands and environmental corridors.

**Plans**
The following summarizes how existing plans address environmental preservation as documented in Chapters VI and IX of Washington County’s comprehensive plan.

- **Regional Land Use Plan**
The regional land use plan recommends that primary environmental corridors be preserved, with limited exceptions. The regional plan includes guidelines for essential facilities and other limited development that can be accommodated within environmental corridors while maintaining the basic integrity of the corridors, as shown on Table 94 of Washington County’s comprehensive plan. Limited development on the fringes of upland environmental corridors may also be accommodated under specified conditions. Primary environmental corridors are shown on Map 67 of the comprehensive plan. The regional plan further recommends the preservation, to the extent practicable, of the remaining secondary environmental corridors and isolated natural resource areas, as determined through county and local planning efforts.

- **Regional Natural Areas Plan**
The regional natural areas plan as it pertains to Washington County is depicted on Maps 25 and 26 in Chapter III of Washington County’s comprehensive plan. The natural areas plan identifies the most significant remaining natural areas, critical species habitats, geological sites, and archaeological sites in the Region, and recommends means for their protection and management. The plan identifies potential sites to be placed in public or private protective ownership, and other sites to be protected, insofar as it is possible, through zoning or other regulatory means without protective ownership. It also recommends that a detailed management plan be prepared and implemented for each site placed under protective ownership. An amendment to the natural area plan was adopted by the Commission in December 2010. The recommendations of the amended regional natural areas plan will be incorporated into the update to the Washington County Park and Open Space Plan.

- **Washington County 2035 Land Use Plan Map**
  Washington County’s 2035 Land Use Map addresses environmental preservation related land uses through the following land use categories:

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22 Documented in Amendment to the Natural Areas and Critical Species Habitat Protection and Management Plan for the Southeastern Wisconsin Region, December 2010.  
23 Washington County’s 2035 Land Use Plan is further described earlier in this chapter and Chapter IX of Washington County’s comprehensive plan.
Environmentally Significant Areas

To effectively guide urban development and redevelopment in the County into a pattern that is efficient, stable, safe, healthful, and attractive, it is necessary to carefully consider the location of planned land uses in relation to natural resources. Locating new urban development outside of primary environmental corridors and other environmentally sensitive areas will serve to maintain a high level of environmental quality in the County, and will also avoid costly development problems such as flood damage, wet basements, failing pavements, and infiltration of clear water into sanitary sewerage systems. Properly relating new development to such environmentally significant areas will also help preserve the scenic beauty of the County, which depends on its natural resources.

The comprehensive plan recommends substantial preservation of remaining primary environmental corridors, isolated natural resource areas, and other environmentally sensitive areas. Development within these areas should be limited to required transportation and utility facilities, compatible outdoor recreation facilities, and very low density residential development carefully designed so as to minimize the impact on natural resources.

Primary Environmental Corridors

Environmental corridors, more fully described in Chapter III of the comprehensive plan, are linear areas in the landscape that contain concentrations of high-value elements of the natural resource base. Primary environmental corridors contain almost all of the best remaining woodlands, wetlands, and wildlife habitat areas, as well as floodplains and steeply sloped areas where intensive urban development would be ill-advised. The protection of the primary environmental corridors from additional intrusion by urban development is one of the principal objectives of this plan. Primary environmental corridors occupy 55,232 acres, or about 20 percent of the County on the 2035 land use map.

Secondary Environmental Corridors

Secondary environmental corridors contain concentrations of high-value elements of the natural resource base, but are smaller in area than primary environmental corridors. Secondary corridors serve to link primary corridors, or encompass areas containing concentrations of natural resources between 100 and 400 acres in size. Secondary environmental corridors occupy 9,424 acres, or about 3 percent of the County on the 2035 land use map. Secondary environmental corridors facilitate surface water drainage and provide corridors for the movement of wildlife and for the dispersal of seeds for a variety of plant species.

Isolated Natural Resource Areas

Isolated natural resource areas consist of areas with important natural resource values which are separated geographically from environmental corridors. Most of the isolated natural resource areas in the County are wetlands or tracts of woodlands that are at least 200 feet wide and between five and 100 acres in area. Isolated natural resource areas, under the plan, occupy 6,265 acres, or about 2 percent of the County in 2035. The plan recommends that these areas be preserved in essentially natural, open space uses whenever possible, since these areas sometimes serve as the only available wildlife habitat in an area and provide natural diversity to the landscape. Isolated natural resource areas also lend themselves for certain uses such as parks, drainageways, or stormwater detention or retention areas.

Wetlands

Most wetlands five acres or larger are located within primary or secondary environmental corridors or isolated natural resource areas. Those that are outside these areas are designated in a separate category on the land use plan map, and encompass 1,192 acres, or less than 1 percent of the County in 2035. Wetlands are regulated under State and Federal laws and County ordinances. Development of wetlands (usually requiring them to be filled) is limited. Permits to allow development in wetlands generally...
require “mitigation,” which requires new wetlands to be created or existing degraded wetlands to be restored. Mitigation may be required on the same development site or in a different location.

**Other Conservancy Lands to be Preserved**

The plan also recommends the preservation of 3,319 acres of conservancy lands in addition to primary environmental corridors, isolated natural resource areas, and wetlands in 2035. This land use category includes the common open areas of residential developments, including conservation subdivisions, and small natural areas containing important natural resource values, such as woodlands less than five acres in size, if such resources are included on a local government’s land use plan map.

**Development on Parcels Containing Environmentally Significant Areas**

Where possible, the comprehensive plan recommends that urban development be located entirely outside of primary environmental corridors, isolated natural resource areas, and other environmentally significant areas. While calling for preservation of primary environmental corridors, the plan recognizes that in some cases it may be necessary to allow very low density residential development on the upland portion of such lands. In addition to limited residential development, land uses such as transportation and utility facilities and certain recreational uses may also be accommodated within these environmentally significant areas without jeopardizing their overall integrity. Guidelines for the types of development that may be accommodated within various component natural resource features of primary environmental corridors and isolated natural resource areas are set forth in Table 101 in Chapter VIII of Washington County’s comprehensive plan. Even though these guidelines are not exhaustive, with good judgment they may be extended to, and be used for the evaluation of, proposals for similar types of development not specifically listed.

**Surface Water**

The surface water land use category includes lakes, ponds, rivers, creeks, and streams. Surface waters encompass 4,512 acres, or about 2 percent of the County on the 2035 land use map.

- **Washington County Park and Open Space Plan**

A County park and open space plan was adopted by the Washington County Board in March 2004.\(^\text{24}\) That plan consists of both an open space preservation element and an outdoor recreation element, intended to, respectively, protect areas containing important natural resources and to provide major parks, areawide trails, and resource-oriented recreational facilities. Major parks are defined as publicly-owned parks at least 100 acres in size providing opportunities for such resource-oriented activities as camping, golfing, picnicking, and swimming. Responsibility for providing community parks, neighborhood parks, and local trails is assigned to cities, villages, and towns. Map 68 in Washington County’s comprehensive plan shows the outdoor recreation element of the park and open space plan. The outdoor recreation element recommends three new major park sites and two smaller County parks on Tilly and Big Cedar Lakes; new facilities and improvements at existing major parks; the development of areawide trails; and boat access facilities to major lakes.

The open space preservation element of the plan recommends that 77,334 acres of land be protected for park and open space preservation purposes through a combination of public or non-profit conservation organization ownership or through the application of protective zoning. The plan recommends that Washington County acquire about 2,900 acres for resource protection purposes and about 1,700 acres for new or expanded County parks. Map 69 in the comprehensive plan shows the open space preservation element of the park and open space plan.

- **Quaas Creek Watershed Protection Plan**
  A Quaas Creek Watershed Protection Plan was adopted by the County Board in February 2004. The plan was created to address issues impacting the water quality and recreational use of Quaas Creek, located in the City of West Bend and Towns of Polk, Trenton, Jackson, and West Bend. These issues focus on future land development, especially the changing of rural land use to urban land use, and the detrimental effects these land use changes may have on the hydrology, water quality, habitat quality, bank stability, and fisheries within Quaas Creek.

- **Wisconsin Department of Natural Resources (DNR) Master Plans**
  Each DNR property is required to have a "master plan" that establishes the goals and objectives for the property and identifies how the area will be managed and developed. These plans are designed to clearly communicate to the public how the property will “look” and what benefits the area will provide. The DNR has adopted master plans for the Allenton Wildlife Area, the Kettle Moraine State Forest – Northern Unit, the Kettle Moraine State Forest – Loew Lake Unit, and the Theresa Wildlife Area. The DNR has recently completed a master plan for the Kettle Moraine State Forest – Pike Lake Unit, which lies within the Town of Hartford. The Jackson Marsh Wildlife Area does not have an adopted master plan, but does have a management plan. Summaries of adopted master plans and the management plan for the Jackson Marsh Wildlife Area are provided in Chapter VI of Washington County’s comprehensive plan.

- **Washington County Shoreland, Wetland, and Floodplain Zoning Ordinance**
  Under Section 59.692 of the Wisconsin Statutes and Chapter NR 115 of the Wisconsin Administrative Code, counties are responsible for regulating shoreland areas within unincorporated (town) areas. Shorelands are defined as all land lying within 1,000 feet of the ordinary high-water mark of navigable lakes, ponds, and flowages; or within 300 feet of the ordinary high-water mark of navigable rivers and streams or to the landward side of the floodplain, whichever distance is greater. The Washington County shoreland, wetland, and floodplain zoning ordinance is set forth in Chapter 23 of the Washington County Code of Ordinances and applies to shorelands, shoreland-wetlands, and floodplains in all towns within the County. Map 72 in Washington County’s comprehensive plan shows those areas in the County regulated under Chapter 23. The County ordinance generally protects these areas from intensive development.

- **Erosion Control and Stormwater Management**
  The Washington County Erosion Control and Stormwater Management Ordinance is set forth in Chapter 17 of the Washington County Code of Ordinances. The ordinance includes requirements for land development and land disturbing activities designed to minimize sedimentation, water pollution, flooding, and related property and environmental damage caused by soil erosion and uncontrolled stormwater runoff during and after construction. The ordinance applies to all unincorporated lands in Washington County unless a Town Board has adopted an ordinance at least as restrictive as the County ordinance. County ordinance
requirements continue in effect in any area annexed by a city or village, unless the city or village enforces a city or village ordinance which complies with the minimum standards established by the Wisconsin Department of Natural Resources (DNR) and is at least as restrictive as Washington County’s ordinance.